

Digital India In Action

Selected e-Governance Initiatives - 2015



Sridevi Ayaluri

Dr. K.S. Vijaya Sekhar

Digital India in Action

Selected eGovernance Initiatives-2015

This compendium presents a selection of eGovernance initiatives in India which competed for the coveted Computer Society of India's CSI-Nihilent eGovernance awards for the year 2014-2015.

The primary objective of this compendium is to bring to the attention of National and global audience, a small selection of the inspired effort of a number of e-Government functionaries in the Country who strive to bring to the Citizens of India, the best that eGovernance has to offer.

The awards to winners were presented by the Computer Society of India's Special Interest Group on eGovernance (CSI-SIGeGov) during the 50th Annual Convention of the Computer Society of India held at New Delhi on 3rd December, 2015.

-- Editors

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Sridevi Ayaluri and Dr. Vijaya Sekhar KS



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About CSI

Formed in 1965, the Computer Society of India (CSI) has been instrumental in guiding the Indian IT industry down the right path since its formative years. The CSI has 70 chapters all over India, 418 student branches, and more than 90,000 members including India's most famous IT industry leaders, brilliant scientists and dedicated academicians. The mission of the CSI is to facilitate research, knowledge sharing, learning and career enhancement for all categories of IT professionals, while simultaneously inspiring and nurturing new entrants into the industry and helping them to integrate into the IT community. The CSI is also working closely with other industry associations, government bodies and academia to ensure that the benefits of IT advancement ultimately percolate down to every single citizen of India.

The CSI adopts the mechanism of Special Interest Groups (SIGs). SIGs are organized on selected domains of significant academic, research, industry and societal importance. It is as part of this structure that the Special Interest Group on eGovernance [SIG eGov] conducts the annual CSI-Nihilent eGovernance Awards. For more information, please visit www.CSI-India.org

About Nihilent

Nihilent Technologies Pvt. Ltd is a global consulting and solutions integration company using a holistic and systems approach to problem solving. Headquartered in Pune, India, Nihilent has extensive experience in international consulting, IT outsourcing and IT services. Nihilent's operations span North America, Europe, Africa and Asia. Nihilent mission Change for Performance encapsulates its commitment to make change happen systemically in terms of people, process, technology and knowledge for achieving sustained performance for its clients.

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About Editors

Sridevi Ayaluri has sixteen years of rich experience in the domain of eGovernance. Currently, she is handling various projects related to the e-Gov domain, as an independent consultant. Earlier, during her stint as the Deputy General Manager in Capacity Building & Knowledge Management vertical at the National Institute for Smart Government, she had spearhead various prestigious and national level GoI initiatives like Chief Information Officers and Specialized Training Programmes in eGovernance under the National eGovernance Plan, GoI. Sridevi has played a key role in national and international Institutional collaborations. She led the one year educational program on eGovernance being taught at post Graduate Diploma level programmes at various prestigious Institutes in India. She had also been part of the team that developed eGovernance Competency Framework for Government officials. She supported National eGovernance Division in developing the Strategy Paper of the NeGP-Capacity Building Phase II.

Earlier she was co-editor of four books under this series- Envisioning a Digital India- Selected eGovernance Initiatives in India -2014, “Compendium of Selected eGovernance Initiatives in India -2013”, “Enablers of Change: Selected eGovernance Initiatives in India”, and “Fostering e -Governance : Selected Compendium of Indian Initiatives” .

Dr K S Vijaya Sekhar holds PhD in Public Administration with a focus on electronic Governance. His interest areas include Public Service Delivery; Citizen Satisfaction towards ICT based services and eParticipation. He has over 20 research papers to his credit in International and National conferences. He is recipient of *Best Paper Award* for his paper *Measuring Sustainability in eGovernance Projects* presented in 2nd International Conference on ICT for Rural Development held at Institute of Business Management and Rural Development (IBMRD), Ahmednagar during 1-3 November 2014.

He is currently with Research Center for eGovernance (RCeG) at IIIT, Hyderabad and has over 23 years of work experience. He was earlier associated with Centre for Economic and Social Studies (CESS), Administrative Staff College of India (ASCI) and ICRISAT. He is Life member of Computer Society of India [CSI] and recipient of the coveted ‘CSI Service Award’ for the year 2012 for his significant contribution to eGovernance at National Level.

He has been associated with CSI-Nihilent eGovernance Awards (CNEA) since its very inception in 2002 and with CSI, Special interest Group on eGovernance [CSI SIGeGOV] from 2007. He is also the Joint Convener for the CSI Nihilent e-Gov Awards 2014-15.

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Digital India in Action

Selected eGovernance Initiatives-2015

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The book Digital India in Action - Selected e-Governance Initiatives in India - 2015 is part of the compendium series brought out by the Computer Society of India - Special Interest Group on e-Governance [CSI-SIGeGov]. This book would not have been possible but for the active participation of Government authorities / Institutions in India to publish edited details of e-Government initiatives implemented. Since the very aim of this book in the CSI-Nihilent e-Governance Awards (CNEA) series is to serve as a repository of knowledge, we thank them for supporting our goal.

The nominations received for the CSI-Nihilent e-Governance Awards 2015 forms the basis for this compendium. The e-Government initiatives described herein are those nominations which were submitted for the awards and were found to be exemplary by the team of e-Government experts who assessed these nominations. The initiatives described in this book went through three-stage rigorous assessment carried out independently by experts drawn from the field of academia, industry and the Government. The editors of this compendium are therefore indebted to them.

We are grateful to Prof M P Gupta [IIT Delhi], Prof Sanjiv Vaidya [IIM Kolkata], Dr Nityesh Bhatt [Nirma University, Ahmedabad], Dr G P Sahu [MNNIT, Allahabad], Prof Y Pardhasaradhi [OU, Hyderabad]; Prof M L Saikumar, [Ex IPE, Hyderabad] and Dr Saji Mathew [IIT Madras] from the Academia.

Shri Prabhu Gollamudi [Convener, CNEA 2015] and Shri Pradeep Tandon provided an Industry perspective. We are grateful to them.

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With, Shri Surendra Kapoor [Fellow – CSI & Chair, CSI-SIGeGOV] and Prof Harsih P Iyer [Research Center for eGovernance (RCeG), IIIT Hyderabad & Past Convener, CNEA 2013-14] active participation, the awards process gained significantly from their experiences and support.

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A special thanks to CSI Executive Committee, Nomination Committee, Regional Vice Presidents (RVPs), Division Chairpersons, CSI Chapter Chairs and Management Committee, Publication Committee who participated in various field visits across the country despite their busy schedules. To name a few - Shri R K Vyas, Shri Shiv Kumar and Prof M N Hoda [Delhi], Shri Raju L Kanchibhotla [Hyderabad], Shri Devarprasanna Sinha [Kolkata], Shri Hari Shankar Mishra [Ranchi], Dr Dinesh Goyal [Jaipur], Shri Bhasakaran [Chennai], Prof A K Nayak [Patna], Wg Cdr Dinesh Misra and Shri Subhash Chander Jain [Haryana], Dr Vinay Avasthi [Dehradun], Shri R Srinivasan and Shri Srikanth P Krishnan [Trivandrum] and Ms Mini Ulanat [Cochin].

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We would like to thank Shri L C Singh, Vice Chairman & CEO of Nihilent Technologies Ltd for his selfless service to the cause of e-Governance in the Country. Shri Ravi Teja [Vice President, Nihilent], Shri Shailabh Haldule and Shri Anoop Bharadwaj brought out their exemplary skills to the awards. The conveners are indebted to them.

We are also grateful to IIIT, Hyderabad and to Prof P J Narayanan, Director, for kindly giving full support to the CSI Nihilent e-Governance Awards and for giving unrestricted access to IIIT's facilities and infrastructure.

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e-Parivarthan, who maintained the Awards web site provided fair support. We appreciate the timely assistance provided by Religiante Interactive, our publisher.

Two names need very special mention - Dr Ashok Agarwal and Dr R K Bagga who are pillars of the entire awards exercise. Mere words cannot express our gratitude to them.

Finally, we want to thank all the IT Secretaries, Project In-charge Officers / nominees who enabled CSI SIG eGov team to complete nominations assessment at all stages successfully within the timelines provided and to all their staff members involved for effective coordination with our Selection Committee members. Without their support – we would not have achieved this rigorous multi-stage evaluation process and bring out this Compendium, in time.

Prabhu Gollamudi, Dr K S Vijaya Sekhar and Sridevi Ayaluri
[Convenors and Editors]

FOREWORD

President, CSI

I am happy to note the Special Interest Group on eGovernance, under the auspices of Computer Society of India has been successfully publishing an annual compendium showcasing selected eGovernance initiatives. This year's edition of the CSI-Nihilent eGovernance Awards compendium titled "Digital India in Action – Selected eGovernance initiatives-2015" has a good collection of eGovernance initiatives reflecting the actions required towards our Digital India journey.

This year's theme reflects the vision of our Prime Minister Shri Narendra Modi's ambitious eGovernance initiative - Digital India Programme which aims to transform India into digital empowered society and knowledge economy. With significant budget provisions the Digital India programme aims to provide the much needed thrust to the nine pillars of growth areas, namely: Broadband Highways; Universal Access to Mobile Connectivity; Public Internet Access Programme; eGovernance: Reforming Government through Technology; e-Kranti - Electronic Delivery of Services; Information for All; Electronics Manufacturing; IT for Jobs; and Early Harvest Programmes.

I am also pleased to know that some of the projects presented are award winners of this year's annual CSI Nihilent eGovernance Awards 2015, which is in the 13th year of its journey with active sponsorship support of M/s Nihilent Technologies Limited.

I wish to congratulate the sustained efforts of the team lead by Shri Surendra Kapoor, Chairman, CSI SIGeGOV, Shri G S N Prabhu and Dr K S Vijaya Sekhar, Conveners and the Team. Sustained leadership support of Maj Gen (Retd) Dr R K Bagga, and Dr Ashok Agarwal and the support extended by all the members of the Selection Committee and other CSI Execom members, Chapter Chairs and other Members, volunteers who assisted with the field visits in different parts of the country during this year's awards selection process is highly appreciative.

I take this opportunity to congratulate all the award winners of this year who deserve real applause on their initiatives in providing Citizen and various Government Services in a transparent & efficient way through the use of Information Technology. I had the opportunity of witnessing the final presentations of a few state government initiatives during the final phase of the evaluation. The selection panel had a tough time in short listing the projects as each and every one of them was unique in nature and had something special to offer to its citizens. These government projects have matured over a period of time and implemented

incorporating efficient business processes, high degree of transparency, focus on service and citizen centricity and the use of the state of the art Information and Communication Technologies to provide direct benefits to the citizens.

This year's compendium of award-winning projects, edited by Ms Sridevi Ayaluri and Dr K S Vijaya Sekhar brings a diverse set of eGovernance projects from practitioners around the country. I am sure this volume will serve as a valuable reference source to trace the growth of eGovernance in the country and benefit the stakeholders of eGovernance in the country: Governments, the technical & engineering community, policymakers & administrators, corporate and citizens -- the ultimate users.

Once again, my hearty congratulations to all the members of the CSI-SIGeGov team for their dedicated efforts in bringing out this volume.

Bipin V Mehta
President, CSI

MESSAGE

Vice Chairman and CEO, Nihilent Technologies

‘eGovernance - An indispensable pillar of the Digital India dream’

The Digital India initiative is arguably one of the most ambitious campaigns by the Government towards bringing good governance to the citizens and creating a knowledge economy. Recently, our Hon’ble Prime Minister Mr. Narendra Modi had tweeted that the digital age offers an opportunity to transform people’s lives in ways it was hard to imagine decades ago. This very fact finds resonance in the concept of eGovernance, which is ever so closely linked to the Digital India initiative.

The time hasn’t been better for eGovernance, which is being complemented by huge investments in digital infrastructure like 4G in mobile telecom, the smart cities initiative among others. In addition, technologies like Social, Mobile, Analytics and Cloud are accessible to Governments, corporations and individuals alike, which is enabling a very interactive and interoperable digital landscape. The Internet of Everything, another key component of digital transformation, is finding major application in the Smart Cities endeavour. At the same time, The Pradhan Mantri Jan Dhan Yojana for financial inclusion, MyGov.in for crowd sourcing ideas for Governance from citizens, are among others, key platforms wherein governments, corporations and individual entrepreneurs can come together to contribute towards better governance.

An important goal for any eGovernance program should be to play an influential role in the economic development of the country, reaching out to the remotest corners. As American psychologist and author B.F. Skinner said, “The real problem is not whether machines think but whether men do”. However, a digitally literate nation will translate to a forward looking economy. The CSI-Nihilent eGovernance Awards (CNEA), now into its 13th year has since inception, been a coveted recognition of stellar eGovernance initiatives in the country. Over the years, the Awards program has witnessed rapid evolution of ICT driven citizen centric initiatives. From public utilities to disaster management to gender equality, several initiatives have been awarded by CNEA, many of which leverage digital technologies including cloud, social, mobile and analytics. This year’s record number of Expressions of Interest - 222 in total -the highest in the journey of the awards to date, speaks volumes about high regard for CNEA. Interestingly, this year there is a huge number of Government-to-Citizen projects, a measure of the direct impact of the undertakings to the common man.

Nihilent is proud to have been associated with CSI-Nihilent eGovernance Awards ever since inception, and will continue to stay committed to the cause of effective governance in the country.

Congratulations to the winners, and here's looking forward to a Digital India, a developed India.

LC Singh

Vice Chairman & CEO

Nihilent Technologies Ltd

MESSAGE

Chairperson, SIGeGov

Governments creates true value through policies, services and thereby increased citizen engagement in public affairs. However the impression created is otherwise of red tape, trust deficiency, hierarchies etc. But in last 2-3 decades, we have seen that technology has come to play its part. Now e-Government benefits are there to be felt, to be seen, and it is a movement towards “Minimum Government Maximum Governance”

It was only around 1986-87, when IT touched citizens in the form of Indian Railways Reservation System that it got noticed and now it has penetrated all walks of life and all parts of the economy.

Computerization in Govt., e-Government and now *Digital India* are all close synonyms. Digital India encapsulates technology and the vision of decision makers in Government Sector. “Digital India – in Action“ is the theme of this Compendium released during CSI-Nihilent e- Gov awards 2015 ceremony, coinciding with Computer Society of India Annual Convention in Golden Jubilee year at New Delhi.

CSI was formed in 1965 and is celebrating its golden Jubilee in 2015. Over the years it has been growing in activities and membership of professionals with varied interests. CSI decided to create few Special Interest Groups (SIG) to focus on domains and technologies.

CSI Special interest Group (SIG) on eGovernance was formed in 2007 under the leadership of Dr Ashok Agarwal with the objective of sharing knowledge and experiences by creating a repository of National e-Government initiatives and best practices for the benefit of all stake holders, Government Officials, Academic scholars, Curious Citizens etc

Later, Maj. Gen. (Retd.) Dr. R K Bagga AVSM from International Institute of Information Technology, Hyderabad [IIITH] took over Chairperson of SIG e-Gov, followed by Dr Piyush Gupta of NISG, and now, yours sincerely.

The Idea, recognizing IT initiatives in Government departments, came through discussions, since there was no known avenue where excellent work done in many states could be showcased and the projects & people behind such success stories recognized [unsung heroes from Government Sectors].

In this context **CSI Nihilent eGovernance Awards** (CNEA) were instituted way back in the year 2002, .This is the 13th year of the awards without any break. We have received and evaluated some 1500+ initiatives across India and have recognized over 300+ initiatives in different categories during the last 13 years. We have used a very comprehensive three stage evaluation process called Analytical Hierarchical Process (AHP) of “Results”, “Enablers “ and ‘Value indicators’. We notice from the nominations that Government Process Reengineering (GPR) getting emphasis, it deserves and Change Management is getting institutionalized, which is very healthy sign towards Next Gen e-Gov.

It has been a learning exercise for all of us [the selection committee members] year after year and it has been our endeavour to incorporate all our learning into our processes. About four years back we thought about reconnecting with our past CSI-Nihilent e-Gov award winners to see “How they were doing” through a new category of award named “Sustenance”. This has been received extremely well.

I wish to thank all 222 nominees of the current year, for their interest and time in filing nominations, for agreeing to demonstrate/ present their work when invited be it for field visits or for the ‘Finalist’ presentation and finally for the award ceremony based on short listing through a multi stage evaluation process .

Another level of discussion took place around 2009, to see how to share experiences, and to create a platform to cut down on reinventing the wheel among the e-Gov fraternity. From this the idea of *Knowledge Sharing Summit* (KSS) was born, hosted by State Governments winning Award of Excellence in the State Category.

During the 13 years’ journey, two individual who stand out as pillars for this initiative are Dr Ashok Agarwal and Maj. Gen.(Retd.) Dr. R K Bagga AVSM. They deserve a standing ovation. We would not have been here but for their continuous support. I thank them from the bottom of my heart.

As mentioned earlier, we have a three stage evaluation processes [which includes field visits]. Our very active selection committee members and volunteers from CSI Chapters across the country have been helping the evaluation exercise, and but for their support this massive effort would not have been possible.

The Selection Committee consist of representatives from Deity, NIC, Academicians, Industry professionals, CSI’s current, past and future presidents, CSI fellows, chapter Chairs, and the CEO of Nihilent Technologies Ltd.. I thank them all profusely.

It is my pleasant duty to thank Mr L C Singh personally for Nihilent Technologies Ltd, continuous financial support. But for him and his team, the awards would not have been possible.

As SIG e-Gov Chair, I had the privilege of getting the best Conveners and the Editorial Team, consisting of Mr GSN Prabhu [my ex colleague from CMC], Ms Sridevi Ayaluri [ex NISG] and Dr K.S.Vijaya Sekhar [IIITH], each one of them with long association with CNEA.

Ms Sridevi Ayaluri took on extra responsibility of heading the editorial team along with Dr. K.S. Vijaya Sekhar for the compendium in your hand. She was ably supported by Ms. Rekha PKS. Thank you conveners and the editorial team

It will not be out of place to commend Prof Harish P Iyer, the past convener of CNEA, for his continuous support.

We hope you will find in this compendium the richest source of information on praiseworthy eGov initiatives. The complete papers are also available on our web site <http://www.csi-sigegov.org>, for any reference.

Thanks are also due to Dr.P.J.Narayanan, the director IIITH for allowing the use of its infrastructure and student community for CNEA activity. I am glad to share that during 2015, we have been able to lay the foundation for the SIG e-Gov's website to transform itself into becoming one of the richest knowledge portals in India dedicated solely to the domain of eGovernance. As a first step, we have uploaded several hundred case studies on the portal. These can be freely accessed and studied by making full use of the state-of-the-art advanced search facility. I invite you to make full use of it.

As we conclude CNEA 2015, with Golden Jubilee celebration and annual convention of CSI, it gives me immense satisfaction and pride for being a part of the e-Government fraternity. We have done a lot and have yet to do lot more, miles to go before we sleep. I do not know if *Gen next* will have more challenges or easy life with technology, but for sure expectation will be higher.

Thank you

Surendra Kapoor
Chairman CSI SIG e-Gov
Hyderabad

PREFACE

Sridevi Ayaluri & Dr K.S. Vijaya Sekhar

Digital India, a flagship initiative of the Government of India has gained recognition as a key driver for Nation development through digitally empowering citizens and build a knowledge economy. It is an ambitious program of Government of India to bring knowledge based transformation aimed at institutional good governance to citizens by co-ordinated efforts at Central and State Governments.

e-Governance, an essential component of this initiative has it's bearings well entrenched due to appreciation of benefits to society by the decision makers as well as through policy support over the years. Programs like NeGP with launch of Mission Mode Projects both at Central level as well as at Stat level have helped in creating a invisible thread of e-Governance community engaged in interactions, cross learning and knowledge sharing to drive cost effective and efficient solutions. While the initial initiatives focussed on improved citizen services, the focus now spawns organizational efficiency, reengineering of processes, applying of innovative ways to achieve the goals and technology adoption. An indication to this pervasive and compulsive urge for bringing to the table transparency, integrity and efficiency to the existing government operations/ processes is reflected in several of the e-Governance projects getting replicated across States and Departments at least as a concept and as business models.

Today, from a citizen services perspective, we can see common citizen service centres in most of our States in some form. Similarly, Land records Management, Revenue Systems, Information and transaction portals for most of the key departments of Governments have become common and many of these systems are ground up with new releases having gained experience in rolling out first versions. State and Departmental Portals Integrating systems with interfaces to external (Within Government & Outside Government) systems have become de facto components with no aversion to trying out new technologies to make it easy, transparent and efficient for stake holders to interact and get information / updates in a much easier way.

We have seen pioneering work by several Government entities – Indian Railways Passenger Reservation system, Passport Seva project etc. Documenting these success stories is an important activity for the benefit of emerging researchers, practioners and e-Gov community from across the country.

This compendium, as has been the practice earlier brings together selected eGovernance initiatives from across the country. The selection is a culmination of a

process followed while evaluating several of the nominations received for the CSI Nihilent e-Governance Awards 2015. Each of the projects nominated, have a success story, a bit of learning and immense value add as a reference material.

It is our view that these case studies reflect 'Digital India' in action helping the policy makers to review, invent and reinvent newer ways of providing services by making stake holders truly participative through reliable, relevant & ease of use information/digital data.

The compendium has presented 70 of such success stories/projects and two State level stories. We acknowledge the efforts of many more such nominations, which also have their own success to share. In addition some invited articles by experts have been included for the benefit of the researchers, e-Gov practitioners and community in general. Though best efforts have been made by the CSI SIG team in validating the claims of the nominees, prospective readers are requested to make their own assessment while deriving any inferences.

The articles presented here have been edited suitably as may be required, by the us, in order to accommodate all the relevant articles received by us. However, the complete papers as received, are also available on CSI SIG web site <http://www.csi-sigegov.org/>, for reference.

Sridevi Ayaluri & Dr K.S. Vijaya Sekhar

Section-1
Invited Articles

**Pi IS EXACTLY 3.2? - PERSPECTIVES IN EMPIRICAL
e-GOVERNANCE RESEARCH**

Maj Gen(Retd) Dr R.K.Bagga and Harish P.Iyer

ABSTRACT

The compendium released by the Computer Society of India's Special Interest Group on eGovernance in both 2014 and 2015 carry Digital India in their title. This underscores the importance being attached to the program not only the Govt of India but also by professional bodies such as the CSI and research institutions such as the RCeG of IIIT-Hyderabad. This brief paper suggests how and why research into sustainability of eGovernance projects must go hand in hand with the roll-out of projects under Digital India initiative. In support of its stance, the paper offers a very short critique of why studying eGovernance at a component level – GPR, Project management, change management etc – must be complemented by empirical research on complexity and systems dynamics.

Introduction

The value of Pi is not equal to 3.2 and yet the Indiana State of the USA attempted to legislate that Pi should be exactly that [1]. The State was desirous of promoting a report that “proved” that a circle and a square can have exactly the same area [an impossibility in the Euclidean sense] if the value of Pi were exactly 3.2. Reading about it now, after many decades have passed, the whole episode appears comical and beyond belief but records suggest that the State undertook the exercise in all seriousness. All that the US State had to do was to legislate that a wrong was a right in return for royalty free right to use the “wrong”.

Digital India program is a pioneering effort and this paper exhorts that the program should be backed by sound empirical research so that it sets out to avoid the many “pi = 3.2” like assumptions and practices that impede speedier maturing of the eGovernance ecosystem.

As noted in an official Government of India website [2], the Digital India program is structured as a nine-pillared initiative. The program has a number of facets that are promising. There are new eGovernance policy initiatives [3], guidelines, and knowledge sharing efforts to back it up. There are efforts to obtain international recognition for this new minimalistic government dispensation. The program acknowledges that eGovernance should not merely transform the government but that it should go beyond its traditional confines and transform itself [4]. The prescription under Digital India for transforming eGovernance includes “transform

and not translate”, “mandatory government process reengineering”, “mandating standards and protocols” etc.

meno’s paradox?

What does it mean for an eGovernance initiative to have transformation and not translation as its goal? Going back in history and modifying the question Meno posed to Socrates, “how will we look for transformation, when we do not know what it is [in an eGov setting]”? If we knew what transformation meant in the eGovernance context, there would have been very clear prescriptions about it.

Taking up the second part of Meno’s paradox “How will we aim to search for something we do not know? If we did meet with transformation, how will we know that this was the outcome from eGovernance that we were looking for” ?

These are profound and very relevant questions indeed. But often, in practice, easy answers are sought and refuge found mostly in the ICT reflecting the fact that we – the academia, the industry and the Government – do not understand eGovernance transformation very much.

A perusal of some of the responses received from the nominations to the CSI-Nihilent eGovernance Awards [CNEA] [5] provides many illustrations. For example, a sizeable number of eGovernance initiatives consider “replacement of manual application forms with digital ones” as a process reform. Is this a translation or a transformation? “Transferring to the citizens some of the data entry responsibilities of the Department” is described by some CNEA nominations as efforts towards efficiency and improvement. Such transactions where work is merely transferred from one party to another have a zero sum effort from an overall development perspective. This can certainly not be counted as a transformation.

There must be more to eGovernance than introduction of the digital, the web, the mobiles etc. Speed, convenience etc are inherent qualities of technology and reside in the very genes of ICT. Therefore, without expending much effort, governments can deliver greater speed and greater convenience merely by going digital. Good governance is however more than either speedy governance or convenient governance.

Divide and don’t rule?

We go back to our earlier questions. What does it mean to transform eGovernance and all the other goals that Digital India program has set out to achieve? While one might wish difficult questions such as these had simple answers, at least in the eGovernance domain, none are to be found. Given its complex socio-technical characteristics, the answers to most of the profound questions relating to eGovernance are to be found in multi-disciplinary research efforts. Clearly, the

answers to these questions are not going to found by dividing the problem space into tiny research topics – GPR, Change management, Project management etc. EGovernance is a composite of all these and is characterised by complexity and complexity must be studied as complexity.

The vortex of eGovernance

The stakeholders in the eGovernance milieu – the government, the citizen, and the businesses - all are intimately and reciprocally intertwined. In an eGovernance context, when the Government submits itself to ICT changes – in addition to initiating and promoting it - the government influences changes in the behaviour of the citizens. With the current generation of the young growing up on social media, ecommerce and startup culture, the citizens too are forcing a rethink about the contours of governance. It is difficult enough to make at least a little sense of how governments work but when we attempt to bring to focus a multitude of forces – multitude of demographics, businesses, organisations, technologies, political dispensations and cultural orientations – our inquiry enters into a vortex.

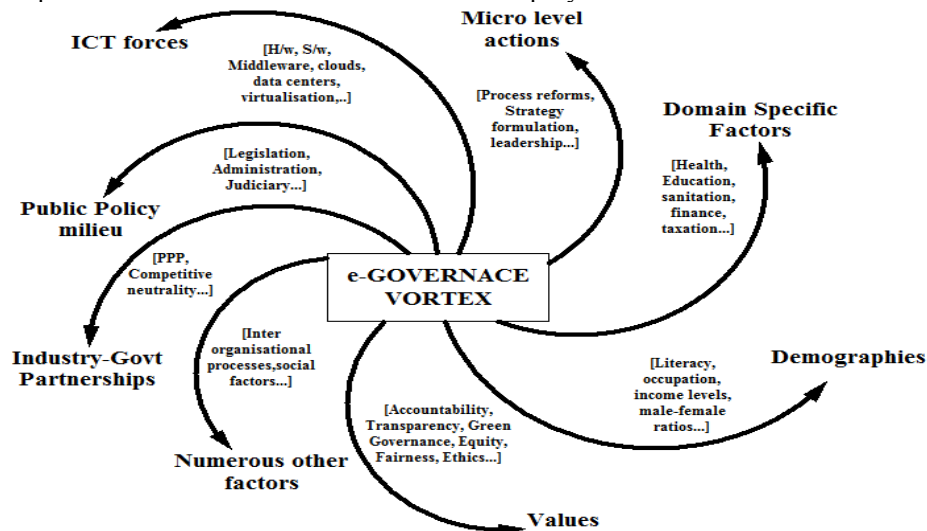


Figure-1

To make sense out of the eGovernance vortex, one might borrow from the work done by Bronfenbrenner [6]. As observed by him, the ecological forces – in our case, the forces within the eGovernance vortex - can be studied

- as those situated within the Government organisations – the microsystem,
- those situated in the Government – Stakeholder interactions – the mesosystem and
- those situated in the larger administration domain – the exosystem.

entail many hundreds of crores of rupees being spent, one can ill-afford to have projects under the program being launched for “ $\pi = 3.2$ ” like reasons. Likewise, one can ill-afford for the projects to run for a while and thereafter stop sustaining themselves.

A Gartner report indicates that Government IT Spending in India is forecast to reach \$7.2 Billion in 2015 [7]. How much of this investment would yield positive results to the society? It is known anecdotally as well as various pronouncements of professional bodies that nearly a third of the eGovernance projects are failures. Even if one assumes a much smaller figure of failure than this, it would still work out to a staggering figure of several hundred crores of rupees in investment in eGovernance that do not yield the desired results.

The domain of eGovernance has come to be characterized by three developments – the guiding influence of Citizen Charters, the controlling influence of SLAs, and the correctional influence of third-party post-implementation assessments. While all of these exert positive influence, they are insufficient to ensure sustainability of e-Government initiatives – sustainability achieved through transparently balancing administrative, economic, social and political drivers.

Research of the type being carried out RCeG of IIIT-Hyderabad and other similar institutions can help identify not only key performance and risk factors that have a bearing on sustainability but can also ensure that projects are initiated for the right reasons. Therefore such research must go hand-in-hand [if not precede] major initiatives under the Digital India umbrella.

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**INGREDIENTS FOR MAKING EGOVERNANCE PROJECTS
SUCCESSFUL BY DESIGN**

Dr. Piyush Gupta and Sridevi Ayaluri

INTRODUCTION

Successful eGovernance initiatives are not implemented by chance, but are designed for success. eGovernance is all about transformation of the existing processes and services of the government. The essence of this transformation lies in the urgency, need and ownership of the same by the owners of the government agency. Dependency on external experts to transform the processes and services may not be the right solution, till the owners of the processes are not supporting the transformation. Keeping this critical factor in mind when seeking eGovernance initiatives, it becomes utmost important that these process owners in the government understand the nitty-gritty of designing meaningful eGovernance initiatives. This leads to the importance of capacity building at all levels within the government agencies.

Training government employees, is clearly understood as one of the critical factor for the successful designing and implementation of an eGovernance project. Training internal manpower to understand the management and technology of eGovernance, can shift the ownership and get a true buy-in of these transformational projects. The challenge from the computerization days and even today in eGovernance projects, has been to marry the knowledge and skills of the government domain experts and IT professionals. This gap has, to a certain extent shifted the ownership and risks of eGovernance projects to the private sector and IT professionals, thereby leading to non- sustainable initiatives.

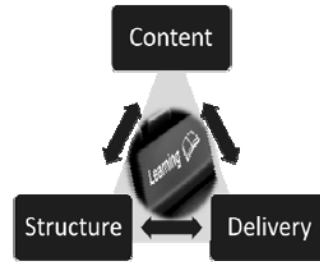
Considering, developing the required competencies by training government employees who ultimately are to own these eGovernance initiatives, the questions arise - Who to train? When to train? Where to train? Who will train? How to develop training content? How to make it interesting? How to deliver? How to assess post training? How to update content? and so on. Firstly, training in government is largely looked upon as an additional work, with very less efforts on planning to depute employees on need based training. Generally we keep hearing, that employees who are required to be trained, are not free, therefore sending



employees who are not having the required roles in eGovernance project for training. Later, even if interested employees are sent for training, then after training they are not used by giving required roles in the project.

We also look at another dimension of the trainers coming from government agencies, who are field level experts and understand the complexities and nuances of the processes and service delivery. These domain experts are not required to really be trained on eGovernance knowledge and skills, however they need to learn by absorbing information in order to increase skills and abilities and make use of it under a variety of contexts, as and when required. Training is by far related to the immediate needs for a trainee to go back and apply as it is, however, learning is larger and looks at long run attitudinal change and application of knowledge and skills. The Government today should work towards building a learning environment on eGovernance, rather than focusing on specific set of knowledge and skills.

Considering, all these inherent constraints, those are going to continue, the question is how to make learning more effective for designing and implementing purposeful and meaningful eGovernance projects. As one says, “Content is the King”, therefore one of the way is, to develop and deliver learning content that is more relevant and lucid for government employees. eGovernance content, like any other learning is also to primarily impart the required knowledge, skills and develop the right attitude for eGovernance. This content is more importantly required to be structured and delivered depending on the level of employees and the mode of learning.



Learning can be imparted in many ways, with the objective to deliver productive content and focused on not just performance improvement of the employee, but the ability to lead eGovernance transformational initiatives. Learning content, apart from many things, is based on questions like, whom for? What is the role the

e-Governance Capacity Building Content Development Framework							
eGov Competency Framework (DNT, Gov)	Training Policy	Learners	Strategy level	Planning level	Implementation level	Operational level	
		Type of Learners	Visual learners		Auditory learners	Kinaesthetic learners	
		Learning Strategy	Visual Strategy		Instructional Strategy	Audio Strategy	
		Content Artefacts	Facts Reference Checklist	Concepts Ready Reckoner	Principles Modal templates Model documents	Procedures Learning by doing assignments	Processes Video
		eGov Project Assessment	Self reading	Case Study Teaching	Quiz	Cross word	Multi-lingual Content
		Content Authors	Collaboration	Academia	Industry	Government	
		Content Delivery mode	ILT	Virtual classroom	e-learning	Webinar	Blended
		Content Repository					
		Whom to deliver? Why required? How to deliver? What to develop?			Who will develop? When to revise? How & Who to assess?		
		© Piyush Gupta, 2015					

participant today or in long run? How to deliver learning? and so on. The content can be delivered in self-learning mode or faculty moderated mode or a mix of both i.e. hybrid mode. As for government employees, keeping the various constraints into consideration, one may choose the hybrid mode. In all cases, developing the right type, relevant and impactful learning content should be the top priority. In order to understand various dimensions of content development, especially for delivering successful eGovernance projects, a framework is suggested. The framework can guide in terms of different facets of content needs and its effectiveness.

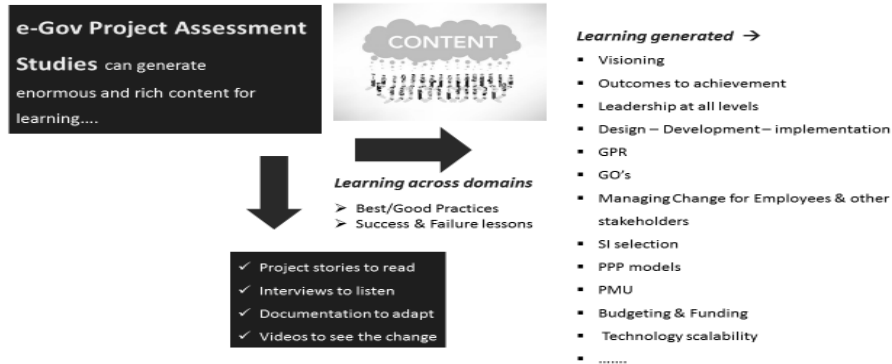
The Department of Electronics & Information Technology has developed a detailed eGov Competency Framework (eGCF), that focusses on various levels of competencies required to design and manage an eGovernance project. The eGCF identifies and defines the competencies that are essential and critical to job performance in an eGovernance environment.

Today, with affordable technology, lot of learning can happen as and when required, and employees need not come to an instructor led classroom. This has been made possible through e-learning, webinars, recorded virtual classroom sessions, self-exploring knowledge repository, etc. These modes are quite common in private sector, especially in IT industry for knowledge and skill upgradation. The content for each one of these learning modes will not only have technology specific different formats, but also have variation to convey the same content in more interesting manner. With these varied learning modes, the content development has to be suited for the different type of learner's i.e. visual learners, auditory learners or the kinesthetic learners. Especially in government, post training hand holding support for on-going learning is important, otherwise the dependency on external experts increases. This requires creation of a learning content repository for the learners to access the knowledge as per their need at work place during different phases of an eGovernance project.

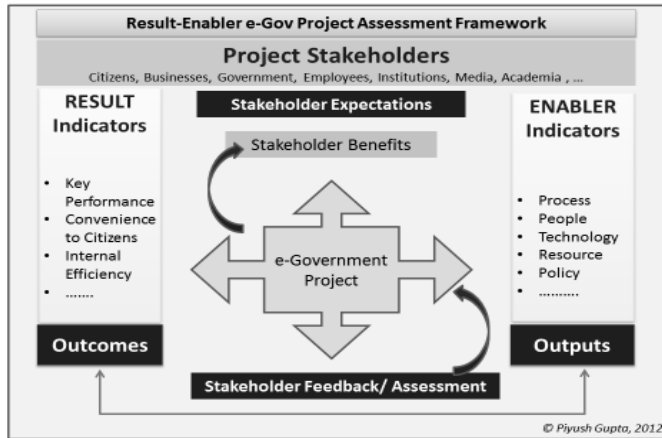
An important process for content development can be through the process of e-Government project assessment studies. As part of assessment studies, enormous learning across the four key pillars (People, Process, Technology and Resource) of eGovernance project can emerge. Content can be developed as part of project assessment studies to address the learning needs across various phases of an eGovernance project life cycle. The government agencies in India have not really exploited this big source for learning content development.

The learning content can be generated through experience gathering from the project champions, implementers, and users with the government agency, in addition to the industry associated with the project implementation. The good and best practices can be documented not only across specific sectors like, health,

agriculture, public distribution, education, etc, but one can also related to specific aspects of the four pillars of eGovernance project i.e. People, Process, Technology and Resources. The analysis across these different dimensions can be an excellent learning for the potential learners.



The author worked on developing a framework that focuses on the project Results and Enablers. This Result-Enabler assessment framework can guide to further develop the learning content across different dimensions of an eGovernance project.



The Result-Enabler assessment framework focuses on project understanding on two aspects of Outcomes and Outputs. The basis of a successful project starts from a good design, and project assessment can generate quality content for learning. The project assessment process can be undertaken over a regular frequency of project life cycle.

A content repository should encourage collaborative content development. However the process of publishing in the repository should be reviewed at central level to avoid pushing biased or marketing content. However, the repository should also have space for industry white papers and best practices. Varied type of



content on eGovernance is being generated across the globe, and huge amount of efforts in terms of time, cost and

resources is being spent. Re-invention of an existing content needs to be avoided, and focus should be on customization to adapt the same to different needs. The content repository in the public domain, shall minimize the re-invention efforts to a large extent.

Conclusion

Implementing successful eGovernance project is not by chance but by design. Building internal competencies within government agencies by way of capacity building is a step towards designing and implementing purposeful eGovernance projects. Moving the focus from just training to learning is required for employees to develop the right type of understanding to absorb the knowledge and skills make use of it under a variety of contexts. Critical part of learning is developing need based and impactful content for varied type of government employees. More efforts need to be spent by government, industry and academia to collaborate in bridging this gap on developing learning content. Steps towards using eGovernance project assessment studies as a process to generate effective learning content need to be taken. Lastly, a central content repository for knowledge sharing and learning at the workplace of the employees and re-use of the developed content is essential.

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THE e-ROUTE OF TAKING THE GOVERNMENT TO THE PEOPLE

Osama Manzar and Udit Chaturvedi

To say that eGovernance is important in a country like India due to its massive population, extreme landscapes and large distances would not be wrong. However, eGovernance should be part of the policy of every country — big or small — because it's the only way to ensure every person — rich or poor, old or young, urban or rural, literate or illiterate — can have access to his/her government at all times.

Digital interventions strengthen democracy at the grassroots level, it ensures delivery of government services and schemes and give voice to the people who are otherwise not able to reach out to their administrative and government heads. Through these routes, digital interventions improve government using not just a top-down approach but also a bottom-up approach, thus, truly empowering every individual of a country.

Taking such e-routes to the last mile are several national and international organisations and CSR groups in India which are leading a change in the lives of the masses. One such organisation is Digital Empowerment Foundation (DEF) which finds sustainable ICT solutions for marginalised communities to overcome information poverty in rural India" or "One such organisation is Digital Empowerment Foundation (DEF) which was established to find sustainable ICT solutions for marginalised communities to overcome information poverty in rural India., especially in unreached and underserved parts of the country, by giving people direct access to their government through the Internet and making government officials accountable to the public.

In simple terms, eGovernance means using digital means to provide government services to the people. Over the years, electronic tools have improved governance and enhanced the government capacity to function efficiently. However, while eGovernance has been successful to an extent in making the government system transparent and efficient, it has not been able to reach the masses. There are still millions of people who are living in information darkness, not even aware of the fact that there exists a way through which they can access the information that they desperately require.

This brings our attention to the fact that building an eGovernance system alone cannot ensure timely and efficient delivery of government services. There is also a need to reach out to all the citizens of India, including those

living in areas that are “unreachable”. Besides this, what is most important is giving people the access to information about various government projects and schemes, and teaching them how to access this information on their own.

The National e-Governance Plan (NeGP) was implemented in May 2006 with the vision of making all government services accessible to the common man in his/her locality through common service delivery outlets to ensure their “efficiency, transparency and reliability” at “affordable costs”. However, this efficient and transparency can only be reliable if the e-governance projects are made user friendly and easily accessibility for everyone — the poor and the backward, the urban and the poor, the literate and the illiterate.

Tackling these issues to a great extent are programmes like Digital Panchayats and Soochna Seva. They are aimed at empowering people with regard to participatory democracy, governance and comprehensive realisation of their rights and entitlements. So far, through these projects, more than 500 gram panchayats have been given an online presence while 1,200 access points have been created to enable 4,00,000 below poverty line (BPL) people to avail entitlements under various government schemes. And the numbers will only grow in the coming years.

In the last five years, there have been several eGovernance projects that have been launched in the country by the central and state governments. In the last one-and-a-half year alone, the Digital India vision has reached new heights, thanks to the incumbent government and its marketing plan. However, is Digital India accessible to every citizen of the country? Do all individuals have access to connectivity? Is there sufficient infrastructure? Have people been taught how to use the resources and the digital tools? This is where the right to access to information and the right to broadband comes into the picture. Having said that, it cannot be denied that there have been advancements in the field of information technology in India.

In fact, there has been considerable advancement through telecom and IT policies and programmes through the Universal Services Obligation Fund (USOF) and the National e-Governance Plan (NeGP). Many mission mode interventions have taken place and there are many more that will be in place soon. With more and more people gaining access, connectivity and network landscapes are being redefined. The pursuit of a National Optic Fibre Network (NOFN) and the Right to Broadband aims to build and consolidate

a digital base structure. Today, key government notifications and alerts are made on Twitter first and then in press conferences.

However, the challenge remains in creating digital infrastructure and providing sufficient resources, thereby building and adding value to social and economic entitlements and services. Unfortunately, today, there exists a wide gap between government capacity enablement and digital empowerment of the masses.

While most government departments and ministries are well equipped with digital tools and a team specialising in information communication technology, yet they are unable to effectively and efficiently connect to the masses. This is because that though the service provider is digitally connected, the service receiver is not. Not all the panchayats and block-level offices have information access points nor do they have staff with sufficient knowledge of how to access the available information.

Trying to bridge this gap between digital infrastructure and service access are several national and international non-profit organisations that are working independently or in partnership. One of them is the European Union, which was launched in 2013 to improve access to information of public schemes in backward districts of India. It engaged 14 national non-government organisations to help disseminate information about public schemes and benefits in 20 states and 600 backward districts. The main agenda behind this project was to strengthen the capacity of local administration and institution to take government entitlements to every person, especially poor and vulnerable groups.

According to our estimate, there are more than 12,000 government entitlement schemes with about 400 schemes per state — and there are 29 of them besides 7 union territories — but none of them are easily searchable on any digital platform or the language used is complex, making matters more difficult for those in need. So, in fact, it may not be a really bad idea for the government to work with a system that proves that proactive disclosure is more powerful than demand-based information, especially since often people in India don't even know that they have the right to demand information.

Ms. Kate Oakley, in a paper on *'What is eGovernance?' (2002)*, has very simply noted down some "hopeful signs of changes" that can be seen through ICT-led eGovernance:

- Decentralisation of government
- Citizens start to become decision makers

- People become active users and co-producers of public services
- eGovernance promotes partnership of places
- Wider availability of improved services at reduced cost
- Citizen involvement through online communities
- Ability of citizens and advocacy groups to share a common knowledge base with decision makers

And there are many more advantages of eGovernance, the list could go on. The effective use of ICT services at various government and administrative levels has enhanced, and has the capacity to further enhance, efficiency, drive down cost of physical or tele-based communications and increase transparency in the functioning of various departments and ministries. Easy access to benefits, checking status of reports and attendance, filing applications online, making payment through the Web, tele-medicines and distance education are just some of the direct advantages that the masses can avail through eGovernance.

With more sophisticated access portals, widespread infrastructure, holistic partnerships with civil society, more knowledge intensive and personalised service, and an efficient government, every individual of the country — in any part of the country — can actually be reached and given the advantage to access benefits. For this, it is important for the central and state governments to view eGovernance as part of its basic governance programme and not as an add-on.

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Section-II
State and Sustenance Initiatives

CHANDIGARH – UNION TERRITORY

Prince Dhawan, IAS

STATE SUMMARY

The famous French architect Le Corbusier planned Chandigarh, the dream city of India's first Prime Minister, Sh. Jawahar Lal Nehru. Picturesquely located at the foothills of Shivaliks, it is known as one of the best experiments in urban planning and modern architecture in the twentieth century in India. Chandigarh is the first planned city in the country and still maintains its status as one of the best-managed cities in the country. The excellent social infrastructure, large green spaces, and its compact size, make Chandigarh an ideal work destination. The quality of life in the City Beautiful is comparable to the best cities across the world.

Chandigarh is the capital of two Indian states: Punjab & Haryana. The Chandigarh Administration administers it as a "Union Territory".

Department of Information Technology, Chandigarh Administration in the year 2013 published Information Technology and Electronics Policy with the 2020 vision:

- To improve the delivery of public services by leveraging Information Technology to achieve Efficiency, Effectiveness, Economy, Transparency, Accountability and Reliability in such delivery.
- To improve the environment for IT Industry in Chandigarh.
- To boost adoption of Information Technology to bridge the digital divide.
- To create knowledge based society in Chandigarh.
- To tap the growth potential of Electronics System Design & Manufacturing industry to the optimum
- To work towards the vision and facilitate delivery of public services in electronic form through eGovernance and m-Governance various initiatives are underway.

Society for Promotion of IT in Chandigarh (SPIC) had been set up in 2000 under the aegis of the Department of Information Technology, Chandigarh Administration for implementing the various plans of the Administration to promote the IT industry in Chandigarh. The Chairperson of the Society is the Adviser to the Administrator.

State eGovernance Mission Team in Chandigarh comprises of four domain experts:-

- Programme Management Consultant

- Technology Management Sr. Consultant
- Change Management Consultant
- Finance Management Consultant

The team is supervised by Head-SeMT. The team has taken forward eGovernance initiatives in Chandigarh manifolds since their inception in 2011. All the eGovernance initiatives are entirely managed by this team. The team members also actively interact all Departments of Chandigarh Administration to facilitate eGovernance initiatives at various levels.

Sampark Project

Project e-Sampark was initiated to bring together the services of all the departments under one single umbrella and give citizens of Chandigarh a “multi-service” - “single-window” experience apart from eradicating the undue harassment met by the citizens due to lack of transparency. The project is managed by SPIC.

The vision for this project is to create a knowledge-based society through extensive use of I.T. as a medium for effective interaction between the Administration and the public so that exchange of information and access to government departments is speedy and easy, leading to a better quality of life. The **objectives** of this project are:

- Provide hassle free one-stop solution to the citizen
- Minimize multiple interaction points for the citizen and hence reducing the wastage of their valuable time.
- Provide better turn around time in receipt, processing and issue of services
- Transparency in delivery of services

e-Kiosk

Chandigarh Administration is committed to bridge the digital divide by extending the application of I.T. for the benefit of the common man. After the successful launch of the Sampark Centres and in the second phase of the eGovernance initiative, the Administration has identified to provide the information about services of various departments and also to provide information and facilitation to residents regarding private services and other Government of India services from the 70 e-Jan Sampark kiosks which are to be set up in each sector and each village of Chandigarh. The e-Jan Sampark project will enable residents to access information and avail of services from the kiosks with ease, and without any harassment. These Centres will also enable the citizen to submit their grievances at a common centre and their quick redressal thereafter.

Jan Sampark

Jan Sampark project targets that the benefits of ICT should reach the masses, especially those who are without IT connectivity by providing easy dissemination of Information Services to a citizen and to deliver useful non transactional services e.g., registration of grievances and applications seeking information under RTI for all departments at a easily accessible common place.

Jan Sampark Vision is to:

- Bring the administration closer to all the sections of the society especially under privileged.
- Provide a single, efficient information dissemination system to the citizen for availing government services by minimizing multiple interaction points for the citizen and hence reduce the wastage of valuable time
- Provide for better turn around time in receipt, processing and issue of services
- Provide information services in a comfortable environment and make availing of the information services a pleasant experience.
- Giving substance to Right to Information Act

As the next logical step to Sampark Centres, the Administration has set up e-Jan-Sampark Centres, to disseminate useful free information services to the citizens. Every Centre supports multi service delivery (information delivery and non-transactional services) which is a judicious mix of all the possible government services and information and other localized services which are needed by a citizen.

This initiative targets that the benefits of ICT reach the people without PC and internet connectivity and also saves their valuable time and money consumed in travelling to government offices.

Gram Sampark

Continuing its commitment to bridge the digital divide, especially amongst the rural population, 15 e-GramSampark are open across all the villages of Union Territory of Chandigarh. The citizens will be able to use all the 23 G2C Services and 5 B2C Services, which are presently available to the Sampark Centres situated in the urban areas. Since these Centres would be providing the rural citizens an opportunity to have an access to the huge amount of information by using broadband connectivity, these Centres will emerge as Rural Knowledge Centres for the rural population, especially the disadvantaged. Information services in these Centres will be provided free of cost, on the lines of Jan Sampark Services. These Centres will also help the rural citizens in registering their grievances; apart from helping them file their applications under RTI.

With the help of Department of Rural Development, 15 locations have been identified to set up these Centres. These include, Panchayat buildings lying unused and the Gram Sampark Centres will be set up after reconditioning these buildings.

POS Payment

The Department of Information Technology through SPIC has started the facility of making payment of electricity and water bills through debit and credit cards of any bank at all e-Sampark centers, Gram Sampark centres and kiosks without paying any extra cost on any transaction. Last date for the payment of utility bills through debit/credit card will be the same as last date of payment through cheques. Additionally the Citizens can register on the e-Sampark Center's website and then can pay bills via debit cards, credit cards or internet banking sitting at home.

Intelligent Transport System

Chandigarh Transport Undertaking (CTU) is in process to implement Intelligent Transport System for all its fleet including Automatic Vehicle Locator, Electronic Ticketing Machine, and Public Information System Display etc. Chandigarh is one of the four cities selected in India to Pilot this project. Chandigarh Administration, World Bank and Ministry of Urban Development are closely monitoring the project.

Campus wide Area Network, GMCH 32

The project envisaged Optical Fibre connectivity across the Government Medical College & Hospital, Sector 32 premises. The optic cable would be capable of handling bandwidth of 10 G or higher with redundant connectivity for failsafe network. The interconnectivity between the Core and Distribution Switches be done through UTP, which would be capable of handling bandwidth of 1G or higher. Picture Archiving Communications System (PACS) standards be followed and the setup would be established in time bound manner. Management, Monitoring and Operation of the entire network should be centralized through Network Operations Centre. The solution would be interoperable, based on open standards and scalable with provision of integrating with the existing network

CTOSS

Under C-TOSS school model a basic C-TOSS program is being run in 81 schools of Chandigarh including UT villages and this program is absolutely free and is mandatory for the students of class 9th, 10th, 11th. Funding for C-TOSS school program is completely done by Dept. of IT, Chandigarh Administration. SPIC has signed agreements with national level training agencies for conducting the trainings at colleges and schools on the behalf of SPIC.

Online College Admission Portal

Online admission would be launched for colleges under Higher Education and all communication during academic session would be catered through mobile application

Grievance Redressal System

Chandigarh Administration launched an online system for citizens of Chandigarh to submit their complaints / grievances with Departments of Chandigarh Administration. The citizens can submit their grievances to the Departments of Chandigarh Administration through online web portal (chandigarh.gov.in) or through visiting any of the Samaprk Centres in Chandigarh. The redressal period for disposing off the grievances received by the department has been set as 15 days.

The online system has also been integrated with SMS Gateway of NIC, through which the alerts are being sent to Grievance officers of various departments on receipt of any grievance from the general public

Mission Mode Projects (MMP) -

- e-District MMP
- SSDG Project
- Treasury MMP
- Commercial Tax MMP
- CCTNS

The above-mentioned Mission Mode Projects are simultaneously been managed by the Department of I.T for enabling efficiency, economy and reliability of delivery of services.

RESULT INDICATORS

To provide backbone to the service delivery, State Wide Area Network (SWAN) and National Optical Fibre Network (NOFN) projects have been successfully implemented in U.T. Chandigarh.

SWAN:

Under the SWAN scheme, Network & Data Centre at U.T. Secretariat is connected with 7 Major PoPs (Points of Presence) - MC Office, DC Office, SDM South, SDM East, GSSH-16, GMCH-32 and Registering and Licensing Authority at U.T. Chandigarh.

NOFN:

Optical cable under the NOFN project has been laid across all the Gram Panchayats (GPs) of U.T. Chandigarh. The Optical Network Terminal's are also

installed across all the GPs. The optical fibres were completely laid by March 2015. During the Digital India Week, Hon'ble Prime Minister formally launched the NOFN project.

Also the Sampark Centres cater to various types of services including 22 G2C and 4 B2C services.

Few information services mentioned below are also provided at these centres.

- All Procedures and Forms for all departments, which are frequently used by a common man e.g., how to apply for a birth/death certificate including procedure for late entry, how to lodge a FIR, various forms and procedures concerning public offices such as RLA, Estate Office, DC Office, Municipal Corporation, Engineering Wing etc.
- Education and Health related information services e.g., daily updated information regarding availability of blood in Blood Bank of Govt Medical Hospital, Exam Results, Information about availability of educational and health related facilities in each sector etc.
- Transport and Tourism related inquiries e.g., Bus Routes, information relating to tourism activities etc
- Inquiries relating to Passport status; Railway booking status, Train timings etc
- Providing access to all Government websites.
- Other information like utility services available in each sector etc
- These services are provided free of cost except when the citizen needs any print out, the same is available at a nominal cost per page of print out.
- The citizens are being submit their grievances relating to any department and Applications under the RTI at these Centres.

ENABLER INDICATORS:

Estate Office Kiosk - Property Details & Case Details

Information Kiosks (Touch kiosk) have been installed in U.T. Chandigarh to provide status of the application submitted at single window at Estate office, information related to property details and status of AEO related court cases at the Estate office. Hence necessary processes were tweaked by the Assistant Estate Officer (AEO) cum Director Information Technology under the Guidance from Estate Officer (EO) cum Secretary Information Technology., Chandigarh Administration.

Use of Social Media, Cloud Computing, Mobile Technology:

Chandigarh Traffic Police

The pictures showing the violations of traffic rules and regulations within the jurisdiction of Chandigarh, may be posted at the facebook page of Chandigarh

Traffic Police. The post should necessarily mention the place, date and time of violation. If the registration number of violating vehicle is visible, then a challan under section 133 of motor vehicle Act, 1988 is sent to the owner of offending vehicle. If he fails to pay the challan amount on time, then the challan is forwarded to the concerned court, which then issues summons to the accused, as per law.

M-Sampark & SMS service

As part of the Digital India initiative, Department of Information Technology along with Society for Promotion of IT in Chandigarh launched the Sampark SMS alert service. Under this initiative, residents will get free SMS alerts for payments of Electricity and Water bills at the Sampark Centres. Under the initiative the residents will get 2 SMSs during each billing cycle. One SMS will be sent the day bill related information gets updated with Sampark Centres and the second, a day before the due date of payment of bill. Users will get SMS from sender-id – ESMPRK.

The SMS related services provided by Chandigarh Administration has received a recent thrust with offices like Registering and Licensing Authority, Excise and Taxation, Chandigarh Tourism, GMCH-32, State NSS Cell, Central Treasury, Chandigarh Police sending SMSs to the residents. SMS services are bridging the information gap about government service.

The mSampark mobile app that has been launched is a major initiative and provides useful information pertaining to Sampark services. Residents can get their electricity and water bill information on the mobile any time.

Chandigarh Administration is also starting pull sms services where residents will get information on services through all India eGovernance numbers 166, 51969 and 9223166166. Services of Estate office are already being provided through these numbers.

RLA Mobile App

Registering and Licensing Authority, UT Chandigarh has launched mobile app to enable the citizens to get information of services provided. (RC details, License details, related procedure, signs & symbols, tax calculator)

Green Computing & e-Waste Management:

e-Receipts

Sampark Centres across Chandigarh have gone green, with issuing of e-receipts and electronic payments for transactions. This will reduce the use of paper receipts and is step towards green computing.

e-Office

The eOffice solution is an integrated solution comprising of File Management System(eFile), KMS-Knowledge Management system, eLeave – Leave Management System, eTour – Tour Management System, Personnel Information System and Collaboration & Messaging Service.

As a first step towards improving efficiency in file handling, eFile a part of e-Office product suite will help to conduct the decision making on files electronically in order to achieve a simplified, responsive, effective and transparent working in all government offices.

eFile is a workflow based system that replaces the existing manual handling of files with a more efficient electronic system. This system involves all stages, including the digitization of inward receipts, creation of files, movement of receipts and files and finally, the archival of records.

It would shortly be rolled out in all the departments of Chandigarh Administration. In the new system the files would move electronically right from the dealing hand to the highest approving/decision-making officer. Various dealing hands would open their respective accounts and retrieve their respective cases.

Department of Health and I.T. Department officials now completely move office files using this solution.

e-Stamping

e-Stamping has been launched in U.T. Chandigarh, which will provide hassle free electronically generated stamp papers. The e-Stamp papers would be issued from Sampark centres across U.T. Chandigarh. Hence requisite processes as well as agreement were signed involving Chandigarh Treasury, Department of I.T. and Stock Holding Corporation of India Limited (SHCIL).

e-Waste Bin

Environment Department of the Chandigarh Administration does conduct e-Waste collection drives.

Around 18 specially designed e-waste collection bins were placed at locations, including UT Secretariat building at Sector 9, EDC Centre at IT Park, Sector 17 Plaza, Confederation of Indian Industry (CII) office at Sector 31, Deputy Commissioner office at Sector 17, Government School at Sector 36, MCM-DAV College at Sector 36, Punjab Engineering College at Sector 12, among other places in Chandigarh

New Projects / Initiatives launched during the year 2014-15

Mobile Governance initiatives were initiated during year 2014-15.

e-Kiosk were added to further provide easy to Citizens via door step single window for all Government services.

e-Campus mobile app was launched.

NOFN project was launched across all Gram Panchayats of U.T. Chandigarh.

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HARYANA STATE

Vijayendra Kumar, IAS

STATE SUMMARY

Haryana Government is working according to the principles of 'SabkaSaath-SabkaVikas' and 'Minimum Government - Maximum Governance' laid down by the honourable Prime Minister Shri Narendra Modi. State Government has taken steps to bring total transparency in its working and has declared zero tolerance for corruption, and to provide equal opportunities to all sections of society irrespective of class, caste and creed. While creating job opportunities and promoting investment, Haryana Government is ensuring equitable distribution of resources.

State Government has harnessed Information Technology to improve the service delivery mechanism to its citizens. The state Government is of the firm belief that IT provides an effective way to curb corruption by reducing the citizen-Government employee interface as well as inefficiency and discretionary powers at different levels.

The Secretariat for Information Technology, NIC-Haryana State Centre and HARTRON, has been pro-actively providing Value Added ICT services and facilitating the line departments in implementing key ICT initiatives & eGovernance Projects in Haryana and assisting them on all technical aspects. The joint efforts of SIT, NIC & State government line departments on conceptualization, strategic planning, design & development of key ICT initiatives and deployment, capacity building and implementation of ICT / eGovernance projects & services, significantly helped in; (a) Spreading ICT awareness & usage across entire state of Haryana, (b) Bringing transparency & accountability in delivery of Citizen services, (c) Raising image of Haryana in eGovernance at National and International levels and receiving more than 40 prestigious National Awards/ Accolades in ICT & eGovernance. The state has undertaken a number of key ICT initiatives and successfully implemented various eGovernance projects, under digital Haryana initiatives, some of which include

The Revenue department has taken IT initiatives like Integrated Property Registration & Land Records to minimize mutations pendency & introduced a campaign to reduce mutations pendency to zero. The new Deed Registration System is a significant step in this direction. Implemented all over Haryana, it shall put an end to the harassment of the public and ensure timely delivery of this service to the citizens. The e-appointment for property registration to bring greater transparency, and is working towards replacing the physical ecosystem of deed registration

(writers, lawyers, stamp vendors, Patwaris, etc.) by a “virtual application” to ensure “ease of property registration”.

The Integrated Finance Management System (IFMS), a comprehensive solution, integrating all major functions of Finance department & Treasuries and covering all government employees, is being implemented across Haryana. The IFMS has further been integrated with e-Payments and e-stamping in Property registration System.

The ‘CM Window’ web-portal enables the common man to approach the Chief Minister directly for redressal of any grievance. This online facility ensures immediate forwarding of the grievance to the concerned department for action and report within the prescribed period. CM Window is the customized Centralized Public Grievance Recording & Redressal System of Haryana. The citizen can visit any of the CM Window in field to register their Complaint, Grievance, Demand, and Suggestion. The citizen can track the status of his/her application through Mobile / Web / Call Centre Help line. A mobile app also provided to citizens track the status of the grievance. The CM Web Portal has been launched on the lines of MyGov portal of Hon’ble PM.

Haryana has initiated a Unique programme of establishing a comprehensive Database of residents (**State Resident Data Base: SRDB**), covering individuals and family based interaction of residents, with government, starting from issuance of birth certificate and ending with the issuance of death certificate. The SECC-2011 database & SRDH (UIDAI State resident data hub) are being used to populate the SRDB.

The State has developed & implementing an Integrated birth Registration System, which enable Aadhaar Enrolment of newly born Child along with Birth Registration, as **First State** in the country. To speed up the file movement in the government departments and to know the up-to-date status of the files, web based ‘Centralized File Movement and Tracking Information System (CeFMaTIS)’ is being implemented in all major departments along with CCMS (court case monitoring system), which is being used by more than 103 departments. Under the e-District Project, 22 services of Health and Revenue departments has been launched and are being successfully delivered across the state through CSCs, e-DISHA Kendras, PHCs/CHCs, and Municipalities in an online verification mode.

The State has successfully implemented On-line Off Campus counselling project integrated with On-line Entrance Exam for professional courses. This year the initiative has further been extended for admission to ITI courses. The state has also successfully implemented the on-line reservation system for Tourism, covering all

tourist complexes and e-Ticketing along with a mobile app for International SurajKund Craft Mela.

The State has been disbursing welfare pensions & financial aid to more than 23 lacs beneficiaries of various social welfare pension schemes, using extensive ICT initiatives. This system has further been enhanced to directly transfer the Social Welfare pensions into the bank accounts of the beneficiaries and in first phase more than 10 lacs beneficiaries have already been covered. Hospital Management Information System (HMIS) has been implemented in Health Department. HMIS is already live in 5 locations across the state in pilot mode which would span to 55 district hospitals, medical colleges, CHC and PHC's across the state in phased manner.

The Government is implementing a comprehensive computerization plan for ensuring transparency and efficiency in the functioning of the Excise & Taxation department and providing a corruption-free and good working environment. 26 e-modules are being rolled out to provide e-services like e-registration, e-refund, e-payment, e-recoveries, e-forms, etc., online on real time basis to all the registered dealers. This would also facilitate hassle free communication between the dealers and the department which will also help to promote fair and objective assessment and reduce incidence of tax evasion. E-tendering / e-Procurement has been introduced in all major procuring organization.

The citizen portal of Haryana Police, HarSamay 24X7, has been launched. Through this portal, various online citizen services like registration of complaints, lost property, RTI requests, hotel customer registration, cyber cafe registration etc. are available. SMS alerts are sent on the status at various stages. Special drive has been launched by Haryana Police for speedy finalization and investigation of pending cases. Haryana Government has taken a lead in the implementation of Aadhaar Enabled Jeevan Pramaan Patra (Life Certificate) System for Haryana Government Pensioners as **First State** Government and also in implementation of Aadhaar Enabled Biometric Attendance System for Haryana Government employees as **First State** government.

A comprehensive CM e-dashboard is being developed for monitoring KPIs (Key Performance Indicators) of various departments. Further to improve coordination between Central and state Government, the e-PMS and e-Samiksha systems of Cabinet Secretariat, govt of India are being utilised.

eGovernance Core ICT Infrastructure:

HR-SWAN is being implemented through DeitY, GoI funding covering vertical sites (147 BNMC, DNMC and SNMC) and horizontal sites (about 1200). **NIC-HR**

NICNET WAN: Five Informatics Centres at SHQ (HCS, FD, CMO, HNS, 30 Bay Building). NIC-HCS is connected with NIC-HQ on 1GB NICNET connectivity & 1GB NKN Connectivity. 21 Centres (DICs) in Districts, NICNET connectivity between SHQ & DHQs is upto 100 MBPS. More than 5000 PCs connected over NIC-Haryana NICNET WAN across state.

HSDC: Haryana State Data Centre is functional. Government Composite team has been constituted and notified. Around 25 Applications are running at HSDC in shared hosting and collocation modes. HSDC has been made cloud enabled. **NIC-HDC:** **NIC-Haryana Data Centre** with 10+ TB storage capacity operational 24X7 at HCS. State databases, Web services, Internet access, ftp services, SMS Gateway, VPN services are being provided through this Data Centre. More than 25 applications are hosted at NIC-HDC.

Other Digital Infrastructure

NOFN/Bharat Net – OFC (Optical Fiber Cable) has been laid in 4000 villages ; terminal equipment are soon arriving in Faridabad and Rewari districts; last mile outreach to consumers shall be done by Wi-Fi mode. Wi-Fi in all Universities – 7 universities shall be provided with Wi-Fi in FY 2015-16. CSC – CSC provides G2C and B2C services to citizens in rural and urban areas; state has identified school and Panchayat buildings in which to locate these CSCs; about 2500 CSC shall be appointed during the year; 944 CSCs have been made operational till date

Haryana Skill Development Mission to provide skill training to the youth to enhance their employability prospects and potential. A Memorandum of Understanding has been signed between Haryana Knowledge Corporation Ltd. (HKCL) and Haryana State Board of Technical Education (HSBTE) to provide Information and Communication Technology (ICT) Enabled Services and to bring transparency in its functioning.

Digital India Programme formally launched by Prime Minister on July 01, 2015 has three components and Haryana has aligned its IT vision to the Digital India framework; (a) Digital Infrastructure as a utility for every citizen ; (b) EGovernance& Services on demand (c) Digital Empowerment of Citizens.

Aadhaar Related Activities: State Resident Data Hub(SRDH) has been made ready. More than 150 Permanent Enrollment centres (PEC) for aadhaar services has been setup across the state. The 110 e-disha centres are used for setting up PEC-ownership by DC's. Department of Electronics &IT is the State UID Registrar. The seeding of Aadhaar Data in pension, Ration Card (PDS), scholarships, MGNREGA has been taken on priority. As on date more than 93% Aadhaar saturation has been achieved in Haryana.

RESULT INDICATORS

The implementation of HARIS, HALRIS and e-Appointments in Property Registration has benefited the Citizens and government in many ways. The system has improved the quality of service in Tehsils by reducing the total time taken by the Tehsil staff for registration. Now documents are returned same day to the public earlier sometimes it took weeks/months to get a registered deed.

- On-line availability of Updated Nakal of ROR (Record of Right) to the public helps in reduction of litigations and frauds, as now it is not possible to sell a same piece of land to multiple parties/peoples. Web enabling of the Land Records has helped in bringing transparency in making available access to the ROR on anytime, anywhere basis.
- Integrated on-line off-campus Counselling System brings greater transparency in whole process. efficiency. rules out any paper leakage, help elimination of copying at all examination centers. Eliminating Fraudulent & Corrupt Practices, Timeliness, Due to whole automated process, a significant amount of paper is saved, that ultimately adds to environment protection. Almost 100% transparency in allotment of seats minimized human interference, minimized travel burdens on candidates & their parents.
- Centralized file movement and Tracking System (CeFMatis) facilitate increased transparency, efficiency and accountability in government office procedures. Introduced integrated workflow and ICT based communication
- e-District& e-DISHA Initiatives have helped in increase in efficiency and decrease in time & Cost of service delivery. Helped in reductions in middle men and fraudulent practices from the service delivery process. By providing a wide spectrum of services at a single place has helped in saving citizens from the trouble of running around various departments.
- Disbursement of social welfare pensions in the bank accounts of beneficiaries helped in bridging the information gap at different levels including providing of information to the citizens on anytime, anywhere basis.
- The IFMS (Integrated Finance Management System) has provided an efficient, transparent mode of payments clearances, and facilitated faster payment processes, saving people time, and reducing the red tape involved in conducting transactions with banks and state authorities.
- With the implementation of Aadhar Enabled Jeevan Pramaan Patra (Digital Life Certificates) , the pensioners requirement to physically present himself/herself in front of disbursing agency or the certification authority will become a thing of the past benefiting the pensioners in a huge way and cutting down on unnecessary logistical hurdles.
- The implementation of Aadhar Enabled Biometric Attendance system in Government offices in Haryana is seen to have had a significant positive

impact on attendance of employees, bringing greater discipline & punctuality in the government offices.

ENABLER INDICATORS

- Haryana Government determination to work on the principles of ‘Minimum Government - Maximum Governance’ and to bring total transparency in its working, declaring zero tolerance for corruption, and to provide equal opportunities to all sections of society irrespective of class, caste and creed.
- State Apex Committee & State Technical Committee to review & approve every ICT initiative
- A comprehensive state wide area network & availability of Internet connectivity across the state
- Proximity to National Capital. More than 50% of the State falling under the national capital region, availability of trained ICT manpower
- Secretariat for Information Technology, with joint teams of NIC-Haryana, SeMT, DEIT, HARTRON facilitating the line departments on all technical aspects.
- The IT savvy, Hon’ble Chief Minister Haryana himself holds the charge of State IT Minister. CM himself regularly monitors and review the ICT initiatives & eGovernance projects.

Social Media, Cloud Computing, Mobile Technologies

- The CM’s Web Portal has been launched on the lines of mygov portal of hon’ble PM. There are links to social media on CM’s web portal. Haryana CM is on-line on social media.
- The HSDC (Haryana State Data centre) has been made cloud enabled. State has hired hosting space in BSNL cloud for hosting e-District MMP applications software suite. The critical web portals and interactive web applications of Haryana government have been migrated on to the Meghraj cloud of Govt of India.
- Mobile apps have been developed and launched for CM’s Window, CM engagements, e-Ticketing, e-Districts. The websites are being made mobile compliant / accessible on mobile.

Green Computing & e-Waste Management

- A formal policy has been put in place for declaration of ICT equipments/ hardware as obsolete and auctioning of obsolete Hardware. The UPS batteries are purchased on buy-back model.
- Centralized file movement & tracking system introduced in all major departments. All official communications to the govt offices across the state are

sent through e-Mails. The govt orders, notifications are just uploaded on the websites and no physical documents are sent through post.

- Extensive exercise has been taken for scanning of old documents and making available accessible over web.

New Projects / Initiatives Launched during the Year

- e-Dashboard for Elections Management
- CM Window - customized Centralized Public Grievance Recording & Redressal System of Haryana
- e-appointment for property registration
- e-Stamping in Property Registration
- HarSamay the citizen portal of Haryana Police
- Integrated birth Registration System, which enable Aadhar Enrolment of newly born Child alongwith Birth Registration
- Aadhaar Enabled Jeevan Pramaan Patra (Life Certificate) System for Haryana Government Pensioners as First State Government
- Aadhaar Enabled Biometric Attendance System for Haryana Government employees as First State government.
- MIS Portal under "PARIVARTAN" project - a step of the School education department towards "Digital Empowerment of Schools in Haryana"
- Hospital Management Information System (HMIS) in Government Hospitals.
- On-line e-services through e-District Project
- Integrated portal for Urban Local Bodies for delivery of e-Services
- BISWAS – Integrated System for Billing of Drinking water & Sewerage System of Public Health Engineering Department
- On-line C-Forms of Excise & Taxation under Commercial Taxes MMP
- On-line Counselling System for ITI admissions.

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CNEA 2015 SUSTAINABILITY AWARDS

Dr K S Vijaya Sekhar

Sustainability in the e-Governance sense may viewed – if not as a state of balance, then at least as a reasonably well managed state of dynamics - where preparedness for future [plans for functionality growth, funding arrangements, ICT enhancements and stakeholder involvement etc] co-exists with focus on the present – the form and number of services, the degree of convenience to citizens etc. Given the complex milieu in which e-Government projects are implemented, award winning projects which sustain themselves for *five years* are noteworthy. It is considered that such projects should not only be held in esteem but also should be prominently highlighted in order to encourage more implementations to draw inspiration.

Over the period of five years - between 2010 and 2015 - many things about the award winning project might have changed. The ICT base on which the project rests may have changed, some of the team members may have moved on, the transaction volumes handled and the number of services provided may all have improved. The ‘Sustainance Awards Nomination form’ consists of *six sections* seeks high level information on how the project has evolved over the years. Section-I on current contact officer demography details; Section-II on Project specific information; Section-III on the financial status; Section-IV on the business case; Section-V on Technology and Section-VI on Organization / Team continuity - an Authorization Certificate was made mandatory.

With a view to better understanding the e-Governance initiatives from the point of view of sustainability – and, in fact, with a view to understanding how sustainability itself should be defined and viewed from e-Governance perspective – a detailed study was conducted as part of CSI-Nihilent e-Governance Awards 2011 considering the awardees of CNEA 2006. The study was chaired by Dr Ashok Agarwal [Adjunct Professor, BITS] assisted by Prof Sanjiv Vaidya [IIM Kolkata]. The result of the exercise was published in the CNEA annual compendium of 2011. In order to give a formal shape to such an emphasis on sustainability, winners of CNEA 2010 should be revisited, re-evaluated and re-awarded - should such a follow-up action suggest appreciable efforts at sustainability.

Building on this pioneering effort, the awardees in CNEA series 2007, 2008 and 2009 were approached to receive their nominations in the years 2012, 2013 and 2014 which are duly published in respective CNEA Compendiums. With that the CNEA-2015 nominees are CNEA award winners of 2010 and invited to submit their nominations. In addition to describing how their projects had evolved over the

five year period from 2010 to 2015, the nominees were required to provide such information as whether the original initiators of the project and the original ICT team continued to be associated – even after five years – with the initiative, and if not, how had the team composition changed over the years, how many times, if so the result on process reengineering, change management, capacity building programs and other enhancements towards technology to be shared. The nominees were also required to specify how the functionality had grown and how the ICT components too had kept pace with the changes during a five year period. The Selection Committee members while performing field visits to regular projects are also required to visit these projects.

S.No.	Name of the Awardee	Place
1	MPOnline	Madhya Pradesh
2	Chhattisgarh Online Information for Citizen Empowerment (CHOiCE)	Chhattisgarh
3	National Centre for Antarctic & Ocean Research (NCAOR), Ministry of Earth Sciences	Goa
4	Integrated Finance & Forest Work Management System	Madhya Pradesh

It is heartening that this effort resulted in gathering of significant amount of information which helped improve CNEA's understanding of Sustainability in the domain of e-Governance. The following four were awarded under *Sustainance category* for the year 2015.

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Section-III
Projects

AADHAAR ENABLED PDS THROUGH EPOS

[Collectorate - Krishna District, Government .of Andhra Pradesh]

Babu. A, IAS

DESCRIPTION OF PROJECT

The Department of Consumer Affairs and Food & Public Distribution, Government . of India has issued Guidelines to all States / UTs on providing an end-to-end solution of Targeted Public Distribution System. The State of Andhra Pradesh has come up with an end-to-end solution through the integrated **Aadhaar enabled PDS system** (AePDS). This has been successfully implemented right from lifting of stock from FCI to Aadhaar based distribution to beneficiary through FPS with very encouraging results.

- Krishna District of Andhra Pradesh is the first district in the country to implement ePoS in entire district (2157 Fair price shops) with the integration of **FCI** and Mandal Level Stock (**MLS**) points through Supply Chain Management System for lifting & distribution of Stock to Beneficiary through FPS and with **ration portability** across the district. This system will help in monitoring Sales & Stock availability at every Fair Price Shop. PoS devices are linked with the electronic weighing scale, to ensure delivery of exact quantity commodities to beneficiaries, The system is operational in the district since March'2015 and stocking of PDS commodities in 2,157 Fair Price Shops (FPS) in District Krishna is closely and effectively being monitored since March' 2015.
- AePDS at FPS in Krishna proved to be a success story in PDS operations as it empowers beneficiary to choose FPS of her/ his choice to take PDS commodities as against the earlier situation of binding beneficiaries to a fixed FPS whether they like the service at that FPS or not.
- All fair price shops in the districts are equipped with a POS device with GPRS connectivity. BPL beneficiary can take her/ his rations (as per entitlement) at any FPS on success of Bio/ Iris authentications. BFD (Best Finger Deduction) facility is provided in the system to reduce failure rate of authentication.
- As outcome of post implementation of Aadhaar enabled PDS, there are clear evidences of improvement in Service delivery and savings to the Government.
- AePDS targets to address mainly the following problems prevalent in the earlier system:
 - Beneficiary used to find FPS shop closed when the he wants to take rations, leading to additional trips.

- FPS declares 'no stock' even when the FPS has sufficient stocks, leading to additional trips.
- The sales person does not accord due respect to the beneficiary or sometimes misbehaves.
- Overcharging – The sales person charges more than what is chargeable.
- Deliberate under-weighting of the commodities by sales person.
- Beneficiary may need to spend at least half a day to take commodities because of long queues.
- Identification of poor performing Fair Price Shops was earlier possible only by inspections of authorities and dependent on the complaints received by the public and its verification. In both the cases, finding truth is dependent on the integrity of the inspecting authority, which is questionable in a percentage of cases. AePDS targets to create a System where bad performing FPS' are automatically abandoned by the beneficiaries and lose business and thus perish from the System.

RESULT INDICATORS

Benefits obtained

- ***To empower beneficiary***
 - To improve Service Delivery
 - Reduced waiting time for service delivery
 - Behavioral change in FPS personnel
 - Reduced number of trips of beneficiaries to take different commodities
 - To reduce Diversion
 - To Weed out poor Performing FPS
- ***Future Road Map***
 - Roll out in the entire state
 - Linking Mandal Level Stock points
 - Linking FCI deliveries to MLS points.
 - Comprehensive AeRCMS (Aadhaar enabled Ration Card Management System) through PoS with authentication and de-duplication
 - Applying for new ration cards
 - Adding/ deleting members to the ration card etc

Implementation coverage till date

Currently, the entire District of Krishna and 50% fair price shops of Kadapa districts are covered. From September we will be covering the districts of Kadapa, Prakasam & Nellore, in addition. And subsequently remaining districts will be covered by end of Oct'2015.

ENABLER INDICATORS

Process Reengineering

- Front end is a hand held device with client application developed in C++ and consumes web services from the back end services. Services are linked to ePDS application and Supply Chain Management System .

CHANGE MANAGEMENT & CAPACITY BUILDING

- Imparted training to all the persons right from the District Officer to Village Level Officers such as DSO/ASO/MSO/ PDS DTs / RIs / VROs / VRAs
- Imparted training to the FP Shop Dealers at District Level, Mandal Level and at Fair Price Shop doorstep at the time of installation.
- Provided training to the FP Shop dealers with hands on experiment on ePoS device.

VALUE INDICATORS

Digital Inclusion

- Application is language specific. Contents are in local language with audio facility to enable beneficiary to know what benefits (Government . Schemes) are being provided to them by the dealer.
- The step by step transactions can be heard from ePoS device either in Regional Language (Telugu) or in English.
- Device is enabled with sound system to read out availed commodities with quantity and total price.

Green e-Governance

- Usage of thermal papers in hand held devices saves the natural resources and retains the greenery of the planet.
- The use of thermal recycled papers helps in saving a huge amount of natural resources.
- POS device with small & flat screen is enabled with standby/sleep mode shall have a minimum environmental impact.
- Usage of carbon copies have been stopped with the initiative of IT solution in FCI & MLS points and fair price shops.

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AADHAAR ENABLED ECOSYSTEM - AEE

[ITE&C Department Government of Andhra Pradesh]

G S Phani Kishore, I.R.S

DESCRIPTION OF PROJECT

Unique system of identification of citizens and/or residents through a personal ID number is a well-established system in several countries. In a country like India, such a system of unique identification of residents introduces efficiency and effectiveness in all the beneficiary-oriented developmental schemes, besides serving several other purposes where identification of an individual is a critical part of the process.

It is expedient for the Government “to establish a system of uniquely identifying the persons normally resident in the State, by assigning an identification number to each, following such process as may be prescribed”. For this purpose, “any existing databases, meeting the requirements are to be specified, with the required safeguards”.

Considering that the system of Aadhaar has been well established nationally by the Unique ID Authority of India, a body set up by the Government of India, following the global standards of technology, security and privacy and that over 95% of the residents of the State of Andhra Pradesh have already been issued with the Aadhaar identity cards, the Government of Andhra Pradesh, hereby notifies, Aadhaar as the system of uniquely identifying the persons normally resident in the State.

This policy titled “**The Andhra Pradesh Policy on Unique Identification of Residents**”, provides for the system of identification of residents using Aadhaar, the manner of creation, maintenance and usage of Aadhaar for the notified purposes and the establishment of an Aadhaar-Enabled Ecosystem to provide data and application services.

The Aadhaar-Enabled Ecosystem shall help the State derive the following **benefits**.

- **Benefits to the Residents of the State:**

- Historical, event-related data of the resident, in sectors like education and healthcare, All the schemes and benefits of the Government for which a resident is eligible can be accessed directly through an Aadhaar-based single-sign-on facility to be offered by the AEE;

- Identity of the residents required at all touch points with the Government, can be made hassle-free by the use of Aadhaar card;
- All the changes in the Government records necessitated due relocation of the residents within the State, temporarily or permanently, can be handled in one stroke.
- Aadhaar-enabled applications will reduce the data/ document burden on the citizens, by storing and reusing it when required.
- Aadhaar-enabled Repository of Certificates will obviate the need for the residents to produce proof of various socio-economic attributes, repeatedly at different touch points with Government, leading to a 'Certificate-less Governance'.
- **Benefits to Government Departments & Agencies:**
 - Departments and agencies of the Government can achieve better, quicker and more transparent process of targeting of their benefit schemes, leading to more effective implementation;
 - The scope for duplicate or non-existent beneficiaries gets eliminated, thus enabling the Government to save precious resources, which can be used for helping more number of eligible beneficiaries;
 - The process of beneficiary verification and selection gets expedited;
 - Departments can make use of Data Analytics services offered by AEE to achieve better planning and decision-making.
 - Government can design integrated and joined-up services to the residents using Aadhaar as the integrating element.

COMPONENTS OF AEE

The Aadhaar-Enabled Ecosystem consists of the following subsystems. The benefits of AEE can be realized only through an orchestrated and coordinated function of these components.

The State Resident Data Hub (SRDH) or the People Hub: The State Resident Data Hub (SRDH) or the People Hub is the heart of the AEE. It hosts the near-real-time Aadhaar Data of all the residents of the State in a secure environment. (<http://www.srdh.ap.gov.in/andhrasrdh>)

Aadhaar Data Services System: Aadhaar Data Services System is an application system that delivers a wide-range of services relating to accessing and use of Aadhaar data available in the SRDH to the stakeholders. It acts as the single interface to the entire ecosystem in so far as Aadhaar Data Services are concerned.

Aadhaar-enabled Application Services System: Aadhaar Application Services System is a suite of software applications that can be used by the authorized stakeholders to realize the benefits envisaged by the AEE.

Aadhaar-enabled Devices Ecosystem: Aadhaar-enabled Devices Ecosystem consists of a number of initiatives for developing low-cost, affordable devices, especially, those used at the delivery point and establishing the standards.

CURRENT STATUS OF AEE

ITE&C Department, GoAP has implemented the **State Resident Data Hub**, integrating the various Government Department beneficiary data along with the Aadhaar demographic data received from UIDAI. Socio-economic Data of residents is required, to make a practical use of the basic data of Aadhaar demographic data. People Data will play a pivotal role in the creation of Andhra Pradesh Government Enterprise Architecture – ePragati.

RESULT INDICATORS

Aadhaar Data Services System:

Following are the Aadhaar Data Services provided to all the Government departments of Andhra Pradesh.

Aadhaar Seeding Service:

Aadhaar Seeding is the process by which Aadhaar numbers of residents are included as a data field in the service delivery database of the Government department or agency or of the service providers. Aadhaar seeding leads to de-duplication of the database and Aadhaar-based authentication during the service delivery.

Aadhaar Seeding process is of two types.

- **Organic Seeding of Aadhaar:** In this method, the Aadhaar numbers of the beneficiaries are collected through a door-to-door survey or at point-of-sale. Alternative methods are collection of Aadhaar number through IVRS, SMS or drop boxes. Departments with large databases can also engage 3rd party service providers.
- **Inorganic Seeding of Aadhaar:** In this method, the demographic data of the departmental database is matched with that of SRDH through a computer algorithm, and wherever the degree of matching exceeds a threshold level defined, the Aadhaar number of the resident as in SRDH database is included in the departmental database.
- **Convergence of demographic data:** The AEE envisages the ideal situation, where the demographic data contained in the departmental data base and that contained in the SRDH match in all respects, namely, the data definition and data content. Such an envisaged situation will facilitate

more efficient processing of service requests and establishing of identity and addresses of the residents.

Key Performance

The Aadhaar e-KYC ecosystem has been designed to be scalable, just like the enrolment, updations, and the authentication ecosystems. It follows the same operating model as that of the Aadhaar authentication ecosystem.

Benefits obtained

- **Anywhere Service Delivery:** This module enables the departments to implement the concept of Anywhere Service Delivery, without limitation of jurisdictions of field offices, as the identity of the resident (recipient of service) can be established anywhere through Aadhaar Authentication.
- **Tracking Service Delivery:** This module enables tracking of a benefit or a request for benefit on an end-to-end basis, and provide transparency both to the department and to the beneficiary. This is achieved by tracking the service request from the time it is received till it is closed, w.r.t the Aadhaar number. If a payment or supply transaction is so tracked, it can curb leakages and diversions of Government benefit.
- **Accountability & Vigilance:** This module enables to strengthen the accountability in activities relating to audit, inspection and vigilance through Aadhaar-based authentication of the concerned officials along with time-stamping and GPS tracking.
- **Empowering beneficiary:** This module enables beneficiaries to access government schemes in an integrated manner, to know all their entitlements at one time using Aadhaar Identification. It would also enable them to know the status of their current entitlements, and enable them to lodge grievances in respect of delays or any other matters. These features shall be made available through portals such as Mee Seva and Mee Kosam.
- **Attendance Monitoring** – This module can be used by Programs in sectors like Education, Welfare and Livelihood, where the implementation is tightly linked to beneficiary attendance. The module uses Aadhaar authentication for attendance monitoring. Currently MEPMA, Social Welfare hostels are utilizing the services of AEE, can be extended to other departments as well.

ENABLER INDICATORS

Security and Privacy of personal information

- Personal information includes the Aadhaar Number, the demographic data, the biometric data and the number of a bank account, credit or debit card of a resident, in combination with any security code, access code, or

password that is required for an individual to obtain credit, withdraw funds, or engage in a financial transaction.

- All the departments and agencies in possession of personal information of residents shall undertake the measures prescribed herein in respect of the security and privacy of personal information.

VALUE INDICATORS

Digital Inclusion

All applications developed by the various departments currently are in either English only while some are in both English & Telugu. Essential Efforts & fallback mechanism are being made by the departments so that no beneficiary is denied any service if otherwise eligible.

Green e-Governance

By utilizing the AEE the Government of Andhra Pradesh is aiming to achieve a Certificate Less Governance and Cashless transactions.

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ONLINE MINERAL PERMIT SYSTEM

[Department of Mines & Geology, Government of Andhra Pradesh]

G.S Phani Kishore, IRS

DESCRIPTION OF PROJECT

The Department of Mines & Geology committed to take up all the Revenue Collections through online. Accordingly adopted an online system and named as “Mineral Online e-Permit System” from the Financial Year 2014. The main overview of the Project is for Requesting Mineral Permits, Approval Processing by Department officials, Mineral Annual Fee Payments, Amount TOP Up and generating Transit forms by concerned Lessees at their Lease area locations. By using this system Lessee can able to pay the Income Tax directly from Lessee account to the IT Department.

RESULT INDICATORS

The Government of Andhra Pradesh has laid out a clear vision to create a knowledge society by using Information Technology in all aspects of development and governance. Pioneering efforts are being made to reach the benefits of Information technology to the citizens and has created Online Mineral Permit System. In order to institutionalize these efforts, Government of AP issued Andhra Pradesh Information Technology (Electronic Service Delivery) Rules 2011. These Rules make it mandatory for every Head of the Department to notify the G2C & G2B services that are to be delivered through electronic mode.

As stated earlier, it is an end-to-end mechanism for delivery of permits through online and also collection of revenue through Cyber Treasury.

The following services that are currently being delivered using ICT

- Government to Lease holders.
 - Lease Holder Registration
 - Annual Fee Payment (Dead Rent) Online
 - Integration with Cyber Treasury.
 - Advance Top Up Facility
 - Issue of Permits
 - Transit Form generation
 - Dispatch Particulars
 - MIS
 - Secured Stationary Management
 - SMS Alerts
 - Electronic Fund Transfer System (EFTS).

- Android Applications for validating permits, Stationary and Transit forms.
- Reconnaissance Permit
- Prospecting License
- Mining Lease
- Granite Quarry Lease
- Marble Quarry Lease
- Other Quarry Lease

Implementation coverage till date

- Roll out to the entire Andhra Pradesh and successfully implementing.

Innovative Ideas :

The entire concept of Online Mineral Permit System is unique and first-of-its kind in the country. It is the first time, when the entire solution, right from the collection of revenue, till the issue of transit forms is electronic. At each stage the request can be tracked and monitored by the Assistant Director. There is no interaction, whatsoever between the User and the issuing authority, hence there is no chance of corruption and other malpractices. The unique features of Online Mineral Permit System are listed below.

● **Creation of new databases**

This signed data was kept in a new database, so as to deliver this service under Category A when the need arises.

● **State Electronic Certificate Repository (SECR)**

All the certificates and documents issued by Online Mineral Permit System are being stored at a location called SECR. SECR is placed in the public domain for verification of the certificate using the unique Application number.

● **Digital signing of databases including bulk signing**

Using the newly developed web based application, the data ported to the central databases was signed digitally. For this purpose all the authorities, who are authorized to sign were provided with Class 2 digital signature certificates and trained to use them. Bulk signing was adopted to increase the pace of signing manifold. This is, tamper-proof and audit trail is maintained for all transactions.

● **Development of web-based application**

Web-based application was developed to enable lease holders to access the services by accessing the departmental databases.

● **Usage of Secured stationery**

Secured stationery with 8 security features is being used to deliver the certificates, to make duplication difficult. Online Verification, of course is possible by using the SECR.

• **Legal framework**

Government of Andhra Pradesh has issued Andhra Pradesh Information Technology Rules (Electronic Service Delivery), 2011 in order to provide legal sanctity to the digitally signed certificates and make it mandatory for the Departments to migrate to electronic service delivery within a period of three years. This has ensured that departments move to electronic delivery of services in a period of time.

• **Future modifications/enhancements**

In the next step, once public confidence is fully achieved, secured stationery will be removed, and these services will be rendered through the Mobile platform thereby bringing AP in line with the most advanced nations in terms of service delivery.

• **Integration of e-Gov Initiatives**

Online Mineral Permit System is integrated with Mee Seva application so that data can be exchanged with revenue department & registration departments.

- Integration SBI e Pay for Payments
- Integration with Cyber treasury for collection of revenue
- Secured Stationary for Tracking Transit Forms
- Integration with CDAC SMS Gateway
- Electronic Fund Transfer System

ENABLER INDICATORS

Delivery of services electronically has certain pre-requisites which are as follows

- Availability of Databases in electronic form.
- Back-end application to interact with the database and pull out information.
- Front-end application to receive the citizen's request and communicate with Departmental application.
- Online Portal for request for Services.
- Connectivity for connecting the delivery channels to the database and application.

Process reengineering

The following strategy was adopted for implementing the Online Mineral Permit System Project

- **Development of web-based application** – Online Mineral Permit System is a web-based application and offers the highest level of transparency in extending G2B services. The robust IT mechanism enables a tamper-proof way to service delivery mechanism.

- **Improving/establishing connectivity** - Since many of the transactions require substantial flow of data, connectivity is provided or improved to all the Government departments. The Horizontal Connectivity scheme of the GOI is used for this purpose.
- **Digitization of records** - Records are digitized, wherever digital databases is not available.
- **Creation of new databases** - This signed data is kept in a new database, so as to deliver this service under Category A when the need arises.
- **Centralizing databases** - Databases, containing the information are purified and ported to the central departmental database server co-located at the State Data Center.
- **Digital signing of databases including bulk-signing** - Using the newly developed web-based application, the data ported to the central databases is signed digitally. For this purpose all the authorities, who are authorized to sign are provided with Class 2 digital signature certificates and trained to use them. Bulk signing is adopted to increase the pace of signing manifold. This is tamper-proof and audit trail is maintained for all transactions.
- **State Electronic Certificate Repository (SECR)** - All the certificates and documents issued by Online Mineral Permit are being stored at a location called SECR. SECR is placed in the public domain for verification of the certificate using the unique Application number.
- **Establishing Backend hardware** - Backend hardware is procured, wherever required to support centralized databases and high transaction applications.
- **Legal framework** - Government of Andhra Pradesh has issued Andhra Pradesh Information Technology Rules (Electronic Service Delivery), 2011 in order to provide legal sanctity to the digitally signed certificates and make it mandatory for the Departments to migrate to electronic service delivery within a period of three years. This has ensured that departments move to electronic delivery of services in a period of time.
- **Delegation of powers to field functionaries** - In order to have better administrative control, the powers of Director, ESD is delegated to the Joint collector, who is called Addl. Director, ESD.
- **Secured stationery** - Secured stationery with 8 security features is being used to deliver the certificates, to make duplication difficult. Online Verification, of course is possible by using the SECR.
- **Call centre for receiving feedback/grievances/complaints** - 24X7 Call center is active to get feedback from the citizen.
- **Customized SMS** - Customized SMS for different level of administrative officers for their own level of jurisdiction are sent daily so that they know the transactions taking place in their jurisdiction, and what is the pendency within and beyond SLA.

- **Automatic Payment Gateway** – Payments by the lease holders are in huge and contains of various parameters like Royalty, Cess on MBI, Cess on SR, Interest & Income Tax. These amounts are seamlessly collected and transferred to the Treasury department whereas Income Tax is transferred through SBH through FTR process.
- **Reward/Penalty for non-delivery** - A system of awarding positive marks for good performance and vice versa is being evolved and this will be used during the ranking of individuals before administrative transfers.

Change Management and Capacity Building

- **Capacity Building:** Capacity Building is an integral and very crucial part of any Project. Since many new IT-application based work processes were involved at various levels, it was decided to have a comprehensive Capacity Building Plan. Trainings were conducted for all the stake-holders in basics of computing and operating applications. Training on soft skills were also made mandatory as we had a large citizen-interface, being the visible face of Online Mineral Permit System had to put their most amicable self while delivering services.

Immediate Problem Resolution has helped a long way in building confidence and stabilizing the application. The following Problem Resolution techniques have been adopted in Online Mineral Permit System –

1100 - This is the call center number. The customers can call this Call number and register their complaints or seek information.

Meeseva Request Tracking System has been introduced for automatic tracking of requests. It is a web based Ticket and Change Request raising and tracking tool. The tool is designed and developed by M/s APOne Limited and is built using .NET framework. The tool provides the following advantages:

- Accessible from anywhere across the web
- Easy & User Friendly to use
- Supports & Maintains Role Based requests & Workflows
- Single Window to track and trace any of requests / issues raised
- Reduces the issue / request resolution time & increases overall productivity
- Helps Management for better assessment
- Brings Collaboration

VALUE INDICATORS

Digital Inclusion

The Online system replaces the old age procedure of manual remittance of statutory payments wherein the leaseholder had to approach only the specified Bank (i.e., a bank which accepts Government challans) for payment and obtain challans.

Introduction of Online Mineral e-permit system shall definitely and surely benefit the leaseholder. The leaseholder will be relieved of physical strain in approaching the specified bank for payments and attending the district office for obtaining the dispatch permits and transit forms.

Green e-Governance

Government of AP is fully committed to its environmental responsibilities. IT has been used to enable paper-less transaction to the extent possible. Besides this, due to the changed process, multiple visits of the lease holders to the government offices are avoided resulting in huge saving of time for the lease holders as well savings in the fuel/transportation charges. This indirectly has impact on reducing the extra GHG that would have been released, had the citizen travelled multiple times to avail the service. Besides this other green practices like using TCO complaint LCD monitors, LED lighting and glow-sign boards are being implemented this year.

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e-NIDHI - (COMPREHENSIVE FINANCIAL MANAGEMENT SYSTEM)

[Finance Department, Government of Andhra Pradesh]

Dr. P V Ramesh, IAS

DESCRIPTION OF PROJECT

- The Government of Andhra Pradesh took the initiative to implement state wide comprehensive solution to increase efficiency in the management of human resources and public finances, improve transparency, enable accountability, and facilitate ease of access to all stakeholders, called “Comprehensive Financial Management System”. The Comprehensive Financial Management System has been christened as ‘**e-Nidhi**’.
- This system is designed on service oriented architecture (SOA) based on open standards to ensure high level of synergy with acceptability by all the stakeholders of Government. This innovative enterprise class SAP solution streamlines and improves the decision support system in order to bring effectiveness, efficiency, transparency and accountability envisaged by the client.
- e-Nidhi project is designed for the public financial and human resources management requirements of Government of Andhra Pradesh and has 7 modules –six for finance modules and one for HRMS. It caters to the needs of Finance Department, Other Secretariat Departments, Heads of Departments, Subordinate Controlling Officers/District Officers, Drawing and Disbursing Officers/sub district offices, employees, pensioners and challan remitting public in the State. There is seamless integration with the other government departmental systems, Agency Banks, Reserve Bank of India, Accountant General and Government of India
- **Current Status** – The implementation of the project was planned in the phased manner having two phases. There were delays in the implementation due to issues like State reorganization. To hasten the implementation, an integrated approach has been adopted with pilot in one district and then statewide rollout.

RESULT INDICATORS

- The project has been partially released to employees and the transaction volume for the year 2014-15, for DDO data entry, approx. 10,000 DDOs data was entered for more than 1,00,000 employees
- e-Nidhi is accessible on internet and total number of hits for the year 2014-15 were approx. 25,000

The **benefits and improvements** from different modules of e-Nidhi are listed herein.

Module	Benefits/Improvements
Financial Management	<ul style="list-style-type: none"> ○ Structured Mechanism for Collaboration amongst all Government Departments ○ Real Time Decision Support System ○ Automated Reporting Systems & Dashboard View
Budget Management	<ul style="list-style-type: none"> ○ Budget estimation made simple and fast ○ Once HRMS Data is updated no need to prepare the Number Statements and Salary Budget ○ Use of Scientific Tools in Budget estimation ○ During the year budget management made easy ○ All post budget procedures made simple –Budget distribution and Redistribution, Re-appropriations; Savings and Surrenders ○ Dash Boards view to concerned the stakeholders
Expenditure Management	<ul style="list-style-type: none"> • Non Works • Fast track fund availability to the Departments • Dispensation of BROs and Treasury Authorizations • Electronic sanction and bill processing • Minimum paper/ file movements • Auto reconciliation with Treasuries and Banks • Milestone bill planning for each agreement and payment • Digital Measurement Books • Geo Referencing of the Projects • Online Administrative Sanctions and Technical Approvals
Receipt Management	<ul style="list-style-type: none"> ○ Use of scientific tools in Revenue Estimations ○ Monthly progress monitoring through system ○ All devolutions also to happen through system ○ Dash board view for the top management ○ Auto reconciliation with Treasuries and Banks ○ Precision in the estimation of the revenue budgets
Debt management	<ul style="list-style-type: none"> ○ Life-Cycle Management of Loans & Guarantees ○ Recordkeeping for Loans given as well as taken ○ Information on Liability for Loans taken and Loans given ○ Correct Classification of Loans and Debts

Cash Management	<ul style="list-style-type: none"> ○ Real Time Monitoring of Ways & Means Position ○ Reconciliation of Funds Position – Between RBI, AG and DTA
Accounts Management	<ul style="list-style-type: none"> ○ Single Entry Cash Based Accounts to the Departments and AG ○ Provision for Double Entry Accrual Accounting ○ Use of accounting information for correct budget estimation
HRMS	<ul style="list-style-type: none"> ○ Recruitment Planning and Cadre Strength Management ○ All employee events captured dynamically ○ Paper bills are replaced with electronic bills ○ Performance management, transfers and promotions through system ○ Pension Sanctioning and Payment through System ○ Automation of Human Resource Management ○ Employee self service ○ Leave Management ○ Claims and Reimbursements ○ Loans and Advances

e-Nidhi is envisioned to be the single source of truth having real time information. To enable these it has interfaced with multiple internal and external stakeholders/ICT systems.

- **Internal Integration:** All the modules are tightly integrated as part of comprehensive system.

Interface with other ICT systems:

To seamlessly share the data with various e-Gov ICT applications, e-Nidhi has used SAP’s middleware tool PI (Process Integration).

ENABLER INDICATORS

Process reengineering

Following major ICT and non ICT changes are planned and being implemented

- Develop a comprehensive solution by integrating multiple redundant applications
- Standardization of Technical Platform
- Incorporation of Information security measures
- Additional backup network connectivity
- Setting-up of DR and NDR for continued availability

- 3 way DR setup for near zero data loss
- Codification standardization for the ease of data sharing with external stakeholders
- Real time information availability
- Seamless integration of internal and external stakeholders
- Automated workflows
- Process re-engineering to reduce redundant processes and increase efficiency
- New generation dashboard based decision support system

Change Management and Capacity Building

- Capacity Building is being taken up at the State level by the Senior Officials in order to ensure steady momentum in terms of the e-Nidhi acceptance. The initiative has been owned by Principal Finance Secretary and also supported by Hon. CM's office.
- Change Management has been implemented in a TOP DOWN approach where change has been cascaded by 'Preparing for Change' through timely meetings, 'Managing for Change' by conducting sensitization workshops and 'Reinforcing change' by nominating District Wise Change Agents. Implementation of the product and reinforcement of change are being achieved through constant handholding support. Resistance to change was avoided by introducing videos of the functional processes with self - manoeuvring tools and manuals for quick reference. Overall change has been cascaded successfully with the modules implemented till now. We have trained 2000+ users through class room training.
- A fulltime Project Monitoring Unit (PMU) has been setup since the inception of the project. The PMU monitors the project implementation.
- Social media platforms are being used in few areas like training of e-Nidhi.
- Google-Groups – Google groups are formed for knowledge sharing and information exchange between core users. This helped in providing the information sharing platform among the key users
- You Tube - The training videos are uploaded on You Tube, which helped in faster learning of the application and also in application adaptability

VALUE INDICATORS

Digital Inclusion

e-Nidhi would be used across the state by all users at state, district, mandal and village levels by employees and citizens. This will also cover the last mile beneficiaries like citizens, students etc.

Green e-Governance

e-Nidhi project will bring in ‘paper less offices’ in real sense as all the offices at all levels are connected and there is single source of truth for all the users. Through workflow and authorization management all approvals and payments relating to the human resource management and financial management are done online in a paperless mode leading to green e-governance. This green initiative is eco and environment friendly leading to the ultimate human welfare.

ICT infrastructure, the virtualization of servers has been adopted to reduce the number of servers required for installation.

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MOBILE BASED DIGITAL STATE ASSET REGISTER

[Information Technology Department, Government of Bihar]

Dr. S. Siddharth, IAS

DESCRIPTION OF PROJECT

The “Mobile based Digital State Asset Register” is a joint initiative of Information Technology Department, Government of Bihar and National Informatics Centre, Bihar.

This project has been conceived to establish mobile framework for monitoring of the building projects, road projects, plantations, nursery, health facilities, electricity network, to strengthen asset management, project management and other related functions for improved planning & execution mechanism. It has been envisaged deploying a software solution using I-pad/ tablet/ Mobile phones such that requisite information / photos / videos from work site can be captured and populated in the centralized system as well as the existing MIS software. The MIS reporting solution envisages a centralized computer/ server system, which is capable to be used for collection of various data from field units either through the use of web application or using the medium of mobile SMS/GPRS/ 3G. The application is capable of generating the compiled MIS reports with detailed analytics. It provides Analytical Dashboards with various types of graphs, charts & diagrams from the real time data, display of vital information in the form of Tickers on the portal for top management. Senior officers’ can view summary daily/ weekly/ monthly reports, State-wise/ Project-wise/ Location wise reports etc. on their desktop or mobile phone. The application also provides protection mechanism for preventing unauthorized use in cases of phone theft/ lost. Supports automated escalation mechanism to the organization hierarchy.

The MIS reporting solution envisages a centralized computer/ server system, which is capable to be used for collection of various data from field units either through the use of web application or using the medium of mobile SMS/GPRS/ 3G or mobile app.

Mobile government, sometimes referred to as m-Government, is the extension of e-Government to mobile platforms, as well as the strategic use of government services and applications which are only possible using cellular/mobile telephones, laptop computers, personal digital assistants (PDAs) and wireless internet infrastructure. In addition, m-government is a better option compared to e-Government in delivering services and public information to citizens due to its nature of being available anywhere, anytime and from any internet enabled

device. Mobile Government addresses the mobility of Government itself. m-Government is not meant to be a replacement for e-government but a complement to e-government.

A Centralized on-line web based system has been setup to be used for collection of various data from field formations through the medium of I-PAD/ TABLET/ MOBILE SMS/GPRS. It ensures generation of compiled MIS reports with detailed analytics, Mass SMS broadcasting, citizen query response system etc. The system is a role based which integrates Web, GIS and Mobile technology to deliver location specific decision making so that dynamic decision making at different level of governance can be supported. Mobile Governance is catching up very fast and various mobile based channels are being leveraged to deliver the services to the citizens through mobile devices. SMS is most widely used for status, alerts and notifications. USSD is now catching up slowly. M-Governance aims to provide government services to the people through mobile phones and tablets. m-Governance is 'a strategy for the implementation of Governance and its implementation involves the utilization of all kinds of wireless and mobile technologies, services, applications, and devices. It improves upon the benefits for those involved in e-governance, including citizens, businesses, and all government units. This e-Governance service has been developed as the core infrastructure for enabling the availability of public services through handheld devices.

Salient Features of Initiative include

- The application is capable of generating the compiled MIS reports with detailed analytics.
- It provides Analytical Dashboards with various types of graphs, charts & diagrams from the real time data, display of vital information in the form of Tickers on the portal for top management.
- Senior officers' can view summary daily/ weekly/ monthly reports, State-wise/ Project-wise/ PIU-wise reports etc. on their desktop or mobile phone.
- The application has protection mechanism for preventing unauthorized use in cases of phone theft/ lost. Supports automated escalation mechanism
- A Centralized system setup to be used for collection of various data from field units through the medium of I-PAD/ TABLET/ MOBILE SMS/GPRS.
- It ensures generation of compiled MIS reports with detailed analytics, Mass SMS broadcasting, citizen query response system etc.
- Provides Physical and Financial Progress Reporting of Schemes
- Facility for Uploading of geo-tagged Photographs
- Status of Fund Release across locations
- Alerts to field formations on deadlines

- Project cycle Management of Plantations and Nursery
- Release of News Items for Public
- Inspection Services for Senior Officers

RESULT INDICATORS

Benefits obtained

- Transparency in Processes, quality enhancement in planning and execution and Productivity linked release of funds
- Real time monitoring of progress and quality of work Control on false and suspicious reporting
- Reporting from field formations through geo-tagged photographs. In order to empower citizens and providing them tool for social audit in more visual manner, this tool can be very effective.
- Citizen can know about various schemes and their progresses being carried out. Spatial analysis helps to understand distribution, coverage and access to these facilities.
- Departments can easily monitor schemes being carried out and accuracy of decision making can be improved.
- Introduction of GIS technologies bring in focus existing spatial reality which lead to dynamism and transparency in the nature of working, in order to overcome problem issues related to planning, development monitoring & decision-making.
- Establishing/Integrating GIS system for data organization and management for existing infrastructure and its coverage, with appropriate technology framework and standards may go a long way in reaping benefits of collaborative dynamic environment and may lead to large scale benefits.
- Automatic enforcement of Onsite reporting cycle and policies.
- Geo-tagged Asset Register helps in planning additional resources required for citizen.
- Coverage or Non-Coverage Analysis helps to identify re-organization needs of Assets.

Implementation coverage till date

The coverage area of the application includes:

- 38 (Thirty Eight) districts of Bihar
- 534 (Five Hundred and Thirty Four) Blocks of state of Bihar
- 8463(Eight Thousand Four Hundred and Sixty Three) Panchayats
- Major State Assets include Rural Roads, Schools, Aganwadi Kendra, Electrical Transmission Networks, Bridges, Forest and Plantations, Nursery, PDS Shops, Archaeological Sites, PACS, Horticulture Centre etc.

- Departments such as Building Construction Department, Food and Civil Supply, Co-operative, Youth art and Culture, Education, Health, Rural Works Department, Irrigation Department, Public works Department, Public Health and Engineering, Forest, ICDS, Banks, Post Offices, Election, etc. State Government has already notified for implementation of the project across different departments.

ENABLER INDICATORS

Process re-engineering

Parameter	Earlier System	New System
Quality of Reporting	Incomplete and Biased	Near Accurate
Reporting Lag	2 to 3 months	Up-to-date
Frequency of Visit/Inspection	4 Months or more	As per time schedule specified
Quality Enforcement / Monitoring	Poor Quality Data	Best quality data with supporting evidence
Transaction Volume	Very less	Now in Crores
Online Data Updation	2 to 3 months behind	Up-to-date
Validation of Schemes	Limited Validation	Online Validation Procedure
Automatic Preservation of Inspection Details	Not Available	Good Quality Records being maintained
Transparency	Less Transparent	Transparent
SMS Alert	Not Available	Transaction based SMS Alert

Security and confidentiality standards

Role-Based Access Control (RBAC) is attracting increased attention in commercial systems. RBAC is based on modelling organizational-specific access control policies. The main components of RBAC are users, roles, permissions, user-role assignments, and role-permission assignments. Access control is enforced in terms of roles. Intuitively, when initiating a session, a user may activate any roles that he or she has been assigned to and use the union of corresponding permissions.

VALUE INDICATORS

Digital Inclusion

In order to make application reach to masses local language interface in Unicode has been added so that information so provided can be used by large set of people. Applications are accessible both for citizen and for government functionaries as per needs. Application has been hosted on internet to facilitate

large number of public to access the services. Easy navigation facilities, help files make it accessible to larger audience.

Green e-Governance

- The project has tried to popularize its motto of “**THINK BEFORE PRINT - save trees**” among stake holders and citizen.
- Special training sessions are conducted for participants on Green ICT and its impact.
- Schedule tasks that need computer processing to be done in a block of time
- Operate computers, printers and other IT equipment with proper ventilation.
- Use virtualization on servers, when available, to allow multiple operating systems to run on each machine.
- Use e-mail when possible rather than fax to save on paper and energy used.

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CITIZEN SERVICE DELIVERY THROUGH 'LOK SEVA KENDRA'

[Department of Electronics & IT, Government of Chhattisgarh]

Saurabh Kumar

DESCRIPTION OF PROJECT

Establishment of Lok Seva Kendra's by Government of Chhattisgarh has been envisioned for delivery of citizen centric services according to the timelines mentioned in the "Lok Seva Guarantee Act - 2011" and thus ensuring the efficiency, transparency and reliability.

The project for establishment of Lok Seva Kendra was conceptualized in 2013. Procurement and delivery of front-end items; development of application software, server hardware/software, identification of place for Lok Seva Kendra, networking & electrical work in Lok Seva Kendra & Government . offices, appointment & training of LSK operators, UAT of application etc. was completed in 1st phase and subsequently application is running at all the Lok Seva Kendra at 27 Districts and 140 Blocks.

The major objectives of this project are as below:

- Efficient delivery of services with improved Service Levels by undertaking extensive Business Process Re-Engineering of identified services.
- Providing easy, anywhere and anytime access to Government Services (both Information & Transactional) to ensure reliability, efficiency, transparency and accountability.
- Reducing number of visits of citizens to a Government office / department for availing the services and thereby eliminating harassment.
- Reducing administrative burden and service fulfilment time & costs for the Government, Citizens & Businesses
- Reducing direct interaction of citizen with the Government and encourage 'e'-interaction and efficient communication through portal.
- Enhancing perception & image of the Government and its constituent Departments.
- Simplify application submission and delivery of citizen centric services
- A single window experience for citizens to apply for various citizen services.
- To establish electronic Citizen Service Centers across Chhattisgarh State to deliver more than 34 e-governance services.
- To create a centralized database to store critical business data for accurate and correct information since these applications have legal implications and to handle personal and private information of the citizens.

- To provide easy access to information by enabling senior managers and staff to access data across different departments via a web based interface.

32 high volume Citizen Services were selected for implementation through Portal. Citizen can avail the services by visiting a nearest 'Lok Seva Kendra' or from his/her Mobile via "mCHOiCE" Mobile app (Android/iOS) or from State Portal www.cgstate.gov.in Also, citizen (beneficiary) gets updated about the status of his/her application through system generated SMS. SMS is generated at each stage of application processing. Once the application has been approved; Citizen (beneficiary) can take print out of digitally signed certificate.

The Project was implemented in 1 year. The project is implemented within defined timeline under guidance of Chief Secretary and with support from the District administration and line departments.

A dashboard has also been developed for monitoring the overall operation of project. The dashboard displays the various reports and details of real time and historical transactions.

Establishment of Lok Seva Kendra's across the state has helped in easy, hassle free and timely delivery of services to the Citizens of the state.

The project got a wide acceptance, which can be gauged from the fact that during the last 6 months, more than 4 lakh transactions have been done and more than 3 lakh certificates have been delivered to the citizens.

RESULT INDICATORS

Various services of different category including certificates like Birth Certificate, Death Certificate, Marriage certificate, Income Certificate, Caste Certificate, Domicile Certificate in category of certificates; RTI filing and pension services under RTI/Grievance Category; Pension services under Social Welfare category; services related to revenue court, ration; property tax and water tax payment as utility services; License, permission, employment registration transport etc. are being provided through Lok Seva Kendra's.

The Lok Seva Kendra act as 'one stop shop' for these services. Applicant can submit the Application and supporting documents through Online system and can collect the Certificate/License copy etc. from Lok Seva Kendra.

The Project is right example of 'Minimum Government and maximum Governance' as this ecosystem helps to reduce the physical movement of Citizen and Documents hence result in overall cost saving for all stakeholders. Also, the

minimum face to face interaction of Citizen and Government reduces the chance of corruption. All the services have defined SLA for the service delivery. The breach of SLA is highlighted in the MIS and this helps the Departmental heads to track the performance of Government Officers.

Online mode of delivery of services helped in creating centralized database of all the records which in turn will come handy for verification purpose and providing a copy of the issued certificate.

Renewal of food registration, trade license, shop & establishment registration, land use certificate, BPL certificate, non-availability certificate, scholarship etc. are being planned to be provided through Lok Seva Kendra in near future.

Currently services are being provided up to block level across all the Districts of the state. 173 Lok Seva Kendra's have been established for delivering services to citizens in 27 Districts and 140 Blocks of the State.

ENABLER INDICATORS

Process reengineering

- Forms of some of the services like Pension services were redesigned.
- End to end ICT based workflow is introduced to remove manual movement of forms and supporting documents.
- Biometric authentication and Digital signature are included to reduce chances of fraudulence and make the Digital document authentic.

Change Management and Capacity Building

- Chief Secretary of the state, Officials of General Administration Department and Department of Electronics & IT are monitoring the project at state level. District e-Governance Society(DeGS) headed by Collector has been formed in all the Districts of the state which reviews & ensure time bound & hassle free delivery of services through Lok Seva Kendra. e-District Manager has been appointed in the Districts to manage & monitor the delivery of services through Lok Seva Kendra's.
- Change management and Capacity building strategy - Regular training to end users(Government . user & Agent) is being given under this project. Training has already been given to around 2000 officials / operators under this project. Live training on application software is given to the users so that answer to the queries of the users can be given at the time of training itself. Feedback form during training is provided to the users; suggestions of the users

received during training are due taken care of and implemented in the application. Help manual on e-Governance Sensitization, application, services etc. has been made and is available on portal for users.

VALUE INDICATORS

Digital Inclusion

The portal interface is completely available in English as well as local language (Hindi) in order to cater all type of users. In Hindi users can use all the available input options including in-script, Devnagari, Remington, Phonetic etc. This has helped all the end users to use the application irrespective of the language and input mode.

Green e-Governance

There is no manual process involved in the system right from the submission of application till approval of the application as the approval is also done using Digital signature. Even the printout of the digitally signed certificate can be taken directly by the citizen. Manual application to avail the citizen centric government services requires 1-2 to 16-17 nos. of documents/pages to be submitted along with the application. Use of online mode and scan copy of documents has resulted in saving of hardcopy/pages of those documents which has further helped to reduce the carbon footprint in the state. Approx. 20 lakh pages have been saved during the last 6 months by use of online mode of service delivery.

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eTAAL (ELECTRONIC TRANSACTION AGGREGATION AND ANALYSIS LAYER)

[Ministry of Communications and Information Technology,
Government of India]
Dr. Shefali Sushil Dash

DESCRIPTION OF PROJECT

"Measurement is the first step that leads to control and eventually to improvement. If you can't measure something, you can't understand it. If you can't understand it, you can't control it. If you can't control it, you can't improve it." - H. James Harrington

A large number of e-Governance applications are being implemented in the country by the central and state governments and organizations for ensuring efficient, affordable, transparent and convenient service delivery to citizens. Several of these initiatives have national importance and are included in the country's IT strategy. Some applications use internal performance measurement mechanisms defined through service levels and Key Performance Indicators (KPIs), but there is no standard government-wide criterion or metric to evaluate the impact of all initiatives. Also, there is no generally accepted metric for comparing particular eServices /applications implemented horizontally across states. In view of the rapid growth in the number of services delivered through electronic means in India, Department of Electronics and Information Technology (DeitY) under Ministry of Communications and Information Technology, India and National Informatics Centre (NIC), the nodal information technology arm of Government of India, identified **number of end-to-end electronic transactions as the best indicator for measuring real-time performance of e-Governance service** delivery to citizens.

Accordingly the **Electronic Transaction Aggregation & Analysis Layer (eTaal) portal** (URL: <http://etaal.gov.in>) was developed to provide an aggregated view of eTransactions performed through e-Governance applications implemented including, but not limited to, the national-level mission mode projects (MMPs) under the National e-Governance Plan (NeGP). eTaal automatically pulls the e-transaction count, but not the personal details, from the applications using web service technology. The dashboard also facilitates **quick analysis of data** of various applications in **tabular as well as graphical form** enabling users to drill down to the lowest level of detail without compromising security and integrity of the servers from where data has been captured.

To facilitate better analysis and more effective decision-making, services have been classified into six categories:

- **Category A**, comprising all Statutory Services e.g. payment of taxes by citizens (Income Tax/VAT, etc.), payment of subsidies/scholarships/social benefit transfers, etc. and Non-statutory services e.g. services delivered under agriculture/rural development schemes, etc.,
- **Category B** (Utility Bill payments) e.g. water/telephone/electricity bill, e-Municipality services, piped-gas bill, etc.,
- **Category C** (B2C Services) e.g. banking transactions, mobile/DTH recharge, etc.,
- **Category D** (Informational Services) e.g. information access from various e-Governance portals/websites, downloading of forms, tenders, enquiry (such as passport status, railway passenger (PNR) inquiry), etc.,
- **Category E** (Social Benefits) e.g. repetitive government disbursements to citizens like social sector pensions, scholarships, etc.,
- **Category F** (Mobile Governance) e.g. end-to-end services delivered through mobile devices.

The present system deals with quantitative analysis only, whereas, plan is afloat to develop eTaal 2.0 to address the qualitative aspects of service delivery, thereby, bringing in the concept of 'QUANTILITY', which means 'QUANTity' with 'qualITY'. A weighted average system is being worked out for qualitative analysis of this data and ranking the projects and states on standardised parameters.

eTaal has been appreciated with several awards for its efficient work and qualitative analysis of the various services across the nation, e.g. **SkochPlatinum Award 2013** and **eINDIA Awards 2014**. eTaal Research Paper for **International Conference on Theory and Practice of Electronic Governance (ICEGOV) 2014** was published by **ACM Digital Library** in 2015.

RESULT INDICATORS

Key Performance

A large number of services are being provided by the state in various sectors. eTransaction count for services has been increasing on yearly basis and approx. 2833 eServices from 21 central ministries and all 36 states and UTs have been registered with eTaal as on 31st August 2015. Approximately 551 client connectors have been integrated with eTaal to aggregate the transaction count of the respective projects as on 31st August 2015. This reflects the government-wide acceptability of eTaal. It has been observed that name of a particular service

varies from state to state. To facilitate ease of classification, meaningful aggregation and uniformity of presentation at national level, the services have been categorised into 30 standard services.

- **Services that are currently being delivered using ICT**

eTaal serves as a platform for providing integrated, **real-time aggregated view of eTransaction** statistics for major e-Governance programmes which are Government -to-Citizen (G2C), Government -to-Business (G2B) and Business-to-Citizen (B2C) in nature.

Benefits obtained

- **Central ministries/ state & UT governments/ departments**

- To measure the effectiveness of various e-Governance applications in clear and unambiguous terms,
- To view the growth in the number of eTransactions recorded and number of citizens availing the services through electronic means over a period of time,
- To view a huge amount of information easily on a single platform without the overhead of running multiple applications / reports to view the transaction count for each service,
- To facilitate easy identification of outliers and correlations and enable the authorities / users to make more informed decisions and align strategies and organization goals accordingly,
- Provides the means to evaluate performance of a project in the highly technical IT / e-Governance field through a completely non-technical metric and places the real-time information proactively in the public domain allowing any citizen, research scholar, academician or civil society activist to drill down to the lowest level of implementation,
- Helps in analysis of spatial and temporal growth of eTransactions and number of citizens served,
- Facilitates comparative analysis amongst different administrative units.

- **Academic institutions and researchers**

- To understand the e-Governance scenario in the country and identify potential areas/ sectors for improvement,
- Helps the research organisations in drafting the research papers on the e-Governance initiatives being undertaken by various states and their evaluation on overall performance.

- **Non-governmental organisations**

- Comparative analysis of similar services delivered across states and identify laggards to focus their attention,

- Helps to select winners for e-Governance service delivery awards instituted by various organisations based on the eTransaction data.
- **Citizens**
 - Access the list of mission mode and other major e-Governance Projects on a single portal,
 - To know the categories and standard services being delivered electronically,
 - Convenience of ready access to url for applying online for services required..

Implementation coverage till date

eTaal portal covers eServices delivered to the citizens across the country. Data is being captured for approx. 2847 eServices from 21 central ministries, 36 states/UTs and mission mode projects (MMP). Around 1078 crore transactions have been recorded till 31st August 2015 since the inception of the project in 2013. Facility is provided to capture census code of each service delivery point so that reports can be drilled down to the lowest level of geographical entity. In case of CSCs, the data is captured till the village level and in case of NOFN till the block level.

Efficiency and Improvement Initiatives

The eTaal portal has been developed and maintained in-house by NIC. It has published sample codes for data sharing through web services so that the provider organisations do not have to invest time and money for development of software for integration with eTaal. The eTaal pulling engine automatically pulls data from the designated servers through secure channel at pre specified time intervals, thereby eliminating the need for manual intervention for data collection. This has resulted in saving government expenditure and improved performance. Since the connectors established once will function seamlessly till the services are discontinued, there is no recurring cost, which makes eTaal self-sustainable.

Specific innovative ideas implemented in e-Gov area and their impact on services

- Transaction data is automatically collected from the operational systems delivering services using web service technology, thereby eliminating human intervention, reducing possibility of delayed/ wrong reporting as well as erroneous data entry,
- Data from about 551 servers are being pulled for approx. 2833 eServices at pre-defined frequencies so that eTaal portal is updated every 3 seconds without any human intervention,

- The portal is configured to generate state portals on the fly depicting eTransaction data for the particular state only,
- Location code and service code are integrated with each service so that information can be drilled down to the lowest level of data capture,
- eTaal dashboard has been developed in a generic mode for easy replication,
- Scalable and interoperable service oriented architecture is used,
- The centrally hosted portal is system and platform independent and can access data from any environment /database and can be accessed from any computer/ mobile device with internet access,
- eTaal offers an interoperable interface across diverse systems and organizations. All client connectors are capable of communicating and exchanging data in standardised data formats and communication protocols. A common exchange reference model is devised and guidelines are framed with the content of the information exchange requests,
- SMS/ email alerts are auto generated for exception handling.

ENABLER INDICATORS

Process reengineering.

- Automated information flow (in summarized form) from e-Service provider to various stakeholders,
- Near real time consolidation of e-Transaction count for its graphical representation with drilled down facility up to lowest level of data capture,
- Online enrolment of web service feature is also incorporated,
- State and Central PMC has been setup. eTaal provides interface where any e-Service can be approved or rejected online,
- Comparative analysis based on different eService parameters like location, service type, month & year, etc. are being provided,
- The normal procedure for monitoring a project is by collecting information from the stakeholders, either through paper reports or online MIS. However, this addresses only one or at the most few related projects at a time. eTaal transcends the boundaries of sectors, projects and or geographic locations. This is a single portal integrating all e-Governance projects transcending central and state governments across the country,
- Without changing the existing systems/ workflows, eTaal extracts the transactional data and aggregates for global analysis. This eliminates overheads for data collection and collation without compromising on privacy and security of data.

Change Management and Capacity Building

- DeitY not only conceptualised the project but also developed the application, played an advocacy role and brought all central ministries and state/UT governments on board for providing an effective platform for sharing eTransaction information. Shri J Satyanarayana, the then Secretary, DeitY, focused the department's attention on developing a single standard metric for evaluating the success and outcome of e-Governance initiatives in near real-time,
- The eTaal dashboard was created through in-house development team in NIC. The dashboard and the data pulling engine were tested against NIC developed and operated e-Governance projects in central ministries and state / UT governments. Once the robustness of the application was established and tested, a formal communication was sent from Secretary DeitY to all Secretaries in Government of India and all Chief Secretaries of states/UTs requesting integration of their citizen centric services with eTaal,
- The eTaal team organised discussions with NIC officials in central ministries as well as in all states/UTs to explain the concept to them and to ensure development of web services to pull data from e-Governance applications with the consent and authority of the application owners,
- The eTaal application was demonstrated to the IT Secretaries of all states/UTs in the IT Secretaries conferences, the NeGP Apex Committee chaired by the Cabinet Secretary as well as the Steering Committee on NeGP chaired by the Hon'ble Prime Minister. The comments and suggestions received during these meetings were incorporated in eTaal.
- Organising workshops, training and media awareness programmes for promotion of the dashboard.
- Transform existing e-Governance services into end-to-end electronic workflows thereby leading to efficiency gains and optimal realisation of the potential of Information Technology.

VALUE INDICATORS

The main objectives of eTaal project are to:

- Provide quick view of end to end eTransactions performed (self-service or assisted access mode) captured on a near real time basis,
- Act as a performance indicator for e-Governance service delivery,
- Provide quick analysis of transactions in tabular and graphical form based on the service, time-period, state / department or geography,
- Enable the ministries/departments implementing e-Governance projects to get a near real-time view of the impact of their projects and take remedial steps or interventions where ever needed.

Digital Inclusion

- **Language:** eTaal portal is Unicode compliant. Currently, the application is available in English and Hindi language only with data from some states in their respective local languages. Labels in other languages need to be captured for enabling these languages.
- **Demographic:** eTaal provides near real-time transaction count starting from national level upto the lowest level of data capture.
- **Cultural:** State eTaal portals are generated on the fly, enabling the concerned state government officials to monitor, analyze and plan their state specific services.

Green e-Governance

eTaal is an **electronic dashboard** for providing near real-time aggregated view of eServices being delivered across different states and levels of government. It captures eTransactions performed under various e-Governance projects in an automated manner at predefined frequencies, thereby minimizing human intervention, eliminating need for paper based reports being exchanged by post, fax, etc. This conserves paper and energy. The **android mobile app** further reduces energy and bandwidth requirement.

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CENTRALIZED PROCESSING CELL (TDS)

[Income Tax Department, Government of India]

Vinay Kumar Karan

DESCRIPTION OF PROJECT

Tax Deduction at Source (TDS) is one of the means of collection of direct taxes. TDS constitutes nearly 40% of the direct tax collections. Since the information submitted by the deductor in the TDS statement, forms the basis on which the deductee is given the credit of taxes, therefore, there was a need to have a robust mechanism that ensures correct, reliable flow of data to the database of Income Tax Department and its collation on the basis of taxpayers' identifier (Permanent Account Number).

Centralized Processing Cell for TDS (CPC-TDS) has been conceptualized to undertake end-to-end processing of TDS Statements through a Rule based Technology enabled system, leading to uniform results and faster turn-around-time, ensuring seamless flow of data for tax credits. CPC-TDS introduces transparency in the processes through online display of information and provides an integrated platform for tax deductors, taxpayers and the officers of the Department. Thus, it forms the backbone of overall TDS administration in the country.

CPC-TDS is a technology driven transformation initiative for TDS administration that provides a comprehensive solution through Tax Deduction, Reconciliation, Analysis and Correction Enabling System (TRACES), its core engine. CPC-TDS undertakes processing of TDS Statements to generate "Annual Tax Credit" statements for each taxpayer in form of 26AS, TDS Certificates in Form 16/16A and identifies TDS Defaults of Short Payment, Short Deduction, Interest etc. CPC-TDS reconciles and correlates information from various sources including Banks (tax payment), Deductors (reporting tax deduction), Assessing Officers (mapping of no/low tax deductions) and Tax Professionals (reporting International transactions)

CPC-TDS aims to achieve the following objectives:

- Establish bulk operations by provisioning a technology platform to administer resource intensive time consuming processes in TDS administration to enable filed formation to focus on enforcement
- An integrated technology driven platform that provides consistent data to all its stakeholders to achieve robust TDS administration, by integration of the

three platforms viz. Tax Information Network, the Directorate of Income Tax (Systems) and the Field Officers of the Income Tax Department. Address the issues of TDS mismatch and TDS frauds, providing end-to-end visibility of TDS transactions in 26AS to all relevant stakeholders through technology driven reconciliation.

- CPC-TDS has ushered in a new feature in policy making that is driven through Business Analytics, Sensitivity Analysis and Risk Profiling of Deductors. While taxpayer centricity remains at the core of the initiative, CPC-TDS actively partners in the nation building process through a robust revenue generation apparatus, progressive tax policy, effective tax administration and seamless voluntary compliance.

RESULT INDICATORS

G2C: Government to Citizen:

- CPC-TDS for Taxpayers:
- View TDS/ TCS Credits and 26AS at TRACES, Direct access through e-filing site of Income Tax Department or through net banking facility
- Form16B (TDS on Purchase of property) & Corrections
- TRACES Access to NRI Taxpayers from outside India
- CPC-TDS for Deductors:
- TRACES (<https://www.tdscpc.gov.in>): Single Window service delivery
- Comprehensive Dashboard
- Online Intelligent Corrections
- View Defaults Summary
- Digital TDS Certificates
- Aggregated Compliance Report
- Status tracking facility
- e-Tutorials/ FAQs, Circulars and Notifications,
- CPC-TDS Communications based on data analysis

G2G: Government to Government:

CPC-TDS for Assessing Officers:

- CPC-TDS provides a platform for enabling the e-office in TDS offices of the Income tax department based on Hub-Spoke Model. Over 500 Officers of the Income Tax Department (administering TDS provisions across India) connect with CPC-TDS through its Intranet services.
- CPC-TDS has provided a facility for 'Online Generation of Notices and Orders' required for enforcement of the TDS provisions. All statutory

functions now are to be carried out through the e-enabled system. The field offices are being prompted to upload supporting document to ensure audit trail & e-office. Thus, CPC-TDS is able to capture all the data related to the enforcement functions carried out by TDS officers of the Income tax department.

- CPC-TDS also provides visibility to the Field Officers as regards grievances of the deductors/ taxpayers related to their jurisdiction. In this manner a need for visit to the Income tax office for redressal of grievances is being minimized.
- For Capacity building within the Organization, CPC-TDS provides a platform for sharing of knowledge and best practices amongst TDS officers of the department.
- CPC-TDS has put in place technology platform that promotes & prompts paper less office & paper less delivery of intimations letters etc. Eventually paper based notices, intimations, letters are being replaced by email, SMS, website driven delivery to deductors.
- The CPC (TDS) system performs analysis of centralized reliable data. The Trend and Pattern Analysis are being used for effective enforcement actions by Field Income tax Officers, such as Risk profiling and Geographical hot spots (spots having large number of defaulters based on pin codes) identification of potential defaulters viz. Non-filers, late filers, high risk deductors, etc. Field authorities stand empowered and equipped to take up the enforcement work in effective and efficient manner.
- Comprehensive functionalities on AO Portal to manage enforcement functions, viz. Scrutiny, Penalties and Prosecution through a workflow based system brings in immense efficiency for Assessing Officers.

CPC-TDS for Central Board of Direct Taxes:

- Reliable Source of Data for Policy Formulation and Social Policy Planning: The output of analytical tools acts as an input for effective policy formulation. As an example, the data related to Foreign Remittances available with CPC (TDS) forms useful input for negotiation of Double Taxation Treaties.
- The demographic profile of the taxpayers and the nature of transactions forms a valuable input for social policy planning.

Benefits obtained

G2C: Government to Citizen:

- With a robust tax reconciliation mechanism put in place through the CPC (TDS), the tax payer is given accurate and timely credit for the taxes

paid/deducted. This has led to faster refunds and minimal grievances. The savings for the tax payers include:

- Cost of maintaining voluminous physical TDS certificates.
- Cost involved in reconciliation of taxes with the deductors
- Cost involved in submitting income tax returns in paper form with annexures.
- CPC (TDS) has saved the taxpayers physical visit to Income tax offices for redressal of their grievances through enablement of ‘Online Integrated Grievance Portal’. Turnaround time to address such grievances stands reduced substantially on account of the integrated interactive platform.
- With the rolling out of ‘Online correction’ through TRACES portal of CPC-TDS, the deductor is able to file correction statement “anytime anywhere” without any physical visit to TIN-FC. Further, with no ‘uploading fee’ for filing online correction, there is saving of cost for the deductors on both accounts viz. physical visits and filing charges.

G2G: Government to Government

- The CPC-TDS has taken over the drudgery work of the Field Assessing Officers, involving printing & dispatch of Intimations. Thus, the Field Assessing Officers can now focus their time and energy on Compliance related tasks.
- The CPC-TDS is providing TDS related services to over 2.7 lakh Government Deductors and over 7,000 Principal Accounts Officers in all the Central Government Department and all State Governments. The services, being provided through CPC-TDS, encompass Treasury Offices in all Districts across India & All departments including Defence, External Affairs, Para-military, Post Offices, Civil Ministries, Indian Embassies situated outside India.

Implementation coverage till date

- CPC-TDS services its stakeholders spread all across the country. TDS statements received from all over the country are processed in a jurisdiction-free manner. It works on “HUB-SPOKE” model, where CPC-TDS is the hub for e-delivery of services to all its stakeholders. The TDS offices located all over India act as extended delivery centres through the e-office model. Apart from the web based services offered through TRACES, CPC-TDS connects with its stakeholders through following channels:
- All agency Banks in India are integrated with CPC-TDS website for providing ‘Tax Credit Statement (26AS)’ information to their account holders through respective Banks’ websites. 35 banks are linked to the CPC-TDS system through secured channels for transfer of information;

- E-filing website of the Income Tax Department: Around 4 Crore registered users of e-filing website of the Income tax Department (www.incometaxindiaefiling.gov.in) have online access to the CPC-TDS website without any additional registration
- Over 500 Officers of the Income Tax Department administering TDS provisions across India connect with CPC-TDS through its Intranet services. In addition, a dedicated Helpdesk for assistance to these Officers has been enabled.
- The Inbound Call Centre, with a toll free number 1800 103 0344 is accessible to all stakeholders for immediate assistance during business hours 6 days a week.
- CPC-TDS has provisioned for easy and convenient services to its stakeholders across globe through email.
- An Online Grievance module is available for the benefit of deductors, through the CPC-TDS website.
- Written queries, grievances and letters can be sent to CPC-TDS. CPC-TDS has a fully automated ‘Document Management System’ in place where physical letters are digitized and processed through an elaborate digital workflow.
- CPC-TDS extends service coverage to its stakeholders not only within the entire country, but also to the taxpayers living abroad, that fall within the ambit of Income Tax Act 1961.

Specific innovative ideas implemented

- **Integrated interactive platform:** The integrated platform has ensured complete transparency in the system providing a common platform for all stakeholders. The features provided by commissioning of CPC-TDS have made possible a paradigm shift in overall TDS administration framework. The framework supports availability of single version of information for all stakeholders through an e-enabled platform, facilitating homogeneity, integrity and accessibility.
- **Availability of end-to-end e-Services:** CPC (TDS) envisioned providing end-to-end online services, with provision of information, which is authentic, accurate and verifiable. The verified single version of truth, through reengineering, has eliminated any possibility of ambiguity of information. The facility of online validations built into the system has features of facilitating and guiding the user with availability of relevant information.
- **Early engagement:** CPC (TDS) has adopted innovative strategy to engage the deductors in the initial stage of processing of TDS statement. It provides a window to the deductors to correct their typographical mistakes at an early stage facilitating online revisions to the data reported through statements.

The deductors are notified of the errors committed, before TDS Defaults are computed, bringing huge savings on account of printing and postage of Intimations. This also ensures timely availability of correct Tax Credits for the taxpayers.

- **Proactive dissemination of Information:** CPC-TDS consistently engages in a dialogue with its stakeholders through its Communication programme, spreading awareness and educating for better use of functionalities, in order to drive voluntary TDS Compliance. Over 3.5 crore focused educational/awareness emails on key risk areas in TDS compliance have been sent to specific audience sensitizing them on several issues.
- **Institutionalized Constant Feedback process:** CPC-TDS consistently engages with the deductors availing its services taking their feedback on satisfaction. Apart from web based feedback system, a sample of deductors who have connected with CPC-TDS in a week for resolution of their grievances are called back and their satisfaction levels are assessed. This facilitates enhancement and enrichment of CPC-TDS services. CPC-TDS connects with average of 1,000 deductors on a consistent basis in a week to assess satisfaction levels and takes relevant actions for improving grievance redressal mechanism.
- **“Callback” option on IVR:** CPC-TDS has provisioned for a “Call Back” facility on its IVR at the Inbound helpdesk. The caller has to select the option and CPC-TDS connects back within 24 hours to provide assistance. This facilitates convenience and saving of time for the caller requesting assistance from CPC-TDS.

ENABLER INDICATORS

Process reengineering

Integration of Processing Systems:

- Integration of 3 stage processing systems facilitating bi-directional flow of information
- Technology driven capability for processing high volume of TDS statements
- Reconciliation of “Tax Deducted” with “Tax Credit” Claimed
- Centralized Accounting system
- Integrated platform for deductors, taxpayers and Field Assessing Officers to interact

Issue of Digital Certificates/ Files:

- TDS Certificates issued by TRACES bringing in Uniformity
- Digital TDS certificates generated on the basis of data reported by deductors, assuring perfect match at the time of processing by ITRCPC
- Accurate Reconciliation of Tax deducted and deposited

- Certificates verifiable online through a unique reference number
- Justification Reports available online provide details of TDS Defaults prompting corrections
- Electronic copies of Conso Files downloaded from TRACES are used for submitting corrections
- Simple, Intelligent and user friendly – prepopulated data for submitting corrections
- Multiple facilities to correct PAN and Challan errors through addition, tagging and replacement
- Accessibility – Anytime, Anywhere
- Savings of Cost, Time and Effort

Centralized Issue of Intimations:

- Bulk generation of Intimations and dispatch from a centralized automated system.
- Capacity to dispatch 60,000 intimations per day.
- Intimations through emails, SMS, postal and online view on the dashboard
- Focus shift of manpower in the department towards enforcement of TDS compliance

Institutionalized Grievance Redressal mechanism:

- - Grievance redressal mechanism established by CPC-TDS discourages use of paper
- - Instant support has been made available through portal and Inbound helpdesk
- - Online Grievance redressal is a paradigm shift from traditional processes towards a digital regime
- - Comprehensive support mechanism facilitates end user convenience saving effort, time and cost.

E-Office for Departmental Officers:

- CPC-TDS acting as Hub for the filed officers
- Complete transparency, stakeholders can track action taken by others e.g. grievance handling
- Online repository of notices and orders
- Platform to share best practices
- CPC-TDS provided BI and Analytics Reports
- Focus on Enforcement actions
- Time barring action related alerts through system

Change Management and Capacity Building

The CPC-TDS leadership adopted effective strategy for Change Management and Capacity building for the project to ensure that Executive Leaders, Managers and Frontline employees worked in harmony to successfully implement technology driven solutions and processes. Income Tax Department put in place a separate institution of a Commissioner charge to manage day to day operations.

Consistent periodic Leadership reviews ensured visibility into the progress on execution and meeting timelines for various parallel tracks, delivering time bound successful desired outcomes.

The programme leadership also facilitated the change by deployment of the following means:

- **E-tutorials:** CPC-TDS made it a practice to release e-tutorial of any new functionality at the time of rolling out in the production environment.
- **FAQ (Frequently Asked Questions):** Detailed frequently asked queries with clarifications were hosted on the home page of the website.
- **Call Centre:** 30 agents Call Centre was set up to clarify inbound queries raised by the stakeholders.
- **Dedicated educational drive through targeted email campaign:** CPC-TDS initiated a novel practice of sending educational emails on the registered email-ids of the stakeholders.
- **Video Conferencing:** CPC (TDS) conducted training of the field assessing officers through Video conferencing facilities on “Train the Trainer” model in the department.

VALUE INDICATORS

With a robust tax reconciliation mechanism being put in place through CPC-TDS, the objective is to provide the tax payer with accurate and timely credit for the taxes paid, with a view to minimize grievances and reduce cost of compliance for all the stakeholders of TDS administration.

Digital Inclusion

- Income Tax Department has provided for “in-house” trained “Return Preparers”, who provide services with reasonable charges at localized centres, facilitating services across national geography, serving cross-cultural citizens irrespective of language.
- CPC-TDS provides bilingual support in English and Hindi currently for its Inbound Helpdesk and website portal.

Green e-Governance

- e-Governance practices adopted by CPC-TDS involve adoption of environmentally friendly solutions with respect to creation, use, and disposal of ICT facilities. The focus of the initiative has been to reduce usage of paper and encourage end users to adopt digital means.
- Provision of digital TDS Certificates, Consolidated files, Justification Reports and other MIS reports enabling digital use and reduce paper.
- Option of no intimation through paper, which can be exercised by the deductors, saving paper, printing and postage costs.
- Comprehensive E-offices for the field formation facilitates redundant usage of paper

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ReALCRaft-REGISTRATION AND LICENSING OF FISHING CRAFTS

[Ministry of Agriculture, Government of India]
T. Mohana Dhas

DESCRIPTION OF PROJECT

Coastal Security has been recognized as one of the primary concerns to the Government of India and security agencies including armed forces and navy due to the increasing nature of threats through sea. Registration of all types of vessels across the coastal areas including fishing crafts is one of the significant steps taken by the Government to facilitate constant vigil and monitoring of the movement of vessels through sea. Along with the registration of fishing crafts and vessels, Government has also initiated steps for the unique identity of vessels and ownerships to enable activities like rescue operations, search operations, and also to introduce welfare programmes for the public.

Real Craft (Registration and Licensing of Fishing Crafts) is a workflow-based online application system for the registration of fishing vessels working along the Indian coast. It is a national project sanctioned by the Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Government of India for implementation in all coastal states and UTs.

Under Real Craft, each fishing vessel operating in the nine coastal states and four Union Territories (UT) is issued a unique registration number. Also, information of all fishermen is compiled and made available in a centralised database in NIC Hyderabad. Real Craft is developed under open source technologies using LAMP (Linux, Apache, MySQL and PHP) platform and uses Server, clients, scanners, bar code readers, UPS, laminating machines, and laser printers.

This model started way back in 2008, when Government of Kerala, disappointed with repeated cases of missing boats, lack of uniformity, multiple registrations, duplicate engines, etc decided to have a uniform system of vessel registration. Licensing is still issued under the MFR Act, since licensing rules vary from state to state. The registration of vessels gives a vessel a unique identity. Government is also planning to issue a boarding pass to all fishermen, every time they go out into the sea. This will allow security agencies an analytical insight on the numbers of trips made, including the fishermen who go out frequently.

ReALCRaft is a demand driven project to enhance coastal security by identifying every fishing vessel with a unique registration number.

Currently, Real Craft is operating in 164 locations with 5000 trained officials working in nine states and four union-territories and has brought about details of around 3 lakhs fishing vessels into one national database. It has helped coastal security agencies in uniquely identifying and monitoring the fishing vessels in the sea, keeping at bay illegal, unregistered and unreported activities. Real Craft improves coastal security, fishermen security, and ensures benefits such as kerosene and petrol subsidy along with insurance to fishermen.

The project also guarantees security for our fishermen. For instance if any of our fisherman is arrested and detained by foreign countries, Government can step in on the basis of information from ReaLCraft database and seek his release. The database will also be useful for rescue operations during critical emergencies. The officials who are involved in the process can easily handle the registration cases as it is developed on the basis of the official work flow. Since, it is a web-based application; officials can access the application even after office time, thus avoiding delay. People who benefit from the project include fishing vessel owners, security agencies like coast guard, navy, coastal police; fisheries department and related agencies of 9 coastal states and 4 UTs; Mercantile Marine Department; MPEDA; DGLL; insurance agencies, and state and union ministries. The registration certificate has a barcode, which helps the security agencies to trace the history of fishing vessels. It provides an online facility where vessel owners can stay updated about the status of submitted application. Recording of details of crew members venturing into sea for fishing will be clubbed with this system in the immediate future. This will further strengthen the arms of costal security agencies.

Benefits

- Helps coastal security agencies in uniquely identifying and monitoring the fishing vessels in the sea, keeping at bay illegal, unregistered and unreported activities.
- The project guarantees security for our fishermen.
- Improves coastal security, fishermen security, and ensures benefits such as kerosene and petrol subsidy along with insurance to fishermen
- Rescue management for instance if any of our fisherman is arrested and detained by Pakistani / Sri lankan authorities, we can step in on the basis of information on our database and seek his release.

Implementation details

- The ReALCRAFT Software successfully designed and piloted in Kerala; Gap Analysis was done to rollout software to all the 13 coastal States/UTs;

Software has been successfully customized for national rolling out in 9 Coastal State and 4 UTs;

- Site inspections done and provided technical guidance in site preparation at all ReALCRAFT Centres (166) in the country;
- ICT infrastructure procured, deployed and commissioned at all ReALCRAFT centres in the country successfully; 166 ReALCRAFT centres are networked through MTNL/BSNL's Broadband ;
- Series of training and sensitization programmes organised for the fisheries department officials (around 4000 officials);
- ReALCRAFT Software has been successfully security audited by CERT-IN empanelled third party auditor as mandated by the Ministry of Home Affairs;
- To ensure scalability, reliability and availability, security audited software has been deployed on secure dedicated servers at the NIC Internet Data Centre, Hyderabad (<http://www.fishcraft.nic.in>);
- Operational from 166 locations along the coastal line.
 - **Around 3 lakhs vessels have been registered**
 - **Around 800 users** are accessing the system
 - **Stakeholders** - Navy, Coast Guards, Marine Police, Fisheries Authorities, Ministry of Home Affairs, DRDO Labs associated with Coastal Security, DGLL etc.
 - **Legal issues** - Marine Shipping Act 1988 modified
 - **Security agencies like Coast Guards , DGLL** uses Registration No. (Unique) in their National Automatic Identification System (NAIS) for Fishing Vessels.

Specific innovative ideas

- System provides instant information on vessel structure, fuel capacity, life saving equipments and other crucial information to marine force using centralized database.
- Online facility to check the validity of the certificate for enforcement agencies.
- User friendly work flow based interface help to avoid delay in processing the application.
- Physical movement of the application to higher offices not required.
- Unique Barcode for individual certificates for better security.
- Alert messages to officers on impounded vessels and other important news.
- System generated registration number, license number, vessel identification number.

- Reduces malpractices in the fishing sector using duplicate engine registrations.
- Certificates with Bilingual Support.
- Enhanced Security features
- Integrated with DGLL, NPOL to identify any vessel
- Implementation of beneficiary Schemes by Central and State Government with linkage to Registration
- Direct Benefit transfer using Bank and Aadhar Data
- Issue of SMART card based Licenses

Best practices implemented

- Workflow driven Electronic movement of data
- Online facility to check the validity of the certificate for enforcement agencies using barcode technique
- User friendly work flow based interface help to avoid delay in processing the application.
- SMS facility to the vessel owner to know the status of his application without moving to office.
- Covered security features in RC
- Scalability -Replicable across the country
- Prevent registration of vessel using duplicate engines, for availing benefits against various Central and State Government Beneficiary Schemes
- Sharing data using Web Services to Security Agencies and Beneficiary Schemes Management.

RESULT INDICATORS

- Brings all the Indian fishing vessels (about 2.5 lakh)under a single database
- Prepares national database for fishing vessels.
- Regulates the movements of fishing vessels
- Strengthen the coastal security and security of fishermen in the sea.
- Prevents IUU - Illegal, unregistered and unreported vessels in the territorial waters
- Facilitates optimum utilization of the fishery resources
- Assists the coastal security agencies as a part of comprehensive coastal monitoring, control and surveillance system)
- Back bone for other services to the fishermen like insurance claim, subsidy claim, fuel permit, monitoring the movements of crews etc.

ENABLER INDICATORS

Process reengineering

- Merchant Shipping Act 1988 amended
- Respective state MFR acts amended
- 166 registrars have been appointed for registration as per DG Shipping ,GOI

Change Management and Capacity Building

- Around 6000 officials have been trained across the country. VC based and on site etc
- The Ministry of Agriculture, Department of Animal Husbandry, Fisheries and Diaries own the Project and is driven by a Senior Officer at the level of Joint Secretary to Government
- Provided online feedback mechanism for the smooth running the project
- Implemented master trainer for capacity building,

VALUE INDICATORS

Digital Inclusion

- RC is generated in bilingual using Unicode. Since UNICODE is used, localization will not be an issue

Green e-Governance

- Replaced the manual system with digital work flow system

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eProMIS APPLICATION - WEB ENABLED PROJECT MANAGEMENT INFORMATION SYSTEM

[Ministry of Science & Technology, Government of India]

Dr. Renu Swarup

DESCRIPTION OF PROJECT

The Department of Biotechnology, Ministry of Science & Technology, Government of India is responsible for providing support of Biotechnology in the country. The Department has supported programme and schemes for all-round development of biotechnology in the country. Support is provided for research and development, product development, validation & commercialization. The aim is to boost human resource development, promote excellence in the field and establish infrastructural facilities. DBT aims to foster academia-academia, academia-industry interactions and develop international collaborations. Being the Nodal policy body, DBT is also involved in evolving regulatory and bio-safety guidelines.

The Department supports research programmes in basic and specialized areas of biotechnology. In the last financial year DBT was allocated a budget of Rs.1517.21 Crore. In order to keep a track of the funds being distributed geographically and area wise and effectively manage and monitor the extramural research, a system was designed and developed which is named as eProMIS (A web enabled Project Management Information System) by the department.

- Various templates are available for each scheme which is funded by the department. The portal which used to host the management of all the schemes, now offers end to end solution for effective management of all the schemes funded by the department. The various schemes and their corresponding formats available are:
 - Research & Development
 - SC/ST Development Programme
 - Women Development programme
 - Rural Development Programme
 - Multi Institutional R & D format
 - Multi Component R & D format
- Salient features offered by the web portal is that it captures the complete life cycle of proposals received online like right from the PI and Institute registration, proposal submission, peer review, conducting Taskforce meetings online, assigning Sanction numbers, monitoring, closure and an intelligent reporting system. Owing to these features, the portal was expected to benefit all stakeholders of above funding schemes, including applicants

from across the country (researchers industry, academia), reviewers (subject experts from and outside the nation), programme/scheme managers, technical managers etc. Highlights of the benefits accrued to the stakeholders are mentioned below and explained later in the application:

- Online proposal submission module allows users to submit proposals from anywhere in the world.
- Peer review are done online
- Taskforce meetings are also conducted online.
- The Programme Officers are able to process/ track the proposals any time.
- The Project Investigator is informed by AGM and through the portal when the fund is transferred

In short, eProMIS Portal has helped the department in enhancing transparency, efficiency and efficacy in fund management. At the same time it had reduced the amount of time, money and effort that used to be spent by various stakeholders.

- Economic perspective: There has been substantial reduction in spending by
- The Project Investigators who do not have to print or send the proposals by post or by courier.
- By the organization offering these schemes towards meeting expenses (travel, printing, meeting management etc.)
- Technological perspective: eProMIS is one of the first initiative in the S & T sector and the most advanced application for science and research fund management by a Government agency.
- Social perspective: The portal is a great step towards green governance and good governance.

Services offered by the eProMIS Portal fall under the category:

- The extent of services provided by the eProMIS Portal is from one end to the other end, i.e. right from proposal submission to monitoring of sanctioned proposals followed by the closure. The portal caters to each and every step required in processing of proposals and release of funds. The various steps for scheme management are mentioned below and also mentioned is whether the step is online or offline:
- PI registration, Institute registration, Area Marking, ISC meetings, Proposal submission, Peer review, Taskforce Meeting, Generation of San No and other services are all provided online.
- ISC meetings: ISC meeting agenda is prepared online and the minutes are updated online.
- Taskforce Meetings: Experts view the proposals online and submit their comments. Scheduling of meeting, intimation regarding meeting, agenda

preparation, minute's submission and status update of proposals subsequent to the meeting is done online.

- Sanction of recommended proposals: Online generation of order
- Release of funds : Online release order generation
- Acknowledgements of UTR details to PI via mail
- Monitoring of sanctioned proposals: Online constitution of Project Monitoring Committee, online submission of Progress Report by companies and review of same by experts.
- Various reports required for the processing of proposals like UC/SE, Progress report are uploaded online
- The requests for extension are submitted online by the PI.

Specific innovative ideas implemented

- This system allows user to directly contact to Program division officer (by the link: CONNECT TO DBT provided in user's account) whosoever is handling his/her proposal, it makes the scientist ease to communicate with the department about their queries without any wastage of time. User can do it either system or by mobile app. Other facilities available in the system are:
 - Dynamic dash board for various users
 - Provides daily alerts & reminders to the various users
 - Dynamic run time based report generation
 - Exporting the proposal and review reports to PDF
 - Scalable Database-The application was launched with one scheme and now caters to various
 - Flexible Open Architecture
 - Robust Data Model
 - Three-tier solution
- The first three features are of immense help to the Programme Divisions as it helps them in managing their routine tasks effectively without the need of remembering facts and figures. This software enables the department to generate huge reports at one go without wasting much time and effort. With the help of report generation concerned division is allowed to generate and submit authentic report to the desired division like RTI cell, Parliamentary questions etc where we do not have much time to prepare it manually. Due to all the points mentioned above lot of time and human efforts are cut down to a great extent. Scalable database has helped in expanding the scope of services offered by the portal. Flexible open architecture helps in keeping the operational costs low.
- Three-tier solution is more scalable than the other solutions because in this Portal we can add as many middle tiers to ensure good performance (N-tier or

multiple-tier). This architecture also provides high level of security as the middle layer protects the database tier.

- The extent of integration of this e-Governance initiative with other internal and/or external ICT systems.
- The eProMIS Portal is presently integrated with ex-chequer running on intranet for tracking the UTR no assigned against the transaction done for Institutes against their proposals submitted in Department of Biotechnology.

ENABLER INDICATORS

Process reengineering

- **Front end changes:**
 - Transition from the process of manual submission of proposals to online submission was made for all funding schemes. It was planned to do away with manual submission of proposals to the Department. The same is implemented fully. Proposals submitted as online are accepted now. Implementation of this step is also to the full extent.
 - Area Marking made online: The area confirmation of the proposals are done online now. Implementation of this step is also to the full extent.
 - Peer review made online: Earlier printed copy of the proposals were used to send to the Peer for their feedback and score on proposals. Now, the proposals are made available to reviewers online and they submit their reports at their convenience. The archiving facility is being provided to view the comments later on. Implementation of this step is also to the full extent.
 - Tracking of status by applicants online: Earlier before the launch of eProMIS, the applicants used to follow up a lot with the programme officers through email, telephone calls etc to get the exact status of their Project. It was accordingly planned to develop the system in a manner that would enhance transparency in processing of proposals and would also reduce the dependency on programme officers. The online system now provides exact status to the applicants
 - The taskforce meetings are scheduled online
 - Generation and cancellation of san numbers made online
- **Back end process changes:**
 - **Database Maintenance:** The online application now provides easy and safe maintenance of a large volume of database, which was earlier a tedious and time consuming job.
 - **Safe custody** The system now automatically allots reference number to all eligible applications and manual errors such as double allotment of same number, skipping of a number etc. are completely ruled out.

- **Manual verification:** The online application was designed in a manner that it has filters in-built to check compliance with eligibility norms. Online submission has reduced the count of ineligible proposals tenfold, i.e. from as high as 30 (1st batch, manual submission) to 3 (online submission).
- **Maintaining status of proposals:** The system provides ready reports for proposals at different stages and has considerably reduced the dependency on human memory and efficiency.

Change Management and Capacity Building

A Programme Management Unit and a committee to monitor the eProMIS activities was set up by the Department of Biotechnology guided by Senior Advisor, DBT took the leadership charge for change management and capacity building along with the NIC officials. The eProMIS PMU ensure that all requirements/ queries from inside and outside user are fulfilled on time and bugs are fixed immediately. The overall leadership charge for affecting these changes remains in the hands of the eProMIS committee, who takes strong interest in getting the online module implemented.

VALUE INDICATORS

Digital Inclusion

Since the portal is for funding management of scientific projects, the entire development has been done in one language only, i.e. English. Accordingly, language, demographic and cultural differences do not pose any impediment towards full utilization of the services offered by eProMIS.

Green e-Governance

- eProMIS Portal has been hosted on a virtual server of NIC. This ensures optimal utilization of power and resources for running the application.
- Further, the application has helped a lot towards reducing paper wastage. Had the online system not been there, approximately more than 2000 proposals are received every year and would be submitted as 25-30 hard copies. This would lead to wastage of more than 10, 00,000 pages per year.

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Online Monitoring System for Swachh Bharat Mission (SBM)

[Ministry of Drinking Water and Sanitation, Government of India]
Saraswati Prasad, IAS

DESCRIPTION OF PROJECT

- The **Objective of Swachh Bharat Mission** is to create awareness among rural population of India and to make the villages / Panchayats Open Defecation Free (ODF).
- To fulfil the objective of SBM, individual household toilet is a basic necessity among rural population of India.
- In order to have proper, effective and timely universal coverage of sanitation facilities in rural areas, there is need to ensure proper follow up and regular monitoring of the SBM for better and improved implementation.

Challenges

- The biggest challenge is to survey & capture data related to each rural household up to panchayat / village / habitation level within stipulated time of six month.
- To check the progress of construction of toilets.
- Creating infrastructure (Hardware as well as human resources)
- Accuracy of data
- Handling of more than 10,000 concurrent users on application and database servers.

The **online monitoring system of SBM is a comprehensive web-based information system**. The system enables the Centre, state, district, block and panchayat to monitor the progress of the coverage of Toilets for Individual household and Community sanitary Complexes.

- Features of the system:
 - Mobile responsive
 - GIGW compliance
 - Cloud Enabled
 - Unicode enabled
 - Work-flow enabled

The system facilitates the following:

- Managing Sanitation status of each household scattered in 2.50 lakhs Gram panchayats , 6 lakhs villages and more than 16 lakh habitations.

- Data of 17.29 crores households are available with various parameters. Household data is updated annually as per SBM guidelines.
- Capturing Progress of IHHL construction.
- Uploading the photographs of toilets using mobile application (both online and offline mode along with latitude – longitude & usage of toilets).
- Enables SMS communication with beneficiaries for ascertaining whether they are satisfied with IHHLs provided to them under the SBM-G programme.
- The monitoring system tracks the funds released from GOI to beneficiary level. It also facilitates tracking of funds from state share.
- Grievance Redressal system for rural citizens related to sanitation status.
- The system is also integrated with PFMS to facilitate the payment of incentive to beneficiaries
- Corporates Facilitation Desk – Separate Module for Corporates for reporting toilets constructed from CSR funds.
- Voices from Fields – Uploading of Photographs/ Audios/ Videos/ case studies from Fields (SBM Officials) and showing on public domain after getting approval
- Daily SMS and email to senior officials of Ministry as well as state Government related to status of data captured in the system.
- Weekly SMS & Email to Cabinet Secretariat.
- Cross verification / Survey of data by Ministries / third party UNICEF, WSP, other NGOs and facilitate them to provide feedback / comments with standard parameters.

Benefits:

- The system has increased the transparency as well as accountability and has a citizen friendly interface for interaction with the common man
- This monitoring system has improved the information flow, decision-making process and improved efficiency and performance.
- It has also eased the process of historical data maintenance.

RESULT INDICATORS

Services

- Government -to-Citizen (G2C)
 - Mobile App used to capture IHHL photograph.
 - Details of all the beneficiaries.
 - Grievance Redressal system

- Government -to- Government (**G2G**)
 - Monitoring
 - Financial data tracking
 - Voices from field

Benefits obtained

- Government -to- Government (**G2G**)
 - Transparency of data
 - Easy monitoring
 - No dependency
 - Ease to information
- Government -to-Citizen (**G2C**)
 - Tracking of IHHL status and actual availability.
 - Grievance redressal system through mobile, portal.

Implementation coverage till date

- Geographical Area: Across rural population of India
- Stakeholders: GOI, State Governments, Grampanchayats, UNICEF, WSP, Water Aid, NGOs, Citizens
- There are more than 10000 registered users.

Specific innovative ideas implemented

- This system enables the Centre, States, districts, blocks and panchayats to monitor the progress of coverage of rural sanitation status , through common monitoring formats reducing data gaps arising from disparate data sources.
- The list of each household status is displayed along with the status of sanitation facility availability. The availability of this data had helped the line departments to plan for coverage of all the households in the country by a stipulated time period.
- Linking of the habitations with the census villages, on the MIS platform, has been completed. This has enabled cross domain interoperability of the software and integration of the database with other related sectoral databases like water, MNREGA, Health, Panchayati Raj.
- The MIS is being linked to PFMS system for ensuring accuracy in financial reporting. From 2016-17 onwards incentive to beneficiaries can be transferred in their account.

ENABLER INDICATORS

Process reengineering

- Name wise details of each beneficiary up to Household level
- Individual progress linked with name wise details
- Taking actual financial figures

Challenges faced in implementing Process changes

- The process reengineering started in the beginning of 2011 and it took almost one year to kick start. There was a series of discussions with the state governments and subsequently the reporting formats on the SBM-MISMIS were refined. Initially there was some resistance from the implementing agencies as there was a general feeling that the gamut of information that had to be provided to the central government was actually not necessary at the Ministry level.
- In the beginning there were gaps in the data entry from the States due to non-availability of staff in the State and low expertise of the staff in the States. By the year 2013 onwards the reporting mechanism from the State was completely fool-proof.
- Sensitive areas like the naxal affected regions and insurgency affected areas of NE region were unwilling to provide this data as it was displayed on public domain and the sanction of funds was visible to all including the extortionists.
- To change abstract data to name wise details of 18 Cr beneficiaries based on Survey conducted by the Ministry.

Change Management and Capacity Building

Training programmes for capacity building of the field level staff is an ongoing process in the Ministry of Drinking Water & Sanitation. The programmes are also attended by senior officials. The feedback received from the participants after every training, is analyzed for further improvements in training modules. Also, region wise/state wise modules have developed to cater to specific needs. The senior management has invested sufficient time towards these activities and funds have been earmarked specially for training activities. Mode of support are as given:

- On-site Trainings
- Support to States through Social media- WhatsApp, Facebook etc.
- Through Video Conferencing
- Support to States through Email, Phone, Mobile

VALUE INDICATORS

Digital Inclusion

- With successful implementation of the MIS, citizens from any corner of the country have access to the information irrespective of his or her socio-economic status.
- Ministry has successfully monitored water supply projects in SC/ST dominated, minority dominated areas which have traditionally suffered from poor sanitation coverage; special focus areas like Left wing extremist areas, hilly areas, areas demarcated as overexploited
- The MIS also helps in pinpointing locations which require special attention, areas where disparity in provide toilets and areas where repeated interventions have been made, to satisfy influential people.
- The future enhancements in the MIS, include provision of the existing MIS data along with the required spatial layers on a GIS platform, for scientific planning of sanitation coverage.
- In addition to this, it has been decided by the Ministry, that uploading of photographs of toilets constructed after 2nd October 2014 (When Swachh Bharat Mission was announced by PM) using mobile application. This mobile application captures photos along with LAT-LONG.

Green e-Governance

- No Paper Based report is accepted from states. The data in Centre and State Government is viewed only in MIS.
- To Access information related to IHHL, MIS is the only medium.
- Information sends to higher officers on the basis of MIS through email, SMS.
- No Separate database in states. Only GOI level database. It saves lot of infrastructure, electricity and other hardware resources.

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ARPAN - ADVANCED RAILWAY PENSION ACCESS NETWORK

[Ministry of Railways, Government of India]

Nalini Kak

DESCRIPTION OF PROJECT

ARPAN (Advanced Railway Pension Access Network) is an E-Governance initiative of Ministry of Railways to enhance efficiency and transparency in pension payments, which greatly benefits 13.5 lakh pensioners and railway administration which incurs an expenditure of approx. Rs.30,000 Cr on pension per annum.

The centralised system provides for complete automation of the pension sanction process in all 145 offices of Indian Railways with provision of E-PPO, first such initiative in India wherein the data required by the banks for disbursement of pension is transmitted digitally, with digital signatures and encryption, directly to the server of the bank. With this, Banks can save on the effort required to enter data for approx. 50,000 pensioners every year. This greatly cuts down on the existing time taken for initiation of pension from average 2 to 3 months to the second following month from the date of retirement.

A centralised database and application bring in uniformity, greater monitoring and control over expenditure through E-Debit Scroll, which is directly uploaded by the banks on the system for reconciliation of the expenditure on pension by them, on behalf of Ministry of Railways. Banks save on the effort of printing the debit scroll for 13.5 lakh pensioners every month and dispatching them to 16 zonal offices. This feature will save large number of trees annually.

ARPAN provides detailed information to each pensioner regarding his pension and payments being made to him by the bank. It is also a central depository of all railway pension related information with facility for download of all relevant forms and documents. For a first time railway pensioners have been provided with an elaborate system for online grievance and request lodging, with facility for its monitoring both by administration and the pensioner.

Objectives of the project:

To provide a centralized system which would bring uniformity in pension process with proper utilization of time and resources. An accurate and transparent system will be the tool for managing every aspect related to pension. It will not only benefit the organization but also its end beneficiaries i.e. banks and the pensioners

too. The pensioner will be able to view all the information at one place and to register and track the status of requests/grievances.

- Scope of the project is to develop a centralized Pension Management System. The pension process consists of two stages
 - Settlement of the full and final dues on the date of retirement and issue of authority letter (PPO) to Banks for payment of pension.
 - Management of pension payments.
- Single Unified Pension Interface to address requirements of all stakeholders-pensioners, internal staff, banks etc
 - To develop pension interface in-order to address requirements of pensioner:
 - Pension related services
 - Notifications to pensioners
 - RTI & Grievances Interface
- Pension Portal will interface with-
 - Existing core modules like PRIME & AFRES, IPAS etc
 - Bank Systems (Payment Gateway)
- Pension Portal enables centralization & automation of pension related services like
 - Pension Master Management
 - Payment of Final Settlement dues
 - Issuance of Pension Payment Orders
 - Revision of Pension Payment Orders
 - Reconciliation of Pension Payments
 - Direct Payment Of Pension

RESULT INDICATORS

Services and benefits to Stakeholders

Citizens – G2C

- Electronic PPO ensures start of pension disbursement on first the month following date of retirement
- Pensioners are able to get information about their monthly pension and other details on registering themselves with ARPAN.
- Informative web page to disseminate information regarding pension on Indian Railways with facility to download all relevant forms.
- Faster revision of PPO as per recommendations of 7th Pay Commission will enable quicker delivery of benefits to the pensioners.

Business – G2B

- With Electronic Debit Scrolls, Banks can save on the effort of printing and despatch of physical debits scroll to 16 zonal offices.

- E-PPO enables banks to save on effort required to capture relevant data from physical PPO into their system.

Government – G2G

- Uniformity in interpretation of rules
- Uniform PPO across all zones of Indian Railways with system generated unique number.
- Electronic Debit Scrolls facilitates effective Reconciliation and detection of fraudulent payments.
- Better budgeting, MIS and monitoring of cases.
- Simplified process of sanctioning of pension & issue of PPO
- Preparedness to revise the Pension Payment Orders as per the soon due recommendations of the 7th Central Pay Commission.
- Linking with AADHAR No for future use of ‘Jeevan Praman’

ENABLER INDICATORS

Process Re-engineering

- Processing of pension sanction has been simplified and changed from multiple application and database instances to single application and database
- Transfer of PPO in paper form has been changed to electronic form with encryption and digital signatures.
- Management of grievances has been automated and centralised which was completely paper based.
- Payment of arrears of settlement dues due to revision of DA and GIS rates have been automated and are generated as per schedule, alleviating a major cause of pensioners complaints
- Format of the settlement bills have been simplified and made more informative for the retiring person
- Format of PPO has been standardised with uniform format for Indian Railways, incorporating joint photographs of the pensioner & his spouse and is bar coded.
- PPO number generation has been automated and universalised. This has been widely appreciated.
- Format for data collection from retiring person has been simplified and aligned to the data capture screens of ARPAN.
- Management of change in area of pension has been simplified and universalised.

Change Management and Capacity Building

- Leadership support for capacity building, visibility of actions with current status: Project has been promoted by Railway Board with active support of Financial Commissioner, Railways, the highest authority for accounts and finances in Indian Railway. The project team is fully empowered to decide the modalities of development and management of the project including deciding on the changes required in the existing processes. One officer in each zone i.e. Dy. Chief Accounts Officer –General has been made the coordinator for management of users of the project.
- Change management and capacity building strategy defined and status thereof: Change requirements are first registered with the project team. This is empowered to take the decision regarding various aspects of implement ability within existing rules and policies of the Government/Railway.
- Project management & monitoring adopted:

VALUE INDICATORS***Digital Inclusion***

- The look and feel of the application has been kept simple keeping in mind the level of computer literacy of the pensioners.
- The font size and colour scheme has been chosen to facilitate easy readability considering that the application is meant for pensioners.
- The application to be used by internal users of railways has also been designed keeping in mind the computer literacy and average age of the users.

Green e- Governance:

- Single largest step towards saving the environment by this project is saving in the requirement of paper and ink used to print the monthly debit scroll of 13.5 lakh pensioners and its submission with 16 zonal HQ located in different parts of the country.
- E-PPO enables substantial saving in printing requirements of PPO comprising of 3 sets of 3 A4 size sheets. Saving in printing requirements for revision of 13.5 lakh PPO to implement the Forthcoming 7th Central Pay Commission will be substantial.
- With centralization of application into one instance from 145 individual instances accords substantial saving in power consumption and e-Waste.

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INDIA ENERGY SECURITY SCENARIOS, 2047

[NITI Aayog, Government of India]

*Anil Kumar Jain***DESCRIPTION OF PROJECT**

In view of the rising energy demand and sticky import dependency of India, and recognizing the need for long term energy planning, the erstwhile Planning Commission, now NITI Aayog, decided to undertake an **energy scenario building exercise** early in the year 2013, called the India Energy Security Scenarios, 2047 (IESS, 2047). The IESS, 2047 has been built as a knowledge portal, combining IT applications, behavioural aspects, energy related emissions, local resource endowments, all sources of energy supply and demand, technologies of global scale as and when they are inducted in the Indian system, and cost-time parameters.

The IESS, 2047 is expressly an energy scenario building tool. The guiding ambition of this is to develop energy pathways leading up to the year 2047, comprising of likely energy demand and supply scenarios. It has been developed on an **Excel Format** with a **Web Tool front end**, which allows user friendly (accessible and usable even by the ‘aam admi’) dynamic, graphic representations of the chosen outputs of the energy demand and supply levels leading up to the chosen terminal year, with a **turnaround time of less than 2 seconds**. Energy security has been adopted as the major outcome of the exercise along with other outputs like land-use, emissions and cost parameters.

The tool has been built with the help of a **wide pool of knowledge partners** from the Government, Industry, Think Tanks, Non-Governmental organizations, International research agencies and the academia. The networking of top energy related think-tanks with energy Ministries is a high water mark achieved in this exercise. This has added to the intellectual quality and **transparency** of the entire exercise. It is also a completely **open-source tool** and can be considered a **one-of-a-kind data repository** for energy sources in the country.

NITI Aayog has in the past, and is also presently, in the process of conducting nation-wide **outreach workshops** to promote the usage of this tool and involve more people in the exercise for consensus building and creating awareness about energy policies. Workshops have been conducted in Government ministries and in different parts of the country, witnessing participation from the Industry, local academia, state governments etc. and industry bodies. A variety of organizations

are aiming to **replicate this practice for different states and sectors**. The IESS, 2047 has also been proposed to be incorporated in the **curriculum of IIT Bombay** and has also received **personal commendation from the Secretary, MEA**.

Version 1 of the IESS, 2047 was launched on 28th February, 2014. In order to improve the analytical ability of the exercise and factor in the fact that the energy scenario of India is rapidly changing, NITI Aayog worked towards developing the second version of this tool, with updated datasets, new technologies that are gaining importance in the Indian energy space and added implications to enable policymakers and the general populace to make better informed decisions. Version 2.0 of this tool was launched on 27th August 2015 and is accessible at www.indiaenergy.gov.in.

Key beneficiaries

For the projects' aim of consensus building and creating awareness about energy policies, the key beneficiaries are the **citizens of India**. For the projects' aim of serving as Government of India's first open source data repository for energy sources in the country and dynamically showing the implications of different energy scenarios, the key beneficiaries are the **Government departments, policy makers and research organizations** all over India as well as the globe.

Objectives of the tool

- Comprehensive database of all energy sources- The IESS, 2047 brings together all the demand and supply sources of energy in the economy and creates an integrated, open-source, database which does not exist till now. Additionally, the information database has a dynamic front end web tool which, using the data from the database, changes to reflect the choices of the user. The data for the base year 2012-13, independently provides a comprehensive energy data base for the first time, which can be used for current research.
- Inclusion of all energy demand sectors- Earlier, the major focus was on analysing the supply side of the Indian energy sector. The IESS brings in all the energy demand sectors of the economy and focuses on demand side management and energy efficiency. It is also an Efficiency Calculator, providing the levels of energy efficiency for the different levels of inputs that the user picks.
- Long term- The IESS, 2047, realizing the importance of long term energy planning, provides scenarios with the terminal year 2047, the 100th year of India's independence.

- Technology- The IESS captures and incorporates all prevailing and anticipated technologies both in the energy demand and the supply sectors. (Electric Vehicles, Supercritical Power Plants, Shale gas, advanced bio fuels, Green Buildings, Solarisation of telecom towers etc.)
- Social media integration- The IESS, 2047 is being promoted vigorously through social media so as to reach out to more and more common people and involve them in the energy policy debates.
- Interactive web tool- The IESS, 2047, for the first time, has brought about an interactive and dynamic web-tool which reflects the implications of the user's choices on energy security, land and emissions, in a turnaround time of less than 2 seconds.

RESULT INDICATORS

- Microsoft excel based, open source, data repository for energy sources
- Dynamic web based user interface to explore the implications in terms of energy security, land use, costs, emissions etc.
- Hundreds of pages of explanatory documentation presenting the sectoral background, the assumptions behind each sector, the methodology followed to construct the same and additional sector related information.

Benefits obtained

- Existence of a comprehensive data repository for energy data:
 - The IESS, 2047, is a one-of-its-kind tool that brings together all the demand and supply sources of energy in the economy and creates an integrated, open-source, database
 - The data for the base year 2012-13, independently provides a comprehensive energy data base for the first time, which can be used for current research.
 - The tool is also backed with hundreds of pages of elaborate documentation detailing the background statistics and scenario, assumptions and methodology followed in each sector
 - Assessing dynamically, the impact of different user choices on land-use, Carbon Dioxide Emissions and Energy Security and Assessing the individual impact of different sectoral interventions like introduction of electric vehicles, in the context of the entire economy.
 - The assessment of each of these choices required complex modelling which takes months, even years to deliver results. Some of these models are also frozen in time so they cannot reflect the changes in the energy scenario and technological interventions.

- The IESS, 2047 enables the user to instantaneously witness the implications of his choices on these parameters.
- It also allows the user to change the numbers, if he so desires, and still witness the results instantaneously.
- Ease of use by the general populace to gauge impact of different interventions-
 - Complex energy tools are difficult to use and generally are not accessible to the general public.
 - The IESS, 2047, with its interactive and easy-to-use web tool allows the common man and decision makers alike to witness the impact of their choices, almost instantaneously with just a click of the mouse.
 - The IESS, 2047 has also helped increase awareness about India's energy scenario, both within the country and abroad
 - Since the IESS, 2047 builds in the ambitions of the Government in the different energy sectors, it allows the users to gauge the implications/benefits of achieving these targets.

Implementation coverage till date

- The IESS, 2047 covers all energy demand and supply sectors of the entire economy and covers all of India in its analysis.
- The tool also aims to target the following categories of stakeholders:
 - Citizens of India (The general populace)- For the projects' aim of consensus building and creating awareness about energy policies.
 - Government departments, policy makers and research organizations all over India as well as the globe- For the projects' aim of serving as Government of India's first open source data repository for energy sources in the country and dynamically showing the implications of different energy scenarios.

ENABLER INDICATORS

Process reengineering

- **Dynamic and Interactive web tool-** The IESS, 2047, for the first time in the Government of India, has brought about an interactive and dynamic web-tool which reflects the implications of the user's choices on energy security, land and emissions, in **a turnaround time of less than 2 seconds**, making it very user friendly and accessible even to the general public.
- The tool has been developed on Ubuntu and uses open source technologies like C,Ruby, Javascript, Coffeescript, JQuery, Javascript based visualization libraries such as Highcharts and D3 (Data Driven Documents). The entire

code is shared online on a Github platform and is available for people to download, learn from, innovate etc. (<https://github.com/iept/iess2047>)

- **Emerging Technology-** The IESS captures and incorporates all prevailing and anticipated technologies both in the energy demand and the supply sectors. (Electric Vehicles, Supercritical Power Plants, Shale gas, advanced bio fuels, Green Buildings, Solarisation of telecom towers etc.)
- **Social media integration-** The IESS, 2047 is being promoted vigorously through social media so as to reach out to more and more common people and involve them in the energy policy debates.
- There is also a YouTube video, explaining the entire energy scenario of India and the role of this tool for the benefit of a citizen who has just started using this tool, or wants to start using this tool. (<https://www.youtube.com/watch?v=FYCIBKVS6e8>)
- There are also plans to make the dynamic web interface even more user friendly by creating a dynamic, interactive, animated interface, which can easily be used by novices in the Indian energy sector as well as school going children
- There is a plan to expand outreach in the Hindi language to target maximum number of people.
- **Comprehensive database of all energy sources-** The IESS, 2047 brings together all the demand and supply sources of energy in the economy and creates an integrated, open-source, database which does not exist till now. Additionally, the information database has a dynamic front end web tool which, using the data from the database, changes to reflect the choices of the user.
- The data for the base year 2012-13, independently provides a comprehensive energy data base for the first time, which can be used for current research.
- Inclusion of all energy demand sectors- Earlier, the major focus was on analysing the supply side of the Indian energy sector. The IESS brings in all the energy demand sectors of the economy and focuses on demand side management and energy efficiency. It is also an Efficiency Calculator, providing the levels of energy efficiency for the different levels of inputs that the user picks.
- The IESS, 2047, realizing the importance of long term energy planning, provides scenarios with the terminal year 2047, the 100th year of India's independence.

Change Management and Capacity Building

- The IESS, 2047, in the process of its development has received considerable support from the top management at NITI Aayog. The Vice Chairman, Chief Executive Officer and Members, NITI Aayog have expressed their desire to

see further development of this tool. The NIC has also expressed its full support in the development of future versions of this tool. Their testimonials can be accessed at www.indiaenergy.gov.in.

- Several consultations with different line ministries of the Government of India have also taken place, aiming to integrate this tool in the planning process of the Government.
- Since this tool is an open source tool, the actions taken and the impact thereof can be witnessed dynamically on the web interface of the model as well as the website www.indiaenergy.gov.in.

VALUE INDICATORS

Digital Inclusion

- All components of the tool e.g., the dynamic web interface, its software code, the dynamic MS excel model, and thousands of pages of explanatory information is all placed on the website of the tool (www.indiaenergy.gov.in). This can be accessed by any individual interested to know more about the energy sector of India.
- There is a dedicated Secretariat for the IESS, 2047 in NITI Aayog, and a dedicated email ID to facilitate grievance redressal and inflow of comments (iess-2047@gov.in)
- There is also a YouTube video, explaining the entire energy scenario of India and the role of this tool for the benefit of a citizen who has just started using this tool, or wants to start using this tool. <https://www.youtube.com/watch?v=FYCIBKVS6e8>

Green e-Governance

The IESS, 2047 is entirely a web based open source tool. The team uses the already prevalent infrastructure for developing the same, it does not require any additional infrastructure to be created for supporting the project. The IESS, 2047 has also been used as a tool to initiate and facilitate the retrofitting of the NITI Aayog building, as it shows enormous energy savings potential in the Buildings sector of India. This intervention led to a reduction of Rs. 20 Lacs in the electricity bill of Yojana Bhawan- the office building of NITI Aayog. Steps are taken to develop e-books and create soft copies of all the publications so that paper utilization is minimized to the maximum extent possible.

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NATIONAL CLOUD SERVICES - MEGHRAJ INITIATIVE

[Ministry of Communications & Technology, Government of India]

Shalini Mathrani

DESCRIPTION OF PROJECT

In order to utilize and harness the benefits of Cloud Computing, Government of India has embarked upon an important initiative – “**MeghRaj**”. Under this initiative, NIC has setup First National Cloud for Government of India.

National Cloud, built on state-of-art technologies was launched by Hon’ble Minister of Communications & Technology on 4th February 2014. As on date, NIC National Cloud is the first & only Cloud Service available under the MeghRaj initiative. NIC National Cloud spans over the ICT infrastructure setup across its National Data Centres. Self Service Portal of National Cloud can be accessed at <https://cloud.gov.in>.

National Cloud of NIC has been designed using state of art technology, is secure by design & generic in architecture. To cater to variety of ICT requirements of government, a three tier ICT infrastructure is put up under the National Cloud. The various cloud services being offered include Infrastructure as a Service (**IaaS**), Platform as a Services (**PaaS**), Software as a Services (**SaaS**), Storage as a Service (**STaaS**).

Presently, various e-governance projects running at national as well as state level are operational on the National Cloud. Some of the important projects of the Government such as **Make-in-India** , **Biometrics Aadhar Attendance system for Government . Employees**, Projects hosted on the Cloud include **Digital India Portal, Digitize India, Digital Locker, MyGov** (with over 1.2 million Users engaging with Government), **JOSAA** (online counseling for Admissions in Engineering IITs, ISM, NITs, IIITs ..) , Prime Minister Office Portal etc.

National Cloud by NIC facilitates departments to avail infrastructure on demand and scale up their resources any time. Government organizations need not spend their time & energy on long cycles of procurement of ICT Infrastructure. They can now focus on development, implementation & rollout of e-governance applications. Cloud shall also help government in innovating & introducing new models of delivery of citizen services.

In order to utilize and harness the benefits of Cloud Computing, Government of India has embarked upon a very ambitious and important initiative – “MeghRaj”. Under this initiative, NIC was asked by DeitY to setup the Cloud. A state-of-art and secured Government Cloud was setup by NIC, keeping the following objects:

- Infrastructure on Demand
- Optimum utilization of infrastructure
- Speed up time to go live of eGov applications/ citizen service
- Speeding up the development / testing of eGov applications
- Generic Architecture
- Secure by Design

National Cloud setup by NIC facilitates departments to avail infrastructure on demand and scale up their resources any time. They need not spend their time & energy on long cycles of procurement of ICT Infrastructure. They can now focus on development, implementation & rollout of e-governance applications. Cloud shall also help government in innovating & introducing new models of delivery of citizen services.

A number of important projects /egov applications as mentioned above are currently hosted on the National Cloud.

RESULT INDICATORS

NIC National Cloud has provided the platform to Government bodies to render their services to all possible categories like Government to Citizen/Business/Government /Employees/Students. The websites/portals/eGov applications hosted from ministry/ departments come under G2G , G2E and G2C whereas various Examinations/ recruitment applications fall under Government to Students etc

Some of the applications/projects hosted on cloud include **MyGov, Make-in-India** or **Digital Locker, JOSAA** etc. Currently, around **5000** Virtual Machines have already been allocated to around 220 different projects of Central Government Departments, Ministries, State Governments, District administrations and other organizations.

Benefits obtained

- Quick roll out of eGov applications benefits both the government and all end users including citizens
- Government organizations are can now focus more and more on activities like development, implementation & rollout of e-governance applications and do not have to worry about provisioning infrastructure.

- Quick roll out of applications to their stack holders
 - One of the major benefits to stakeholders is the quick rollout of applications. It generally takes a week time to roll out the new application where as in traditional cases it could be many months.

Implementation coverage till date

Cloud Services are being offered across all the levels of governance i.e. Central, State and Districts level. Apart from various ministry/departments, many of the State Governments are also using services of National Cloud.

This service is being given at national level and various hosting has been taken place from different government bodies from central /state and districts level. Year-wise wise transaction volumes for various services

Specific innovative ideas implemented

In view of the quick & smooth operations in service delivery, following was implemented:

- Setup of Cloud Help Desk for 24X 7 support for cloud users.
- Setup of Cloud Orientation Cell for the first time users received the account on cloud and full know-how with proper hands-on to operate & manage it further
- Setup of Cloud Coordinator teams dedicated to each ministry/department & State Centre
- This 3 tier arrangement helped a lot in addressing user specific issues /queries/ complaints / trainings /hands on for fast deployment of applications on cloud.

ENABLER INDICATORS**Process reengineering**

- Enabling fast On-Boarding to Cloud Users: The on Boarding process was earlier taking a week time for any Government. Organization to acquire the Cloud & start the work. In order to reduce the on-boarding time, all processes were reviewed several times. A solution was arrived n to shorten the time frame which finally reached to 2 days by integration of VPN & supporting Network/Security Services in the same workflow.
- Enabling fast deployment by Automation of Various Agents/Tools Installation process: Installation of mandatory agents/tools (like Antivirus & health monitoring agents etc.) on Virtual Servers which is must before going any application live was a manual process and was taking half day time to

get executed. It was later totally automated with a great relief to end user as they were freed from the manual task.

- Changes in process in On Boarding process helped to save approximately 60-70% time. Automation of Various mandatory Agents Installation process saved the time in Cloud administration & helped towards quick commissioning of virtual servers on Cloud.

Change Management and Capacity Building

- Imparting Training to stakeholders on regular basis and also on request basis. Training has been given at state & central level to all NIC officers who shown interest in this service. Around 110 NIC officers have been designated as NIC Cloud Coordinators for Ministry/Departments and 80 NIC officers for State/UTs levels.
- Training Programs on Cloud technology for its knowhow, procedures for availing services & hands on Operations & management of Cloud are carried out (over VC for outstation users) almost twice a week to educate the user before he/she starts using / working on their cloud accounts it.

VALUE INDICATORS

Most of the Digital India initiatives are powered through National Cloud. Many of these initiatives could be launched for public use in less than a week after the application development was completed. With national cloud, Government can **make any citizen service live at in a much shorter time** as all concerns right from sizing ICT infrastructure, to procurement to setting up & its maintenance are no more there. Infrastructure is available on demand to them.

Cloud shall also provide departments an opportunity to **introduce innovation in service delivery**. They could launch a new way of service delivery on pilot basis and can close it if it does not succeed. **Pace of innovation** can be accelerated through cloud services support. Cloud Infrastructure shall also introduce a **whole lot of saving** in ICT infrastructure setup, operations & management as cloud shall enable **highly optimized use of ICT infrastructure**. Leveraging its usage across departments shall lead to lot of savings for Government

Digital Inclusion

National Cloud Services are being used by over 200 different departments and organisations across India. These user departments are from central government, state government as well as district administration.. Most of Digital India initiatives be it MyGOV, Digital India, Digitize India, Digital Locker, Scholarships Portal are served through this cloud. Many of these projects are serving the citizens in different Indian Languages. They also have mobile

application to complement and extend the reach of service to much larger audience. Thus Cloud based Services are truly inclusive.

Green e-Governance

Green e-Governance is about application of Green computing practices to the domain of e-Governance. It involves adoption of *environmentally friendly practices with respect to creation, use, and disposal* of ICT facilities. There are several dimensions to green e-Governance and prominent among these relate to Power and Paper consumption, and disposal of e-Waste.

In general, across the world, Cloud technology has enabled governments to pursue the goal of green IT. Cloud technology which mainly uses virtualization, at the backend, has resulted in server consolidation in Data Centres which leads to reduction in use of total number of physical Servers thus reducing carbon emissions by 60-70%. Also this leads to saving in Power consumption & Cooling requirements. With these advantages, cloud technology in e-governance is expected to see higher adoption levels

This project has helped its stakeholders in many ways. One of the big advantages was the reduction in co-located physical servers hosted in in user premises or in rented locations resulting in management issues, constraints for refreshing hardware and challenges in scalability of cpu/ram resources

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E-GOVERNANCE IN RCI, DRDO

[Ministry of Defence, Government of India]

Dr G. Satheesh Reddy

DESCRIPTION OF PROJECT

Defence Research & Development Organisation (DRDO) works under Ministry of Defence, Government of India. DRDO is working in various areas of Military technology which includes aeronautics, armaments, combat vehicles, electronics, instrumentation engineering systems, missiles, materials, naval systems, advanced computing, simulation and life sciences.

Research Centre Imaret (RCI) is a premier lab under DRDO located at Hyderabad is working with a vision to be the leader in the development of guided missile systems for our armed forces by developing the frontier technologies, multidisciplinary competence and advent-grade infrastructure leading to self-reliance. Timely execution of the various research projects, proof of technology, transfer of proven technologies to the industrial partners, and timely delivery of the systems are major concerns for RCI.

Approach and Plan of the project: -

Project implementation approach includes:-

Technical preparation: 1) Establishment of Tier-3 Data Centre 2) Implementation of IT command centre and infrastructure management applications 3) Establishment of Secure campus wide network 4) Implementation of Backup and Recovery system.

Solution implementation and Deployment

e-Governance implementation methodology adopted

Our Project goal is complete automation and IT enablement of organization which is an important step towards realization of dream “Digital DRDO”.

As a Mission RCI has taken an initiative to automate all the internal processes with the following objectives:

- Reduction of Product Development time and R&D Project Risks through Dynamic Collaborative Engineering.
- Capture Organizational Knowledge, analyse, enhance and disseminate it.
- IT enabling of RCI for smooth corporate governance, increased efficiency and employee empowerment.

-
- Achieve Information integration among heterogeneous applications by breaking functional barriers.
 - Provide computing environment that will Synergies people, Process and Technology to bring out organizational excellence.
 - To provide a stable Application and Technology platform that meets the current needs of our users (Technology, Project, and Organization) and can support the future needs of our operation.
 - Collaboration among scientists, academicians, support staff, industrial partners, and other important eco-system like audit agency, corporate headquarters, defence services and production agencies.
 - To provide in-depth analytical ad-hoc reporting for efficient decision making.
 - To provide 360o view of organizational processes with improvement in productivity, efficiency and satisfaction of all the stake holders.

Benefits-value proposition:

- Fast and effective day to day transaction processing and workflow based e-approval.
- To Provide Process transparency and visibility for transactions related to governance, finance, projects, procurements and R&D etc.
- Provides effective collaboration and document sharing platform for Scientists and R&D Teams irrespective of their geographical location.
- Improvement in Defence R&D project success rate
- Reduction of delay in procurement process to speed up the DRDO's Mission mode projects execution.
- Enablement of online bidding from anywhere at any time through e-procurement platform.
- Instant notification of event to all the task holders and management regarding every relevant event.
- Analytical reporting to support management for efficient decision making
- Instantaneous progress monitoring of R&D Projects from various aspects.
- To provide opportunity and integrate student community and academia to get involved and encourage them to be part of Research and Development activities of the nation.
- To integrate our eco system i.e. CDA, Integrated Finance, Users (Army, Air force, Navy), production agencies (BDL, BEL etc.) for faster and effective communication, collaboration and execution of mega defence R&D programs.

RESULT INDICATORS***Services “Government to Employee”***

Employee self-services, their all transactions with the organization, collaborations related to their R&D activities, procurement management, Project management, Quality management, Product life cycle management, Knowledge Management, document management etc. are provided through this e-governance portal. Lab vision related information to the employees; feedback and opinion from employee are also part of this portal. We also provide around 200 research journals to the employee at their desktop.

Services “Government to Government”

This platform is providing reports and data timely required by government departments like DRDO Headquarters, CDA (R&D), Integrated Finance and three defence services, Income tax department. Earlier this used to take huge time and effort for our lab.

Services “Government to Business”

RCI has large base of industrial partners. They play important role for timely and successful completion of our R&D Projects. RCI had a strong need of collaboration with these partners on real time basis. Our platform could fulfil this requirement giving a considerable advantage to our R&D Projects. Vendor registration related information, grievance logging and addressing; vendor self-service is also done through this portal. These transactions are also linked to the bank for financial consolidation.

Services “Government to Student”

Our IT Centre helped many B.Tech and M.Tech students to complete their academic projects and industrial training from various institutes using our ICT platforms. This initiative has strengthened the collaboration between R&D and academia.

Services “Government to Citizen”

Our external facing portal provides employment opportunities/vacancies available at our lab level. Job application processing and dissemination of information regarding the written test and interview results, document exchange also happens through this portal. Various International/National conferences and workshops related information hosting, subsequent registration and related communication takes place through same portal.

Implementation coverage till date

This project covers all the employee of RCI and ecosystems like audit agency, corporate headquarters, defence services and production agencies. This also has an impact on general citizen w.r.to recruitment. This Application is accessible from all laboratories of APJ Abdul Kalam Missile Complex which are geographically disbursed but work as work centres of various DRDO projects and connected through DRDO wide network (DRONA). It is also accessible to our corporate headquarters at different city and audit agency like CDA R&D located outside the Missile Complex.

ENABLER INDICATORS

Timely execution of the various research projects is major concern for RCI and DRDO. For timely execution- collaboration, process optimization and IT enablement are essential.

Process reengineering

- To handle BPR in technical and measureable manner, EPC (Event driven Process Chain) based Process modelling approach was adopted. Process Maps were created for the entire scope of the project using VACD (Value added chain diagram). Then linkage of the main processes within a functional area was also established using same VACD. Each process was modelled using EPC. Further the process steps were depicted using FAD (Functional Allocation diagram).
- These models gave a common vocabulary for understanding and broke the barrier between IT and functional team by pushing the computer jargon behind the screen and bringing the functional requirements to the centre stage. Now these process models were published and delivered to the process owners through Browser interface for validation, process optimization and acceptance. Validated "TO BE" Processes adopted for Blue Print.
- The Semantics of EPC process models is understood by ERP & other Application platforms. So these models were transported to Development Environment for base line configuration, Gap identification and subsequent activities like testing, training and monitoring.
- This very rich repository of Validated and optimized processes models for every functional area will be very useful while extending e-Gov system to other DRDO Labs without reinventing the Wheel again. Training to the users for e-Gov system is very effective now through this model. It is now process oriented training rather than system driven training.
- The main differentiator for our e-Gov system is the EPC based Process modelling which ensured that there is no disconnection/gap between functional requirements & implemented processes in our system.

Change Management and Capacity Building

- The management support, valuable advices and suggestions given by the officials of the department, for the utilization of the advanced technology of the IT, are tremendous. They are always keen to fulfil the vision and goals of the ICT initiatives of the organization. :
- Website was launched for disseminating information for buy-in the user during project execution. Successful e-governance case studies highlighting the benefit were also published in website highlighting the benefit of such project
- Dedicated project management group with scientists as lead for each module for implementation.
- Formed various committees for monitoring the project technical, financial status.
- To bring the support from the external agencies like CDA.
- To take decisions on suggested changes to the manual processes to suit the automation.
- Groups were formed from each functional domain for regular interaction and feedback
- Module specific advanced certification trainings are conducted to module leads
- Massive training programmes were organized for various levels of users.
- Cash awards to the employees were given based on the performance during training
- Formation of onsite operation support teams & e-coordinators building wise & directorate wise for easy adaptation of the system.
- Mailer group was formed for pushing important information to targeted groups highlighting important milestones achieved during the project progression.
- Conducted various Workshops , trainings, awareness programmes
- Moreover, there are continuous education programmes (CEP) for training to the user groups at various levels like Core users, End users, Management level users and IT administrators.
- Because of continuous training and skill enhancement, the e-governance system has been adapted across the organization. It has brought effectiveness and efficiency among the users, implementers, administrators etc. leading to saving of time and money.

VALUE INDICATORS***Digital Inclusion***

- Being a central government organization, RCI has the responsibility to popularize the Rajbhasha (HINDI) in official transactions for which the support for Hindi language in e-Governance system is required. To meet this requirement RCI has implemented Unicode based e-Governance system which supports to provide all the services in Rajbhasha.
- Our audit agency (CDA) culturally looks for different kind of information and logs w.r.to transactions specifically related to finance for digital forensic. RCI developed transaction wise report to meet their requirement of online auditing.
- Moreover, a CDA IT system is very specific to CDA related activities (and developed on legacy platform) and utilized by pan India CDA offices. RCI had to develop integration module for two way data exchange between CDA system and RCI's e-Governance system meeting the requirements of CGDA guidelines

Green e-Governance***Green Computing at RCI:***

The aim is to make entire IT infrastructure of RCI eco-friendly by minimizing amounts of electricity, carbon dioxide gas (CO₂) and other greenhouse gas emissions. To achieve its goal, we developed following green strategies and implemented:

Green Data Centre

We design, build, and operate data centres with high energy efficiency standards. We enable IP based power monitoring and control for Data Centre active devices for optimizing energy usage.

Virtualization

We have adopted Virtualization to reduce the number of computers in use to achieve additional earth-friendly benefits and also to reduce electronic waste. In RCI, we have reduced the number of servers by 60% using server consolidation through server virtualization technology. We have utilized distributed power management feature which will further reduce number of active servers during off-peak periods.

Power management

In RCI, we have implemented intelligent power management solution both for server and desktop PCs. This is an agent based solution which is configured and installed in all desktop for all directorates in RCI. This centralized solution

ensures efficient device operations by ensuring the consumption of energy only when the computer/server is actually in use. Our Power Management helps to reduce IT operational costs while also contributing to the organizational environmental balance.

Power Profile

We have defined the Power profile which specifies the following policies:

- Monitor timeout after 15 minutes of inactivity.
- Automatic standby after idle time of 30 Min.
- Hibernation if the computer is idle for 4 hours.
- The Policy shuts down a PC on weekends with alerts.
- Power shutdown is scheduled as per Yearly holiday calendar.
- CPU throttling with fan throttle tolerance values.

Material recycling:

In our lab we have taken e-Waste management initiatives by using buy-back policies for final disposal of end-of-life equipment for examples, Computers, servers, LCD / CRT screens, cooling appliances

Use of Energy efficient Devices:

In RCI all IT related equipment are ENERGY STAR (At least **** and above) certified products. Using those power efficient devices also we have reduced over all energy consumption.

Paperless Policy:

We have identified all respective areas where paper consumption can be reduced. There is a committee working in that direction. We have implemented e-Governance solution to remove/reduce the papers for the given areas like- Online tendering, CST, TEC process, Online vendor registration, Online communication with vendors/users and online communication with CDA and for DRDO Projects, minutes of CDR, PDR, PRC, FRR, Executive board, PJB, System engineering etc.

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**MyGOV – A PLATFORM FOR CITIZEN ENGAGEMENT TOWARDS
BETTER GOVERNANCE**

[Ministry of Communications & Technology, Government. of India]

Alka Mishra

DESCRIPTION OF PROJECT

The core idea of democracy is the involvement of citizens in governance. Hitherto, this was limited to citizens casting their vote in the elections and occasionally participating in stakeholder discussions organized by individual ministries. Participation in these discussions was however largely limited to formal associations or sectoral organizations. Individuals could only submit petitions to the ministries without any assurance of the petitions being considered and evaluated in a structured manner.

The Department of Electronics and Information and Technology, Government of India had laid down a framework for citizen engagement in e-governance in the year 2012. Since then, various departments and ministries have reached out to citizens through social media platforms and sharing of information about upcoming policy initiatives on their websites. Consultative meetings with experts for policy matters were being held face to face and were spread out across projects in various individual locations. Most of the citizen-centric undertakings were predominantly aimed at gathering feedback or disseminating information. However, no uniform structure was available for such discussions and consultations and different government organizations evolved their own strategies and methodologies for doing so. No structured uniform initiative for enhancing citizens' participation in governance through knowledge-sharing and collaboration was conceptualized until mid-2014.

The Hon'ble Prime Minister Sh. Narendra Modi desired to have a government-wide platform for involving citizens in policy formulation and program implementation. This concept was then developed into MyGov, which was launched by the Hon'ble Prime Minister on 26th July, 2014 as a robust platform available to citizens to participate in all aspects of the governance process, deliberate on important policy matters, assess policies/schemes, etc. effectively bridging the communication gap and crowd source citizens' opinions.

NIC designed, developed and implemented this unique platform MyGov – under the aegis of the Prime Minister's Office to empower citizens to participate in governance process and make their voices heard. The core idea behind MyGov is to bring the government closer to citizens through creating an ICT interface for

constructive exchange and collaborative contribution of ideas and views on policy formulation and program implementation issues between citizens and experts. The ultimate goal of MyGov is to create an institutionalized inclusion mechanism for national development through participatory governance. MyGov emphasizes establishment of a direct linkage between the government and citizens.

MyGov is a unique initiative, the largest crowd sourcing platform, which integrates technology and administrative procedures into a dynamic framework for participatory governance. MyGov has been extremely successful in engaging citizens with important policy issues, such as Clean Ganga, Swachh Bharat, Girl Child Education, Skill Development and Healthy India to name few among many others. The basic principles underlying MyGov can be summed up in the phrase – “Do, Discuss and disseminate”. MyGov has created a unique user experience for citizens by facilitating sustained and continuous engagement on national governance issues. Its features and functionalities have constantly been upgraded and enhanced to provide a wide variety of engagement mechanisms like Do, Discuss, Poll, Talk, Survey, Quiz and Disseminate (Blog/Newsletter etc.). Through MyGov the Government has also been able to channelize the talent and creativity of citizens in naming schemes and designing logos such as Pradhan Mantri Jan Dhan Yojana, Digital India, Swachh Bharat, etc. The project has been designed and developed on Open Source Tools, Technologies and Frameworks.

RESULT INDICATORS

MyGov is a unique initiative which brings the government closer to the common man by use of online mechanism and creating an interface for healthy exchange of ideas/views of the common citizen as well as experts with the ultimate goal to contribute to the social and economic transformation of India.

- **Services**
 - The platform facilitates dialogue with participating Departments, Ministries, autonomous bodies and government institutions to initiate their citizen engagement activities.
 - MyGov platform has been instrumental in collating the creative ideas of citizens at large and come out with logos for flagship government initiative designed and created by the common public at large.
 - The platform keep tracks of the activities done by each user and gives them credit points on various activities viz. Jan Dhan, Swachh Bharat, Digital India
 - MyGov allows user to share their suggestions and creative tasks over social media platform like Twitter and Facebook

- The platform has developed crowd source model to eliminate spam by allowing user to mark and eliminate spam comments.
- The platform allows users to like or dislike comments of others as well as reply on others comments.
- The platform facilitates users to ask questions or even suggest during a live Talk.
- Open Access: View all activities without needing to Sign In. Requirement of signing in only at time of participation or submission of entries.
- Easy Navigation: With more user friendly features, enhanced aesthetics and responsiveness.
- Self Help Forum: Help us make MyGov better. Participate in the Self Help Forum to flag and resolve issues related to your MyGov Experience.
- One MyGov One ID: Use your MyGov Id to Login to all MyGov sub-domains such as Swachh Bharat, Survey, Innovate, TaskMgmt, Blogs, Newsletter etc.. Also, use your MyGov ID to send e-Greetings.
- Hash Tags: Use suggested hash tags (#) to participate in trending discussions, or create your own hash tags. Also, use hash tags for searching.
- Closed Group: Domain experts, special interest groups, etc. are having closed group activities within MyGov core framework.
- Secure and Easy to use OTP based Login Authentication.
- Email and SMS based alert of activities and participations. SMS based registration.
- Adopted Open Source Policy: MyGov is built with Open Source Tools and Technologies by MyGov Team of NIC.

Benefits to Citizens and Civil Societies:

- MyGov has been able to provide the citizens a voice in the governance process of the country and create grounds for the citizens to become stakeholders not only in policy formulation but also implementation through actionable on ground tasks.
- MyGov has provided citizens a voice in national governance and created a mechanism for citizens to become active stakeholders not only in policy formulation but also implementation through actionable on-ground and online tasks.
- on'ble Prime Minister's monthly radio address Maan Ki Baat has been conceptualized on MyGov and provides citizens an opportunity to share their thoughts on the issues which they would like to hear the PM to speak about. Recently MyGov has also introduced sharing of citizen's Maan Ki Baat as voice recording for the PM to include in his Maan Ki Baat..

- Innovate for Digital India Challenge initiative by MyGov in association with Department of Science and Technology, Intel, Centre for Innovation Incubation and Entrepreneurship- IIM Ahmadabad provided a platform to develop innovative tech solutions those could be implemented in the Indian market. This initiative has received over 1500 plans and top 20 are currently being incubated with requisite finance.
- It also provides a platform to participate in innovations and creative collaborations with government, academia, community, social scientist etc. through various Challenges, Collaborative Events, Workshops, etc. The prominent one in progress is PMO App Contest in association with Google. The third and final phase is in progress where five shortlisted teams are developing the App.
- Android based MyGov Mobile Apps as well as Swachh Bharat App are a boon to the citizens.
- The video message from AIB gone viral and citizens started commenting on MyGov for the Open Forum Discussion on Net Neutrality.

Benefits Government Entities:

- MyGov has been able to provide the Departments, Ministries, autonomous bodies and government institutions an opportunity to reduce their budget through crowdsourcing various activities.
- MyGov has been instrumental in collating the creative genius of Indian citizens to design logos for flagship government initiatives. MyGov Creative Corner has hosted over 105 competitions and became a creative backbone for the Government. In this process it has also reduced design cost and the time taken to design creative material. Some examples of these tasks are Swachh Bharat, Pradhan Mantri Jan Dhan Yojana, New Education Policy, Smart City Project, Digital India, National Digital Literacy Mission etc.
- Popular discussions on Saansad Adarsh Gram Yojna, Skill Development, Atal Mission for Rejuvenation and Urban Transformation, Housing for All, National Sports Policy etc. have provided valuable inputs for program/policy design. The prominent ones are National Health Policy, National Policy for Skill Development and Entrepreneurship
- MyGov shares regular executive summaries encapsulating most relevant suggestions by citizens as well as a weekly summary to the Prime Minister's Office as well participating Ministries.
- Several ideas received on MyGov have also been reflected in the Railway Budget as well as Union Budget proposals presented by the Railway Minister and Finance Minister in their Budget speech respectively.
- Ministries such as Women and Child Development, Health, Information Technology, Finance, NITI Aayog, Human Resource Development, Sports

- and Youth Affairs, Agriculture, Science and Technology, etc. are using citizen inputs from MyGov for policy formulation.
- For public participation in New Education Policy, Ministry of HRD has used MyGov platform for 33 Discussion themes and several Talks with domain experts. Now the consultation is being extended to over 256,000 urban and rural local bodies as well as state governments to provide their structured inputs on the NEP.
 - MyGov facilitated the creation of 2.56 lakhs @gov.in email IDs of all local bodies across the country for the grass root level consultations of New Education Policy.
 - The platform has engaged over 150 volunteers so far from different walks of life-students, professionals, homemakers and senior citizens in various content management activities.
 - MyGov Samvaad was organized in November 2014, inviting selected citizens to who have contributed their ideas for Digital India with the Hon'ble MoCIT, Shri Ravi Shankar Prasad recognized their contribution on MyGov as well.
 - Niti Aayog is conducting an important survey on Innovation and Entrepreneurship.
 - There is a facility of holding activities with the targeted domain experts, special interest groups, etc. within MyGov core framework.

ENABLER INDICATORS

Process reengineering

- A completely independent cell within DeitY has been created for implementation and management of MyGov.
- It is therefore a Social Media Framework has been formulated for catering to the entire Government of India as well as states and academia for crowd sourcing ideas, suggestions and comments towards formulation of various policies and schemes as well as assessment of implemented policies and schemes.
- A dynamically configurable workflow has been established for contribution, approval and publishing of all activities on MyGov.
- The standardized controlled vocabularies available through <http://vocab.nic.in> are used for MyGov as well to help contributors provide most of the meta-information while submitting catalogues and resources..
- Wild card based SSL certificate purchased for making all sub-domains under MyGov secure and safe for users to access the sites.
- Another important process change is the unique facility to access MyGov without the need to remember password and enable login through email/mobile based OTP.

Change Management and Capacity Building

- Periodically platform is enhanced with new features and functionalities. Regular training programs conducted to familiarize the stakeholders to make use of platform. Such programs also cover any new or replaced Nodal Officers to help them collaborate with MyGov.
- One activity was to train Executive Officers and their representatives of 2.56 lakh local bodies to operate their government email account, using MyGov and submitting public consultations from remote villages on <https://survey.mygov.in> for formulation of New Education Policy.

VALUE INDICATORS

Digital Inclusion

Being an open source product the source code base can be shared for anyone to make use of the product. However, it is also offered under "Software as a Service" model.

- It layout is responsive and is available on almost all the platform and devices. It also has a mobile App in the widely used Android platform for performing all activities available on Web medium.
- Platform, accessible securely through SSL Certificate, is in open domain with open access to all.
- The site is compliant with Guidelines for Indian Government Websites (GIGW) and visually challenged people can also access the site through screen reader.
- PodCast of the activities and valuable comments on a weekly basis is also available for people subscribe and listen specifically for visually challenged.
- IVRS based comment (voice) posting is currently available for Maan Ki Baat. However, it would soon be available for other sections of MyGov.
- SMS based registration any one and every one and action specific SMS alerts are sent to all registered users.

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GUJARAT HOSPITAL MANAGEMENT & INFORMATION SYSTEM (GHMIS)

[Health and Family Welfare Department, Government of Gujarat]

J.P Gupta

DESCRIPTION OF PROJECT

Gujarat Hospital Management & Information System (GHMIS) is a system for patient care and hospital management. GHMIS automates financial, administrative and patient care activities of hospital, generates extensive management reports, operational statistics & offers a powerful query module. It generates as well as maintains Electronic Medical Record (EMR) and makes it available across the hospitals. GHMIS has been envisaged to not only help the administrators to have better monitoring and control of the functioning of hospitals using decision support indicators but also assist the doctors and medical staff to improve health services with readily reference patient's EMR. It also provides work flow enabled process and parameterized alarms and triggers while patient treatment cycle. GHMIS is currently running at 22 district hospitals, 10 medical colleges, 2 dental hospitals & 2 mental hospitals.

GHMIS monitors pre-defined health indicators and uses exception reporting to enable efficient decision making by the hospital management, top management and administrators for policy and strategic decisions.

Salient Features

- In-depth statistics for healthcare policy making, Quality improvement for efficient hospital administration
- Integrated solution with data integration among different hospital processes and functions
- Compliance to International and National Standards like ICD-10, MCCD, HL7, NABH etc.,
- Integration with Smart Card, Web Cam, Biometric and Barcode
- Web Based Application, Enhanced and extensive MIS Reporting facility

Key Benefits

- Holistic view of hospitals' day-to-day functioning
- Efficient and effective monitoring of key medical and non-medical indicators
- Decision support based on exception reporting using alerts, triggers and visual alarms
- Increased efficiency due to easy access to EMR and template-approach
- Satisfied patients with quality health services, reporting, SMS and Email facility

- Acts as repository for analysis and studying disease trends, drug consumption trends and resource utilization

RESULT INDICATORS

- Unique health ID at time of registration
- Patient care services (Lab, Clinical diagnosis, Drug issuance, Nursing care, Operations)

Benefits obtained

- Digitized Patient EMR across all hospitals
- Easy access to hospital services
- Workflow driven processes for clinical & diagnostic services
- Reduced chances of medication errors
- Diagnosis as per ICD 10
- Holistic view of hospitals' day-to-day functioning
- Access to Disease Trend

Implementation coverage till date

In total GHMIS solution has been implemented at 36 different locations across the State:

- 10 Medical Colleges
- 22 District hospitals
- 2 Dental hospitals
- 2 Mental hospitals

ENABLER INDICATORS

Process reengineering

Listed below are the three major process changes:

- Use of ICD 10 codes for diagnosis (Earlier all the diagnosis were captured in free text and there was no standardization. For example one doctor would write "fever" and other "Pirexiya" which did not help in doing analysis and generating trend. Now ICD 10 is implemented helping department generate Disease trend at State level and perform analysis even easier.)
- Generic nomenclature for prescribing medicine (Earlier there were no standardized manner for prescribing the medicine to patient like mostly brand name of medicine was in use. which leads patient to take that specific brand name medicine only. With use of generic name of medicine, patient can take any brand medicine of the prescribed content.)

- Templates & Role based Work-list (Templates are very useful in heavy OPDs almost 50 to 70 patient's per doctor, as they help in reducing the overall time consumed in capturing information. The system also brought in worklist which alerts users of next course of action to take or list tasks pending at their level. Worklists helped in improving the ease of use and efficiency)

Change Management and Capacity Building

- Government of Gujarat has put lot of emphasis on capacity building for successful implementation of GHMIS project.
- Detailed manual for every module have been prepared and issued to all the hospitals.
- All the users have been provided with the basic computer training along with the GHMIS specific training and hands on training.
- Hand holding to all the users has been provided through a technical team of total solution provider and concerned hospital.

VALUE INDICATORS

Digital Inclusion

In the GHMIS, we have provision of making demographic details entry in Gujarati language. So, people can easily understand and identify his clinical records from bulk of records kept with them. It will enable them to keep their records efficiently for next time whenever they require.

Green e-Governance

All patient related data are stored in the form of EMR in the system. Therefore, patients do not need to carry their records with them. So, GHMIS is less-paper application.

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SUGAM - SERVICES USING EGOVERNANCE APPLICATIONS ON MOBILE

[Revenue Department, Government of Gujarat]
Alok Kumar Pandey, IAS

DESCRIPTION OF PROJECT

SUGAM is an android base Mobile App which provides a one stop interface to citizens to get information about status of application, file and scheme pertaining to collector office (district administration). As a part of m-Governance, with help of local NIC, this “SUGAM” Mobile App has been prepared for collector office. This application also demonstrated to Hon. CM, Gujarat and launched by Hon. Minister for Information Technology in presence of Chief Secretary, Gujarat State during National mGovernance Seminar held at Gandhinagar.

This SUGAM app is designed in such a way that, apart from services covered under SUGAM so far, some other new citizen-oriented services can also be included as and when required. It is also hosted in Google Play Store and any android user can download this SUGAM (Collector office, Junagadh) App on their mobile.

Swachh Bharat Mission and digital India which are the ambitious Mission Mode Project of Hon. Prime Minister of India. As a part of it, a separate android based mobile & web application module namely “SHUCHITA JUNAGADH” (Clean Junagadh) prepared and which was also launched by the Hon. Chief Minister of Gujarat. This module is also included in the SUGAM through which citizen can submit their complaints of cleaning using mobile.

Idea behind developing such solution is to provide maximum citizen centric services pertaining to district administration through single and unique mobile & web application. Citizens need not visit office for getting information and status of any service/application/complain.

- To provide instant information of Government schemes & status of works.
- To build Co-ordination between line depts.
- To bring transparency in implementation developmental work/scheme, hearing of revenue cases and processing the application.
- Monitoring of developmental / field level works.
- To provide Interface directly with citizens.
- To ensure quick disposal of citizen centric application and grievances.
- More than 15 Services Covered.
- Dynamic feature of adding any new service.

- File tracking system.
- Implementation / monitoring SBM
- Available on Google Play Store.
- Prepared & Maintained In-house.
- No extra cost incurred.
- Database & other modules hosted on State Server.

Benefits

- The present system of implementation of various schemes, developmental projects and dissemination of information does not attract much curiosity and delays the whole process. So to provide quick service and inform / educate public at large, this SUGAM is the best ICT tool.
- To ensure correct, authentic and official information in transparent manner to the all sections of beneficiaries is the prime motivator of the project.
- SUGAM aims to bring transparency in system, inform and educate people, reduce time in delivery system, build capacity among rural/urban target groups and strengthen m-Governance in a cost efficient manner by using information and communication technology.

RESULT INDICATORS

Benefits obtained

- *Revenue Cases (RCMS) :*
 - One can know date of next hearing.
 - Citizen, Lawyer and officials can get hearing board online.
 - Copy of any order can be downloaded.
- *iOjN – District Planning Works:*
 - Work wise details for Taluka, Village and any Scheme.
 - Details of expenditure incurred, name of agency, implementing officer, date of grant/sanction and status with photographs.
- *Arms Licensing:*
 - Any licensee can get information about his license.
 - Police department can verify details online.
 - Validity & expiry of license can be known.
- *Long Term Visa (LTV):*
 - It provides user status of visa application.- where it is lying
 - It shows date of visa expiring and not applied for extension.
- *AnyROR – Land Records:*
 - Any farmer / land holder can get Land Records VF7 Survey No. & VF8A Khata details
 - Status of Mutation entry (VF6) and 135D Notice can be available.

- *Garib Kalyan Mela (GKM) :*
 - Department wise or Scheme wise No. of beneficiaries and amount.
 - Village wise list of beneficiaries with details of name, equipment, amount etc.
 - Details of feedback for beneficiaries along with photographs.
- *Lok Samvad Setu (“Lok Darbar”):*
 - Any citizen can get details of applications/ grievances registered under “LOK DARBAR”.
 - Action taken details is also known to applicant.
 - Implementing officer can know about questions pertaining to his/her department.
- *Samanvay:*
 - Infrastructural works of all departments & village asset register.
 - Total works, amount spent in specific scheme/taluka/village is available.
 - Complete detail of work with photographs.
- *Ration Card –PDS:*
 - Details of Individual Ration Card
 - List of ration card holders (FPSwise)
 - FPS/Retailer wise Permissible Qty.
- *Registry & File Tracking:*
 - Online status of file & application being processed in the office.
- *Stamp Duty 32K Cases Disposal:*
 - Speedy disposal of pending STAMP DUTY 32K CASES.
 - Applicant can know about remaining stamp duty to be paid & details of notice, challan and order issued.
- *Name Search in Electoral:*
 - Voter's details from electoral by providing EPIC Number or Name.
 - Information about Polling station, Location, Name of BLO with contact number.
- *Jan Seva Kendra (ATVT):*
 - Online status of ATVT Application
- *SWAGAT Applications / Grievances:*
 - Status of Swagat Application/ Lok Fariyad
- *Shuchita (Clean Junagadh) / SBM Module:*
 - Any citizen can submit complaint online through Mobile.
 - On submission of complain, concerned authority will receive SMS alert.
 - On disposal of complain, citizen will also get SMS from authority.
 - Citizen can upload Photographs of location of cleaning complain and authority will also upload the Photographs after the action taken.

Implementation coverage till date

- Average No. of Internal users of the system during an year : 700+ (All eGrams villages, Talukas and District offices).
- Average No. of external (Non departmental) users i.e. citizens / customers the system handles: 10000+ (All villages and Mobile App users)
- Geography coverage of the system: All villages, respective government department / agencies of the district and citizens.

ENABLER INDICATORS

This SUGAM is designed in such way that it offers 15 different modules (web applications) which are hosted on the central server. Citizen centric part of this entire module made available on mobile through SUGAM app.

While implementing the solution many processes have been re-engineered. Manual system replaced with online decentralized role based system. By integrating various modules, a single point solution is provided. Online submission of cleaning (Swachchhata) complains through mobile and disposal is a one of the effective portion of the system.

Process reengineering**Major ICT and Non-ICT process changes that were planned and implemented**

- This solution has a diversified features which covers area of development, public grievances and citizen services/ benefits. Modules for Planning Work and Samanvay are meant for implementation of development works, Shuchita Junagadh, RCMS and Lok Samvad Setu modules offer redressal of public grievances while Garib Kalyan Mela, ATVT Jan Seva Kendra etc. are for providing citizen services and scheme benefits.
- Looking to the feedback and demand raised from the people, social media linkages for facebook page and you tube channel of collector office have also been provided in the SUGAM.
- To provide basic information and facility other than citizen service modules like details of contacts, news/bulletin, download of application forms and documents, details of new initiatives, User guide etc are also included in the SUGAM application.

Change Management and Capacity Building

Our Hon'ble Chief Minister, Gujarat personally appreciated district team and this ICT innovation. She was so deeply influenced by this ICT that she desired this to be implemented in whole state of Gujarat. Prabhari Minister also appreciated and gave moral support in preparing the solution. As a collector and team leader, we

have received constant support from line departments in the district. At grass roots level citizens also energized us by tendering their zealous support.

VALUE INDICATORS

Digital Inclusion

In the design of the SUGAM application, the factor of digital eDivide /eInclusion /eExclusion was considered. Formal analysis was carried out at various levels of the management to identify the classes of beneficiaries who might be at the risk of digital exclusion. Information in vernacular languages, delivery of services over the mobile and integration of social media generally help decrease the incidence of digital exclusion.

This ICT is available in English as well as in vernacular language wherever is required. So persons who do not know English are also included.

The services are available through mobile that is why mobility related issues are addressed specially Farmers, physically challenged persons, senior citizens and women.

Green e-Governance

To operate at maximum efficiency and remain compliant, there must be consideration of present e-waste practices and how they can be improved in order to remain competitive and environmentally friendly. Keeping this in mind, this application is developed on mobile platform.

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SATHI – AN ENTERPRISE WIDE HRMS SOLUTION

[Department of Science & Technology, Government of Gujarat]
Dhananjay Dwivedi, IAS

DESCRIPTION OF PROJECT

Government of Gujarat embarked on a large HR Transformation Program (G2E in short) to redefine the Personnel and Administrative Processes empowering their Employees. This was provided on multiple platforms including mobile platform thus ensuring timely, transparent and reliable services to employees using portable – mobiles, laptops, besides fixed devices like desktops and kiosks. While there are a number of initiatives taken for G2G, G2B, G2C this is the largest initiative taken for G2E (Government to Employee) as it has been rolled out State-wide and also the most comprehensive application incorporating all Employer- Employee transactions on modular built with integration.

SATHI acronym for **S**ystem of **A**pplication of **T**echnology for **H**uman Resources **I**mprovement is used to automate HRMS related services coupled with strong change management program. The SAP platform and the GHRMS solution is built on scalable model to cater / cover all the employees under State of Gujarat that will emerge in future.

Goals & Objectives:

SATHI is built on fundamentals of transparency, uniformity, standardization of processes with main objectives such as:

- To support the optimal utilization of human resources and effective HR management for the public service through-
 - Providing correct, timely, reliable, accurate and secured HR data
 - Providing easy, convenient and user friendly interface to access HR information
 - Providing effective sharing of HR data to the Government and its affiliated offices.
- Provision of timely & reliable management information relating to human resources for effective, quick and informed decision making within the government.
- Provision of ‘single window’ services to employees.
- Availability of complete Personnel information on-line, in order to eliminate delays in decision making

- Capturing all HR- related transactions online to generate e-service book and automating decision making process and generation of orders online through the platform
- Achievement of a more efficient and effective workforce to serve the citizens of the State, particularly the poor.

SATHI (HRMS Application) captures all employee- employer related processes right from the time that a person joins the government till the time, all his dues, including the pensioner benefits are due to him/her.

Benefits:

- One instance for all employer/employee processes
- Single source of truth on Employee master data
- E-governance at state level, empowering employees and officers with decision support data for taking quick and informed decisions
- Mobile platform for seamless access of SATHI Application – promoting m-governance at the state level
- Effective monitoring of employee and follow-up by the system through alerts
- Decentralized decision making, reduced multi-level approvers
- Using mobile technology for effective skill development by online e- learning
- Automated payroll, pension & local regulatory compliance
- Video conferencing that helps in training and meetings
- Efficient Talent Management by Skill/Competency Assessment and training
- Transparent Benefit Management
- Efficient Manpower Budgeting

Current Status:

The SATHI system went partially Live in Aug, 2014 and completely Live in July, 2015. It was declared Live by the Hon. Chief Minister of Gujarat, Smt. Anandiben Patel. More than 12000 employees are part of SATHI. Data digitization process for other 8000 users is on.

RESULT INDICATORS

- This is purely a Government to Employee Service.
- The Employees of Gujarat Government are the stakeholders and the beneficiaries are
 - All Administrative Departments across Gujarat
 - All Employees including AIS (IAS, IPS, IFS), Class 1, 2, 3 and 4 employees

- Policy makers in the government such as Ministers, Secretary of the departments
- Cadre Controlling Authorities
- All Managers in the Government

Implementation coverage till date

Geographically speaking the Entire State of Gujarat and head count-wise 12,000 employees are covered against 20,000 planned in the first phase.

ENABLER INDICATORS

Process reengineering

Major ICT and Non-ICT process changes that were planned and implemented

SATHI undertook massive process reengineering to eliminate human interface at support function. Rules, processing transaction, generation of communication for the decisions, and the task of mailing list have been automated to bring in efficiencies.

SATHI has reduced multi-level approvers by eliminating human interface at support function.

Change Management and Capacity Building

The top leadership at the time of conceptualization and implementation of the project extended both moral and formal support and personally reviewed the progress at different stages.

VALUE INDICATORS

Green e-Governance

- As any process right from application- submission to issuance of approval order/notification is wholly in electronic mode, not paper is required at any stage of any process.
- When any process is carried through SATHI mobile App, it consumes less power compared to the same process carried through web based application (i.e. on desktop/laptop)

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FILE MANAGEMENT PROCESSING SYSTEM

[Revenue Department, Government of Gujarat]
Dr. Rajender Kumar, IAS

DESCRIPTION OF PROJECT

Ultimate goal of FMPS is to act as a public delivery system to enable citizens to access services in a fast, transparent and efficient manner. Surat Collector Office is the central fulcrum on which the district runs, citizens approach various departments for resolving their queries and getting information regarding of issues ranging from licenses, permits and land & revenue matters. At this office complex system processing is required to carry out simultaneous functions for information dissemination in real time. Citizens can approach either relevant department or enquire at the Jan Seva Kendra (Public Service Centre).

The FMPS developed internally by collector office, Surat is a web based application designed to empower every citizen with access to status of applications or requests lodged with the collector office, Surat in the comfort of his/her home at the click of a mouse. By simply putting in the file no. on the web based application at <http://www.collectorsurat.in/>, the status can be monitored by the applicant with minimum effort. It also serves as an effective internal monitoring mechanism wherein the work flow is clearly defined for each branch of the collector office starting from village level government functionaries up to the district level. Accountability is easily fixed in real time as all pending issues are visible through the FMPS. It reduces manifold the time traditionally taken in reviews of work of subordinates as each pending file at each location is available to the head of the organization in real time and hence enable better time utilization. There is also no opportunity for obfuscation of facts by members of the organization as all the real time data with respect to their work efficiency is available in the open domain.

Stakeholders are also able to take copies of orders and documents pertaining to their matters as these are also available online. The major objectives of this application are as follow:

- Project is implemented in four districts like Surat, Vadodara, and Bharuch & Navsari.
- **Access** to citizens of internal organizational processes which impact their lives
- **Empowering** citizens by eliminating barriers to information.
- **Eliminating middlemen** in government-public interface

- Making overall functioning of the organization **effective**
- **Cost reduction** in terms of cost of manpower required in information dissemination roles and also by increasing overall efficiency of organization.
- Generate **sense of satisfaction** among stakeholders

RESULT INDICATORS

- There are total 4 channels provided to deliver services through ICT.
- JanSevaKendra, CSC (HelpDesk), Web & Mobile through which currently Twenty One (21) number of services are provided.

Benefits obtained

Top three benefits derived by Stakeholders from the Project

- Online-Real time information availability of application
- Minimal interaction with officials leading to increased transparency and reduced corruption
- Transaction cost reduction and increased satisfaction

Implementation coverage till date

As the website is hosted on public domain, farmers and NRG can also use it and benefited irrespective of their location at any-time.

ENABLER INDICATORS

Process Reengineering

- Total Three (3) versions of software has been released since first launch as per user requirements.
- One server is configured to use only FMPS for Intranet users and another server is configured for public domain users (through BSNL broadband connectivity). Database are synchronized with primary to secondary server.

Change Management and Capacity Building

- Till now three version of project is adopted.
- Project having strong and powerful versioning and facility to change or edit any contents

VALUE INDICATORS

Digital Inclusion

- Project is bilingual i.e., English & Gujarati (local language) hence local stakeholders are also benefitted.
- Bilingualism is implemented at development level.

Green e-Governance

In RTI application, a single copy is scanned in PDF and distributed over relevant branches. Hence due to digitization of this, less paper is used.

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SWASTHYA SAMVEDANA SENA

[District Panchayat, Government of Gujarat]
Nagarajan M, IAS

DESCRIPTION OF PROJECT

Maternal health, Child health and adolescents health has emerged to become the de facto focus area of many public health programs initiated by both public and private entities. The District of Sabarkantha in Gujarat is no stranger to such intervention programs. The district has a fairly large group of Health workers who are constantly improving the lives of women and families in their community by offering key preventive health services.

While the health workers face many challenges such as lack of quality health content or lack of necessary support system for knowledge up gradation; the administration faces far larger problems pertaining to training of the health workers and tracking and monitoring their performance to improve the effectiveness of the health workers.

‘Swasthya Samvedavana Sena’ is Information & Communication Technology (ICT) based Information, Education and Communication (IEC) solution for health & nutrition department. The project intends to support frontline health workers by giving them an Android tablet preloaded with the ‘Swasthya Samvedavana Sena’ application. As the health workers use the tool in their everyday discussions and meetings with women in their communities, the administration is able to track and monitor their activities, using a web based dashboard, to draw valuable insights from them.

Unicef and NHL municipal corporation medical college are technical partners of this project. Impact evaluation study is done by NHL medical college in Himatnagar taluka, which is financed and monitored by Unicef Gujarat. Baseline surveys of 1800 families have been conducted by NHL medical college. Training of Health Workers (Medical Officer, Ayush Tabib, Health Supervisor, Female Health Worker, Male Health Worker) Himatnagar and Prantij taluka have been completed for Tablets and Swasthya Samvedana Sena application. Health and nutrition contents used in application have been reviewed by NHL medical college.

RESULT INDICATORS

- Total 666 tablets with application have been deployed in the fields.
- All 600 health workers trained for using tablet and application.

- More than 6000 IEC sessions have been conducted till 25.8.2015
- HWs have been digitally empowered by giving tablet devices and training.
- Trainings are organized frequently on how to conduct IEC session and how to deliver IEC contents to citizens.
- HWs are now able to do data entry of health data using other applications like PubCare (Family Health Survey) and ODK data collect (Infant Death Reporting) IEC information is disseminated through tablet to beneficiary in Video/Audio and power point presentation.
- Case reporting with photo and Geo tagging is done.
- IEC session reporting is done by pressing “Sync” button in mobile application.
- Dashboard for district official for daily monitoring of IEC activities.

Benefits obtained

- Skill of IEC delivery has been improved.
- HWs are now able to deliver universal, complete and scientific knowledge to beneficiary.
- Target groups are easily attracted with new process of IEC delivery.
- District Officers are able to manage each and every HW with Dashboard from district level.
- Geo-tagging and photo of beneficiary ensures quality IEC service delivery to beneficiaries.

Implementation coverage till date

- Whole Sabarkantha district of Gujarat has been covered. Total more than thirteen lacs population have been covered till date.
- Female health worker, Multipurpose health workers, Male Supervisor, Female Supervisor, IEC officers, Medical Officers, Ayush and district officers have been covered.

ENABLER INDICATORS

- Digital empowerment training of 600 HWs have been completed.
- Engagement of stakeholders like UNICEF and NHL Medical college has been done to easy deployment, scalability and sustainability of ICT solution
- Baseline knowledge, attitude and practice study has been conducted for need assessment and also to make a decision to focus on specific health service for improvement in service delivery and acceptability by beneficiaries.
- All HWs have been given Swasthya Samvedana Sena badges to create unique identity among community to increase self-confidence for service delivery.

Change Management and Capacity Building

- UNICEF and NHL medical college have been engaged for capacity building and visibility of actions.
- Initially with the help UNICEF & NHL medical college 80 HWs have been given training for 5 days.
- Trainers of the trainees have been prepared.
- There after rest of HWs have been trained.
- Also refresher two days training has been planned.
- Project management and monitoring have been done using existing health officers. Impact evaluation study is done by NHL medical college.

VALUE INDICATORS

This projects mainly aims to contribute in reducing Maternal Mortality Ratio (MMR), Infant Mortality Rate(IMR) and reducing prevalence of malnutrition in community.

Digital Inclusion

- Mobile application has been made in vernacular language (Gujarati) for a quick adoptability.

Green e-Governance

- The project reduces use of paper or card based IEC materials which have low shelf life and pollute the environment.
- Paperless reporting of data from FMW/ANM reduces paperwork and use of hard copies.

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ELECTRONIC SURVEILLANCE OF THE EXAMINATION

[Secondary & Higher Secondary Education Board, Government of Gujarat]

A. J. Shah

DESCRIPTION OF PROJECT

Electronic surveillance of the state board examination is one of the well accepted and effective projected implemented by Gujarat Secondary & Higher Secondary Education Board

Now a days where private higher education is very costly and admission to government colleges is very limited for the higher education, it is very important to monitor and control mal practices occurring in the examination hall (which can be as minor as asking for 1 or 2 marks answers, as it makes a lot difference in the merit list of the student).

In order to control mal practices in the examination hall, every year board prepares a **manual surveillance team** (squad) and spends a lot of time and fund for creation of squad selection committee, selection of squad, training of squad, daily allocation of center and coordination for squad, everyday planning and coordination, follow-up and support from helpdesk, security arrangement for squad, transportation planning & arrangement. Board spend approximately rupees 10 crore every year for the same.

The core role of squad is monitoring, control mal practices, identify suspect, find out copy method, filing case, taking statement and submit the documents to state office.

But some of the factors affecting manual squad were local pressure, emotional attachments, corruption, lack of courage and physical violence etc. So now it was mandatory for board to introduce a system independent of human intervention to overcome the above challenges.

Electronic surveillance has become very good tool for conducting the examination. Last year (in 2014) we had completed the second pilot implementation of the electronic surveillance system with 3500 tablet phones (with cameras) in board examination and covered approximately 250 schools. In current year we have covered all the schools of the state and approximately 55,000 cameras were installed across the state and covered approx. 18.81 lac students of the state during March 2015 examination.

In government schools, government has installed permanent CCTV cameras for all the examination building, for other granted and private schools we have requested school management to install cameras at their own cost. Out of 59000

required examination classrooms 50000 classrooms were equipped with CCTV cameras before examination and 5130 tables phones were installed by Board during examination.

All the recorded videos has been reviewed by district level committee for the copy cases, they again gets reviewed during hearing process (by examination committee, where board show to student, parent and teachers.

RESULT INDICATORS

Need of Digital Surveillance is to:

- Get correct and accurate reports
- Get full proof documentaries
- Save cost & time on transportation and planning to focus on examination.
- Get better Output
- Create feelings that someone is watching (GOD and CCTV)

Efficiency and Improvement Initiatives

- a. Challenges faced before deployment of the project
 - Poor monitoring of mal-practices in the examination hall
 - Chances of not filling case due to any of the reason
 - Last minute copies
 - Record management
 - Transportation and security issues for the Squad
- b. The project was started in Oct 2014 where Board has utilized existing cameras of the schools and implemented jammers in one of the exam centers covering 19 schools as a pilot to prevent mal practice using mobile chat messengers. But in case of jammers Board has not succeeded in identifying students or teachers involved in the mal practices. From CCTV footages we were able to identify the person involved in mal practices.
- c. Exam centres where CCTV cameras were not available board have implemented mobile technology based tablet cameras for the live monitoring of classrooms. 5130 tables were installed across the state for notorious centres.
- d. With the help of mobile network and live streaming the all the classrooms were monitored from central monitoring and control rooms located at Gandhinagar.

ENABLER INDICATORS

Process Reengineering

- Copy Case filling system
 - The major process re-engineered was of copy case filling process, which was previous getting filed during examination only, with the document

used for the copy(as proof). Now with digital surveillance all the recording gets reviewed by district team (minute by minute) and based on the video evidences the cases get filed.

- Dependency of physical infrastructure, power supply and availability of local technical staff were the core challenges initially faced by board during pilot implementation but later it got resolved
- The key benefit of the process reengineering was we were able to file cases without need of any physical documents as a proof.

Change Management and Capacity Building

- Government (and education department) have supported for the implementation of live tablet cameras at notorious centres and installation of permanent CCTV cameras in all the government exam centres (Government schools)
- It was actually difficult to convince the schools to install CCTV cameras but we made it possible by persuasion district team.

VALUE INDICATORS

Digital Inclusion

Irrespective of any partiality (which generally takes place in case of manual surveillance) the electronic surveillance records all the students equally. The main goal and objectives for the project are

- Transparent and secure examination environment across the state (both urban and rural areas)
- Full proof evidences for the mal-practices done in the examination hall
- Live and real time monitoring and action

Green e-Governance

The key benefit of the project is toward the environment. In case of manual surveillance approx. 600+ vehicles got utilized on daily basis for sending the team to the examination centre. In case of digital surveillance the utilization of vehicles has been reduced it to 20% of the previous. The electronic surveillance can be considered as one of the best Green e-governance project.

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GATISHIL GUJARAT

[General Administration Department, Government of Gujarat]

Dhananjay Dwivedi, IAS

DESCRIPTION OF PROJECT

The Government of Gujarat launched Gatishil Gujarat campaign as a focused and concentrated, outcome oriented developmental project for beneficiary oriented schemes. It was launched initially as a project for 100 days covering 51 activities. The time-bound campaign posed challenges to the coordinating departments in relation to collection, collation of data from multiple data points from the field, which led the Administrative Reforms and Training Division in GAD to prepare a platform that would support the field level executing authorities, the State level policy makers and other decision makers, with a platform which provided the necessary information with right MIS tools.

This is the **IT enabled Gatishil Gujarat platform**, which helped the State Government achieve overall 138% against the outcomes which were fixed for 100 days. Buoyed by the achievements and the synergizing effect that Gatishil Gujarat delivered across the rank and file of the State administration, on 8th October, 2014, the State Government launched 5 month long phase 2 of the Gatishil Gujarat programme, which, backed by improvised MIS with built in decision support system, enabled the State Government to realize 126% achievement in relation to 114 target oriented schemes set up across the departments.

The objective, philosophy, targeted approach for monitoring and implementation of beneficiary oriented schemes has been institutionalized with the launch of Gatishil Gujarat for the year 2015-16, which caters to 184 individual oriented schemes in G2C and G2G domains and which has been synchronized with the period for performance appraisal for the Government officers and employees along with built in provision for quarterly review and half yearly appraisal.

Scaling up of the Gatishil Gujarat campaign, coordinating with more than 3000 data generating nodes across the State at Secretariat, HoD offices, district and taluka level would have been impossible; had it not been for the Gatishil Gujarat portal, which not only allows splitting of the targets up to the last field functionary but allows to correlate and compile achievements against the targets specified at field, district, HoD, departments giving a State level overview. This MIS has allowed the Government to fast track delivery of benefits of the Government programmes to the intended beneficiaries and also to effectively monitor to ensure synchronization of efforts across the department and across geographical offices.

Goals & Objectives

The Gatishil Gujarat IT platform contains the following objectives:-

- Split the State level targets across departments, HoD offices, district level offices.
- Enable decentralized feed back of the information for the Gatishil Gujarat.
- Compile and collate the information for each of the schemes.
- Provide Schematic achievements, plan and progress patterns.
- Provide dash board view for district, HoD, district and State level functionary.
- Allow review and monitoring through the built in MIS by enabling drilling down in geographical hierarchy with different schemes.
- Enable quick dissemination of information and collection of information from across more than 3000 schemes implementation nodes.
- Save the manpower costs that would otherwise become necessary for manual handling of information and coordination with large number of functionaries.
- Provide 'single window' system for the policy makers to monitor the programme deliveries of more 184 schemes.
- Provide current up-to-date status with latency of not more than 7 days.
- Fast track delivery of beneficiary oriented programmes through effective monitoring and supervision.
- Bring in significant savings of time, paper work and thus realize the goal of green system.

Benefits

- Single dash board for the State Government Departments, field officers.
- Complete MIS at the click of mouse with latency of not more than 7 days.
- Significant savings on manpower, using IT as a substitution.
- Scaling up of Gatishil Gujarat of 51 schemes to 184 schemes became possible because of support from Gatishil platform, which allowed collection of information from 3000s nodes and no effort in compilation and consolidation as the portal itself takes care of that using built in tools.
- MIS in the form of performance across the schemes, performance of the district in the same schemes, percentage achievement against the target, allow the decision makers to be more effective in review and fuel the spirit of competition amongst the field level execution agencies.
- Greatly reduced paper work, filing etc., and savings in the manpower for MIS management.

Current Status

The Gatishil Gujarat portal went live in July, 2014. Since then, it has completed two rounds of Gatishil Gujarat comprising of 100 days campaign and 5 months campaign. The Gatishil Gujarat for the current yearlong campaign has been scaled up with analytic options, and privilege based user rights that empower every Government employee in his effective functioning. Currently, all the stake holders - more than 3000 nodes spread across Government offices in Gujarat have been trained for utilization of Gatishil Gujarat platform. The platform in itself is robust and can manage any number of Government programmes and schemes, any number of field level implementing agencies and different variations of hierarchies for each of the schemes for the purpose of back rolling of field level accomplishments to give State level overview.

RESULT INDICATORS

- As mentioned above, the Gatishil Gujarat in the first 100 days Phase achieved 138% achievement and in second Phase, achieved 126% against the objectives.
- The number of schemes covered was increased from 51 schemes in Phase I to 114 in Phase II and to 184 schemes in Phase III. Weekly updation of data from more than 3000 field nodes happens empowering departments, state government to hold schematic review seamlessly as the necessary data in MIS are readily available.
- In Phase III, for the year long target at the end of first 4 months cumulative achievement across all the schemes is 45%.

ENABLER INDICATORS

- The platform is designed to replicate the hierarchical reporting system in the Government through layered organizational hierarchy from point of orientation to authority upwards; though by automating the time taken in collating and compiling the information and in indicating to one nod to another nod.
- Use of single sign on from the other application of NIC to ensure very little investment of time in training and capacity building
- Replication of the organizational hierarchy to allow user privileges based on their position in the organization and thus not setting the apple cart. This has ensured quick user adaption of the IT platform.
- Edit controls on the reported data, wherein the users are allowed to edit data only for the current and plus-minus one week to ensure the sanctity of the data and at the same time enabling the user to edit reporting discrepancies within one week from the reporting time.
- Built in dash board analytics - This allows the user to see accomplishment in percentage terms against the target sets for its office. This view gives a good

feedback about the investment for the specific scheme thus far and the additional efforts needed to ensure 100% accomplishment.

- Reflection on the capacity of the organization – The dash board also allows the organization to have a reflection of the capacity of the organization to implement specific schemes/ programmes. The gaps at various organizations under its control, relative performance of offices and additional strengthening required at different offices including through enhanced monitoring and follow up, thereby increasing the productivity of the whole organization for service delivery.

Change Management and Capacity Building

In terms of Change Management, hierarchical reporting structure for the existing process has been retained. However, by digital capture of data, the time spend on compilation, error checking, communication from one nod to the next nod has been minimized. At the same time, by following the hierarchical organization Government processes has not been changed, which has saved considerably on training of the stake holders.

VALUE INDICATORS

Digital Inclusion

Gatishil Gujarat is a G2E application With mandatory computer competency training for all employees certificates in Government of Gujarat, the question of digital inclusion has not arisen. Nonetheless, using NIC's district level organizations, each and every reporting nod has been adequately trained where ever necessary.

Green e-Governance

The project achieves Green e-Governance very significantly. With 184 schemes spread across 33 districts, it entails capturing information from more than 3000 nodes every week. Considering one page report from every nodes every week and ignoring the additional paper work generated by the intermediate for 52 weeks, it entails saving of over 1.5 lakh papers and the efforts required in the intervening process. Gatishil Gujarat optimizes space utilization by having the information in digital form which does not occupy any physical space. Thus, by very nature, Gatishil Gujarat also compliments, the objective of Green e-Governance.

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eGUJ Cop

[Home Department, Government of Gujarat]

PK Taneja, IAS

DESCRIPTION OF PROJECT

eGujCop solution is an end-to-end solution for the Home Department and its law enforcement agencies. It envisions creating a dynamic world class model police organization by providing innovative IT solution that would not only facilitate law enforcement for community safety but would also aim to build centralized crime & criminal information repository and deliver quality citizen centric services in a proactive and efficient manner. The eGujCop system provides an integrated system spanning the areas of detection, investigation and prevention of crime, a centralized crime and criminal repository and reports which enable tactical to strategic decision making. The solution integrates the backbone of Home Department covering functions like Police with all the offices including Divisional, Range, Commissioner, Superintendent, Director General Offices and other departments under Home including Anti-Corruption Bureau, CID Crime, Intelligence Bureau, Sainik Welfare, Home Guards, State Crime Record Bureau, and Directorate of Forensic Science. This solution covers all the 1,100+ offices across Gujarat State with more than 73,000 registered users. The Department has also envisaged the linking of the eGujCop with systems / applications of other departments such as Automatic Finger Print Identification System (AFIS), Passport Seva Kendra (PSK) etc.

Data Digitization of more than 1.5 Crore Records has been completed. Basic IT Training have been imparted to more than 17,000 police personnel. 1,592 personnel have been provided training for ToT (Training of Trainers). 13,351 personnel have been given Role-based training and more than 51 sensitization sessions through KU Band have been conducted with different levels of Police Personnel. Also, sensitization sessions for the new joiners have been imparted on regular basis.

RESULT INDICATORS

The outcomes and achievements of e-GujCop Project can best be enumerated objectively in figures through Key Result indicators. These indicators clearly specify the percentage of success of eGujCop project and the value addition brought in the system. Key Indicators are

- Percentage of Digitization
- Application Usage
- Training Imparted

- Geographical Span
- FIR Entries
- Integration with existing applications in state (Systems)

Benefits obtained

- Data Digitization of Historical Data (>1.5cr records) thus enabling the department for making informed decisions
- Totally integrated system with external interfaces leading to reduction in efforts & duplication of work
- Extensive training across all levels (Basic, ToT and Role Based) for 14000+ employees making them IT ready for using the system optimally

Implementation coverage till date

- Setting up of IT Infrastructure in a state spread across a large geography with varied landscape, is a massive exercise as it involves lot of effort and time and has been therefore carefully planned. Geographical span of eGujCop Application is as follows
 - 600+ police stations
 - 7 Range Offices
 - 4 Commissioner offices
 - 27 prisons
 - 92 SDPO
 - 36 SP offices
 - 38 Anti-Corruption Bureau offices
 - 82 CPI offices
 - 147 IB Offices
 - 34 CID Crime Offices
 - 42 District Headquarters and DGP Office
 - 27 Prohibition and Excise
 - 40 Home Guards and Civil Defense Offices

ENABLER INDICATORS

Process reengineering

Major ICT and Non-ICT process changes that were planned and implemented

The eGujCop system improves efficiency at the tactical level (data capture levels) and enhances effectiveness at the strategic levels eventually enhancing the service delivery to citizens with a transparent system with total data integrity.

Change Management and Capacity Building

To drive the project forward as well as to ensure smooth running and functioning of the project, even in case of changing personnel or their mindset, commitment at

the highest level was the necessity. To achieve the same, group of committed leaders having understanding of the benefits and technical aspects of the project, was formed.

Change Management - IT and Behavioural Change Management.

- Change Management as a process applies to (1) Changes required in processes due to implementation of Information Technology i.e. IT Change Management or Business Process Reengineering and (2) Changes in human behaviour and attitude in accepting the system and the revised government processes that come with it i.e. Behavioural Change Management. Workshops, followed by number of meetings, have been conducted with module leaders, from various HoDs of Home Department, and their teams for reengineering of the government processes to maximize efficiency and simultaneously to minimize the redundant work.
- System fully complies with the Current Legislation & Norms and abides by Government Rules & Regulations.
- System is open to enhancements and interfaces, if and as required by new policy or amendments.
- To reap the benefits of the system to the maximum, change in policy concerning acceptance of system generated documents as valid documents, was required. For instance, this change of accepting system generated documents has been incorporated across the offices of Home Department.
- The eGujCop system provides a basic technology framework hence, it can be replicated in other States with necessary amendments required, as per their legislative processes. States like Jammu & Kashmir and Rajasthan have even expressed their interest in adapting this solution.
- The eGujCop application uses latest technology with minimum need for incorporating changes in the system and has bilingual user interface which increases the users' inclination towards the system, as it provides interface in their local language along with English.
- Implementation of this system requires one time fixed capital expenditure and minimal maintenance cost in the area of software development and hardware provisioning, which would result in lower administrative and operational expenses through reduced paper and stationery usage.

VALUE INDICATORS

Digital Inclusion

- End to End Solution covering all functions of the Police Force and Home Department eliminating the islands of information

- Best-in-class citizen centric services and eventually bring all the G2G, G2C and G2B services of the Home Department online so as to obviate the need for citizens and other agencies to visit the Department's offices
- Seamlessly Integrated system for Single Source of Truth and elimination of duplication & redundancy
- "Ready" for interfacing / integrating with external systems such as Biometrics, Passport, Courts, Road Transport Office etc.
- High number of seeded reports available in the system eliminating manual effort
- Reduced Manual Intervention and increased Transparency
The solution enables Police Force to:
- Eliminate manual efforts due to integrated and process driven approach
- Focus on core policing activities of protecting the lives and property of citizens
- Uniformity across all organizations of Home Department
- Create a strong database of crime and criminals
- Lay the foundation for a Criminal Justice System (Police, Corrective Institutions, Prosecution and Judiciary)

Digital Inclusion

- The eGujCop system is Unicode compliant and can support the native vernacular language – Gujarati. This provides a high level of comfort to the ground level / field staff and avoids alienating them due to only English support.
- The user interface is intuitive so as to enable the users to operate the system without being experts in computer science.
- The Helpdesk set up also extends certain services such as logging ticket on user's behalf to ensure that the complaint is logged correctly and the user is not required to figure out complex technology terms.
- The training was imparted in vernacular language so as to provide the necessary comfort to the users for understanding the operations of eGujCop

Green e-Governance

- Paperless work
- Reduced physical touch point

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e-POLL MONITORING SYSTEM

[Department of Industrial Training, Government of Haryana]
Anil Kumar, IAS

DESCRIPTION OF PROJECT

Chandigarh used Information Technology to make the Election Process voter and public friendly. According to CEO, the use of computers and mobile gateway have great potential to streamline and speed up the process of voting and provide information regarding contesting candidates, voting schedule, status of queue in respective polling stations and various other services. The data of voters captured on computers can be analyzed easily which give clear-cut percentage of voting among different age groups, votes secured by candidates in each polling station etc. The use of computers according to this project has made us think about simplification of manual procedure relating to voter identification and preparation and analysis of data captured / statistics about voters presently not used by the Election Commission due to non digitisation and manually handling of records. The present manual system does not leave any scope of analysis of data. The use of computer in all 519 polling stations has made it possible to capture the data of 99.24% of the voters. This data on computer has made it possible to felicitate young voters in the age group of 18-19 by giving them participation certificates.

When information regarding use of computers and mobile gateway in election was disseminated to the general public there was curiosity among them. The technology was used in a fool proof manner and at the same time the existing infrastructure available with the Administration that is, computers in school and Servers and connectivity provided by NIC were used thereby incurring only around 12-15 lakhs expenditure on the project. A great data bank has now been created with the help of technical experts of NIC team. Apart from NIC team, an outsourcing agency namely WEEXCEL was hired for software development. A system has been designed in such a way that it can be easily replicated during the other elections. The software that identify voter based on his biometric thumb impression and using touch screen monitor for casting his vote opens a pathway for numerous future possibilities. Each of his innovation used in Lok Sabha Elections 2014 at the Chandigarh Parliamentary constituency is discussed in detail below :-

- Arrangement relating to pre-polling and polling day
 - e-polling monitoring system
 - Information regarding status of queue at the polling stations on the day of polling
 - Mobile gateway for sending information regarding contesting candidates, schedule of voting, polling station detail

- Arrangement on the day of counting
 - Providing counting result after each round to the voters
 - Providing graphic information polling station wise, round wise, AERO wise on the site of Election Department, Chandigarh
 - Future use of project system
 - Remote voting possible and easy to implement. ECI is now working on it.
 - Software ensures no manipulation in polling process due to use of biometric identification of voter. System is easy to use
 - Reduced dependence on security forces for maintaining law and order.
 - Huge cut in cost for conducting election.
 - Mobile gateway is useful not only for elections but also regulatory function like challenging of traffic violators etc.

RESULT INDICATORS

The project achieves all desired and planned result indicators. The outcomes and key achievement of the project are:-

- On voter mobile and CEO web site provided complete information about polling station, voters parameters, list of candidates, number of voters in the queue on the day of polling so that a voter could decide went to polling station to reduce his waiting time.
- Number of voters in different age group, sex and first time voters and voters above the age of 65.
- Providing instant information about counting result round wise. Public could fetch this information get the above information through their mobile or internet.

The services delivered were Government . to Citizen, Government . to employees, Government . to institutions, Government . to students. All first time voters in the age group of 18-21, who voted were felicitated by giving them participation certificates using data base on our computers.

- ***e-polling monitoring system:-*** The software developed by us captures the detail of voters and online transfer information to a central server. Integration of computers with the manual process is being taken up with the Election Commission of India to make the process of voting faster, easier and simpler.
- ***Information regarding status of queue at the polling stations on the day of polling :-*** The idea of informing a voter regarding the status of the queue at his/her polling station was to reduce the waiting time of a voter who has come to cast his/her vote. The other advantage of dissemination of this information is to check overcrowding at a polling station. The system has the capability of informing a voter automatically when the length of the queue on a particular polling station has reduced to 10 or less.

- **Mobile gateway** for sending information regarding contesting candidates, schedule of voting, polling station detail: - Mobile gateway service was provided to the voters in order to facilitate them. The voter had to simply text SCH for knowing the schedule of the poll, CAN for knowing the list of candidates contesting in the area in the same serial order as mentioned/appeared in the EVM Machine, BTH Voter Id No. to know about his/her booth detail, REG in order to get themselves registered for getting time to time alerts/results of the Election office, Chandigarh.
- **Providing counting result after each round to the voters:** - Advertisements were issued in different newspapers for the citizens to register themselves for knowing the round wise result on their mobile. 11975 persons got themselves registered and 239500 SMS were sent to these registered users on the day of counting i.e. 16.05.2014. A dedicated team of technical experts of NIC along with support staff and 10 DEO of network staff were involved in this task.
- **Providing graphic information** polling station wise, round wise, AERO wise on the site of Election Department, Chandigarh :- CEO Chandigarh Website <http://ceochandigarh.nic.in> provided a link on which results for the parliamentary constituency could be seen in a graphic form. It gave, in detail, the lead of the winning candidate after various rounds. Colour schemes were used for each candidate showing the votes secured in a clear way. This colour scheme was also depicted on the grid of all 519 polling stations which clearly showed the candidates winning at each polling station. The site worked flawlessly throughout the counting process.
- The use of computers, biometric thumb impression machine, bar code reader, SMS gateway service, has made it possible to simplify the election process further. It has been depicted clearly by development of software that by use of biometric and touch screen monitor that the polling process can be further simplified and it is possible to do away with large security arrangement and use of election manpower for polling. The use of Biometric will not require use of indelible ink and booth capturing and impersonation will be the things of past. In fact one of a senior politician had given a call that the voter should remove indelible ink mark after voting and should go and vote again. These calls can be meaningless after using biometric method and polling process can continue not for one day but for 2-3 days with this arrangement. To begin with the provision of such online voting system for election staff and service voters, it will ensure greater participation in the democratic process.

Benefits obtained

As explained above benefits were for public, election staff, Chandigarh administration and Election Commission of India. How many persons got benefitted has been explained above.

Services planned to be delivered

Systems developed can be directly put to use in subsequent elections. We have also shown a pathway that Remote Voting is easy, fool proof and possible. ECI is already working on it now. System developed can be easily used in other regulatory functions of the Government.

Implementation coverage till date

- Chandigarh and future elections

Efficiency and Improvement Initiatives

- The project being related to election process the project was time specific and the aim was to digitize information system as well as the polling and monitoring system. The innovative ideas were implemented with any lose of time and within three months done election process to make to system cost effective available resources like computers in school and other hardwares were used the expenses expenditure and software was limited to 15 to 20 lacs only.

Specific innovative ideas implemented

- The innovative ideas that has been implemented in e-governance are Complete digitization of polling record. This gives complete details of voters who have actually voted and who have not voted. The data collected gives complete information about voters age group and their polling percentage. The data were use to encourage young voters by displaying their name on website and then prepared and dispatch of certificate to voters and all over 17000 certificate were issued. By sending polling station number the voter was provided number of voters waiting in the queue in respected polling stations. Voter to use the information thus reducing his waiting time at the polling stations.

ENABLER INDICATORS

- The election process is mainly manual, our project intended to digitize the process by use of computer in all 519 polling station. Capturing /storage of complete data for easy analysis. At the same time we used simple technology like handheld scanner and mobile phones. Digitisation has opened future possibilities for remote voting.

Change Management and Capacity Building

- Due to acute shortage of time for implementation the project demanded quick decision making and being the Head of the Department. The Basic requirement was to lead various team of NIC, Weexcle, Election staff and Chandigarh Administration in systems design and development implementation testing and making improvements . Effective co-ordination among various components

and team work was to be achieved. So, that the project is implemented in a time bound manner. The leadership was also important because most of our Election Staff had never used SMS Technology in their lifetime. So they had to be trained in use of technology and at the same time the technology was to be made use a friendly and simple to use. This work was done very effectively and efficiently. At the time implementation all employees contributed their best and the team leader was with them throughout the implementation of the project.

VALUE INDICATORS

Digital Inclusion

- Based on our experience of implementation we do not agree to the statement that stakeholders not getting benefitted. System designed was made so simple that anyone could use it and take the benefit.
- Focus was on using simple technology for ample information for the citizens. Even a basic model of handset could be used for getting the information. For those desiring detailed information, a full-fledged website provided complete details.

Green e-Governance

- This being a very vital issue, due care was taken at every step to ensure proper adoption of Green Governance practices. Some of the steps taken were –
 - Not even a single piece of hardware was procured thus saving cost by avoiding procurement of hardware and saving power consumption
 - Application revolved around SMS for information gathering as well as information dissemination
 - No need was felt to have paper based interface at any stage

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INTEGRATED FINANCIAL MANAGEMENT SYSTEM

[Finance Department, Government of Haryana]

P K Das, IAS

DESCRIPTION OF PROJECT

The Government of Haryana has identified various measures to improve the delivery of services to the citizens and administrative efficiency towards an accountable and responsive Government. The Government of Haryana took several measures towards the computerization of the Department of Finance & Treasuries on priority and implement Integrated Financial Management System (IFMS) which removed the inefficiencies existing in the processes of the Budgeting, Treasuries and Accounts, Expenditure monitoring, revenue collection etc. The IFMS also aims to decrease the time involved in the decision making process and provide accountability and transparency at all levels of the Government.

The Goal

“To provide both tangible and intangible benefits that will not only improve the efficiency and effectiveness of the financial discipline and control processes managed by DOF, but also integrate the Financial Management System with the Human Resources Management components to streamline the related business operations throughout the State Government”

The major goals of the IFMS Project are as follows:

- Real time, transparent and actionable financial information and analytics,
- Well defined information channels with greater control and accountability
- Consolidation of otherwise fragmented information environment into an integrated system.
- Improve the Budget Process for all stakeholders by seamless integration.
- Automate consolidation and reconciliation of accounts giving better financial forecast and enhancing the State’s ability to account for revenue collections.
- Improve existing monitoring & financial controls
- Improved reporting and tracking capabilities
- Enhance analysis of State-wide inter/intra Department financial data and reduce duplication of efforts in data entry.

IFMS is an amalgamation of following five applications which are tightly integrated with each other: OBAMAS- Online Budget Allocation, Monitoring and Analysis System: Being used for budget preparation, allocation and expenditure control.

- e-Billing - Online Bill Preparation: Being used for preparation of all types of bills like salary, contingency, TA, medical, GPF, refund etc
- OTIS - Online Treasuries Information System : Being used for automation of processes in treasuries and its interface with banks, AG office, NSDL and Income Tax department. This also includes management of stamps inventory.
- e-Pension - Online Pension Processing system Being used for disbursement of pensioner benefits to the state pensioners.
- e-GRAS - Government Receipt Accounting System: Being used for receipt of all sorts of government revenue and e-Stamping

RESULT INDICATORS

This system has been able to deliver the services to a wide spectrum of users and has been rolled out throughout the state. It was intended that the movement of paper should be replaced by movement of information. The system has been designed in such a way that any information/data should be entered once and should be consumed by multiple stakeholders effectively and efficiently without any manual intervention.

G2G Services

- Budget Preparation, Budget Communication, Budget Releases
- Budget Revision, Budget Re-appropriation
- Budget Allocation / Revision by Head of Departments to its DDOs
- Surrender of Budget by BCAs/BCOs/DDO to Finance Department/BCAs
- Bill preparation by DDO and sending to treasury
- Passing of bill in the treasury.
- Ways & Means clearance of bills involving large amounts.
- Generation of pay order in treasury
- Electronic Payments into the bank account of payees
- Preparation of Accounts
- Submitting Monthly New Pension Scheme data to NSDL
- Submitting Income Tax Return data by Treasury Office to the Income tax Department
- Issuance of LOC to Public Works Departments(PWDs).
- View the status of bills submitted in the treasury by DDO.
- Monitoring of Expenditure and Receipt.

G2B Services

- Online deposition of tax.
- view details of payment received from state government
- View status of challan

- Verify payment details
- Generate e-Stamp paper
- Verify e-Stamp paper

G2E Services

- View Annual Salary Statement
- View monthly salary slip
- view payment details
- Know PRAN application status
- View GPF/NPS contribution details
- View pension disbursement details
- Submit life certificate digitally

G2C Services

- Deposit government fees
- View payment received from state government
- View status of receipt challan
- Verify receipt challan details
- Generate e-Stamp paper
- Verify e-Stamp paper

G2S Services

Benefits obtained

IFMS benefits are at two levels: one to bring the benefits of improvements in Public Financial Management to Government, employees and citizens at broader level and two a better and effective management of the Government Human Capital. Following benefits have been reaped through IFMS:

- Quick generation of consolidated budget abstract, wage bill, summaries and other budget linked reports
- Better management of state funds due to Instant availability of online expenditure and receipt details
- Minimized fraudulent payments and without budget provision payments
- DDO can view the status of the bill from his work place
- Reduced number of reconciliation related problems
- Online Tax payments by Tax payer from his work place
- Prompt payment to the valid payees only , through EPS
- Minimized use of papers
- Curtail the problem of parking of funds
- Curtail raising public debt to the minimum and well below the norms prescribed by the planning commission and finance commissions

- Evenly spread of state expenditure over the year reducing expenditure rush in the month of March leading to better finance management.

Implementation coverage till date

- Providing service to each and every person of the state and the business houses who ever has to transact with the state finance may it be Government employees, pensioners, businessmen and citizens who is availing any sort of government services.
- Geographically this system covers all the 21 districts and all the 123 blocks through 22 treasuries, 85 sub-treasuries and 9219 DDOs. This system is being used by more than 350000 tax depositors and all the candidates who appear for state staff selection commission and Haryana Public Service Commission etc.

Specific innovative ideas implemented

- First state in India to implement Electronic payment resulted in satisfied employees and citizen of the state.
- DDO level budget allocation brought more transparency.
- Integration of e-Pension with Jeevan Praman Portal gave substantial relief to old age pensioners.
- Online generation of stamp papers from home.
- Integration of e-Stamping with Property Registration System of Haryana has brought more transparency.
- Online verification of receipts before making refund payments has attributed to elimination of frauds.
- Integration with AG office has resulted in elimination of data entry and reduction in reconciliation issues.
- Integration with NPS system has resulted in 99% timely upload of employee as well as government contribution.
- Generation of income tax data for monthly and quarterly returns of DDOs and TOs will not only reduce the information mismatch problems but also will save substantial amount of the state exchequer being paid to CAs for submitting income tax returns.

ENABLER INDICATORS

Process reengineering

- Budget Preparation and Printing at the Finance Department level
- Budget Communication by Finance Department to Different Departments
- Budget Releases by Finance Department for Plan schemes
- Budget Allocation by Head of Departments to its DDOs
- Integration with Treasury Office and Accountant General office.
- Passing of bill in the treasury and payment in to the account of payees

- Expenditure by PWDs for deposit works.
- Facilitate taxpayers by providing online tax deposit interface.
- Ways & Means clearance of bills involving large amounts

Change Management and Capacity Building

- Principal Secretary Finance and Director General, Treasuries & Accounts have personally taken keen interest in implementation of the solution by attending various workshops conducted for users from time to time.
- DDG & SIO NIC Haryana has deputed a dedicated team of ICT professionals to coordinate the software design, development, implementation, training & day-to-day technical coordination.

VALUE INDICATORS

Digital Inclusion

- The system has been rolled out throughout the state touching upon every caste and creed of the state. The user manuals have been provided in the local languages wherever possible so that the less educated users may also adopt the technology.
- Electronic payment order and ADHAR based payment have paved the way for disbursing the state benefits directly into the intended beneficiaries' bank accounts.

Green e-Governance

The IFMS Haryana preserves nature by

- Reducing the size of Budget Documents
- Printing less number of Budget Documents and communication of the same to intended users electronically
- Reducing the paper usage
- Making information digitally available at all touch points eventually reducing the consumption of papers and fossil fuel for getting the same earlier.

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HIMKOSH – INTEGRATED FINANCIAL MANAGEMENT SYSTEM

[Department of Finance, Government of Himachal Pradesh]
Shrikant Baldi, IAS

DESCRIPTION OF PROJECT

The Integrated Financial Management System (IFMS) of the State has been created by computerizing all financial activities of the State Government and inter-linking these through real time online web-based software. The computerization of all these Treasuries is a pre-requisite for the development of IFMS as all expenditure is booked through these Treasuries only and tapping the expenditure points has helped in the development of the IFMS.

The Finance Department (FD), Government of Himachal Pradesh (GoHP) has spearheaded several ICT-based initiatives for past many years in order to facilitate its day to day operations. However, these systems have been developed in different operating environments and platforms, resulting in several pockets of information within the State, leading to non-availability of a real time State wide (enterprise) view. The financial data was available in silos.

Therefore, the Government decided to develop the “HimKosh - an Integrated Financial Management System (IFMS)” ensuring a “Single source of truth”, for providing a seamless interface with internal stakeholders and an efficient mechanism of electronic information sharing with external stakeholders of the Finance Department. This will meet the objective of the Government to have efficient, effective, reliable, secure and transparent Integrated Financial Management Information System providing information on real time basis and helps in improving the functioning in the fields of plan, budget, revenue, expenditure and accounting to all stakeholders and remains consistent and sustainable for long term. This Project has been sanctioned under the Mission Mode Project (Treasuries) under National e-Governance Plan (NeGP) of Government of India.

The “HimKosh” software solution, developed by NIC Himachal Pradesh, consists of several sub-systems, which plan, process, and report public financial resources. The basic sub-systems normally include accounting, budgeting, cash management, debt management and related core treasury systems, but GoHP have also chosen to enhance IFMS with non-core sub-systems like eSalary, ePension, eVitrans, eChallan and National Pension Scheme (NPS), covering 1.98 Lakh employees, 1.12 Lakh Pensioners, 4600 DDOs, 86 HODs, 0.50 Lakh NPS Employees and 102 Treasuries (16 Treasuries+85 Sub-Treasuries+1 Cyber treasury)-100% coverage.

All the stakeholders have online and instant access to data available in different software applications, which reduces the time and effort, normally consumed in manual exchange of documents/ information amongst related departments. The objectives of the Project are:

- To eliminate systemic deficiencies in the manual treasury system and for efficient management of State finances.
- To develop a comprehensive financial management information system for better management of State finances and for meaningful review of financial progress of various schemes.
- To provide Up to date Information related to Payments & Receipts.
- To reduce dependence on field level officials for any kind of financial information.
- Easy and timely availability of Reports to DDOs/HODs right from the Treasury / sub-treasury.
- An interface using which AG Office can cross-check the vouchers in case of any doubt.
- To create centralized database of all 2 Lakh employees and 1.5 lakh State Pensioners.
- To develop a web based centralized payroll and pension generation and disbursement system covering all 2 lakh employees and 1.5 lakh pensioners.
- To help Government in analysing and forecasting the salary and pension liabilities as 50% of State budget is being utilized under the salaries and pension heads.
- To help all 4600 DDOs for preparation & submission of salary bills electronically to treasuries, hence, reducing consumption of paper and minimizing the DDOs visit to treasuries. This also helps to reduce the double data entry effort in treasuries for booking of salary bills and online transfer of GPF/other BT deductions data to Accountant General Office as data is electronically transferred.
- To develop a system for electronic transfer of employee and employer CPS contribution under New Pension Scheme to NSDL.
- To help HODs for faster distribution of budget to its DDOs electronically without visiting the respective Directorates.
- To develop work flow based product to eliminate paper use in the Government at various levels which will result in fast processing of bills along with built in checks and thus improve the Carbon Credit Rating of the State by saving paper.
- To develop Outputs/Queries (on various selection criteria) at all the levels for effective policy decision making.

- To provide the employees/ employers with Mobile Apps on Android/Windows/ Apple platforms so that they are informed of their salary, pension and eService book related entries being effected through the HimKosh (eSalary, ePension and eHRMS).

RESULT INDICATORS

IFMS ‘integrates’ the whole system using a common database (or several interconnected databases) and all financial data among sub-system flows through common database. This single-database integration has improved the system by

- avoiding redundant data storage
- keeping the data up-to-date
- recording data only once
- Reducing the number of system interfaces to minimum.

For standardization and acceptance of the IFMS across the state, standard online SW applications like eBudget, eSalary, ePension, eVitran , eChallan and National Pension Scheme (NPS) were developed and implemented to achieve the online financial reporting and exchange of data, which benefitted the stakeholders. IFMS also discourages corruption by promoting disclosure through comparability to highlight weaknesses and exceptions. Comparisons of data in comparable forms can easily produce an ‘exceptions report’ to provide prompt feedback to various stakeholders/ managers in areas where exceptions have become an accepted trend. Results indicators are given below:

- Accurate financial information of State Finances-Not a single instance of over-drawing/overdraft for the State in the last 7 years!
- Integration with Manav Sampada and Online data transfer to HP AG
- Centralize database of all 2 Lakh employees and 1.5 lakh State Pensioners
- Online Tax Payments through Cyber treasury (cashless transactions) by integrating the system with SBI’s MOPS covering all Banks to facilitate users/ citizens
- Online availability of Data for decision support for financial planning
- Integration with Transport, Excise and Energy Departments helping the Departmental applications to better recover their out-standing fees
- ECS based payments into bank accounts helps to check corruption / delays in releasing payments.
- Mobile App for Employees.
- Aadhaar based Digital Life Certificates through Jeevan Pramaan for pensioners.

- **Integrated Pay & Account Offices (eSalary):** eSalary a new IPAO System centralizes the job of payroll processing at designated 52 IPAO offices located at Treasuries. It covers 100% employees. Salary related monthly changes are updated by respective DDOs and submitted to IPAO offices for verification. After verification, IPAO treasuries generate ECS (electronic clearing services) file for Banks for direct credit of salary in employee account. Electronically processing of bills has reduced 50% of workload in treasuries with no paper / messenger movement. Treasuries require Last Pay Certificate (LPC) to insure check on wrong drawl of salary. LPC is system generated and after online verification salary is released by treasuries.
- **Pension Processing & Disbursement (ePension):** The ePension is used in 12 District Treasuries for calculation, modifications, revision, processing & disbursement of Pension to 1.12 lakh pensioners including political pensioners on monthly basis and data is stored on the central server. The payment is made electronically through bank branches/ accounts specified by the pensioners. Online Interface, Pensioner's Helpline, is available on the Internet for pensioners to view their pension disbursement details. It is also integrated with Jeevan Praman portal for verification of live certificate biometrically.
- **Budget Preparation (eBudget):** eBudget is being used to electronically prepare HP State Budget for last 10 years. It ensures role based work flow with locking of demand, once the entry is checked & verified. Software has been revised for integration with treasury system for better checking of expenditure against the budget. The preparation of supplementary budget, re-appropriation, revised estimates was automated to the extent that the preparation of 2015-16 budget took place even with a 15 days short notice from the Government.
- **Online Budget Distribution (eVitran):** eVitran is available to the Heads of Department for distribution of sanctioned budget to their respective DDOs and is checked online by treasuries on real-time basis. Sanction letters for DDOs are generated through the SW, and are available to DDOs at their locations after which payments of bills from the Treasuries are authorised.
- **National Pension Scheme (eNPS):** The computerized NPS application is developed for monitoring the employees contribution, preparation & compilation of employees contribution file as per format given by NSDL. 53000 employees of the State Government have been covered under this scheme. Application has integration with eSalary. Directorate of treasuries uses this application for centralized fund transfer to Bank through RTGS and subscriber details are electronically transferred to the NSDL.

- **Online reporting system (eKosh):** eKosh is the central information dissemination interface through the Internet for various stakeholders like Finance Department, HODs, DDOs, employees, AG, Pensioners etc. All kinds of MIS reports are available on this Interface in the public domain.
- **Government Receipt Accounting System (eChallan):** To receive Government receipt through online mode, a standardized challan form has been devised. Any person wishing to deposit government money can avail this facility by logging on to the system. At present government of Himachal Pradesh has signed MoU with the banks (list available on portal). Any customer having Net banking account / card payment with these banks can make online payment through this portal. The facility for online challan is available 24X 7 and customer can make payment as per their option in challan form from anywhere through internet. A provision has also been made to generate the challan for manual payment at the treasury bank counter.
- **Mobile Apps:** Web enabled G2E interfaces for employees and pensioners are already available. But to serve the employees/pensioners specially serving in hard area or tribal area of State and having less connectivity, NIC Himachal Pradesh has developed Mobile Apps for Employees/Pensioners to know GPF/NPS balance and monthly Salary/pension details by integrating it with HP AG for GPF, eSalary of Finance and NSDL for NPS (new pension) data. The eHRMS App also provides Salary/GPF/NPS along with eService Book.

Benefits obtained

- **Internal:** State Finance Department, All State Government Departments (HODs), Directorate of Treasuries and Accounts, Employees, Pensioners, Drawing and Disbursing Officers, District Treasuries and Sub-Treasuries
- **External:** Agency Banks, Accountant General of Himachal Pradesh, RBI, World Bank Citizens: The citizens include taxpayers, voters and service recipients & public finance researchers. They are interested in information on the financial conditions and operational results and also impending tax burden in future. Budget allocation for different schemes and its expenditure status is available in public domain. Citizens also have convenience pay tax and non tax revenue to state government through online system.
- **Employees & pensioners:** They are interested in knowing their monthly and yearly salary and pension statements. Salary and pension information is available to them online.

- **Banks:** Banks are responsible for disbursement of funds electronically as per the advice from treasuries, as cash transaction is discontinued by GoHP. Wrong payments at bank have reduced to minimum as the banks only make online electronic payments to the beneficiaries on the basis of RTGS/NEFT advices from the treasuries and do not have to check/monitor each and every bill for treasury pay order.
- **Elected Representatives:** The elected representative are interested in knowing how much money is available for providing services and how to optimize the services in given funds to keep the taxes low and citizens happy. All financial information on receipts and payments is available on the website. This helps in ensuring accountability in incurring expenditure at all levels.
- **Executives:** The executives have the difficult task of managing financial resources while balancing the legislative commitments in the budget along with the political demands of the elected representatives, and the faith required by creditors and investors.
- **State Audit:** Their information needs to have more to do with the accounting system underlying the financial information.
- **Head of Departments:** HODs needs to know the financial position of department to assess its fund requirements for the coming years and also requires to distribute the sanctioned budget to its field functionaries i.e. DDOs across the State. Budget allocation and monitoring of expenditure is online and easy. It is not dependent upon the reporting by the DDOs. Similarly surrenders and re-appropriations are also easy and online. Finance department too has better information regarding the resource position of the state
- **Drawing and disbursing officers:** DDOs needs to reconcile their expenditure against the sanctioned budget allocated by HODs through eVitrans. DDOs get online allocation from HoDs. Reporting from treasury is also quick and online. Reconciliation efforts are reduced to minimum as classification discrepancies are negligible.
- **Treasuries:** All Government Financial transactions are carried out through 101 treasury offices. Treasuries receive bills from DDOs, for checking authenticity, budget availability and also book challan and vouchers. They further submit compiled accounts to Accountant General HP. Salary and pension computerisation has reduced the workload in the treasuries by almost half as these payments are released online based on the information captured in the

databases. Due to this the treasuries are able to deliver despite manifold increase in the types of transactions and quantum of existing transactions.

- **Accountant General HP:** The Voucher Level Computerization (VLC) data as required by AG is available online through 'HimKosh'.

Implementation coverage till date

- All Stakeholders and Government offices in all physical locations in the State are covered
- Majority of the Payments and All Receipts are through electronic mode
- Total State Employees covered under eSalary: 1.95 Lakh (100%)
- Total Pensioners under ePension: 1.2 Lakh (100%)
- Total NPS employees: 54 thousand (100% integrated with NSDL)
- Total State Budget Distribution to HOD and then DDOs directly through the SW
- 100% Online data transfer to HP Accountant General Office
- There is 100% geographical coverage of 101 treasuries covering all 4600 DDOs.
- Not a single instance of over-drawing/overdraft for the State in the last 7 years!
- Fund transfer to Employees, Pensioners and Contractors through ECS ONLY!
- Number of Transactions is likely to increase manifold this year with the start of Online Government payments through eChallan and integration of this software with Excise, Transport and Energy Departments for online payments into Cyber Treasury through eChallan Application. All bill types are will also be prepared through OLTIS, further increasing the number of transactions from this year, once the system (under testing) gets through.

VALUE INDICATORS

Digital Inclusion

- This project aims to bridge that gap, by providing quality training on online processes, so that everybody can learn about e-governance and get benefitted from initiatives.
- Citizens normally have to deposit payments into the Government Account (receipts) for various services like transport license fee, birth certificate fee, excise duty, taxes etc.
- While those in urban areas can do such transactions online, the citizens in rural areas can make use of Common Service Centres or goto the Treasuries where

counter has been set up for their help. So they are not excluded from the system, rather they are assisted.

- The payment of Government taxes was only through Treasuries at specified 101 offices. With the implementation of Cyber Treasuries, even those citizens not having Internet and/or living in rural areas, can pay online taxes through Common Service Centres (LokMitra Kendras). They don't have to visit the Treasury offices.

Green e-Governance

This project also qualifies for Green e-Governance initiative as it does away with conventional (paper consuming) method of Salary Bills, Pension Bills, Budget Sanctions, Bank Scrolls using paper. Here everything is online. Even the reconciliation of expenditure & receipts to each stakeholder is available online.

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HIMBHOOMI

Integrated Land Records Computerisation in Himachal Pradesh
[Revenue Department, Government of Himachal Pradesh]

Deva Singh Negi, HAS

DESCRIPTION OF PROJECT

The HimBhoomi-Integrated Land Records computerisation project is an integrated solution for the Record of Rights (*covering Jamabandi, Shajra Nasb and Mutations/Transactions*), Registration of Deeds, Cadastral Maps (*Musavi and its updation based on transactions*), Lease Deeds and ultimately delivery of latest as well as all existing computerized *Jamabandi, Shajra Nasb* (genealogical tree) at Panchayat level through Citizen Service Centres (*Lok Mitra Kendra*). The digitization of cadastral maps and transaction based changes incorporation in digital copy also results in online availability of up to date *Khasra* (plot) map in addition to attribute data in the shape of *Jamabandi*.

The present solution, HimBhoomi which caters to Land Records integrates Registration of Deeds using HimRIS (Registration of Deeds), also covers spatial part by having integration with Bhunaksha application has reached this stage as a fruit of the hard efforts put in by the development team of NIC and Revenue Department, HP.

In the implementation of HimBhoomi software, which not only had the challenge of software development for a complex system devised way back by Mugals in India for Land Record keeping but also inherited a challenge of getting the legacy data digitized in a reusable format. Keeping in view the importance of data being digitized, the scope of errors during digitization of legacy data was not tolerable. The broad Strategy Adopted was:

- Correct software solution (Re-use of data once entered). Go for implementation in step by step manner where adopting the pilot Tehsil for implementation before replicating for first twelve Tehsils (covering one from each district) and then replicate for all the Tehsils.
- Setting up of Land Record Computer Centres at District level where technical guidance of NIC was available before going to Tehsil level.
- Creation of a post of Naib Tehsildar-LRC for the purpose of
 - Supervision of data entry,
 - Keeping record of village manual records,
 - Coordinating with the visiting Patwaris who could come with the record from the field,

- Making available print-outs of data entered,
- Getting the data corrected
- Getting the corrected data certified from the Patwaris and
- Releasing payment to data entry operators.
- Outsourcing Initial Data Entry
- Training on IT tools and LRC SW to all Patwaris
- Substantial reduction in Manual work of Patwaris
- Distribution of RoR through Tehsil LRC Centres/ Sugam Centres
- Issuance of Necessary Government Orders (Process Re-engineering)
 - Updation of Computerised records within 7 days of every transaction
 - Authorizing LMK operators to issue certified copies of RoR
 - Integrating Registration process with Land Records database
 - Option for immediate Mutation upon Registration
 - Entry of Court Cases in Land Records
 - Change of Format of Jamabandi for easy understanding
 - Adoption of A4 size Jamabandi in place of A3 for easy handling purposes and printing through any cheaper printer

RESULT INDICATORS

The solution has resulted in Government to Citizen (G2C) service in addition to Government to Government (G2G) service. The G2C services can be broadly classified into two categories namely:

- G2C Services being rendered in the public domain through official web site of Revenue department (<http://himachal.nic.in/revenue>). Citizen getting RoR instantaneous and in case due to any connectivity related issue if the RoR is not generated request for generation of RoR is captured and citizen is delivered the RoR copy through email as and when the Tehsil centre connectivity is operational.
- G2C Services provided to citizen through Lok Mitra Kendra who are issuing certified copies of RoR using <http://admis.hp.nic.in/himbhoomilmk> interface. All CSCs/LMKs are provided with authentication details using which they can generate RoR copy of any village in the state using HimBhoomi LMK application. The same interface is also being used by government offices at District, Sub Division and Tehsil level.
- The G2G services include **access to RoR for Vigilance Department**, Availability of basic **Irrigation Source related data** for conduct of Minor Irrigation Census, Basic format generation for **Khasra Girdawari**, Owner wise Revenue collection report, above all the automatic **generation of New Shajra Nasb and Jamabandi** after completion of fixed tenure. All this has resulted in saving of time which Patwaris can devote on other development related activities.

- All G2C services are uniformly available through CSC as well as Tehsil Centres. Viewing is also available in Public Domain.

Benefits obtained

- **Citizen**
 - Reduced service delivery time for issuance of RoR copies resulting reduction in time taken for preparation of Registration deed and carry out Mutation.
 - RoR copies on anytime-anywhere basis. Certified copies of RoR (Jamabandi) and Shajra Nasb (Genealogical tree) through LokMitra Kendras (LMK-Citizen Service Centres) on 24x7 basis subject to the LMK Centre being open. LMK Centres available at Panchayat level for these services
 - Legible & Standard Format of RoR: A4 size Jamabandi copy in place of A3 size paper for easy manageability
 - LMK Operators authorized to issue certified copies by signing and stamping as done only by Patwaris earlier.
 - No need to take copy of RoR for informative purpose as RoR can be viewed on internet through official web site of Revenue department.
- **Department of Revenue & Registration**
 - Simplified procedures for Mutation/ Entry of Court Cases/ Multiple Service points
 - Chances of Registration of fraudulent deeds reduced due to integration of Land Records data with Registration
 - Mutation incorporation in Jamabandi/Shajra Nasb frequency reduced to 7 days from five years which was followed in manual system.
 - Reduction in Reports Processing Time. New Jamabandi processing time reduced to just 4 days as **compared to almost 6 months in manual system.**
 - Court case entry in RoR for easy reference.
 - Access of Land Records given to State Vigilance Department to check landed property details of corrupt Government officials in vigilance cases.
 - Online verification of RoR copy issued through this solution for any intentional fraud.
- **Other Government/Public Undertakings**
 - All Financial institutions have access to RoR data in public domain using which they can verify the property details of any individual who is seeking loan or has been declared defaulter by the institution. This information is helping them in recovering bad assets/loans.

- The certified copy produced by individual can be easily verified using online interface for the validity of produced hardcopy as originally generated RoR copy is always preserved on web server as softcopy and is assigned a unique copy number/barcode.
- Government Departments can query to find out their own land holding as per Revenue records.

Implementation coverage till date

- The solution is uniformly implemented in the State of Himachal Pradesh. The coverage aspect as a service is beyond the State too as the Land owners residing outside Himachal Pradesh can view their Land Records (Jamabandi and Shajra Nasb) in Public Domain. Quantitative implementation coverage in the state is as follows:
 - **Total Districts: 12 solution implemented in all 12 districts.**
 - **Total Tehsils/SROs: Solution implemented in all 120+ Tehsil/sub-Tehsils.**
 - **Population: 68Lakhs**
 - **Area : 55 Thousand square KMs**
 - SW has been implemented in all the Tehsils and is Integrated with Registration software.
 - Total Nakals issued : **24,58,712 since January 2011 till 28th August 2015.**
 - RoRs viewed in Public domain **since February 2015 (starting of recording requests in public domain) 1,06,419**
 - On an average, **Three Jamabandi Dors** available for every village covering about 15 + years' data.
- LokMitra Kendras (LMK-Citizen Service Centres at Panchayat Level) made operational in February 2011.
- Certified copies of RoR's of whole State have been made available at CSC-LMK Centres. About 2235 LMKs are operational in State at present.
- All 12 Sugam centres are using web interface to issue certified copies of RoR's.
 - No of RoRs issued in current financial year: 4,07,754
 - Revenue generated: Rs. 1,04,52,648

Efficiency and Improvement Initiatives

- Land owners/Citizen who had to waste time and money to get a copy of Jamabandi/Shajra Nasb (RoR) issued from concerned village Patwari who is performing heterogeneous duties and has to leave his office to perform many of his duties. The solution in its first phase removed the dependence on Village Patwari by providing the copy of RoRs at Tehsil centres and since 2011, the copy of RoR is accessible on 24x7 basis from anywhere for viewing purpose

and certified copies can be obtained from any nearest Lok Mitra Kendra who are authorised to sign and stamp the copy of RoR.

- Revenue Department as a whole is benefited. As a strategic decision, the last manually prepared Shajra Nasb and Jamabandi of each village is fed into the system which serves as base document after proper validation and certification by the concerned revenue officials. Thereafter, all five yearly Jamabandi and Shajra Nasb along with associated reports are auto generated after incorporating the mutation/transactions which have taken place during the past five years. This has helped in preparing the Jamabandi well in time which used to take lot of time ranging from 4 to 6 months and in some cases it used to exceed even the permissible limits. State Vigilance Department which used to spend a lot of money, time and manpower resource to search Land Records related to officials under vigilance net. They scan the land records data for the whole State to check high value transactions/ expensive land/house ownerships.
- Planning and Decision Support: The availability of Jamabandis in digital form (database) is helping district administration in a big way by providing relevant information for planning as well as decision making. Prior to digitization, it used to be a tedious task to search for piece of land as per requirements like establishing an industry, providing land to landless or even listing the all properties owned by State government or a particular industry or individual.

ENABLER INDICATORS

Process reengineering

In the process of computerizing manual system of Land Records maintenance following major process changes planned and status of each process is as follows:

- Acceptance of computerized/printed Jamabandi and Shajra Nasb along with all associated documents. The acts and rules related to Land Records Management had provision of hand written Jamabandi/Shajra Nasb and all other associated documents. **Law was amended to make a room for computer generated prints to take place of hand written records.**
- While preparing the records manually, to save time and avoid complex calculations in reaching minimum whole number value for each group of owners, a system of internal fractions in shares and referencing owner's/cultivator's detail of already written Khewat/Khatoni in subsequent Khewat/Khatoni was followed. The State committee decided to implement a system as part of computerization whereby **these two complex systems creating confusion among the land owners were done away with and shares were opened up to remove internal fractions (Dar-Var)** and reference of ownership or cultivator detail was also removed by repeating the whole details afresh in each Khewat/Khatoni.

- The geographic conditions of Himachal Pradesh do not allow the Government to discontinue the manual issuance of RoR copies. This factor inherits a challenge of keeping manual as well as computerized Jamabandi/Shajra Nasb synchronized. To address this problem government issued an instruction to **replace clause 8.4(C) of Land Records Manual so as to say that “the mutation shall be deemed to be complete only after incorporation of mutation in the computerised land Records”**.
- After successful implementation of HimBhoomi and HimRIS applications in all Tehsils/SROs, the Government decided to **inter link the applications for Deeds related to Land Records**. Both the applications were proposed to be integrated so as to use existing data and intimate the transaction happening in Registration to Land Records.

Change Management and Capacity Building

- The HimBhoomi software is an end result of lots of efforts of both Revenue Department and National Informatics Centre, Himachal Pradesh. The system of land records maintenance in North India is very complicated which makes the software design and development as complicated. However, due to sustained efforts, the software has been developed and caters to the requirements of the Revenue Department to a great extent.
- The Patwaris are trained on Himbhoomi software and general computer awareness training is also imparted. LMKs were also trained on the HimBhoomiLMK application.

VALUE INDICATORS

Digital Inclusion

- The Land Records are being maintained in Devnagri in Himachal Pradesh. Moreover, the Revenue Department staff is also comfortable working in Hindi language. So to strengthen them with an ICT solution, the first requirement was to provide the solution in Hindi.
- For Hindi support and easy Hindi typing, CDAC-GIST terminals were used in Unix. On windows platform Hindi support was provided through GIST-SDK of CDAC. While designing the web interface google API for transliteration is used. This can be used for another language support also, if required.
- Revenue village code in this software is same as the census village code. Hence, all the data can be correlated with the Land Records database to carry out various even micro level studies down to the individual level.
- Extensive codification like location parameters based on census codification, land types, caste/sub-caste types, cultivator types, 9-fold land classification and general remarks etc. are the hallmark of the HimBhoomi software. The same pattern of 9-fold land classification has been adopted by the Ministry of Rural

Development, Government of India for uniform implementation in similar exercises in India.

- Digital inclusion implies filling the digital divide between the haves and have-nots, who in this case are the people / land owners living in the rural areas and not having the digital world facilities. The authorization of CSC operators to issue / view copies of RoR/ Shajra-nasb at Panchayat level has, to a large extent, made it possible to fill the digital divide.

Green e-Governance

- As on date, the HimBhoomi software solution has resulted in reduction of paper use as far as informative copy of RoR is concerned. Now the individual can view the copy on the internet instead of taking print outs. With time as the ICT penetration increases and Acts and Rules of other institutions change, the electronic copies as PDF, which are digitally signed, can substitute the printed hardcopy. This will help in reduction in paper usage.
- Presently, the hardcopies of Jamabandis are kept in record rooms. With growing ICT enablement, the records rooms can be replaced with Digital Record Rooms and the softcopies of Jamabandis can replace printed copies. The citizen is getting the copy from nearest LMK hence the solution is also saving fuel which the individual used to consume while visiting the concerned Patwari time and again. Copy of every Tehsil/Village is available from any CSC, which was not the case earlier, when record was available in concerned Tehsil.

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WORKS MIS FOR IRRIGATION & PUBLIC HEALTH DEPARTMENT

[Irrigation & Public Health Department, Government of Himachal Pradesh]

P.C. Dhiman, IAS

DESCRIPTION OF PROJECT

The Works MIS software is a web-enabled solution for covering about 14 functions of the Irrigation and Public Health Department. It has been developed as a complete ERP solution to not only automate the functioning of the entire Department, but also to provide the decision makers with sufficient online information to provide better services to citizens through proper and timely execution of water supply and irrigation schemes. The software is work-flow based and is capable of generating all accounting and inventory reports in real time mode. The software takes base data of schemes from the State Budget database and the planners are able to monitor these schemes. As the functioning of the IPH and Public Works Departments is similar in nature, it has the potential of being replicated in the PWD which has also been recommended by the World Bank Team visiting the State.

The Department of Irrigation & Public Health, headed by the Engineer-in-Chief at Shimla, has offices throughout the State and the Department has a very important role in rural water supply and sanitation, as almost 90% of the State population lives in rural area. The Department carries out the construction and maintenance of works of different schemes under the following **sectors**:

- Rural & Urban drinking water supply schemes
- Installation of hand pumps
- Irrigation schemes
- Flood Protection schemes
- Sewerage System

The drinking water supply is a very important issue in the present times in the light of increasing health awareness among the citizens and their expectations from the Government to provide safe drinking water. Though there is lot of improvements in various areas, availability of water and that too safe drinking water, both for human beings and the cattle has become a major problem due to scarcity of water sources and the increased levels of the pollution where water sources are available.

The various **activities** being carried out by the department are listed below:

- Design/ Estimation of various Projects/ Schemes under various Sectors

- Construction of various drinking water supply schemes / Irrigation schemes / Sewerage schemes / Flood Protection works under various programs
- Monitoring of Water quality to ensure safe drinking water
- Installation / maintenance of Hand pumps
- Monitoring of Physical & Financial progress of various schemes/ Projects under different Sectors
- Maintenance of various schemes under various sectors monitoring of legal matters, court cases etc.
- Establishment matters related to Departmental personnel, accounting, budgeting, office expenditure, stores, inventory etc.

The objective of the Works MIS is to automate the processes of Irrigation and Public Health Department to achieve the following goals:

- To identify and suggest an appropriate Government process re-engineering model
- Better implementation of Schemes
- Supply of quality water at regular intervals to general public
- To Provides cost effective service and quality of the same, better utilize public funds
- To identify systems enabled mechanism that reduces and substantially removes redundant processes which otherwise delay flow of information among various stakeholders
 - To identify and suggest an appropriate technology model that is both user friendly and which withstands the tough field conditions
 - Induction of transparency and accountability in operations
 - Electronic security and control of confidential data
 - Dissemination of information as per public requirement
 - MIS for easy monitoring and quick decision making
 - Improving efficiency in Government administration by fixing responsibility
 - Improve decision making in view of better reporting mechanisms on funds utilization
 - To help carry various analytical studies by providing the data instantaneously
 - Significant reduction in manual records/register maintenance
 - Elimination of duplicate and inconsistent record keeping
 - Reduce the dependency
 - Support the organization in meeting its business and legal requirements
 - Better implementation of Schemes
 - To Provides cost effective service and quality of the same
 - To provide a friendly, speedier and efficient interface

ICT interventions/Initiatives undertaken during the last two years: During last two years, the following initiatives have been undertaken in the Works MIS:-

- An app for android based smart phones and tablets has been developed by the NIC, HP State Centre, Shimla, for uploading of work measurements, in electronic form to the centralized database.
- The Department is issuing the Administrative Approval and Expenditure Sanction(AA and ES), for the various schemes throughout the State online using Works MIS
- The Department is issuing the Technical Sanction(TS), for the various schemes throughout the State online using Works MIS
- The inspection reports for various schemes being done by the Engineer-in-Chief, Chief Engineer and Superintending Engineer are being uploaded into the central database online, along with the pictures. These uploaded inspection reports are then monitored online by the Additional Chief Secretary (IPH), Government. of Himachal Pradesh
- Monthly Stock report of an IPH division is getting auto generated after filling the Goods receipt at IPH store level and online issuance of material against the online indents raised by the Junior Engineer
- Module for online generation of water bills, is ready for usage by the Department

RESULT INDICATORS

- **IPH Department**
 - Online issuance of Administrative Approval and Expenditure Sanction(AA & ES) of Schemes
 - Online issuance of Technical Sanction of Schemes
 - Online Work agreements
 - Online electronic Measurement Books(e MB)
 - Saving of Government time, effort and money in generating running bill/contractor bill online, on the click of mouse
 - Online generation of sub-divisional and divisional account on the click of mouse
 - Online compilation of Inventory, automatically from the entered Goods Receipt and the issuance of material corresponding to the approved online indents
 - Online monitoring of court cases
 - Online submission and monitoring of various departmental returns
 - Online monitoring of physical, financial and pictorial progress of schemes and works

- Online uploading and monitoring of inspection reports
- Online availability of budget for the department
- Central repository of departmental data readily available 24x7
- **Contractors**
 - Easier contractor registration/renewal and up gradation
 - Quick issuance of material to the contractor due to online raising of indent, followed by online approval and issue of material against this online indent
 - Transparency in generation of contractor bill/running bill
 - Quick generation of contractor bill/running bill followed by payment
 - Online generation of Identity card to the contractor
 - Less litigation due to timely and correct payments without hassles
- **Citizen**
 - Citizens are able to view the schemes along with the budget allocated to these schemes (of the IPH department) online, as soon as the state budget is passed. They get in touch with the IPH officials and the public representatives, for the earliest implementation of these schemes in their areas.
 - Apply online for new water connections, followed by online approval
 - Online generation of water bill
 - Can obtain a duplicate copy of their water bill
 - Can view their water bill online

Implementation coverage till date

- The software has been implemented in all the 1053 offices of the IPH department, spread throughout the State of Himachal Pradesh and is being used fully by almost 560 offices, mainly due to the erratic Internet Connectivity and the State being a hilly area, with some of the places remaining cut off from the rest of the world due to bad weather and heavy snow fall.

Specific innovative ideas implemented

- DTS (Data Transfer Service) Web Service: - This utility helps the Junior Engineer, in recording the data related to the measurements and material consumption at site in MS-access file in offline mode, since there are connectivity issues at sites where the works are going on. This data is uploaded to the central database. It helped the Junior Engineers (JE's) of the department to digitize the measurement book data. Earlier JE's had to use calculators, to make calculations. Now they make entries directly into the

electronic MB, which then gives the result of complex calculations, which helps in saving a lot of time.

- App for Android based Smart phones and Tablets: - This app has been developed for recording of data related to the measurements and material consumption at site, since there are connectivity issues at sites where the works are going on. This data is uploaded to the central database whenever connectivity becomes available and data has been entered at the site. . It helped the Junior Engineers (JE's) of the department to digitize the measurement book data. Earlier JE's had to use calculators, to make calculations. Now they make entries directly into the electronic MB, which then gives the result of complex calculations, which helps in saving a lot of time. Moreover, it is easy to carry these handheld devices, to any location wherever the works of departments are going on.
 - **Dashboards** :- Dashboards have been developed, according to the requirements specified by the Engineer-in-Chief, IPH department, which helps him/her to monitor the various activities, which are very important and needs timely intervention. Dashboards help the higher levels officers of the department, to monitor various hectic and time consuming activities of their subordinate offices easily, on the click of mouse.
- e. The extent of integration of this e-Governance initiative with other internal and/or external ICT systems.
- This web application uses the employee code and password of the employees generated using **Manav Sampada** web application, developed by NIC, HP State Centre, Shimla. **Manav Sampada** in implemented in the IPH department, for maintaining the e-Service books of the employees.
 - The data related to various schemes and budget, is pushed into the Works MIS database from the **E-budget** database, of the finance department, developed by NIC, HP State Centre, Shimla.
 - In the next phase this software is to be integrated with **e-Procurement e-Tendering** software.
 - Request has been received from the IPH department to integrate this software with the database of **Himachal Pradesh State Electricity Board Ltd.**, to receive the electricity bills, for energy meters installed at various scheme sites of IPH department. After receiving the energy bills from the HPSEBL, its online payment is to be made from this web application, saving crores of rupees currently being paid as surcharge due to late payments (as time is taken in processing/ receiving, bills not received etc).

ENABLER INDICATORS

- **ICT processes**
 - Standardization of forms and procedures
 - Reducing the usage of paper
 - All IPH offices linked together with central solution concept
 - Discontinuation of manual AA/ES, Technical Sanction, Inspection report, Potential creation return, Potential Utilization return and GI Pipes return
- **Non-ICT processes**
 - Centralized solution for all Government departments
 - Unique code for every scheme throughout the state
 - Unique code for every work throughout the state
 - Unique contractor id being generated for new contractor during registration. Every contractor blacklisted by an IPH office, appears as blacklisted throughout all the IPH offices in the state
 - Scheme budget data for a financial year taken from the Finance department, HP
 - **Online/Electronic MB (Measurement Book)**:-A desktop/laptop based web service and Android Tablet/Smartphone based app developed for the Junior Engineers to enter the Measurement Book data into these applications and upload this data into the central database on availability of Wi-Fi / Internet connectivity.
 - **Online Monthly Account**:-All the monthly account reports(around 42) are generated automatically on the click of the mouse, after the entry of payment and receipt vouchers
 - Auto generation of stock account based on the issue of material in response to the raised indents
 - Online Issuance of Administrative Approval and Expenditure Sanction
 - Online upload and monitoring of Inspection reports
 - Online generation of Contractor bill based on the MB(measurement book) data uploaded and the RSOQ(Revised Schedule of Quantity) entered corresponding to a work

Change Management and Capacity Building

- The Additional Chief Secretary (IPH) reviews the progress of the software implementation every month with senior officers and directions are passed to defaulting divisions. The new changes/ additions are also discussed and approved in this meeting.

- Department has appointed a Nodal Officer of the level of Executive Engineer. He acts as a mediator between the Departmental users and NIC, the SW developers
- Periodic trainings on various modules of software are held for the employees of department. New appointees joining this Department are provided with training on various modules of this software
- TSPs(Technical Support Persons) on contract, have been deployed by the Department in all the divisions, circles, zone and head office of the department to provide on-site technical support

VALUE INDICATORS

Digital Inclusion

- People living in this state converse only in two languages i.e., Hindi and English and local dialect is Polari. Since literacy rate of Himachal Pradesh is very high (about 87%) and the work of this Department was being done in English only in manual process, so there was no request received from this department, to use this software in bilingual form or to incorporate Hindi language in this software. However, the software is Unicode compliant and data entry in any Hindi is also possible. It is proposed to provide citizen or mobile interface in Hindi also as an option in near future. As of now, citizens having no access to ICT infrastructure can make use of the Common Citizen Centres (LokMitra) on payment of nominal fees.

Green e-Governance

- This software enables the Irrigation and Public Health Department to move towards green governance as it encourages the users to work on this software in online mode. It also helps in generation of various types of data reports online, data is submitted at lower levels which is auto compiled at higher levels based on their requirements. It helps in saving lot of paper usage by the Department, thereby helping in saving more trees and water which is otherwise used by the paper manufacturing industries.

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J&K ELECTORAL ROLLS AND EPIC MANAGEMENT SYSTEM

(Department of Election, Government of Jammu & Kashmir)
Shantmanu, IAS

DESCRIPTION OF PROJECT

The Electoral Roll Management System (ERMS) enables the Chief Electoral Officer to maintain 'Electoral Roll' and EPIC of the state in a standardized and uniform database. There are many other applications which have enabled a complete ICT based Election Process and made it a fruitful exercise. This has facilitated an effective and error free Election process in the entire state. Automation has reduced the manual work, time and expenses, streamlined the operation and hence increased efficiency, transparency and productivity.

- Development of ERMS Software enabling a Centralized , Online Data Management System
- Database and Applications Hosting in NIC Data Centre
- Standard application interface with standard schema
- Support for secure & automatic Master Data and transactional data transfer at various levels i.e. Centre-State-District
- Online/offline Forms for data entry (Form 6/ 6-A/ 7/ 8/ 8-A)
- Online Reports generation (Electoral Rolls, Voter Slips, Roll Sorter) in 3 languages (Urdu/ English/ Hindi)
- Online EPIC cards generation on PVC media
- Online MIS reports – (Health of Rolls, De-duplication etc.)
- Online Statistics Generation in Format 1-8 of ECI.
- Online Name / EPIC based Search in 3 languages
- Online downloadable Electoral Rolls (PDF) in 3 languages
- Online De-duplication and Health of Rolls.

Benefits to stakeholders

- Biggest electronic Database in the state with largest base of ID card holders at 7.26 million records.
- Localization (Extensive Use of Urdu Language) and Transliteration
- Dissemination of citizen services through Common Service Centres
- Mobile (SMS) Services – (Virtual Number: 7738299899 on NIC SMS Gateway)
- Elector's Name based and EPIC card No. based search in three languages (Urdu/ Hindi/ English)

- Downloadable Electoral Rolls in three languages (Urdu/Hindi/English)
- e-Filing (Online filing of Claims and Objections) by Electors
- Online Employees Deployment System (JKEDIS) facilitating postal ballot
- Online District Election Management Plan
- Automation of all election related processes to bring in total transparency

RESULT INDICATORS

- G2G Services
 - Hosting of Applications and Databases at NIC J&K Data Centre
 - Disaster Recovery at NIC, NDC Pune
 - Online Electoral Rolls and EPIC Management System (JKERMS)
 - Online District Election Management Plan (DEMP)
 - Online Randomization of Polling Parties / Manpower (JKEDIS)
 - Online Randomization of Electronic Voting Machines
 - Web based & SMS based monitoring of MCC violations
 - Web based & SMS based monitoring of Law and Order problems
 - SMS based Poll-day Events Monitoring (updated by Presiding Officers)
 - SMS based 'Q' Information System (Voters' Queue)
 - Communication Plan
 - Results Processing
 - Post Result Tasks
 - MIS Reports
- G2C Services
 - Downloadable Electoral Rolls (3 languages) on official website
 - Name based and EPIC No. based Search (3 languages)
 - E-Filing of Claims and Objections – (Forms 6, 7, 8 & 8-A)
 - Claims and Objections (View) -
 - Candidates Information online (Affidavits Hosting)
 - Your Polling Station on Google Map –
 - Roll Locator
 - Photo Voter Slips
- Mobile (SMS) Interface (Number: 7738299899)
 - Know your Status (in Electoral Rolls) –
 - Who is my BLO (Booth Level Officer)? –
 - Where is my Polling Station? –
 - Check validity of an EPIC No. (as per ECI guidelines)
 - Get Help about different SMS based services

Benefits obtained

- Biggest electronic Database in the state with largest base of ID card holders at 7.26 million records.
- Localization (Extensive Use of Urdu Language) and Transliteration
- Dissemination of citizen services through Common Service Centres
- Mobile (SMS) Services – (Virtual Number: 7738299899 on NIC SMS Gateway)
- Elector’s Name based and EPIC card No. based search in three languages (Urdu/ Hindi/ English)
- Queue Status and Web based Name / EPIC Search Facility in three languages, Bilingual Photo Voter Slips
- Web based and SMS based MCC violation monitoring and transparent randomized deployment of poll personnel.

Implementation coverage till date

- The project has been implemented across the state and the users include:
 - Election Commission of India,
 - Chief Electoral Officer, J&K
 - 22 District Election Officers
 - 87 Electoral Registration Officers
 - Divisional Commissioners; Other departmental heads
 - Law enforcement agencies
 - Universities and Colleges

Efficiency and Improvement Initiatives

- All applications being online result in savings of time on account of:
 - Filing of claims by electors
 - Scrutiny and disposal of claims by EROs
 - Data Entry and Generation of Reports/ Checklists
 - Filing of regular MIS reports on the Dashboard
 - Video Conferencing helps in eliminating wastage of time on travel
- Saving of money is a result of:
 - Saving usage of paper by resorting to e-Filing, e-Approval,
 - Video Conferencing
 - Centralized hosting of data in one place with download facilities
 - Online search thereby eliminating the need to personal contact and travel

Specific innovative ideas implemented

- Circumventing the peculiarities of Urdu Language and Font by using Third-party Nastaleeq Font with Unicode storage in UTF-8 character set.
- Improving the Health of Rolls and ensuring fidelity of Rolls, inbuilt checks for preventing junk data entry and generating Error Reports by detecting 22 types of common errors were used.
- Improving Communication on Poll Day, SMS based Poll-day Monitoring through NIC SMS gateway.
- Facilitating voters on Poll Day about voter queue through SMS based ‘Q’ monitoring system
- Curbing Fake EPIC production by Auto-generation of FUSN; use of approved Holograms, ERO’s Facsimile signatures.
- Making e-Filing process robust and trustworthy by incorporating user ID creation based upon mobile number. SMS for validation by means of OTP.
- Preventing impersonation and malpractices during voting by Webcast of polling in Hypersensitive polling stations
- Helping real time decision making by using District Election Management Plan (DEMP) and Model Code of Conduct/ Law and Order (MCC-LOR) online applications

ENABLER INDICATORS

There were a total of 08 major processes which were reengineered. These include the means to provide roll and name search services efficiently to public, maintaining control over data and ensure security, transliteration, bringing about standardization, disaster recovery, bringing about transparency / prevention of frauds and better communication between stakeholders etc. The top three are mentioned below:

- | |
|---|
| 1. Submission of Claims by Voters , Approval and Tracking of Claims by ERO → eFiling Introduced; Approval using DSC; SMS and Web based Tracking |
| 2. Poll Day Events Monitoring → SMS based monitoring on Portal and Live Webcast of Poll Process to curb impersonation and malpractices. |
| 3. Poll Parties Deployment → IT based online Randomization Process bringing transparency |

VALUE INDICATORS

Digital Inclusion

- Incorporation of third party tools (Google Transliteration) was incorporated into the ERMS Software. The system transliterates names of electors and their father/husband “on the fly”. The rolls were prepared in Urdu but now Hindi and English versions are available to the immense benefit of the residents of Jammu region and Ladakh.

Green e-Governance

- The very fact that the various reports like Electoral Rolls are downloadable online, thereby eliminating the need to print the same, preserves a lot of paper. With 7.26 million voters with only 30 names appearing on each page, this means a lot of paper saving.
- On the other hand, E-Filing also saves a lot of paper eliminating the use of paper based forms as the number of claims filed in a summary revision goes up to 6 lakhs. Paper is also saved as many other applications like District Election Management Plan, MCC-LOR, Dashboard etc. application are also online for district election machinery to file their periodic reports. SMS and web-based tracking of claim and name search eliminates the use of paper as well.
- Almost all the meetings in the Election Department are held through Video Conferencing between the Election Commission, the Chief Electoral Officer and the District Election Officers.

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JKPULSE - PROJECT MONITORING TOOL

[Information Technology Department, Government of Jammu & Kashmir]
Hirdesh Kumar Singh, IAS

DESCRIPTION OF PROJECT

Assist officials who are inspecting a developmental project to capture and report the progress on real time basis. To aid officials, the mobile app will enable them to capture picture on the inspection site, provide inspection notes on the mobile devices. Once updated, Sr. Officials can view the information instantaneously

- A very simple mobile app frontend (android based), with very easy interface and usage on mobile. Screen shots attached.
- Inspecting officer can click photographs of the location and can give real time comments and status report of the scheme. All the inspections (Pictures and comments) are uploaded on the central server available at <http://jkpulse.gov.in/> with a web backend for the common access of all the levels of the users/ administration.
- This application allows the users to capture Pictures of the inspection sites which are embedded with the Geo Stamp and Time Stamp for ensuring the correctness of the site.
- The application has the offline feature as well which can be exploited in areas where connectivity is a challenge. i.e. if the inspection is carried out in an area where there is no connectivity the inspection report would get uploaded in the system once the mobile device enters a zone where connectivity is present.
- The reports (xls) along with pictures (pdf format) can be extracted at any given point of time instantaneously. The xls format is exactly on the lines of the reporting format of the concerned department (BADP) and pdf format is a report format with the scheme relevant information along with the photograph of the last updated inspection along with details of the inspecting officer, geo stamp and the comments.
- The reverse communication from the administration to the lower levels is also possible through the mobile application. Here the higher level officers can send messages to the lower levels in case there is a priority for the task.
- The levelled hierarchy is maintained where the Access level is secured i.e. user of one block/ district is unable to enter into other block/ district. Level1 - Lowest Level, Level2 – BDO/AE etc, Level3 – DC and Level4 – Administrative Secretary/ Director /Sr. Administration involved in monitoring and MIS.
- The Picture / Status once captured by the inspecting officer once captured are out of his control to delete or modify.

- The Citizen interface for the application is also created which would be made available after complete rollout of the application.
- This application is complemented by a web backend and a robust database implementing SOA and expandable architecture.
- The website can be downloaded from the Google play (Android App Store) and can be accessed through web. The links are:
 - Android App store/ Google Play
(link: <https://play.google.com/store/search?q=jkpulse>)
 - Web (link: <http://jkpulse.gov.in/>)

RESULT INDICATORS

- Real time inspections.
- Geo Stamping and Time Stamping of the Photographs
- Offline Feature for areas where the connectivity is a challenge.
- Custom reporting formats with the photograph of the last updated inspection along with details of the inspecting officer, geo stamp and the comments.
- The reverse communication from the administration to the lower levels.
- Further The tool has helped in increasing the efficiency by:
 - Fast decision making: As the status of the work is visible, the Sr. administration can take immediate decisions to facilitate the progress and execution of works, like release of funds, passing necessary directions, assigning priorities, etc
 - Better efficiency: As the speedy decisions can be taken now, resulting in the overall improvement in the efficiency of the department.

Implementation coverage till date

Throughout J&K. Started with the 11 border area districts and now being used and implemented in complete State. The stakeholders include all the government officers/ officials who are involved in development works and are carrying out inspections of the works even in the remotest corners of the State.

Efficiency and Improvement Initiatives

The tool has helped in increasing the efficiency by:

- Considerably save time: Earlier in order to review the progress of works the Sr. administration had to call for the reports from the DCs, then DCs from field offices, field offices from site engineers, etc. This process used to take a lot of time. On the contrary, real-time report generation is just a click away. Report along with latest/last picture of the work and comments can be extracted in no time from the web.

- **Fast decision making:** As the status of the work is visible, the Sr. administration can take immediate decisions to facilitate the progress and execution of works, like release of funds, passing necessary directions, assigning priorities, etc
- **Better efficiency:** As the speedy decisions can be taken now, resulting in the overall improvement in the efficiency of the department.

Specific innovative ideas implemented

- Geo tagging and Time stamping on the inspection picture and inspection trail to ensure the authenticity of the inspection.
- Real time upload of picture with comments of the users embedded makes the user to relate to the inspection.
- Reverse communication / displaying of messages for a defined duration helps to prioritize the areas in inspection.
- Complete inspection trail by various users for any work to ascertain the progress and fund utilization
- Offline feature for areas where there is no or poor connectivity which makes the application flawless to use.

The application architecture allows the application to leverage the NeGP infrastructure. The application was designed keeping in view the State Data Centre Infrastructure however considering the unstable connectivity in the initial period, it was decided that the application would be hosted on the Cloud servers initially for some time and later shall be moved to the SDC. Integration with MSDG is also envisaged which might be considered at a later stage.

Further, as explained earlier the application is primarily designed keeping with having an Android based mobile interface. The GPS, Camera and GPRS features of the mobile are largely exploited in this application.

ENABLER INDICATORS

Process reengineering

- Mobile based interface introduced
- Real-time sharing instead of manual which was slow in compiling and analyzing
- Real-time monitoring there by reducing time in decision making
- Government order issued to streamline the process
- Reverse communication to prioritize the areas of inspections

Change Management and Capacity Building

- District wise capacity building plans were prepared and implemented.
- Strong leadership at the level of Sr. Administration and monitoring by the Worthy Chief Secretary
- Full support by the District Administration in coordinating trainings and inviting officers from various domains.
- Carefully planned the trainings for female and male staff
- Care taken for snowbound and normal areas.

VALUE INDICATORS

Digital Inclusion

- There are many different languages being spoken in different regions of the State, however the most common is English and therefore English is the Application Language.

Green e-Governance

JKPULSE is the best example towards the Green Governance. Earlier the inspections which were used to be carried on Cameras and prints were taken to explain their status along with the paper reports is now replaced with the new mobile based online monitoring. The reports are also customized as green initiative as they contain only the last inspection with the Date Time Stamp and comments of the last inspecting officer. Looking overall in the state a lot of power and paper is saved thereby making it the best example of the Green Governance initiative.

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**ELECTRONIC BENEFIT TRANSFER APPLICATION FOR INDIRA
GANDHI NATIONAL OLD AGE PENSION SCHEME (EBT- IGNOAPS)**

[Social Welfare Department, Government. of Jammu & Kashmir]
Hirdesh Kumar Singh, IAS

DESCRIPTION OF PROJECT

The Electronic Benefit Transfer (EBT) application for the IGNOAPS G2C Service of the Social welfare department is conceptualized and architected by the IT department and is developed by NIELIT, J&K on behalf of Information Technology Department, Government of J&K. This application allows the transfer of the G2C benefits (pension) directly in the accounts of the beneficiaries /old age pensioners thereby reducing their footfall and increasing transparency in the system.

Khidmat Centre Interface

The citizen may visit the nearest Khidmat Centre (Common Service Centre in J&K) to apply through the online mode. The Khidmat centre operator would scan and upload all the relevant documents with the online application. The Online application submitted would go the concerned TSWO for further processing. Standard electronic workflow process would be followed to accept/ reject the new applicants.

Project Overview

EBT - IGNOAPS Application got started as a commitment made to the Hon'ble Governor RBI by Commissioner Secretary IT to take as pilot for 6 districts in J&K:

- 2 Districts in Jammu Region (Jammu & Rajouri),
- 2 Districts in Srinagar Region (Srinagar & Ganderbal) and
- 2 Districts in Ladakh Region (Leh & Kargil).

The scheme/solution shall be extended to remaining districts of the State.

Reason to develop the application:

Old age beneficiaries had to visit the field offices frequently in order to get their small amount of pension. This was leading to trouble the beneficiary and was promoting middlemen. The administration wanted to have a solution where the benefits can directly be transferred to the beneficiaries' accounts so the old citizen gets the pension without any hassle.

RESULT INDICATORS

The State Government is keen to implement similar solutions for other Direct benefit transfer oriented schemes of the various departments looking into the advantages like ease in use, operational efficiency, almost no paper work, cost saving, time saving, building good Citizen to Government relationship, reduced footfall, etc.

Benefits

The experience with the EBT application has showed that Information Technology can be used effectively to bring in transparency and efficiency, eliminating all the malpractices and difficulties with the manual system which were prevalent earlier. Some of the features of the EBT application are listed as under:

- **Increase in operational efficiency and time savings:** The application enables the overall saving of time from the manual process and allows the funds transfer of all the districts in one click.
- **Real time transfer:** The funds are transferred through NEFT. Bank transfers the amount to beneficiary accounts within 24hrs of receiving the electronic invoice through the EBT application.
- **Improved data storage and file management:** All the electronic transactions are logged in the servers at the data centre. This saves a lot of paper and manual work. Further automatic backups of the database are taken on daily basis.
- **Reduction in operational costs:** Considerable reduction in the operational costs.
- **Improvement in "Government to Citizen" relationship:** As the beneficiaries (old citizens) need not travel to the department offices now and they are getting pension directly in their accounts, there is considerable increase in the Government to Citizen relationship.

Efficiency and Improvement Initiatives

- **Totally Online Application:** <https://ignoaps.jk.gov.in/backoffice/login.action>
- **Increase in operational efficiency and time savings:** The application enables the overall saving of time from the manual process and allows the funds transfer of all the districts in one click.
- **Real time transfer:** The funds are transferred through NEFT. Bank transfers the amount to beneficiary accounts within 24hrs of receiving the electronic invoice through the EBT application.

- **Improved data storage and file management:** All the electronic transactions are logged in the servers at the data centre. This saves a lot of paper and manual work. Further automatic backups of the database are taken on daily basis.
- **Reduction in operational costs:** Considerable reduction in the operational costs many of which have not yet been quantified for which the parent department (Social Welfare Department) has been requested to provide feedback. Moreover there has been a reduction in the manpower engagement costs as well and due to the less foot fall the efficiency has improved.
- **Improvement in "Government to Citizen" relationship:** As the beneficiaries (old citizens) need not travel to the department offices now and they are getting pension directly in their accounts, there is considerable increase in the Government . to Citizen relationship.

Specific innovative ideas implemented

- Extensive Government Process Re-engineering to make the process simplified
- Trigger transaction from one source (Financial Advisor - Social welfare Department) instead of Accounts officers at district level
- Single account operating (Central account) instead of multiple accounts (at district level) so reconciliation of accounts is easy.
- The amount for failed transactions (due to account closure, etc) remains at the central account for further transactions.

ENABLER INDICATORS

Process reengineering

- All the beneficiaries (approx 40,000) registered under IGNOAPS for 6 districts receiving pension through Electronic mode.
- Real-time transfers reducing the footfall
- Almost no paper work
- Real-time monitoring there by reducing time in reconciliation and decision making
- Government order issued to streamline the process
- Upload the transaction details of beneficiaries.(Bank Officer)

Change Management and Capacity Building

- District wise capacity building plans were prepared and implemented.
- Strong leadership at the level of Sr. Administration at the level of Administrative Secretary Social Welfare Department, Planning Department and Finance Departments

- Full support by the Sr. Administration, District Social Welfare Officers and Tehsil Social Welfare Officers in coordinating trainings and inviting officers from various domains.
- Carefully planned the trainings for female and male staff
- Training the VLEs / operators in CSC
- Care taken for snowbound and normal areas.

VALUE INDICATORS

- Easy to extend to any other scheme of any other department dealing with beneficiary oriented fund transfers
- Fund Transfer at Real time thereby reducing footfall of the citizens, increasing operational efficiency and confidence in the government processes and systems.
- Reconciliation of accounts very easy and convenient

Digital Inclusion

There are many different languages being spoken in different regions of the State, however the most common is English and therefore English is the Application Language.

Green e-Governance

EBT IGNOAPS is the best example towards the Green Governance. Earlier the user had to visit the line office justifying his/her papers for the pension and the departmental officers had to do a lot of paper work to finally release the payment and recording the receipt of the pension by the beneficiary; however, now the paperwork is totally avoided while and the process is made online:

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**AUTOMATION OF FAIR PRICE SHOPS UNDER TPDS THROUGH
AADHAR ENABLED POS DEVICE BASED ON BIOMETRIC
AUTHENTICATION**

[Department of Food, Public Distribution and Consumer Affairs, Jharkhand]
Vinay Kumar Choubey, IAS

DESCRIPTION OF PROJECT

- The Targeted Public Distribution System is aimed at delivering subsidized food grains to targeted families, which are classified as Antyodaya Anna Yojna (AAY), Below Poverty Line (BPL), Above Poverty Line (APL) through the Fair Price Shops (FPS).
- With the objective of betterment in service delivery system, the Department of Food Public Distribution and Consumer Affairs (FPDCA), Government of Jharkhand is doing end-to-end computerization of its entire TPDS operations till the FPS.
- TPDS in Jharkhand is being reformed with both Information and Communication Technology (ICT) and non-ICT interventions. Even though the TPDS has improved in Jharkhand due to routine interventions, there are still following areas of concern that motivated the state to take up this initiative;
- Proxy issuances- recording an issue to a beneficiary without actually delivering it to him
- FPS is not open when the beneficiary wants to take his ration leading to multiple trips
- FPS declares 'no stock' even when it has sufficient stocks
- Overcharging
- Beneficiary may need to spend at least half a day to take his ration because of long queues

The motivation behind the implementation of automation of FPS is to solve the problems stated above. Given that these problems exist at the shop level and that their existence depends on the behaviour and integrity of the sales person, technology alone can provide a solution to the problems.

As a part of the program, the department is implementing Aadhaar enabled PDS (AePDS). The salient features of the solution are:

- Aadhaar based biometric authentication at the point of sale (PoS) to identify intended beneficiary and weed out all bogus, duplicate and shadow entries.
- Acknowledgment of food grain lifting by beneficiary and disclosure of the same for public scrutiny.

- Real time stock update at PoS
- Availability of closing balance figure during generation of allocation order
- Availability of stock update during door step delivery
- Use of SMS (Short Messaging Service) alerts for timely awareness of FPS, concerned Government Departments, members of vigilance committees and to the last beneficiary regarding updates.
- Web enabled interfaces to register and track grievances
Although Department also successfully implemented following Modules :-
- Online allocation (Transparent allocation within a minimal time period with limited association of Officers)
- Supply Chain Management (Transparent Movement of food grain FCI to Dealer level)
- NEFT (Easy to make payment against food grain allocation)
Value Proposition :-

In TPDS project the hierarchy of stake holder is Department-District Office- Block Office-Dealer-Beneficiary.

All stake holders benefited in terms of Transparency, In time, Ease of monitoring, Economically feasible, And fulfill the beneficiary aspect in terms of food leakage, in time, Everything transparent in public domain. In case of Dealers benefited by extra intensive, easy to use, in timely and white collar.

- ICT interventions/Initiatives:
 - Department provided all in one Desktop computer to all its offices even state level, District level, Block level, Godowns level.
 - Department strengthen data signal
 - Provide Training at every level
 - In house specialized development and trainer team
 - Setup call center
 - Setup transparent portal
 - Implement customized software module
 - Implement Pos device with biometric authentication
 - Creating Detailed Project Report for easy to move and track the achievement
 - Provide infrastructure for Implementation of TPDS project
 - Routine Video Conferencing for issues, improvement and mile stone

RESULT INDICATORS

Beneficiary (Citizen):

- Taking food grain in timely manner with biometric authentication

- Can take food grain of previous two months (if not able to take previous month)
- Get information on allocation of food grain to the dealer and receipt at FPS through SMS
- Can submit grievances through online portal or toll free number
- Can check his transaction details on web portal

Dealers:

- Special incentive for every online transaction
- Can know in advance about allocation of food grain and generation of SIO (Store Issue Order) through SMS
- Make payments against the online allocation through NEFT
- Can submit grievances through online portal or toll free number
- Can check their transaction details on web portal
- District Office
- Online tracking of Supply Chain Management, online allocation, Depot Management, NEFT,
- Can view all types of reports with respect to the district
- Monthly report generation
- Category wise report/listing
- Easy to use on single mouse click
- Easy to update Dealer details, Ration Card count
- Better monitoring of all activities

Department:

- Online tracking of Supply Chain Management, online allocation, Depot Management, NEFT on state level
- Can view all types of report with respect to all districts
- Better monitoring of all activities
- Transparency in all activities

Benefits obtained

Beneficiaries (Citizen):

- Timely and regular food grain distribution
- Time saving
- Distribution of actual quantity of food grain
- No leakage of food grain
- Transparency in distribution

Dealers:

- Special incentive for every online transaction
- Use of NEFT saving of money and time
- Time saving by door step delivery
- Easy report taken from daily monthly by PoS device
- Timely information regarding allocation and dispatch of foodgrain.
- Gets rid of stigma as the system is transparent

District Office:

- Removal of duplicate Raton card/Ghost card
- No manual record keeping is needed. Hard copy generated from software serves the purpose
- Easy ration card management
- Online monitoring and efficient enforcement
- Closing balance of foodgrain is received through the PoS device, which is taken into account for further allocation
- Time and resource saving

Department:

- Overall Monitoring at single point
- Cost, time and Resource saving
- Efficient enforcement of food grain supply and distribution
- Ensures distribution of foodgrains and other commodities to the intended beneficiary
- Transparent

Implementation coverage till date

- All over State

Efficiency and Improvement Initiatives

- **Food grain allotment:-** Under the online system food grain is allocated directly to the FPS at the district level with a single click of mouse and information is immediately sent to the dealer through SMS. This altogether eliminates time lag and multiple allotment systems of the old manual method.
- **Receipt of payment:-** The old system of payment through demand draft, which was submitted to the Block Supply Officer (BSO), who in turn used to send it to District Managers (DM) of the Jharkhand State Food and Civil Supply Corporation (JSFC). This entire process was cumbersome, time taking (3-5 days) and costly. The new initiative of payment through NEFT effectively

results in saving of time and money. Other payment services like payment gateway will diversify the system further.

- **Generation of SIO (Store Issue Order):-** The SIO will be automatically generated, based upon availability of foodgrain in various godowns and receipt of payment from dealers on the FIFO (First In First Out) basis. Therefore, SIO is issued as soon as payment is received (if food grain is available in godowns), eliminating manual bias, error and time lag. Completion of process and flow of information takes no time. In the old system SIO was issued by DM, JSFC upon receipt of demand draft through the BSO. This entire process used to take 5-7 days and the dealer had to make rounds to the BSO office to submit his draft and enquire about delivery of food grains.
- **Distribution of food grain:-** The Aadhar enabled food distribution through PoS device at the Fair Price Shops ensures distribution to the right beneficiary. The beneficiary is directed by voice-over in a user friendly manner to use the device. The beneficiary is allowed partial lifting also. The un-distributed balance is credited to his account for further allocation. This eliminates use of bogus ration cards and fictitious lifting.

Specific innovative ideas implemented in e-Gov area and their impact

- Using Aadhaar number for authentication of beneficiaries
- SMS to each and every stakeholder for transparency in all activities
- Generation of e SIO (Store Issue Order) for minimizing human intervention
- Use of NEFT or online payment (to be done in next phase) instead of demand draft.
- No manual interference in all activities, which are done automatically and transparently on a real time basis and is visible at public platform

ENABLER INDICATORS

Process reengineering

- Biometric Authentication for Food Grain Distribution, including best finger detection
- One Time Password (OTP), when Aadhaar authentication fails
- Portal visible to public (Dash Board)
- PoS device (HHD) with voice over in Hindi for food grain distribution
- Partial lifting
- SMS alert service
- Online grievance redressal
- Toll free helpline

Non ICT:-

- Removal of redundant process
- Training and hand holding
- Closing Balance
- NEFT
- Rigorous monitoring

Change Management and Capacity Building

- The entire core concept behind PDS automation has evolved through experiences of pilots and enhancement of technology.

VALUE INDICATORS

Digital Inclusion

- State specific project implemented in Jharkhand majority of beneficiary have same demography, culture and language.

Green e-Governance

- This project also supports Green e-Governance initiative as it does away with conventional (file, paper stationary consuming) method of report generation. In PDS application everything is online. Even the SIO report, Challan, Gate pass to each successful candidate is sent online in PDF form (print copy is not given).

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JHARKHAND VAT IT PROJECT

[Commercial Tax Department, Jharkhand]

Neelam Gupta

DESCRIPTION OF PROJECT

The ambitious Jharkhand VAT – IT Project started in the year 2004-05 in supervision of IT Department Jharkhand for implementation of a single, integrated and automated IT System catering to its taxation business processes.

The project involves implementation of VAT Application Software, Web Portal, and setup of IT Infrastructure at Production and Disaster Recovery Sites (Near DR and Far DR) and building of CTD Network (Intranet) System across the State with parallel failover support provided by JHARNET (SWAN).

This is one of the largest state government projects undertaken by making use of multiple IT domains under a single umbrella – Software, Hardware and Networking spanning across the geography of Jharkhand and covering 5 Divisions, 28 Circles offices and 10 Check Posts.

Lifecycle of the IT Project so far:

- 2005: The Process computerization started and required basic IT infrastructure was created
- 2006-2009: A Web Based application for departmental purposes developed & Implemented
- 2010-2013 –Launching of citizen services (Web Portal, E-Registration, E-Return, E- Payment, E- Forms,
- E-Waybill, Payment GW) as per MMPCT
- 2014-2015 – Upgraded version of Software Launched in line with the GST requirement as part of initiative of MMPCT (Mission Mode Project of Commercial Taxes).

Goals/ Objective of the project:

Department:

- To get correct and latest position of tax collection at any point of time for the entire State
- To provide easy, transparent and widely accessible interface to monitor tax administration
- Facilitate the department and its stakeholders for easy, speedy and correct information exchange

- To have a centralized system of control and management of data and processes
- Improved internal functioning of CTD with reference to VAT
- Facilitation and monitoring of inter-state movement of the goods
- Setting up the inter-connectivity for reliable and high-speed transfer of data, voice between HQ and Field Offices across the State along with parallel connectivity from Data centre to each of the department office locations for 100% uptime
- To have a single integrated, web-based software system with different application modules closely tied together covering entire span of dealer's taxation cycle

Taxpayers & Public

- Quick Availability of Information from Commercial Taxes Department with improved conveniences and reduced manual interventions
- Reduction in time taken to complete the business processes wrt taxpayers e.g. issuance of new registration, returns filing, tax payments, refunds credit, etc.
- Availability of all necessary information about tax statutes, rules, forms, notifications, circulars, etc. at one place on 7X24 basis
- Bouquet of e-Services to Taxpayers of CTD on 7X24 basis - Facilities for making e-Payments, filing e>Returns, e-filing of forms for inter-state goods movement, e-refunds, e-Communication, etc
- Transition from manual, paid and time consuming service model to electronic, free and quick service model leading to savings in time, cost and effort of citizens & taxpayers
- Reduction in touch points for the taxpayers and citizens
- Availability of Copies of CTD Administered Acts, Rules, Forms and Schedules on CTD Web Portal
- Availability of Notifications and Circulars related to various taxes on CTD Web Portal

RESULT INDICATORS

Following 13 services are available for the Tax Payers through Direct (Dealer Portal), one service provided through CSC. CSC can file any return on behalf of Dealer.

- E-Registration, E-Amendment, E-Cancellation, E-Payment with Two way integration and gateway, E-Return filing with invoice wise details, E-Road Permit, E-CST Forms (C, E1, E2, F,H etc), Dealer Profile, Dealer category change, Online Refund, Self Assessment, PAN correction Utility as part of GST readiness, Data Correction Utility as part of GST readiness.

- Apart from the Online Services, Tax Payers also have a complete Offline Utility (Client Side Utility) to avail these services offline (for the input). They need to connect to the Internet for the final submission.
- Departmental authorities are provided back end Application for the Tax Administration with the modules as Assessment, Monitoring and Inspection, Arrears and Recovery, Penalty, Refund, Appeals and Revision along with Dashboards and MIS for decision making.

Benefits obtained

- Following table describes the benefits obtained in the areas, after implementation of these services compare to earlier:
- 100% online application for Amendment and Cancellation
- All the modules available Online
- Data are taken in proper format
- One system and common Registration form available
- Return forms Re-engineered with 13 annexures
- Structured Transit Pass generation with verification of PAN with NSDL and other validations
- Very high as all the modules and services are now online.
- 24*7 availability
- Available with 8 nationalized banks
- High Computing Capacity and Storage

Implementation coverage till date

- CTD Head Quarters – 1
- CTD Divisions (District Town) – 5 (Ranchi, Jamshedpur, Dhanbad, Hazaribagh and Santhal Pargana)
- Circle Offices – 28 (Cities)
- Check Posts (State Borders) – 10
- These offices are scattered across the geography of State. Apart from this, project has a Far Disaster Recovery site at NIC@ Delhi connected online with Production Site at State Capital – Ranchi.
- Total CTD Users - 400
- Total Dealers - 1,58,976

Specific innovative ideas implemented

- Master TIN Concept : One TIN for a dealer registered in multiple taxes.
- One PAN and One TIN Concept.
- Common Registration, Amendment and Cancellation Forms.

- VAT Registration for insensitive goods in one day.
- No Surety for VAT Registration however System alerts in case of excess issuance of Road Permits.
- Simplification of Registration, Payment and Return filing processes of Professional Tax
- Cloning of Permit, in order to ease the data entry from the Dealer.
- Issuance of Multiple Permits for different consignors/ consignee in a single request.
- Returns Re - Engineering, Annexures for Sales, Purchase, Invoice wise details, Sales Return, Purchase Return, Stock Transfer etc.
- Online Refund within 60 days instead of 90 days.
- Structured Transit Pass generation with verification of PAN and other validations.
- TDS Registration process to obtain TDN for works contractor.
- Online application of No Objection Certificate (NOC).
- Mobile based verification of SUGAMs and Dealer Search on Cloud post.

ENABLER INDICATORS

Process Reengineering

- Common Registration, Amendment and Cancellation for all the Acts (VAT, CST and Minor)
- Registration process for Casual Dealer and Works Contractor/ Builder (TDN approach)
- Return forms Re-engineered with 13 annexures to take invoice wise details of sales, purchases, stock transfer, TDS deduction etc.
- Structured Transit Pass generation with verification of PAN with NSDL and other validations.
- Online NOC and Kar Samadhan Yojna
- Validation of Central forms generation with Interstate Permits

Change Management and Capacity Building

- All 5 Divisions are equipped with dedicated Training centre with Video Conferencing System to provide the training to Dealers and Department Users.
- Periodical training conduction for the Tax Payers/ Lawyers/ Accountants, CSC, Department officials under the guidance of Commissioner of Commercial Taxes and Project Nodal Officer.
- Deployed location wise Trainers, Master Trainer at Head Quarter for the day to day support.

- Till now various complete training programs were conducted for the Tax Payers/ Lawyers/ Accountants, Chamber of Commerce and Department officials.

VALUE INDICATORS

Digital Inclusion

- Setting up facilitation Centers for backward places for Return filing.
- Setting up 24*7 helpdesk support to cater the difficulties faced by the Tax Payers.
- Deployed location wise Trainers, Master Trainer at Head Quarter for the day to day support.

Green e-Governance

- Reduced paper based system helps saving of trees.
- Reduced travelling related to services helps less use of fuels and thus helps pollution control.
- High end Servers consume less power and thus save energy.

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MOBILEONE

[Centre for e-Governance, Government of Karnataka]

Dr. Rathan Kelkar, IAS

DESCRIPTION OF PROJECT

MobileOne has the unique distinction of being certified as India's first and the world's largest multi-mode mobile governance platform with over 4,000 services. It is a unified mobile platform for delivery of citizens' services, both from the government and the private sector through an open platform, which can accept any service and is thus future-proof. These anytime, anywhere, anyhow services will be available 24x7x365 days at any location in Karnataka on any mobile device. The services include G2C, B2C and G2B and can be availed by Karnataka-based citizens.

The intent is to provide these services to people in both Urban and Rural Karnataka by utilizing the reach of mobile connectivity and the power of the mobile device to develop/on-board applications and deliver services to enable inclusive development in the State of Karnataka. MobileOne hopes to transform delivery of public services, foster innovation, promote entrepreneurial culture, provide a self-sustaining platform for multi-channel and ubiquitous access to government as well as value added services to the people of Karnataka.

The MobileOne platform is integrated across all the telecom operators and works on the concept of delivering all its services through the 'One URL, One Short Code and One App' concept. i.e. the citizen can avail all the services under one access point, thus eliminating the need to visit multiple websites and short/long codes.

RESULT INDICATORS

MobileOne currently enables provision of 650+ Government services and over 3000 private services directly over mobile channels. A few of the services under each category are detailed below.

- **Government – Citizen**
 - Pay utility bills on your mobile
 - Pay traffic fines on BTCP
 - Crop Solution updates for farmers
 - iCare grievance reporting
 - Sakala
 - Passport

- **Government – Employees**
 - HRMS
- **Government – Students**
 - View SSLC results on KSEEB
 - Apply for post-result services from the Department of Pre-University
- **Government - Business**
 - e-Procurement

Benefits obtained

- The multiple channels allow citizens of all demographics, with mobile phones, access to government services. Even people without literacy can use the services available on IVR. There are numerous important services available over SMS, USSD & IVR ensuring that people with basic phones without internet/data access can also avail the same. This ensures that residents of Karnataka have direct access to various Government and private services without having to undergo the expense and/or hardship of trudging to CSCs or department offices to avail services like payment of bills, etc. The platform also supports Kannada and English to ensure extended reach for the services.
- Apart from the above day to day services, MobileOne has also piloted a few unique and innovative services on the platform. These include services like Tele-ICU, Nano Ganesh and Buffalo Grid. This is all the more important in rural Karnataka where services like Tele-ICU will greatly improve health care and enable villagers to benefit from the expertise of top doctors in the country without having to make the long and expensive journey into the city.
- Where earlier, people in rural Karnataka had to be dependent on intermittent water supply without any knowledge of a prescribed time for when they could expect water, Nano Ganesh has changed the game. They can now go about their day with minimal disruption and just send a message to the short code when they want the water pump to be switched on, at a time of their convenience.
- MobileOne's partnership with UK social enterprise Buffalo Grid enables residents in areas under-served or not served by the power grid to have access to electricity for the purpose of charging their mobile phones or other devices through solar power. They can do all of the above by simply sending an SMS to MobileOne.

- The solution also helps Government departments to use mobile channels for delivery of services, thereby saving them time and money. For example, the Mysore electricity department did not have provision for online payments of bills before MobileOne.

Implementation coverage till date

- MobileOne can be accessed and used from anywhere in India while the App and website can be used anywhere in the world. Anybody, across geographies, with access to any telecom network in India can access the SMS, USSD and IVR services. The services are mainly targeted toward the residents of Karnataka although central government services are also available on the platform.
- The focus is on getting more services from the Central Government, services from government agencies operating in various Tier-I and Tier-II cities and villages within Karnataka, in addition to important, useful and popular private services as well. The objective of making this platform accessible to urban and rural Karnataka is three-fold.
- To bring equality in service delivery, to bridge:
 - Socio economic divide
 - Language divide
 - Literacy divide
- Services at the fingertips of citizens
- Leverage innovation outside the Government

Efficiency and Improvement Initiatives

- The solution helps Government departments to use mobile channels for delivery of services, thereby saving them time and money. For example, the Mysore electricity department did not have provision for online payments of bills before MobileOne.
- Citizens can now use MobileOne to access Government services anytime, anywhere and on any device. They do not need to wait in lines at brick & mortar offices that have limited working hours anymore. They do not have to rush to the nearest internet-cafes to make payments online anymore.

Specific innovative ideas implemented

- Apart from day to day services, MobileOne has also piloted a few unique and innovative services on the platform. These include services like Tele-ICU, Nano Ganesh and Buffalo Grid. This is all the more important in rural Karnataka where services like Tele-ICU will greatly improve health care and

enable villagers to benefit from the expertise of top doctors in the country without having to make the long and expensive journey into the city.

- Earlier people in rural Karnataka had to be dependent on intermittent water supply without any knowledge of a prescribed time for when they could expect water. Now, with MobileOne partnering with Nano Ganesh, they can go about their day with minimal disruption and just send a message to a short code when they want the water pump to be switched on, at a time of their convenience.
- MobileOne's has partnered with BuffaloGrid, a UK based social enterprise, to enable residents in areas under-served or not served by the power grid to access to electricity for the purpose of charging their mobile phones or other devices through solar power just by sending an SMS to MobileOne.

ENABLER INDICATORS

Process reengineering

- The MobileOne platform was built on the proprietary software of the private partner which provides the core Mobile Service Delivery Gateway services. The project also leverages state infrastructure like the SDC and the SWAN for storage and internal, department communications. MobileOne has also got into agreements with major telecom service providers to enable access to the MobileOne short code over various channels like SMS, IVR and USSD from all circles across the country.
- MobileOne is configured on Oracle, Mysql, Mongo DB, Tivoli, and IMI Proprietary tools for unified messaging gateway. It is deployed via HP Cent OS, Linux. The web server used is Tomcat5 and IIS.
- The platform is device and operating system agnostic, with its services being available over SMS, USSD, IVR, web and smart client apps (Android & iOS)
- The key features of MobileOne are:
 - Multiple mobile channels - Mobile Web, Smart Client, IVR, USSD, Push and Pull SMS
 - Available on Apple iOS and Google Android platforms
 - Multiple payment mode options - Net banking, IMPS, Credit/Debit Cards, RuPay, e-wallet
 - Unified user experience
 - Device and operating system agnostic
 - Is integrated with PayGov providing lowest payment gateway charges to citizens
 - Aggregates demand from various services, hence reducing the project cost thereby bringing economy of scale
 - Hosted securely in Karnataka State Data Centre (KSDC)

- **App releases:** Android: 4th version is in production, iOS: 2nd version is in production. The software platform has only had patches released till date and no major version change has been done.

Change Management and Capacity Building

- Centre for e-Governance (CeG), Government of Karnataka is the nodal agency which conducts regular awareness sessions at district levels on the project. CeG has also conducted workshops with various department personnel on procedure to integrate their service with MobileOne.
- There is also regular interaction with the departments to on-board new services. Standardized templates have been created to smoothen the process of information gathering, integration with departmental services and on-boarding the departments.

VALUE INDICATORS

Digital Inclusion

- MobileOne aims to bring equality in service delivery to bridge socio-economic divides, language barriers, and literacy gaps. The initiative enables a two-way dialogue with citizens allowing for more transparency, accountability in addition to faster resolution of grievances.
- By empowering citizens to be able to pay their utility bills, property tax, track their passport applications, all on the go, MobileOne is revolutionizing governance in the 21st century and making it accessible to everyone in Karnataka through a mobile phone. Since the platform is device-agnostic, everyone from a farmer with a basic phone to a CEO with a high-end Smartphone will be able to use it with equal ease.

Green e-Governance

- Our enhancement of the capacity of government departments for public service delivery through ICT-enabled reform is instrumental in successfully marrying e-Governance with sustainable development. To this end, we have attempted to integrate the two by:
 - Use of environmentally-friendly (Green) ICT equipment for Government operations

- Set up SMS alerts for rural residents of Karnataka to broadcast any forecasts of severe weather patterns that might cause natural disasters and / or affect their crops
- Reduction of paper use by opting to go digital with everything from records to user information
- Expansion of tele-commuting and tele-conferencing and introduction of Tele-ICU saves people from having to commute long distances thereby reducing carbon emissions

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KARNATAKA SAKALA SERVICES ACT, 2011 & AMENDMENT ACT, 2014

[Department of Personnel and Administrative Reforms (AR),
Government of Karnataka]
M.V Jayanthi, IAS

DESCRIPTION OF PROJECT

Karnataka Sakala Services Act, 2011 and Amendment Act, 2014 empowers citizens to avail services from the Government of Karnataka in a time-bound manner. Sakala initiative aims to ensure in time delivery of Government services to citizens by practicing innovative and efficient management systems through capacity building in Government and empowering citizens to exercise their right to service. The Act mandates the delivery of 678 services across 52 Departments/Institutions within a stipulated time. In case of a delay /default of a service request, the officer responsible is liable to pay a fine of Rs. 20 per day limited to a maximum of Rs. 500 to the citizen as compensation.

- Whenever a citizen requests for a service, he/ she will receive an acknowledgement slip with a unique 15 digit GSC (Guarantee of Services to Citizens) number. Using this number, the citizen can track the status of the application on the Sakala website, in mobile and through Sakala call center (080-4455 4455). In case the application is rejected or if the service is not provided within the stipulated time, the citizen may file an appeal to the next higher officer.
- The primary vision of Sakala is to provide citizen friendly governance with time bound service guarantee of all Government services. This flagship program of the Karnataka government intends to tackle corruption and arbitrariness at the grass root levels and make the government more accountable to its citizens. Today, just within 3+ years after the State wide launch of the Sakala services, 8,65,49,540 crore (as on 27.08.2015) services have been delivered to the citizens in a time bound manner across the Departments/Institutions.
- Several research studies undertaken about Sakala Initiative have reported the increased level of satisfaction with reduced visits to Government offices regarding service delivery. Further continuous improvements are also being carried out based on these reports.
- Sakala Mission has received several recognitions at National and International Levels like Prime Ministers award for excellence in Public Administration for 2012-13 (2015), National e-Governance Award (2014), National award from Quality Council of India (2014) and Google Innovation award (2012). Sakala

has also won the prestigious award in the category of “Public Service Management” in Commonwealth Association for Public Administration and Management (CAPAM), 2014 Kuala Lumpur, Malaysia.

- Standardisation and process documentation has earned Sakala Mission ISO 9001:2008 certification thereby ensuring sustainability and replicability of the Sakala Model. Several States of India and neighboring Countries have studied the Sakala model for replicating in their respective countries and states. Taking the mission for Good Governance forward, the State Government is currently providing 135 online services and is preparing to introduce more and more citizen centric services under this Act.

RESULT INDICATORS

Sakala has been, by far the most cost effective programme of the Government delivering about 8.65 crore services to Citizens. Karnataka has the highest number of services being rendered under this initiative in the country. Besides, it has transformed the work culture and Brand image of 6 lakh Government employees, who are working tirelessly to deliver services to citizens, even ahead of the time stipulated in their Citizen Charters.

- High Transparency has been achieved by publicising office workflow and check list of documents with the prescribed service procedure/ fees payable etc. for all the services under “Sakala”.
- Accountability on the part of officials ensured through online monitoring system and speedy redressal of grievances with a single window and paper less approach.
- Empowerment of citizens to avail the services as a matter of right is reflected by 621 citizens who have claimed Rs 77,240 as compensation from the employees for delays/defaults.
- Reducing irrelevant frequent visits of citizens’. Even if one visit of one person is avoided on account of this initiative, it amounts to a notional public saving.
- Reducing grievances of Citizens – online registration of appeals through call centre and regular follow up has ensured speedy redressal of grievances. e-spanadana portal (www.espanadana.in) is launched by Sakala Mission for systematic and speedy redressal of both Sakala and non Sakala grievances lodged by citizens.
- Reducing rejections- Standardising the checklist of documents required for each service and mandating their submission along with the application have ensured lesser rejections of applications. Rejections are being monitored closely and a decreasing trend has been observed over a period of time.
- Reducing Time taken for service delivery –Out of 678 Sakala services, 300 services are being delivered much before the stipulated time, hence several

departments are amending the time frames. For example, police verification time for passport applications has been reduced from 90 to 20 days.

- Taking Governance to Citizens' door steps—Helpdesks in Deputy Commissioner and Tahsildhar office coupled with around 1000 cyber cafes are working in PPP model as Citizen Service centres apart from Sakala Counters in around 20,000 different offices across the state provides accessibility to Citizens to the Sakala services. Online services have been launched to enable Citizens to avail services, any time anywhere. Mobile application has further added to the convenience of the Citizens. State wide single number call centre has become a virtual bridge between Citizen and Government.

Specific innovative ideas implemented

- Designated officers are sent regular SMS twice everyday regarding the status of applications in their respective offices. This will ensure accountability on the part of the officer and easy monitoring of progress by the superior officer.
- State level and District level Officers can review and monitor the progress of their respective departments/districts with the analytical data. These progress reports are available in real time on the Sakala analytical reports portal, which will save the time and effort to consolidate the progress reports from various sub offices. Data drill down options enables to identify the designated office in a particular department up till the individual application details.
- Tracking of application status can be done by the citizen online. This has reduced frequent visits by them to the government offices.

ENABLER INDICATORS

- In effectively reaching out to the citizens, Sakala Mission has launched a portal www.sakala.kar.nic.in in which the citizen can view the status of his application and obtain required information about Sakala services.
- Sakala Mission established in Department of Personnel and Administrative Reforms (AR), GOK has also set up a centralised call centre for the State in Bengaluru (080-4455 4455), Sakala help desks in offices of Deputy Commissioners and Tahsildars of all 177 taluks, cyber cafes with public private partnership and touch screen Kiosks are established to enable the citizens to avail services easily. 19,734 designated officers, 1,457 competent officers and 445 Appellate Authority officers of various departments spread across the State cater to the needs of the citizens.
- Mandatory notice boards are displayed in all designated offices with information about procedure and time lines stipulated to obtain Sakala services.

Process Reengineering

This is an integral part of Sakala Mission, wherein various reforms have been brought in to make the life of Citizen much easier, some of which are mentioned below.

- 135 Online Services introduced.
- Self declarations accepted in place of Affidavit (excluding statutory requirements)
- Services given earlier in Taluk levels are now available in Hobli (Headquarters office catering to cluster of villages) Revenue office.
- SC/ST Caste Certificate, now valid for life
- OBC caste certificate now valid for 5 years
- All Income and Caste certificates issued by Revenue Department are now paperless and are delivered digitally.
- Suo Moto issue of Birth Certificate in Government hospitals itself
- Exemption of Domicile Certificate by Karnataka Housing Board for allotment of plots/houses.
- Police verification for passport application-time reduced from 90 to 20 days
- Online registration of FIR using Kiosks
- Learners License in 20 Minutes using Kiosks
- On demand C - Form generation instead of 7 days stipulated time period.

Change Management and Capacity Building

- Administrative Training Institute, Mysore, conducts trainings as per a standard module for employees at various levels. This enables the employee to upgrade his/her skills needed to work efficiently. E-learning modules have been hosted on the website.
- District Training Institutes have been facilitating individual departments in a decentralized manner at district levels. District IT consultants impart trainings as and when necessary for the smooth running of operations of “Sakala”.
- Pool of master trainers created in each district to ensure continuous training programs in their departments/districts.

VALUE INDICATORS

- 52 Departments/Institutions delivering 678 services issue a single format computerised acknowledgement slip with unique 15 digit Sakala number.
- 678 services delivered under Sakala have workflows and timelines defined, which are standardized across all offices delivering a similar service.
- Awareness creation among employees and citizen about the Act is an important step taken for the success of Sakala initiative. Changing employee mindset, in

order to ensure their 100% participation in Sakala initiative, providing various methods of accessibility to citizens to avail Sakala services and a single window grievance redressal mechanism has ensured the success of Sakala.

- Sakala initiative has promoted e-governance to the fullest extent. e- delivery of services has strengthened the district administration and ensured citizen participation.

Digital Inclusion

- Information Technology forms the backbone of “Sakala” to serve citizens better. Mission aims to achieve inter-operability and cross-communication of multiple databases of government and private systems to use the information for accurate and timely delivery of services, in a secure fashion.

e- Inclusion

- The localization of the software in Kannada is done in Unicode. User is provided with the option to select the language. By default the portal opens in Kannada (Local Language). This will cater to most rural areas and the access to the digital world is broadened, the digital divide reduced.
- Not all departments had an existing IT platform/e Gov solution. NIC bridged the gap by ensuring that even the non IT enabled departments has been equipped with technology that can ease their lives.

Green e-Governance

- Digitalization of certificates and encouraging the use of electronic media for all transaction and final delivery of services has been adopted by Sakala Mission.
- Around 20 lakh applications per month are received under Sakala and steps are being taken to capture the email id of applicant during the application process. This will be useful to send the acknowledgement for the applied service to their email directly instead of printing it.
- Once this is incorporated, Sakala Mission will atleast save 15-18 lakh sheets of paper per month.

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e-SWATHU - A PROPERTY MANAGEMENT SYSTEM FOR PANCHAYATS

[Rural Development & Panchayat Raj, Government of Karnataka]
Dr. Nagambika Devi N, IAS

DESCRIPTION OF PROJECT

In Karnataka, the Grama Panchayats which are local bodies in the rural areas maintain tax accounts of properties within the village limits. These records are maintained as per the *Karnataka Panchayat Raj act (Budget and Accounts Rules), 2006*. These Grama Panchayats create and maintain documents called **Form-9** and **Form-11** which are used as substitute documents for registration and sanctioning loans by banks and financial institutions. The major focus of Grama Panchayats or any local body is to bring more and more properties into tax net rather than finding out the veracity of the property documents before taking them into demand register of property tax. This has resulted in inserting large set of illegally created properties without following prescribed procedures into demand registers. Such illegally created properties would not have changed land use, would not have gone through the department of town and country planning approvals for new layouts in the peri-urban areas. This has not only resulted in revenue loss to the government but also responsible for haphazard growth of cities making it difficult to plan infrastructure schemes for present and future requirements.

Further mushrooming of illegally created properties have huge impact on the functioning and growth of cities, availability and access to affordable land and housing by tens of millions of poor people and the effective functioning of economic efficiency of domestic and international enterprises.

Rural Development & Panchayat Raj department of Government of Karnataka felt that registration of illegal properties should be stopped immediately by adopting software solutions and the stopping transactions on illegal properties is the best way to stop creation of such properties. It was noted by RD & PR, Government of Karnataka that only IT systems can impose such discipline in the government departments.

As a result an e-Governance solution called **e-SWATHU** for managing property records of villages was conceptualized, designed, developed and implemented by **National Informatics Centre** for Rural Development and Panchayat Raj department with following objectives:

- Maintaining up-to-date records with respect to ownership, extent, dimension, etc., of properties under the jurisdiction of Grama Panchayats.
- Process to undertake updations due to various transactions such as sale, inheritance, partition, gift, will, land acquisition, etc.,
- Facilities to create new property records which are coming up after following due process under law.
- Issue of records as and when owner / citizen demands for it.
- Electronic data exchange with registration department and survey department.
- Implementation of court decree, managing addition and removal of court stay.
- Incorporation of liabilities on the property and removal of the same as and when demanded.
- Maintaining flags against each property with respect to government restrictions, Non alienation conditions, government / Grama Panchayat property, restrictions imposed by LPAs / Director town Planning etc., and communicate same to registration department during registration.

e-SWATHU is operational in all 5629 Grama Panchayat across Karnataka. Incremental approach (i.e., demand driven) has been adopted for implementation to avoid large scale data digitization and also to concentrate on laborious process of verification and validation of documents which is essential for any property records management system. All stakeholders are enabled with web access to the property records for viewing and verification purpose. Total hits to the website since inception is approximately one crore. Digitally signed and bar-coded Property documents such as Form-9 and Form-11A/B are made available in Grama Panchayat office as across the counter service at user charges prescribed by competent authority. An average, user charge for obtaining property document is Rs.50.00. Till now approximately 15 lakh copies have been issued to public and Rs. 8 crore has been collected in the form of user charges. It is needless to say that user charges approach will go long way in financial sustenance of the project. Electronic integration with registration department and survey department has helped in bringing orderliness in property record management and avoids illegal transactions thereby putting breaks to mushrooming of illegal layouts affecting the planned growth in the periphery of urban agglomerations.

RESULT INDICATORS

“Government” to “Citizen/Business/Government/Employees/Students”

- Issue of Form-9 (property ownership document) across the counter
- Issue of Form-11A (issued along with Form-9 indicating taxation details)
- Issue of form-11B (issued for illegally created properties before cut of date and maintained for taxation purpose)

- Form-9A extract (Form-9A register is super set of Form-9, Form-11A and Form-11B)
- Mutation of properties due to sale, inheritance, gift, will, partition, relinquishment, add or remove rights / liabilities etc.,
- Facility for sub division of sites
- Facility for amalgamation of sites
- Facility to view property record on web, based on property id or location details or document id.
- Facility to know whether property can be registered or not
- Facility to know the status of registration through interactive SMS

Benefits to organization

- Better management of property records under their jurisdiction.
- Complete elimination of illegal properties getting into records.
- Good-bye to fake documents.
- Accountability ensured for department officials.
- Reduction in property disputes.

Benefits to Citizen

- Across the counter service for getting documents.
- Requests are acknowledged and can be tracked.
- Easy access to their records through web interface
- SMS service to know status of request and interactive SMS service for finding out status of register-ability.
- Elimination fake documents ensure buyers are not cheated.
- Easy access to loan due to authenticity of the document.

Benefits to Other Stakeholders

- Registration department is provided with all information about the property at the time of registration so that verification of documents is not a challenge anymore.
- Impersonation during registration is completely avoided as property documents are issued with photo of the owner printed in property document.
- Banks and Financial institutions can advance comfortably as legally created properties and illegally created properties can be clearly distinguished easily.
- All the accepting authorities can verify the document on web and also can depend on paper document to large extent as documents are issued on secured paper with hologram and every document is digitally signed and bar coded.

e-SWATHU is not only G2C but it is also G2G application. As discussed in above paragraphs citizens have been empowered with easy access to their property records within the jurisdiction of Grama Panchayat, it has removed uncertainty with respect to obtaining copies of the document. A well-defined workflow based system enables easy tracking of requests and to know the status. Reports shown below clearly demonstrates that more than six lakh records have been created in past two years of implementation and approximately 8 crore rupees are collected as user charges. Benefits of e-SWATHU to other stakeholders such as banks, courts, registration department etc., prove that e-SWATHU is also a G2G application.

Implementation coverage till date

- **e-SWATHU** has been designed to cater the needs of managing non agricultural property records of rural area all across the state. All the processes have been standardized and have been made common all across the state. e-SWATHU has been implemented in all 5,629 Grama Panchayats belonging to 177 blocks of 30 districts across the state.
- Citizen can obtain his / her non agricultural property documents across the counter from any of the 5,629 Grama Panchayats. Further all the stakeholders can check the veracity of the documents issued by visiting e-SWATHU website. (<http://e-swathu.kar.nic.in>).
- Karnataka's 61.33% of population lives in villages (according to 2011 census) and e-SWATHU covers non agricultural properties belonging to all of them which works out to be nearly 3.75 crore people. Distance citizen needs to travel to reach his/her Grama Panchayat office to avail any service from e-SWATHU project is approximately 0 – 3.5 KMs.

Efficiency and Improvement Initiatives

- Users of the e-SWATHU have great advantage in terms of efforts they were putting to get their property records, Time taken and cost. e-SWATHU has ensured that property records in the form of Form-9 / Form-11A/ Form-11B are accessed effortlessly by every owner of the property both from Grama Panchayat office and on web. While physical copies are available in Grama panchayat across the counter within few minutes, digital copies can be viewed on web instantaneously. Since documents are available in Grama Panchayat office itself there is no additional cost in terms of opportunity cost and transportation cost.
- Citizen need to pay only user charges as prescribed by Grama Panchayat which is about Rs. 50/-. Since issue of Form-9 / Form-11A/ Form-11B is across the counter service, there is no scope of uncertainty in the minds of the citizen with respect to issue of documents.

Specific innovative ideas implemented

- e-SWATHU is a wonderful example of creation of digital property records from scratch with minimum survey activities for properties belonging to Gramathana area. Once property database is ready, one can always use satellite imagery to identify them on the ground and use concept of indicative cadastre without mentioning dimension.
- Most of the illegal transactions pertaining to properties under the jurisdiction of Grama Panchayats have been stopped after inception of e-SWATHU system. Incremental approach of creating property records on demand has also reduced pressure on the Grama Panchayat officials. Citizen has been empowered by providing access to his / her property records on web, either too it was not possible before e-SWATHU.

ENABLER INDICATORS

- Process re-engineering was carried out by RD & PR department to stream line the property record management for properties coming under the jurisdiction of Grama Panchayats. Following six major activities involved were accomplished as part of process re-engineering for achieving objectives of e-SWATHU:
 - Process re-engineering in Acts and Rules.
 - Executive orders banning manual records
 - Workflow based process for generation of property documents and mutation

Major ICT and Non-ICT process changes that were planned and implemented

- Rural Development & Panchayat Raj department has issued government order banning manually written Form-9, Form-11A and Form-11B. Registration department has been advised to register properties only on the basis of Form-9, Form-11A and Form-11B issued from e-SWATHU software which has digitally signed bar code of Panchayat Development Officer. All other stakeholders have been informed not to accept manual records issued from Grama Panchayat with respect to Form-9, Form-11A and Form-11B.
- After inception of e-SWATHU, workflow process has been defined and every official in the Grama Panchayat has been assigned with specific job so that he can be made accountable.
- Roles and responsibilities have been well-defined in such a way that officials in lower hierarchy would perform activities such as data entry, scanning and uploading of documents, printing of checklists and reports etc., Supervisory role has been given to next level where officials can check the work done by the lower level officer and take decision either to forward for approval or

return to lower level with specific remarks. Lower level official can rectify the mistakes highlighted and re-submit the transaction with compliance for the remarks raised by supervisory role.

- Approving authorities also have been given facility to approve, reject or return to supervisory role official. Officers at taluk / block level, District level and State level have been provided role to verify the activities that are being carried by Panchayat Development Officer at Grama Panchayat level.

Change Management and Capacity Building

- Amendments to the Act and rules and series of administrative circulars issued demonstrate the administrative will to implement the program thereby demonstrating political will and bureaucratic commitment. Series of training programs have been conducted to field level staff, MIS coordinators of district and taluks, District project Managers, District Informatics Officers of NIC etc.,
- Numbers of Video conferencing sessions are also held to educate the officers. Master trainers program is regularly being conducted by ANSSIRD (Abul Nazeer Shab State Institute for rural Development). e-Mail ids have been created for all the field level officers and all instructions are being passed on to them through e-Mail. Letters and circulars are being uploaded into department's website regularly for the convenience of the department hierarchy.
- SMS integration through e-SWATHU application has also helped in broadcasting small message to the department hierarchy through CUG phones. Project objectives and implementation support is also being provided to field level officials through series of district level meetings attended by RD & PR officers and NIC officers. Video conference sessions are being held regularly to inform about new developments and enhancements made in the software.
- Unique feature in implementation support is monthly program of "SAMVADA" (Discussion) through SATCOM program where senior departmental officials in the leadership of Additional Chief Secretary and Principal Secretary panchayat Raj will be discussing with officials & elected representatives of all Grama Panchyats, Taluk Panchayats and Zilla Panchayats, with respect to different schemes.
- There would be an exclusive session on e-SWATHU in the "SAMVADA" where NIC officers and department officers exchange the information with field hierarchy and answer questions raised by them for smooth implementation of the project.

VALUE INDICATORS

Digital Inclusion

Software interface is in local language i.e., Kannada (Unicode) so that whole hierarchy of Rural Development & Panchayat Raj department can use the software without any language barrier. Web interface for citizen is also in Kannada so that rural citizens can access their records comfortably. Local language implementation in UNICODE standards helps in easy portability with different browsers and applications. SMS integration to know the registrability of the documents in sub registrar office helps in reducing unnecessary visits to government offices. Mobile application helps in viewing the owner details, status of transaction etc,

Green e-Governance

Electronic integrations with stakeholders such as registration department, MOJINI and proposed integration with e-VINYASA (Country and town planning department) have reduced exchange of paper documents to large extent. Availability of property documents on web 24X7 has relieved citizen of obtaining and maintaining paper documents which also help in reduction in paper usage.

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INTELLIGENT TRANSPORT SYSTEM

[Karnataka State Road Transport Corporation (KSRTC),
Government of Karnataka]
Rajender Kumar Kataria, IAS

DESCRIPTION OF PROJECT

Nation's first demonstrative project Intelligent Transport System (ITS) implemented at Mysore City under GEF-SUTP Programme, Project Components include - Real Time Passenger Information System (PIS), In-Vehicle display System, Automated Voice Announcement System, Central Control Station, Automatic Vehicle Location System, Enterprise Management System, MIS Reports and Training. Project Scope include-500 buses, 105 bus shelters, 2400 bus stops, 45 platforms and 6 bus terminals.

The project is implemented with the following key objectives:

- To establish an intelligent system to improve quality & convenience of public transport system in Mysore city and ensure the delivery of safe, fair, reliable and environment-friendly transport system
- To promote use of sustainable transport modes and enable commuters to make informed choices on travel modes by developing an integrated network in an effort to reduce passenger wait times
- To optimize operations, improve fleet utilization, schedules, and vehicle availability with accurate information
- The core technologies deployed include- Embedded Systems, GPRS / GSM, Web Technologies, Database, JAVA and GIS. Using the transport domain expertise and requirements of KSRTC, all the application subcomponents – Geographical Information System, Passenger Information System, Enterprise Management System and SMS services have been designed and deployed as per International/ best practices meeting the requirements of all stakeholders.
- The final product through the ICT intervention has seen many value additions as compared with the one envisaged during RFP stage.

RESULT INDICATORS

- Services offered to commuters include
 - Bilingual Commuter Portal
 - 193 nos. of Passenger Information System Display accommodating 2/4/8/10/16 lines
 - In Bus Services
 - IVRS functionality

- SMS Services Services to KSRTC - Real time Tracking of Buses, Dynamic scheduling of Buses, Schedule/Route/Bus stop modifications, Bus Maintenance schedule capture facility, Real time trip and schedule monitoring, GIS Interface, Tracking on map, Replay facility – position based/ schedule based, Real time Alerts – Route Deviation, Breakdown, SOS, Fire, Accident etc, Over The Air facility for Scheduling Audio Message Playing Schedule/Route file, Real time message to PIS Display boards and SMS Alerts for Management – Depot Departure Status.

Implementation coverage till date

- The project has been commissioned and inaugurated in Mysore City on 17-12-2012. The coverage of the project is in Mysore City catering to the requirements of commuters. Currently, the project is in operation and being utilized by all concerned.
- The stakeholders covered through the project directly or indirectly include-commuters, KSRTC management, KSRTC operations team, KSRTC crew, traffic police, city administration, ITS solution providers, eco system partners, personal transport users etc.

Efficiency and Improvement Initiatives

- The system is designed to obtain information about bus location of all the buses every 10 seconds and disseminate the ETA/ETD information to all display boards at 167 bus shelters and 45 platforms. Live bus tracking of all buses can be obtained through SMS/IVRS/Commuter Portal. It is instantaneous information with no time logs. The ETA/ETD information gets refreshed depending on bus movement. The PIS information is being delivered free of cost to the commuters.
- Average commuter wait time at bus shelter reduced from 20 minutes in 2012 to 15.2 mins in 2015
 - Overall user satisfaction of ITS system is 75.4% against benchmark of 65%
 - 14.5% increase in ridership over year and 47% from baseline data
 - Ridership increase due to ITS @1.69% of total growth – 21.5 lakhs
- KSRTC has integrated IVRS with ITS System and catering to the information requirements of commuters free of cost. SMS services deployed have also been catering to the information requirements of commuters at very nominal cost.

Specific innovative ideas implemented.

- Information dissemination through SMS/IVRS and is a great advantage for commuters to plan the trip
- If registered one time about daily bus information requirements for a particular time/bus/location automatic SMS generation and delivery to the commuter daily
- Exclusive Commuter Portal for the people of Mysore – mitra.ksrtc.in is innovation in itself
- Map based searching facility for tracking real time bus movement
- Bus dispatch through ITS and reduction in manpower manning the bus station/platforms
- Digitalization of bus operations and MIS reports capturing the bus movements provide analytic information to improve efficiency- bus schedules have been rationalized based on real time requirements, OT hours reduced, bus route deviations minimized, fuel efficiency improved (harsh acceleration/speed violations etc. are being captured through ITS application)
- Analysis of driver behaviour is possible.
- Multi-Functioning Central Control Station controls the entire bus operations, two way communication enabled between drivers, Playback (reply) facility to demonstrate the drivers about their driver behavior and discrepancies in bus operations etc.
- Improvement in dependence and patronage to public transport services

ENABLER INDICATORS

- Expected time of Arrival and Departure based on real time data
- Get bus schedule details through IVRS and SMS
- Voice announcements of current and next stops in English and Kannada
- Alerts from Buses during emergency situations
- Effective route diversion, Re-scheduling of busses
- Create and upload files over the air to VMU
- Generate reports and make informed decisions
- Effective monitoring of software and hardware components
- Streaming video to terminal display units

All the processes both ICT and Non-ICT have been implemented as above. There had been numerous discussions and collective decision making in arriving at this structure/processes for implementation. Operations Manual has been created explaining all the processes in effectively managing all the processes.

Change Management and Capacity Building

KSRTC has implemented this project under GEF-SUTP Programme and capacity building is an integral part of this programme. KSRTC management has taken all measures in sourcing the subject matter expertise in making the project sustainable.

- Effective alignment of current business processes (including crew discipline) with ITS to gain from its advantages and optimum utilization of resources
- Sustaining benefits of ITS – selection & identification of ITS data (what, when, where) and prioritize them according to business needs. Digital route information has enabled KSRTC to optimize its operations
- Introduction of Mobile Apps
- Media Campaign and Public Outreach Programme.
- Integrating ITS system within KSRTC existing IT solutions
- Well documented operations manual has been developed detailing into all the processes- In usage
- Adequate training – (Both class room and practical) imparted to all the concerned - Continuous
- Exposure to officers/officials is being provided wherever the opportunity arises-Continuous

VALUE INDICATORS

Digital Inclusion

- Project is implemented in Mysore City. All steps have been taken into address commuter requirements like bilingual- information displays, commuter website, IVRS helpline etc in both Kannada and English.
- Project Dissemination Workshop conducted prior to launch of the project and views of all stakeholders considered before implementation.

Green e-Governance

- The project implemented is an environment friendly initiative. The project is aimed at attracting commuters to use buses/public transport instead of personalized vehicles, which will help in reduction of consumption of fuel and related pollution.
- ITS reduces traffic congestion. KSRTC through the adoption of ITS has been dispatching the vehicles through ITS system wherein paper work/manpower is reduced to a considerable extent.

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BHUSIRI – PROJECT MONITORING SYSTEM SOFTWARE

[Karnataka Rural Infrastructure Development Limited, Karnataka]
Prakash H P

DESCRIPTION OF PROJECT

- Conceptualized, Designed, Developed and implemented solely in-house to monitor all projects carried out by Karnataka Rural Infrastructure Development Ltd (KRIDL).
- Various information is being captured like Name of the Project, Administrative Approvals, Technical Sanction Details, Job Rate Details, Estimate Cost, Funds Received from the clients, Funds Released to project implementation offices, Various Taxes Deductions, Capturing of the various stages of works both Physical and Financial Progress, Each Stage Photos, Completion details etc .
- This software is Dynamically Configurable Role based online Web Software. Provision to set all the privileges, authentications and approvals are dynamically.
- 3 Tier Architecture : Transactional SMS Service: Transactional SMS service is introduce in this software and as soon as Limit Order (order for the release of the funds) is generated through system, automatically SMS will be sent through software to concerned officers/officials with relevant details.
- Paperless office. Approvals through Online.
- **CERT-IN** IT Software **Security Audit** is been done.
- Works on mobiles phones/ iPads.

Project was initiated with the goal that it should be

- Paper Less: This goal is achieved as earlier lot of paper documents were being sent from one office to the office (For example. From Assistant Executive Engineer Office to Executive Engineer to Head Office to different officials and officers of Head Office and same way reverse flow.) Now no paper documents are sent and only through this software documents travel.
- Speedy: This goal is achieved as earlier manual documents physically travel from one office to another office. This is now travelling through electronics media through this software. Hence travel time and approvals have speed up drastically.
- Transparent: This goal is achieved. Earlier it was not know whereabouts and status of the tasks. Now this is available online at any point of time.

- Economic: This goal is achieved. Earlier copies of physical documents needs to prepared and sent to different office for which cost of paper, photocopying cost, courier cost and many times physical travel cost of officer/official also incurred. Now all these costs are totally eliminated.
- User friendly: Software was imitated to develop with good user friendly as the organization lacks computer skilled person. Now the software is developed with user friendliness so than any person with very little exposure to computer can operate with bare minimum training.

Benefits obtained

- Stakeholders benefit: Earlier it was not know whereabouts and status of the tasks. Now this is available online at any point of time. Earlier it was taking more time for financial receipts and releases. Now it is speedy. Hence stakeholders has got benefits from the software.
- Social: Most of the projects which KRIDL under takes has got socio - economical importance to State Government and Public which are spread all over the state. As the information can be shared among different stakeholders including Public, software has got social importance also.
- Economic: As software is useful in better management of the Funds available and will be released based on the requirement and surplus funds will be kept in Shares and Mutual Funds. Because of this better financial management can be achieved. Further monitoring of the projects, this software helps in control of the cost of the project and cost overrun. This saves Government money by utilization of funds in better way. Hence software has got economical importance also.
- Technological: As the software uses technology in better way with Role Based, Online, any where every where any time operation of the software, integration of transactional SMS etc.

RESULT INDICATORS

- Software is Government to Employee (G2E): SMS, Reports
- Government to Government (G2G): Reports, Information through Online
- Government to Citizen (G2C): Reports, Information through Online
 - **G2E:** Employees will be know the status of the tasks, present status, archive data, transactional SMS, pending tasks details for every one hour.
 - **G2G:** Government will know the status of project, scheme wise details etc
 - **G2C:** Citizen will be knowing status of projects, Scheme wise details, Dist/Taluk/MLA/MP wise reports

Implementation coverage till date

Presently KRIDL has got offices all over the State. Hence software is implemented all over the state. Stakeholders covered are Government Departments, Employees and Citizens

Specific innovative ideas implemented

Introduction of transactional SMS. This informs immediately concerned officer/official so that he can take necessary further action to speed up the project.

ENABLER INDICATORS**Front End (Project Office):**

- Earlier only signed documents from front end office (project office) were accepted. Now scanned and uploaded documents are accepted.
- Earlier information on status was not available to front end(project offices) till task is completed.
- All the previous archive information are available online to front end office (project office).

Back End (Head Office):

- Easy and Fast processing and approvals at back end(Head Office).
- Earlier slow processing because of physical movements.
- All the updated information available to take decision.
- Earlier proper information was not available.

Change Management and Capacity Building

- All the stakeholders are involved in every stage. Periodical training are being provided.
- Management is providing all the support for capacity building and software is running presently successfully in the organization

Special efforts to ensure sustainability of the e-Governance initiative

- Software is audited by Indian Computer Emergency Response Team (CERT-In), Government organization under Ministry of Communications and Information Technology empanelled vendors for Software Security.
- Continuous feedback is being obtained from all the officers and officials who uses these softwares. These feedbacks are discussed with various stakeholders and appropriate changes/upgradation are being incorporated as and when it is required.

VALUE INDICATORS

Digital Inclusion

- Kannada is the official state language in the state. Hence software is built to use in UNICODE. Now software is being used in both English and Kannada Language.
- Users are located in all over the State. Hence software developed as Web Based Online Software. Hence software is it is accessible to all the geographic places.

Green e-Governance

- Software is a paperless software. All the movements, approvals are being done in the software itself. Since software is paper less software it is environment friendly.
- Further, the all the e-Waste are being disposed through empanelled vendors of Karnataka State Pollution Control Board who are specially empanelled for the disposal of e-Waste.

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AADHAAR ENABLED CITIZEN SERVICES (AECS)

[Kerala State IT Mission (KSITM), Kerala]

K Mohammed Y Safirulla, IAS

DESCRIPTION OF PROJECT

- Kerala State IT Mission (KSITM) is the nodal agency for Aadhaar implementation in the state of Kerala.
- Aadhaar enrolment was started in Thiruvananthapuram and Alappuzha districts and subsequently rolled out across all districts. As on 22-Aug-15, 3,22,754,49 UID has been generated in Kerala, which is 96 % of the population.
- For Aadhaar enablement of citizen services, KSITM has set up State Resident Data Hub (SRDH), a Common Database of resident records with Aadhaar numbers and KYR information (demographic details) and have initiated user authentication service. SRDH data will act as a vehicle to enable delivery of Aadhaar based services.
- KSITM has been appointed as the Authentication User Agency (AUA) and KYC Service Agency (KUA) by UIDAI. Kerala is one among few states who have all Aadhaar based authentication services ready. The primary Aadhaar based services being offered are
 - SRDH Lookup Service
 - SRDH Web Service
 - Authentication Service
 - Demographic Authentication
 - One Time Passcode (OTP) Authentication
 - Biometric Authentication
 - eKYC Service
 - Best Finger Detection

A total of 39.26 Lakhs beneficiaries were authenticated based on Aadhaar, in the various Government. schemes for the Identification of correct beneficiary and to eliminating the bogus ones.

UID help desk has been set up with the toll-free number 1800-4251-1800 which can receive up to 20 calls at a time. UID Kerala Web site (<http://uid.kerala.gov.in>) has been setup to provide up-to-date information about Aadhaar.

RESULT INDICATORS

- **SRDH Lookup Service**

State Resident Data Hub (SRDH) is an Aadhaar enabled common database of residents of Kerala. SRDH Lookup service is a web based tool to search the SRDH database. SRDH service can be used by CSC's or Government Departments for

identity checking of citizens, verification of seeded Aadhaar number in beneficiary database and finding Aadhaar number from Aadhaar enrolment ID.

- **SRDH Web Service**

SRDH Web service provides an API interface for Government . departments to access data in SRDH database. As the service is provided as an API interface, departments can easily integrate it with their application and use the provided data for beneficiary identification in service delivery and Aadhaar seeding.

- **Authentication Services**

Aadhaar Authentication Service is an Aadhaar based authentication mechanism provided by (KSITM) through UIDAI (Unique Identification Authority of India). The purpose of this Authentication is to enable residents to prove their identity and for service providers to confirm that the residents are 'who they claim they are' in order to provide services and benefits. Following types of Authentication services are provided by KSITM.

- Demographic Authentication
- One Time Passcode (OTP) Authentication
- Biometric Authentication

- **eKYC Service**

eKYC service enables a resident having an Aadhaar number to share their demographic information and photograph with a Government. department in an online, secure, auditable manner with the residents' consent. The consent by the resident can be given via a Biometric authentication or a One Time Password (OTP) authentication. eKYC is a process in which the demographic data (such as Name, Address, Date of Birth, Gender, Mobile number, Email address, etc.) and photograph collected by UIDAI are provided in the form of a digitally signed XML document based on resident authorization received by UIDAI in the form of successful biometric or OTP- based Aadhaar authentication.

- **Best Finger Detection(BFD)**

- BFD Service provides the best suited fingers of a resident for Aadhaar biometric authentication. Authentication failures due to poor biometric quality can be minimized using BFD service.

Benefits obtained

- Identification of correct beneficiary by eliminating the bogus ones-
 - In Education Department, Aadhaar authentication was used to identify bogus student records in schools. **5 Lakhs** of bogus student records were identified.
 - In Election Department, Aadhaar authentication was used for elimination of bogus voter card holders and identification of correct person for

- preparing the Kerala electoral roll. **1.6 crores** of voters has been de-duplicated using Aadhaar services.
- As part of Aadhaar enablement of Public Distribution System, **2.43 crore** records of Aadhaar has been collected and the linking is in progress.
 - In Janasamparka Paripadi (Chief Minister’s Mass contact Programme), right beneficiaries were verified based on Aadhaar number. 39,000 beneficiaries were Aadhaar authenticated as part of identity verification.
 - In Dairy Welfare Board 16,641 beneficiaries were Aadhaar authenticated for identity verification.
 - Fast tracking the service delivery of departments-
 - Dairy welfare Board -Manual mode of Life Certificate issuance / Pension distribution has been changed to Aadhaar based Digital Life Certificate. 1,061 Digital Life certificates were issued to pensioners.
 - eDistrict- eDistrict public portal users are authenticated using Aadhaar, so that services can be availed online without visiting Common Service Centres. As of August 2015, 15000 users registered in eDistrict using Aadhaar authentication.
 - Transferring benefits directly to the citizen –
 - In Janasamparka Paripadi (Chief Minister’s Mass contact Programme), Aadhaar enabled direct account payment system (AEPS) was used for payments for distressed beneficiaries. A total of 24,277 AEPS transactions were done under this scheme.
 - In pilot phase of ePDS project, Aadhaar based biometric authentication is done to authenticate beneficiaries before ration distribution.

Implementation coverage till date

Department/Scheme	Total Number of Beneficiaries (Approx.)
PDS	320 Lakhs
State Election Commission	250 Lakhs
MNREGA	25 Lakhs
Dairy Development	1.75 Lakhs
Education	35 Lakhs

Efficiency and Improvement Initiatives

- Aadhaar authentication and eKYC service eliminate the need for paper based verification and KYC document. The identity verification and KYC document services based on Aadhaar are instantaneously delivered electronically thereby reducing time and cost required for beneficiary authentication and KYC database management.

- Direct transfer of benefits based on AEPS (Aadhaar Enabled Payment System) will help to track the financial transaction, preventing any leakage of funds and also ensures that benefits are transferred directly to the beneficiaries.

Specific innovative ideas implemented

- Aadhaar based Digital Life certificate system was introduced to Pension distribution process of Dairy Welfare Board.
- The new Aadhaar based Digital Life certificate system facilitated quicker pension distribution by expediting life certificate issuance and verification process.

ENABLER INDICATORS

- Chief Minister's mass contact programme – Manual verification of right beneficiary and cheque payment for distressed has been replaced with Aadhaar based authentication and Aadhaar enabled direct account payment respectively
- Kerala State Election commission – Aadhaar based verification has been introduced for the elimination of bogus voter card holders and identification of correct person for preparing the Kerala electoral roll. The new verification process is done in a paperless way.
- Dairy Welfare Board – Manual mode of Life Certificate issuance / Pension distribution has been changed to Aadhaar based Digital Life Certificate and Aadhaar based direct account transfer.
- Public Distribution System- In pilot phase of ePDS project, Aadhaar based biometric authentication of beneficiaries are done for distribution of ration.
- Education Department- Student records are verified using Aadhaar authentication to find any bogus records.

Change Management and Capacity Building

- Kerala Government has issued Government Orders directing departments to use KSITM's Aadhaar services.
- Training programs were conducted for user departments, Citizen helpdesk and Akshaya CSCs about Aadhaar initiatives like State Resident Data Hub, authentication.
- Various IEC activities are done to create awareness among public about Aadhaar and Aadhaar enabled services.
- Onboarding and technical support are given to Departments for integrating to Aadhaar based services.

VALUE INDICATORS

Main project objectives envisaged

- Establish a clean, accessible and identification database of the residents of Kerala state
- Central administration of benefits & entitlements through Direct Benefit Transfer using AEPS
- Fast track the process of financial inclusion for the disenfranchised segments of the population
- To provide a unique identification for residents
- To provide a single identity document for all schemes and services instead of multiple identity documents

Digital Inclusion

- By providing a digital ID that can be verified online and also provide approved KYC, Aadhaar has provided a gateway to avail formal financial services in a hassle free manner.
- Aadhaar enabled payments system was used in Janasamparka Paripadi (Chief Minister's Mass contact Program) to directly transfer benefits to beneficiaries.
- Aadhaar has been used to avail financial inclusion schemes like Pradhan Mantri Jan-Dhan Yojana (PMJDY), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY).
- Major part of Aadhaar enrolment was carried out using CSCs to reach out to all segments of population. Similarly, Aadhaar enabled services are also planned to be rolled out through CSCs.

Green e-Governance

- Paper consumption can be reduced by adopting an Aadhaar based paperless digital authentication and KYC system. Following departments/programs have used a digital paperless system for beneficiary verification.
 - Dairy Welfare Board
 - Education Department
 - Janasamparka Paripadi

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e-DISTRICT PROJECT – KERALA STATE IT MISSION

[Kerala State IT Mission, Government of Kerala]

K Mohammed Y Safirulla, IAS

DESCRIPTION OF PROJECT

e-District, a State Mission Mode project, was conceptualized to provide integrated, seamless, and online delivery of citizen services at the district level through automation of work flow, backend digitization, integration and process redesign. The project targets delivery of high volume citizen services provided by the district administration, at Taluk or Village level, through back-end computerization to enable online availability of such services through Common Service Centers (CSC) and State portal so as to ensure reliability, efficiency, transparency and accountability. The project targets dramatic reduction in administrative burden, service fulfilment time and costs for the Government, Citizens and Businesses thus enhancing perception & image of the Government and its constituent Departments.

The MMP envisages leveraging and utilizing the four pillars of e-infrastructure namely - SDC, SWAN, SSDG and CSC; optimally to deliver public services electronically to citizens at their door steps. Two key aspects of the Scheme are Business Process Re-engineering (BPR) and creation of databases based on e-Governance standards for the purposes of ensuring interoperability. BPR is intended to enable process simplification and significant value addition to citizens through improvements in existing Service Levels. The main objective of e-District is consistent with the vision of NeGP - "Make all Government services accessible to the common man in his locality, through common service delivery outlets, and ensure efficiency, transparency, and reliability of such services at affordable costs to realize the basic needs of the common man".

Kerala State IT Mission completed the rollout of the 23 Revenue certificate services across the remaining 12 districts in the State during December 2012 to March 2013, within stipulated timelines set by the Government of Kerala. Subsequently, during October 2013, the first e-District public portal in the country which was integrated with e-payment gateway, Mobile gateway, Aadhaar, etc. was also launched in order to enable the citizens to optionally apply for various services online directly through web portal over the Internet, without visiting Akshaya centers. Along with the e-District public portal, the Government had also rolled out 500+ Government fee payment services. Minority certificate service under Minority Welfare Department was also launched by GoK in July 2014 under e-

District. Additionally, RTI, Public Grievance, and Revenue Court Cases were launched and being rolled out.

The project caters to 3.3 Crore citizens of the State across all 14 districts, and during FY2014-15, a total of 58 lakhs+ certificate transactions were completed through e-District as compared to 49 lakhs+ in FY2013-14. More than 1.55 Crore certificate transactions were recorded through e-District in Kerala till August 2015, and on an average more than 5 Lakh monthly transactions are being recorded across the State. It has been established from feedback surveys and MIS data that significant reduction in time, costs and opportunities for corruption has been realized through the implementation of the project, while improving service levels and transparency.

RESULT INDICATORS

Apart from the certificate services it was planned to rollout G2C payment services already available at Friends CSCs in each district across Akshaya CSCs as well as e-District public portal in order to improve the reach of the services. During October 2013, 500+ Government fee/bill payment services across various categories were made available online under e-District through Akshaya CSCs, Friends Centers and the e-District public portal. During FY2014-15, a total of 40 lakhs+ payment transactions amounting to more than Rs. 300 Crores were completed through e-District as compared to 47 lakhs+ in FY2013-14 amounting to Rs. 273 Crores, and on an average more than 3 Lakh monthly transactions are being recorded across the State. The various payment services include Utility payments of BSNL, Kerala State Electricity Board & Kerala Water Authority; Various fee payment services of Kerala University, Mahatma Gandhi University & Calicut University; Electrical Inspectorates; Motor Vehicles Department; Labour Welfare Dept; Cultural Welfare Dept; etc.

Benefits obtained

Citizens:

- **Significant reduction in time investment in availing services:** After the implementation of the e-District project across Kerala, a common citizen is not required to travel to the Government office delivering certificate services; as the facilities for online application submission, status tracking and online delivery are now available.
- **Reduction in cost for availing service:** After the implementation of the e-District project, a common citizen need not travel to Government Offices as a certificate application can be submitted from the nearest Akshaya CSC or e-District public portal directly.

- **Accessibility (time window):** With the advent of the e-District project, 2,400+ Akshaya CSCs are available across the State from 8.00 AM to 8.00 PM for service delivery. For payment services Friends CSCs are also available at the District HQs. After the launch of the e-District public portal, these services have been made available on a 24x7 basis and on public holidays as well.
- **Reduction in the distance or no travel required for availing service:** After the implementation of the e-District project, as per the new process the citizen need not travel to the concerned office for application submission and status tracking, as the services can be availed through the nearest Akshaya CSC (1 to 2 Km radius) or directly through the online public portal.
- **Reduction in opportunities for corruption:** With the advent of the e-District project, each application submitted at Akshaya CSCs or e-District public portal has a predefined Service Level associated which has been notified under the Right to Services Act by GoK, and can be tracked through the e-District application using MIS reports, dashboards, etc. by the State Government and district administrations thus ensuring accountability in the service delivery.

Government Officials:

- **Productivity improvements:** As citizens are not required to visit Government offices in e-District service delivery, the officials can focus on other productive activities as per their roles and responsibilities, without spending a significant amount of time interacting with the citizens.
- **Information accessibility:** Online accessibility of application details and electronic work flow eases the job of the officials as field verification could be reduced to a great extent due to integrated databases. Availability of various reports on demand also saves significant time and effort. As database integration with external departments is enabled need for field verifications were also reduced.
- **Work flexibility:** With the e-district project, the officers were given laptops and the officers could process and approve the applications even during non-working hours and also on holidays.

Implementation coverage till date

The 24 G2C Revenue certificate services and payment services made available on e-District has been targeted for the entire population of Kerala, which is 3.3 Crores as per the 2011 census. Currently the certificate service delivery under the project is live in 1,600+ locations across all the 14 districts. As on August 2015, 1.55 Crore certificates have been processed through e-District in the State as per MIS reports from the start of the project in 2010. As per the statistics compiled from the project performance during FY2014-15, 58 Lakh certificates were processed through e-District of which more than 80% were approved.

It was assessed that in terms of reach, more than 174 citizens of every 1,000 population availed services through e-District during the last Financial Year. The citizens can avail the e-District services online by accessing the public portal <https://edistrict.kerala.gov.in> and creating a personal ID. Apart from the direct online portal facility, the citizens can also avail the services by visiting any of the 2,400+ Akshaya CSCs, spread across the length and breadth of all the districts of the State. On an average, there are around 200 Akshaya CSCs per district, and more than 2 per panchayat.

Specific innovative ideas implemented

- In order to ensure that a strict priority is enforced and applications received are processed transparently without any prejudice on the Government officials' part a mechanism called 'First in First out' or FIFO has been introduced in e-District Kerala which eliminates the chances of processing of applications on a preferential basis. However, provision has been made in the software to accommodate emergency cases which may be processed after providing sufficient justification in the system.
- Single-window service delivery model for various types of services offered by the district administration. An online and anywhere accessible system provides the Government officials the flexibility to provide services irrespective of location of the applicant, with required information made available online for delivering services
- Introduction of reengineered processes by eliminating the redundant and non-value added activities. Facility for online verification of issued certificates removes the burden on other departments in checking the authenticity reliably
- Since laptops are provided to the Government officials with work flexibility, certificates are being issued even from the official's residence and on holidays as well
- Paperless workflow cuts stationery and filing costs across all the project locations, and saves time in accessing required information from the centralized application hosted at the SDC
- Availability of e-District public portal for delivering e-services. For the public portal, online payment gateway offered by NDML consists of Internet banking, debit card, credit card and IMPS facilities of more than 60 banks. The Aadhaar database is integrated for authentication for the purpose of user creation.
- Unified service levels across the State: With the advent of the e-District project, each application submitted at Akshaya CSCs or e-District public portal has a predefined Service level associated which can be tracked through the e-District application using MIS reports, dashboards, etc. by the State Government and district administrations thus ensuring accountability in the

service delivery. Moreover the services under e-District have also been notified under the Right to Services Act by the Government of Kerala, which further increases the accountability of the Government officials.

- Introduction of technological advancements such as Digital Signatures for authenticity, innovative features such as 2D Barcoded certificates, facilities for application tracking through web and Mobile app, external database verification, FIFO, online certificate verification by officials, etc.
- Introduction of IT (EDS) Rules, 2010, in line with the IT Act, 2000, for the electronic delivery of services.

ENABLER INDICATORS

- Elaborate BPR conducted in 2 pilot districts, and suggestions being incorporated from field on an ongoing basis as the project evolves post State-wide rollout. More than 85% Service level achievement and approvals were achieved as per MIS records. e-District certificate services were also brought under Right to Service Act, in the State.
- 2,400+ Akshaya CSCs are currently providing 24 Certificate services. Fee payment services are available through both Akshaya CSCs and Friends Centers. E-District application is hosted at the SDC, and all Taluks are connected via KSWAN while Village Offices are connected through High speed broadband.
- SSDG and State portal integration is complete for 24 certificate services, and is scheduled to be launched. E-District public portal has been made operational and certificate, RTI, Public Grievance and Fee payment services are available online for citizens to access, in the interim as per the integrated framework for delivery of e-services.
- The e-District application hosted at the SDC is accessible to the public as well as the Government employees through the Internet, and all transactions maintained on the database with audit trail
- e-District services can be availed at the citizen's convenience from any of the 2,400+ Akshaya CSCs across the State or directly online through the e-District public portal eliminating the need to be physically present at the office. Requirement for physical presence of the applicants as part of online delivery of services are restricted by the issuance of requisite Government orders. Visits to the Government Office for interview purpose, if required for the delivery of the specific service, are usually scheduled and the system provides the facility to send SMSs to do the same.

Change Management and Capacity Building

The Change Management strategy for e-District rollout was formulated with participation of all levels of stakeholders from Government including Ministers, Secretaries, as well as employees directly participating in the project. State and district level inaugurations were also organized to raise awareness among citizens regarding the project, and to project the Government's commitment to the initiative.

- At the State level, a full-time State Programme Management Unit (SPMU) was established, to support KSITM and NIC in the rollout of the project across the State.
- District e-Governance Societies (DeGS) were formed in all the 14 districts as part of the e-District implementation, and an active district team was built within a short time span to support the implementation activities at district level.
- Awareness campaigns were also completed at district level through various media including newspapers, TV, radio, social media, etc.
- Technical staff at State level were appointed for maintaining the e-District IT infrastructure hosted at the State Data Center, and a Helpdesk was also setup to provide phone support to department users, CSCs as well as the public.

Special efforts to ensure sustainability

- In order to assess and analyze the impact of the e-District project in delivering useful G2C services, and the effectiveness of the outcomes, mechanisms have been devised for systematic and reliable data collection through various exercises.
- Information has been derived from ongoing monitoring and feedback mechanisms including MIS reports and dashboards; stakeholder consultations including VCs, workshops and field visits; citizen feedback surveys; renowned strategic analysis technique viz. SWOT. Citizen surveys and Impact Assessments have revealed that the general public acknowledge the value of the Government's efforts in rolling out e-District services, and the satisfaction levels with the service delivery was more than 95% as per surveys conducted. Citizen surveys have been conducted through the e-District helpdesk to collect feedback from the citizens regarding the quality of service delivery.

VALUE INDICATORS

Digital Inclusion

- **Demographic:** Presently 24 different types of Certificates coming under the Revenue Department, and various fee payment services are being delivered

under the project. These services are fully automated without any manual processing involved.

- **Language support:** The e-district portal also has a local language interface which supports Malayalam language. The portal content is available in Malayalam. There is facility to download the Malayalam font in the portal itself. Once the user downloads the font and installs the same in the system, he can view the content of the portal in Malayalam. The application forms are also available for download in Malayalam language.
- **Cultural differences:** As 2400+ Akshaya CSCs are available across nooks and corners of the State, and on an average at least one in every Panchayat, cultural barriers would essentially not pose difficulties in online service delivery as the CSC would be run by local entrepreneurs.

Green e-Governance

- As application forms and supporting documents are increasingly submitted electronically the usage of paper in processing Government services could be considerably reduced. Eventually, as more and more Government records are digitized the requirement to maintain hard copy documents could be reduced along with minimizing the cost and effort required for its storage. Moreover, digitized records are easier to organize and retrieve which has the potential to boost overall efficiency of the Government if utilized optimally.
- The decision to deploy laptops with lesser power requirements instead of desktops at 1600+ project locations had significantly brought down power consumption and in turn electricity bills. Use of e-procurement for all purchases related to e-District including server and client hardware has also helped reduce time and paper work thus reducing the overall carbon footprint.

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ICT TOOLS IN PADDY PROCUREMENT

[State Civil Supplies Organisation, Government of Kerala]

James A T, IAS

DESCRIPTION OF PROJECT

Paddy cultivation had the pride of place in the agrarian economy of Kerala. The state had been witnessing a steady decline in the cultivation of paddy since 1980s, due to varied reasons like high labour costs and low returns. A section of farmers abandoned paddy cultivation and turned to cash crops eyeing higher benefits. It has to be noted that in 1960s rice accounted for the highest share ---32% ---of gross cropped area in the state, but by 1980s it fell to a mere 12% of the gross cropped area behind rubber and coconut. The situation had drastic impact on a population whose staple diet was rice – the state had to hugely depend on import of rice from neighbouring states.

- Hence to revive cultivation of paddy and in this context the Central Government initiative of paddy procurement came as a boon to farmers. The two features of paddy procurement scheme are decentralized paddy collection and guaranteed minimum support price. Government of Kerala entrusted the Kerala State Civil Supplies Corporation – Supply co - with the implementation of the said scheme.
- In 2005, Supplyco started implementing the scheme. Supplyco developed a robust mechanism wherein the paddy cultivated by farmers anywhere in Kerala will be collected, stored, processed and distributed in a phased manner. The resultant rice is distributed through Public distribution system. Supplyco engages private skilled entrepreneurs to carry out various operations. The organization also introduced ICT tools to collect, store and analyse data with regard to various operations involved in the scheme linking all stakeholders. Documentation of the entire activities is now computerized and appropriate modifications are incorporated in tune with developments in ICT.

Goal of the project is to implement paddy procurement scheme as envisaged by the Government in the most effective, efficient and transparent manner that will instil confidence among farmers to undertake paddy cultivation, encourage stakeholders to process and distribute quality rice, enhance food availability to consumers and materialize the dream of being a food-grain secure state.

RESULT INDICATORS

- Online farmer registration: Government to Citizen
 - Facility to register details of cultivation online.

- Facility to track the status of payment.
- Online farmer registration: Government to Citizen
 - Acknowledgment for delivery of paddy.
 - Service delivery at farm gate.
- Electronic release order: Government to Business
 - Track allocation of rice and subsequent remittance.
 - Service delivery at locality.

Benefits obtained

- Online farmer registration & Paddy Receipt Sheet computerization
 - Convenient, quick, & easy method for farmers especially at remote areas.
 - Compared to the earlier conventional method of farmer registration, the online process saves time and money of farmers to file an application
 - Real time data helps farmers, planners and executives.
 - Reports and accounting are accurate and accounting process is made easier.
- Electronic release order
 - Convenient, transparent method of rice allocation, irrespective of time and space, for registered dealers

Implementation coverage till date

- Geographical area: Across the state
- Category of stakeholders: Farmers, Millers, Authorized Wholesale dealers and Consumers.

Efficiency and Improvement Initiatives

- *Online Farmer Registration:* It was a Herculean task to complete these activities within stipulated time. There was a high possibility of errors creeping in as data entry was being done by third parties. Rectification of errors was a major issue which delayed many of the processes that followed. With the introduction of online farmer registration module, the whole process was simplified. Now farmers can access the website and enter data about their cultivation. Hence the method could eliminate errors in data which in turn helped to ease further processes, especially payments.
- *PRS-computerisation:* The practice of writing quadruplicate copies of PRS consisting of farmers' details, especially at field conditions consumed a lot of time. With the integration of hand held POS device with GPRS facility these issues were eliminated. Instant and error-free data transfer was possible. The publication of e-PRS has not only increased the transparency but also ensured an archive of paddy receipt sheets.

- *Electronic Release Order*: The new system addressed all issues such as -- dealers can access the website to know their monthly allocation and can schedule payment according to their convenience. Reconciliation of remittance was made easy as all payments converged into one account.

Specific innovative ideas implemented

- Online Farmer Registration: The directory of padasekahram of the state is the notable feature of this initiative.

ENABLER INDICATORS

- *Online farmer registration (OFR)*: Procedures such as filling the applications, collecting them and submitting them were replaced by e-filing of details by farmers themselves.
- *Paddy Receipt Sheet Computerisation (Device PRS)*: - Procedures such as printing the receipts and storing the copies were replaced with the introduction of hand held POS device with GPRS facility. It enabled transfer of data instantly. Nowadays, farmers get token slip from the device. The corresponding data will be transferred from the device to Supplyco server through GPRS. Later, once the mill accepts the stock, the system generates a detailed PRS which is published on the website.
- *Electronic release order (ERO)* – Cash collection at offices, issue of release orders, remittance at bank, monthly reconciliation all merged to a single step of remittance at bank, daily reconciliation and subsequent electronic generation of release order.

Change Management and Capacity Building

- Seasonal training was imparted to different stakeholders by a committed team from Supplyco. E-brochures were prepared and circulated among stakeholders to make them more acquainted with the process

Special efforts to ensure sustainability

- Whenever a new challenge comes up, the team tries to come up with solutions in time and all the processes are designed in such a way to ensure the sustainability of the initiatives.

VALUE INDICATORS

Digital Inclusion

- Online farmer registration module is developed in such a way that the process flow is displayed in local language, and subsequent steps have both English and Malayalam fonts to indicate the data fields.

Green e-Governance

Supplyco has prioritized the green practices as

- Reduction of paper use & Management of e-waste.
- In this regard online farmer registration and PRS computerization have drastically reduced the use of printed forms. Printing of blank forms to collect farmer details in huge numbers is avoided, the practice of attaching Xerox copies of supporting documents like bank pass book, identity card etc too is eliminated. Practice of preparing Paddy Receipt Sheets in quadruplicate copies has also been abandoned. Use of truck chit has been minimized.
- With regard to e-waste the first step was to initiate BYOD- Buy Your Own Device. Purchase & maintenance of hand held POS device was decentralized.

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PROJECT INFORMATION AND COST ESTIMATION (PRICE)

[Public Works Department, Government of Kerala]

Pennamma M

DESCRIPTION OF PROJECT

- E-governance initiatives in PWD started as early as 2012. Being a major department spending lions share of the budget allocation for infrastructure development, Government listed PWD as the first department for launching the e- governance initiatives and issued orders dated 18.8.2012. The inception to the initiatives was through the new software PRICE (Project Information and Cost Estimation) for preparation of estimates.
- Project Information and Cost Estimation (PRICE) is a total solution for estimate preparation and online approval. Initially the software was developed based on Delhi Schedule of Rates (DSoR) 2012 which was later updated to DSoR 2013 and currently we are using DSoR 2014 with cost index.. PRICE was developed with provision to dynamically generate the data book as and when new DSOR is published by the CPWD. The software is implemented in 1200 offices of PWD Buildings Wing of Kerala since 1st January 2014. Total number of users is 1501.
- Central Public Works Department, Government of India (CPWD) releases the revised version of Analysis of Rates and Schedule of Rates every year. For every state, CPWD has incorporated Cost index to get a normalized rate for preparing the estimates.

PRICE Modules

- Estimate creation
 - Estimates prepared online from the section office by an AE, is verified and approved by the concerned officers (AEE/EE/SE/CE) based on the workflow followed in the office. Each estimate is moved as a file in the workflow, with a file number. The estimate is initially submitted for AS approval. Once AS is obtained, the concerned AE can submit it for TS approval. The AS & TS slips are generated automatically. The estimate can be sent for correction at any stage (before AS & TS approval). The history of the file can be viewed by all the officers who handled the file.
- Observed data
 - While preparing estimates, if certain material rate or some specification are not available with CPWD data, then the user can create their own spec by selecting the create observed data option in the application, using CPWD Schedule of rates or market rate. These specs are added in the estimate as

Observed data. Observed data can be created from spec, from existing observed data or as new.

- Recalculation
 - Whenever the cost index or CPWD schedule of rate changes, the estimates that are already prepared and in the process of approval, will have to be recalculated before getting the TS approval. If done manually, it is a time consuming process. PRICE simplifies this process with a single click in the system.
- Call Back
 - This feature is used to call back an unattended file from an officer, by the officer in charge to avoid unnecessary delay in the workflow. This feature can also be used, if a file has been forwarded by mistake and has not been seen by the officer to whom it was forwarded. When called back, the file will return to the inbox of the officer in charge. The file can then be forwarded to the concerned in the normal way.
- BOQ (Bill of Quantity) Preparation
 - The TS approved estimates in the office, are listed out here. The BOQ is prepared for the TS approved estimates (which is a time consuming process) and uploaded to the eTenders portal. The Bill of Quantity/Schedule of TS approved estimates is generated automatically as per the format required for the eTenders portal, with a single click in the PRICE software.

Justification

- After the Tendering process, the quote of the L1 contractor is compared with the estimate value. If there is a difference in the rates, Justification is made based on the Local Market Rate. LMR rates are revised every 3 months by the State. There is a provision to enter PWD approved LMR rates of all the places (22 places) in the system, and DAR of all the specs is generated for all the places based on the respective LMR. The estimate is recalculated based on the respective LMR rates and then compared with the estimated rate. A comparative statement is then generated automatically.

Data Book Generation

- Central Public Works Department, Government of India (CPWD) releases the revised version of Analysis of Rates and Schedule of Rates every year. As soon as CPWD releases Schedule of Rates, the new SoR is entered into the system and the corresponding Analysis of Rate (DATA Book) is generated using the application. The estimates can then be prepared using the latest DAR.

Estimate Search

- The Search feature enables the officers to find the status of the estimates prepared with in the offices of PWD Kerala using various options.

Administration

- PRICE is managed by administration module for user creation, office management, transfer/promotion, termination of user, assign additional charge, data entry of DSoR, LMR and cost Index, data book generation of DAR and LMR, File allocation to the new user.
- The management of CE Offices, Circles, Divisions, Sub Divisions and Section Offices can be done by adding new office, edit the office name etc. Users are created with PEN(permanent Employee Number) as the userid, designation, joining date and the office assigned.
- If any officer is having additional office charge, it can be assigned in the application.
- The Application has three types of users. Active (Y) - current user in the system, Inactive (I) - users terminated from the system, Relieved(R) - user is currently relieved from the system for the purpose of promotion/transfer.
- Officer can be transferred or promoted in normal scenario. In this case officer should relieve from his current duty and join to the new post for both as Transfer/ Promotion.
- An officer can be terminated from the application in the case of retirements or if an officer quits the job.
- When an officer is transferred/promoted, the files dealed by the officer is automatically transferred to the administrator, which is named as pending files. When a new officer joins in that place, the administrator can assign these pending files to him.

RESULT INDICATORS

- When the project was launched, CPWD was using 2013 DATA Book & DSOR since January 1st, 2014
 - Total number of estimates prepared - 2315
 - Total number of AS approved estimates - 199
 - Total number of TS approved estimates 279
 - AS from Other Departments - 646
- In 2014 DSOR changed, DATA Book also generated based on the DSOR. Estimates created based on the new DSOR till 9th September 2015
 - Total number of estimates prepared – 5913
 - Total number of AS approved estimates - 783
 - Total number of TS approved estimates - 1295
 - AS from Other Departments - 1195

Benefits obtained

- Centralized Data Analysis.
- SoR, Cost Index and LMR SoR can be edited only by the Administrator and automatic re calculation of estimates to new SoR and Cost Index at any level without forwarding to section office.
- Details of officers handling a file including their Permanent Employee Number (PEN) and action initiated by each officer can be viewed in the file history of each estimate.
- Management Information System (MIS) reports can be generated
- Transparency in estimate preparation and file movement
- Possibility of manipulation in a detailed estimate or Local Market Rate Justification estimate eliminated.
- Speedy approval of estimates which reduces delay in issue of AS & TS, tendering, preparation of LMR Justification estimate and tender approval.
- Centralized user management system.
- Paper less movement of files.
- Estimate accuracy can be ensured
- Tender schedules (BOQ) are generated by the system for TS approved estimates, as per the format of the eTenders portal

Implementation coverage till date

- Software PRICE was launched in Buildings wing of PWD during January 2014. It has been made mandatory by Government of Kerala that all estimates shall be prepared, submitted and processed only through PRICE. Hence steps are afoot to induct PRICE in the Roads wing of PWD and also the other departments and organizations dealing with public works, with effect from 1.10.2015.

Efficiency and Improvement Initiatives

- Estimates creation time is very less, recalculation of estimates automatically when ever DSOR changes, BOQ preparation is time consuming process, with the help of software, by a single click we can generate BOQ.

Specific innovative ideas implemented

- PROJECT is successfully used in PWD (Building) . As the Finance Department found it very useful with respect to the cost reduction and transparency, the Government has taken initiative to implement PRICE in other departments like Irrigation, Harbour Engineering, Roads & Bridges, LSGD Rural & Urban, Port, Electrical & Mechanical Wings with necessary

modification. It has also been recommended for NREGA estimates in Kerala by the Ministry of Rural Development, GOI.

ENABLER INDICATORS

Change Management and Capacity Building

- Demonstration of the PRICE software was done for familiarization by the team of officers entrusted with the support of NIC during November 2013 at Kozhikode, Thrissur, Thiruvalla and Thiruvananthapuram. Engineers and technical staff of Buildings wing participated. District coordinators were nominated in all districts during the training programme for effective guidance in the use of the software.

Special efforts to ensure sustainability

- For effective use of the software, laptops with data card are being supplied to all field officers of and above the rank of Assistant Engineer. Desk tops have been supplied to the technical staff in Sections and other offices of the Buildings wing.
- Support from finance dept Government of Kerala for sustaining and replication in other departments.

VALUE INDICATORS

Green e-Governance

- Estimates preparation and approval process are online and all the documents related to approval process of estimates are also available as pdf. Software has provision to write remarks and to forward/ sending back the files to the officer at any level. So there is no need of physical paper print out at any stage.

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e-OFFICE FOR GOVERNMENT OF KERALA

[Kerala State IT Mission, Government of Kerala]

Mohammed Y Safirulla K, IAS

DESCRIPTION OF PROJECT

- e-Office project in Kerala envisions modernising government offices and getting rid of manual paper file processing and replacing it with a digital workflow system. In the process, the Government offices will be transformed to ‘paperless’ offices and gains all the benefits of electronic communication that ultimately leads to faster decision making and speedier implementation of plans and schemes of the Government benefitting the citizen.
- e-Office product, developed by NIC, is a Digital Workplace Solution that comprises of various modules like File Management System (eFile), Knowledge Management System (KMS), Collaboration and Messaging Services (CAMS). The e-Office project was approved by the Kerala Government in August 2013 to automate file flow in all 42 departments at Kerala Government Secretariat. Further in FY 2015-16, the Government has decided to roll out e-Office to all District Collectorates/ RDO/ Taluk offices and 15 Directorates.
- Current progress of the project stands at full fledged implementation of e-Office at 14 departments at the Government Secretariat and partial implementation at 7 other departments more. Implementation steps are in progress at the rest of the 21 departments. It is expected to complete rollout to these departments before end of the year. Until end of June 2015, 104309 files and 203162 have so far been created through e-Office in the past 1.5 years. It is a significant achievement to move such huge volume of transactions using the new system.
- When the project is implemented at full scale it is expected that state of Kerala would achieve significant gains in the administrative space with information flow between government offices and citizens shifted to digital form to a great extent.
- One of the indirect benefits of e-Office is that it helped in overall modernization of Government offices not just for e-Office, but for eGovernance in general. Prior to e-Office, a number of offices did not have any eGovernance applications at all and hence the penetration of computers and technology was at a very low level. e-Office implementation demanded availability of computers, associated hardware and network connectivity. In the process, the offices are modernized to a great extent along with the end users forced to come to terms with digital technologies.

- e-Office is not just a software, but is ‘the system’ using which Government employees perform each and every business activity. Users come in varying types – the enthusiastic youngster who is already tech savvy, the middle layer user who is eager to learn new technologies and the skeptic older officers who just do not want to take the pain to learn. However, it is seen that users who overcome the anathema of the new system quickly adapt and get a sense of achievement in learning new technology as per the order of the day.
- Overall, the project has been a game-change in Government administration space and has been positively received by the Government employees as well as the citizens who benefit from an efficient Government system.

RESULT INDICATORS

- e-Office provides Government to Government service in providing a File work flow system to Government office staff instead of manual paper filing process. Ultimately, the citizen stands to gain from the efficiency of the system used by the Government through faster decision/ policy making.
- e-Office also provides a separate citizen interface which can be used by citizens to search for file status corresponding to their petitions.
- e-Office can be accessed via VPN and hence users can even work from home.

Benefits obtained

- The primary stakeholder of e-Office is the Government machinery. At Secretariat, it involves end users ranging from the Section Assistant to the Chief Secretary of the state, Ministers and the Chief Minister. Benefits to the primary stakeholder includes:
 - Transparency as every action by any officer is recorded electronically in eFiles
 - Eliminated possibility of manipulating files
 - Improved efficiency and productivity
 - Easy Search and retrieval
 - Alerts on urgent files where action is required
 - Simplified/ Faster decision making
 - Lesser cost and reduced housekeeping of paperwork
 - Cleaner and spacious offices
 - Enables officials to work from anywhere, anytime
 - MIS reports that help in performance assessment and monitoring
 - Data reports that helps executive management in strategic decision making.
 - Secondly, the project benefits in the citizen in general.
 - The citizen and the economy in general benefits from faster implementations of schemes of Government.

- A petitioner is able to track status of the petition by him/herself from the Citizen Interface

Implementation coverage till date

- In the first phase of the project, e-Office is being implemented in 42 departments in the Government Secretariat. It is expected to complete this by end of 2015.
- Second phase of the project also has been initiated in 2015 where it will be implemented at 15 Directorates and all District Collectorates/ RDO/ Taluk offices.

Efficiency and Improvement Initiatives

- Pendency of files has decreased drastically
- 25% increase in file processing per day
- File turnover time reduced from 2 weeks to an average of 5 days.

Specific innovative ideas implemented

- Faster inter-office communication experienced between Secretariat department and Directorates as uniform file processing is followed
- Search facility helps retrieve a file instantaneously. Tracking file movement is very easy.
- Public Citizen Interface available over internet allows citizens also to track file status.
- Less Paper, more free space and better hygiene.
- Transparency, confidentiality and digital signature helped reduce manipulation.
- File transit time eliminated
- Stationery usage such as paper, file boards etc have decreased.
- Possible to post important notifications in e-Office dashboard
- VPN connection to work on files from home

ENABLER INDICATORS

Process reengineering

- e-Office project involved complete process reengineering in the way files are processed:
 - Tapals are now scanned and processed as eReceipts in e-Office rather than as physical papers.
 - Tapal is processed in an eFile and noting, references, draft creation, approval and signature (digital signature) done through e-Office. Approved

draft is now sent electronically to a Central Registry Unit who despatches the file.

- Existing paper files are scanned and migrated as eFiles into e-Office.

Change Management and Capacity Building

- Regarding governance practices, a well defined structure is in place for project governance, program management and monitoring. An Apex Committee headed by the Chief Secretary reviews overall progress and provides all necessary support. Department Secretaries do periodic meetings to review department progress and remove bottlenecks. A Steering Committee is in place to look into and approve any Government Process Reengineering.
- Periodic review meetings are held with the PMU to take up software and any other issues and initiate any software change requests. Project status reports are sent to all stakeholders giving up to date status of the project.
- End users are given an initial round of training besides a refresher training and handhold support at their desks. Currently, more than 3500 users have been provided with these 2 levels of training.

Special efforts to ensure sustainability

- An innovative initiative to ensure sustainability was to create the ‘Virtual IT Cadre’ consisting of 30 members from various departments. This team of motivated middle level officers now spearhead e-Office implementation at their own departments which resulted in significant leap in department performance. These officers were given a two week intensive training on IT, eGovernance and general soft skills. After the training, they were transformed into a bunch of motivate enthusiastic officers ready to take on the challenge of implementing e-Office at their depts.

VALUE INDICATORS

Digital Inclusion

- e-Office is primarily a G2G service. The overall vision of the project is to roll out the software across the length and breadth of the state. It’s a long term goal; at Secretariat, one of the key issues was lack of basic computer knowledge which resulted in such individual resisting using e-Office. Another one was the inability to use Malayalam in e-Office. Basic computer training including Malayalam computing training was hence started and is still an ongoing programme.
- Another of the issues faced by citizens who submitted petitions at Secretariat was that they didn’t have a facility to track status of their petitions. Considering this requirement, a Citizen Interface was developed for e-Office

using which the petitioner can search and find the current status of any file/ tapal/ petition.

Green e-Governance

- Taking into account Green e-Government as described above, describe the specific steps taken to address the factor.
- e-Office project is an active proponent of the green initiative. By moving to a paperless office, the office saves money otherwise spent on paper, file boards, stationery items etc. Moreover, the offices becomes a clean, spacious, healthy place to work in. The project goes a long way in enhancing efficiency of communication. Whereas a paper based system include manual transport of tapals between officers incurring human effort, transportation and fuel costs, all that is completely eliminated now that files can be simply transferred electronically over the network!

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eABACUS

[Kerala Water Authority, Government of Kerala]

Ajit Patil, IAS

DESCRIPTION OF PROJECT

- eABACUS is the Enterprise Work flow based Billing Accounting and Collection Utility System for Kerala Water Authority.
- It has been developed by KWA – in-House development team with the help of manpower hired through NIC. The system is working from 2008 in Trivandrum division and rolled out other offices from 2013 onwards.
- It covers Consumer management, Billing management, Collection management, Meter management, Service management.
- There are different payment modes offered for consumers such as KWA Counters, Online Payment, Friends, Akshaya, Post Offices and ECS. For this coordination with various service providers such as BSNL, Bill Desk, Federal Bank, RBI, IT Mission, Dept of Posts are done.
- The Scope of the Project is very vast which covers full cycle of life time consumer management and comprised of 67 Main Modules 70 + reports which are constructed using more than 600 + class files as building blocks.
- Actually the initial plan was to finish rollout to entire state within 2015. The sites are rolled out in the order of establishing connectivity. For the remaining offices, digitization of consumer data from manual ledger already completed and migrated to the production environment. The slight lagging from actual plan is due to delay in establishing connectivity.
- Unlike from other Projects this system need lot of pre implementation planning such as training of office and field staff ,site preparation ,arrangement of stationary etc. This has been effectively done by a in house implementation and training team formed by including all domain and IT experts from the employees in the state.

RESULT INDICATORS

- **Various Consumer Services For G-C**
 - Conversion (D to N)
 - Meter Replacement
 - Disconnection and Reconnection
 - Meter Replacement after Meter Stolen
 - Transfer of Ownership
 - Temporary Disconnection
 - Reconnection

- Alteration
- Extension
- Meter Testing
- Meter Point shifting
- Permanent Disconnection
- Conversion (N to D)
- Meter Replacement after Meter Testing

Various MIS Reporting Service For G-B, G-G

- Collection Reports
- Reading / Reader/route Based
- Cancelled Reports
- Special Consumer List
- Consumer Services
- Ledger Printing
- Demand Collection Balance Report
- Reading View

Benefits obtained

G-G

- Government gets correct information from MIS reports To what extent of population are covered or benefitted by the water supply service.
- Also the information can be used for further Augmentation Projects and for Future Analytics for Planning and development.
- Fund Utilisation and Scheme Production Utilisation Monitoring become effective.

G-C

- Quality of Service is Ensured
- More Accuracy in billing
- Loss of water can be detected earlier hence conservation also enabled.
- Addressing of Consumer grievances streamlined (CRM)

G-B

- Increase in Revenue Collection
- Utilization of resources become more effective
- Trouble shooting of Water supply issues streamlined

G-E

- Work Culture Improved
- More Motivated Man Power

- As Organization achieved break even and employees are more gratified since the HR payments are not delayed.

Implementation coverage till date

Covered 65 % of consumers in the Entire State of Kerala and rest expected to cover in coming 8 months subjected to availability of network connectivity.

Rollout Status in Brief	Implemented	Total	Remaining
Divisions	20	27	7
Sub Divisions	40	78	38
Sections	52	134	82
Total No. of Consumers	10,23,992	16,00,000	5,76,008

Efficiency and Improvement Initiatives

- We have set up an in house Support Team for addressing the service request and monitoring of services at field.
- This is very cost effective in CRM. Also timely services are assured.
- Introduction of spot billing machines considerably reduced the man power cost and time and quality of billing service.

Specific innovative ideas implemented

- Introduction of Palm Held Machines for Billing and Collection.
- Error in capturing of field data reduced.
- Unwanted intermediate field data entry works cutoff
- Cost for process reduced.

ENABLER INDICATORS

Process reengineering

- Introduction of electronic machine for billing and payment services.
- Online Services for bill payment, knowing status etc.
- Online application for new connection and its status monitoring.
- New Connection Procedure simplified and process level reduced
- Billing Process reengineered:- Billing once in six months reengineered to bimonthly spot billing.
- Procedures are reengineered based on Roles to adapt with workflow modal role based system.

Change Management and Capacity Building

- Managing Director was the core person responsible for the capacity building Process adopted.
- As a part of Capacity Building separate Trainings were conducted for all levels of employees from top to bottom. Both Technical and Non technical trainings with hands on experience were conducted.
- Change Management Team formulated and responsible for all process and policy changes occurs time to time.
- In Water supply sector many core changes like policy changes, change in tariff structure ,procedures like addressing BPL Consumers, Free allowance for particular set of customers , role changes with procedure changes etc

VALUE INDICATORS

Digital Inclusion

Everybody has their own reasons for not being digital. But At our organization we faced two levels of challenges and four reasons.

From End User side Customer side.

REASON	HOW WE ADDRESSED
Access	Due to accessibility bottle necks in high range areas of state people stayed away from being online. We conducted awareness camps and media publication through FM Channels to people to contact Common Service Centers to help them to get services online. We provided reports like bills in local language to common people in rural areas.
Skills	People at rural areas lacking much skill stayed away from online services. We made process reengineering to simplify all procedures to get included all common people. All Forms simplified.
Motivation	Even small amount of Digitally capable people keep away from internet for risk and security reasons. We have made our sites secured by having tie up with trusted and secure gateway and payment service providers.

From Application Users and stake holders side.

Reason	How we addressed
Access	All most all users were given systems and confirmed their participation for the new endeavour
Skills	We trained all levels of staff and stake holders and got prepared for the new work culture
Risk	Awareness given to employees for the initial inertia to adapt with who stayed away afraid for security risk factors.

Green e-Governance

- We Purchased Green Certified Systems and Peripherals for reducing the power consumption of computers, information systems and their peripheral subsystems in environmentally friendly manner.
- Virtualization of server resources to the maximum extent possible.
- Efficient energy consumption adopted where ever possible.
- Replacing personal computers with energy efficient thin clients at collection counters and thin processing needed areas.

Green Disposal: We do Refurbishing and reusing existing old computers and other electronic associated devices for less potential needed areas. Also we are recycling unwanted used computers and other electronic-waste by IT vendors using their “take back” policy in order to take responsibility for the full lifecycle of products they produce.

- Telecommuting and remote computer administration to reduce transportation emissions
- Providing information and promoting green manner.
- Reduce Paper reports in our office. Also Bills are reduced in size by adopting electronic spot bill and receipt machines. Also Mobile SMS services and email services are being used for customer services to reduce paper. Thus saving trees and forests for our future generations.

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**POWERLAC (PORTAL & OFFICIAL WEBSITE CUM E-GOVERNANCE
REPOSITORY OF LAKSHADWEEP CONSUMERS**

[Department of Electricity, Government of Lakshadweep]
R.Ravichandar

DESCRIPTION OF PROJECT

POWERLAC [URL: powerlak.gov.in] is the official web presence of the Department of Electricity, Lakshadweep. It is the portal & official website cum e-governance repository of Lakshadweep consumer-fraternity. It's the congregation of several e-governance application of the department since 2007. Lakshadweep Electricity Department was engaging with National Informatics Centre, Lakshadweep for more than a decade and the website and applications are the result of the continuous endeavours of these government entities. There are several applications namely e-Personnel, e Payroll, Inventory Online, Online PGDMS (Power Generation & Distribution Management System), EBCMS (Energy Billing & Consumer Management System) & consumer facilitation portal delivering to the citizen and staff of LED.

The Department of Electricity is a major department of the Administration of Union Territory of Lakshadweep. LED is responsible to generate and distribute power supply at minimal cost and Eco-friendly manner for the entire Lakshadweep islands. Power Generation in Lakshadweep is wholly through Diesel Generators and minimal solar energy. It's the first Department to introduce SELF METER READING for consumers. We are in public sector and our solutions are purely service-oriented.

RESULT INDICATORS

- The department can centrally ascertain the Revenue generated.
- The department can centrally as well as sub-division wise extend all desired support to consumer and ascertain consumer needs.
- The department can monitor the functioning of all its sub-divisions centrally through the software.
- Immediate redressing of consumer complaints
- Systematic billing which is totally automatic.
- Absolute transparency and hierarchical monitoring is implemented so that the functional procedures are followed
- All the interfaces are extremely friendly and even the low level employees can operate the application without much dexterity.

- Every employee involved in consumer management has a login and a definite role to play. This is providing coherence and unification of the functional procedures.
- Help text/Guidelines provided online in local language is helping the employees for easy operation.
- Application is operated and administered wholly by the Electricity Department with least intervention from Developers
- Consumer can interact with LED online for all services.
- Consumer Portal is friendly and dynamic

Key Performance

Services

- Public can apply online for all kinds of Service Connections offered by LED.
- Consumers can prepare their bill estimations by giving self-reading.
- Lakshadweep is the only territory where self-reading by consumers is used for bill collection.
- POWERLAC permits anywhere billing. ie. Consumers can pay in any sub-division counter irrespective of the origin of the Service connection
- E-Payment is implemented. Consumers can pay their bills from their homes by giving self-reading using Credit Cards/Debit Cards/Internet Banking.
- Consumers can report their 'Meter Stuck' condition online to the department.
- Consumers can report online all kinds of line-faults, power supply failures and Service Connection complaints.
- SMS/e-mail ALERTS are generated for all interactions Department does with Consumers.

Benefits

- Consumer Satisfaction
- Consumer Friendliness
- Easy redressal of complaints
- Central Monitoring
- CSC services
- Consumer Analysis

ENABLER INDICATORS

Process reengineering

POWERLAK is a digitally integrated Consumer Management from the very initial point of a request for a Service Connection, It's processing, Establishment of connection, Meter Establishment and Management of different meter states, Consumer fault reporting to its redressing, billing of all types of consumers,

Defaulter management, Defaulter Disconnection & Reconnection(post-payment), Permanent Disconnection, Consumer Deactivation, Delivery of services to the Consumer doorsteps, systemizing of all integral and allied procedures. All these targets are achieved.

Change Management and Capacity Building

Change Management implemented all across the sub-divisions and Division Level. Consumer Care Centre opened. Capacity building was implemented through training programmes, Video Conferencing etc.

VALUE INDICATORS

Green e-Governance

All the services and necessary consumer reports are provided online, over sms and thru e-mail thereby reducing the use of paper all along. The entire IT infrastructure used at functional units is consumption-efficient.

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SHRAMSEWA

[Department of Labour, Indore, Government of Madhya Pradesh]

KC Gupta

DESCRIPTION OF PROJECT

- Labour Department services include variety of G2C, G2B and G2G services including:
 - Issue and renewal of registration cards to building and other construction workers and delivery of social welfare benefits to them and
 - Registration of Shops and other commercial establishments and renewal of these registrations with statutory dues.
- These services are meant for approximately 25 lacs workers through various social security schemes (Benefits of approx. Rs.115 crore per year) and for about 8.5 lacs shops & commercial establishments.
- To improve the delivery and quality of these services, Labour portal (*labour.mp.gov.in*) has been developed and implemented in August 2013 with a purpose of ensuring transparent, effective and citizen friendly services. For effective and successful running of this portal an intensive state-wide training drive was conducted for the officials of Labour Department and Urban & Rural Bodies.
- The Shram Sewa Portal has been functional for more than 2 years handling more than 2 lakhs applications. Services of the Portal have been brought under Public Service Guarantee Act guarantying services within a prescribed time limit of 30 days. The Portal has been able to deliver services in average time of 7-12 days through 753 service providers i.e. District Labour Officers, Block Panchayats & Urban Local Bodies. Financial support for maintaining and upgrading the Portal is available with Labour Department as well as the Board of Construction Workers of the State.
- The project is focused on to replace existing manual system of registration of workers and shops etc. to Online system in order to ensure fast, effective, transparent, convenient and hassle-free service delivery to citizens in term of Registration and renewal of construction workers and benefit disbursement to them under various schemes under BOCW module and Registration and renewal of Shops and other establishments under Shop module.
 - To replace manual system of registration, renewal and issue of registration cards to construction workers with a computerized system.
 - To replace manual system of registration, renewal and issue of registration certificates to shops and commercial establishments with a computerized system

- To link this registration process of workers with Household Verification Survey.
- To ensure financial inclusion and Electronic Cash Transfers (ECS) for workers.
- To facilitate service delivery to construction workers from any place of his convenience.
- To ensure fast, effective, efficient service delivery in a transparent manner.
- To facilitate Knowledge management & Online Submission of suggestions and complaints

RESULT INDICATORS

Currently the following modules are successfully operational on the portal:

- Online Registration and Renewal of Beneficiary cards under Building and other Construction Workers Welfare (BOCW) Act.
- Online benefit disbursement to beneficiaries under the BOCW Act
- Online registration and renewal of shops and establishments under M.P. Shops and Commercial Establishments Act
- SMS Interface
- Online Submission of suggestions and complaints
- Knowledge management

Benefits obtained

- Applicants are relieved from frequent visits to the office reducing cost and time.
- Applications are mostly received either online or from PSG Kendras and MP Online Kiosks thus More convenient and easier process (24 x 7, no constraint for place);.
- The applicant gets acknowledgement through SMS alerts at various stages. He can track the status of application online, gets SMS alerts about date of sanction and sanctioned amount. Any shortcoming is communicated during entry of the application itself.
- Process simplification in terms of reduction in administrative costs & efforts as
 - Simplified procedures, electronic movement of processes and submissions
 - Minimum file work, System Generated and digitally signed certificates.
 - Reduced administrative burden (department with less number of staff is performing the same task with more accuracy and efficiency).

Implementation coverage till date

- The portal is meant for and useful to various stake holders including workers in the unorganized sector, entrepreneurs, Industries and Commercial

Establishments, Labour Department Headquarters (Labour Commissioner Office), Around 53 District / Field Offices of Labour Department, 313 Janpad Panchayats, Directorate of Industrial Health and Safety (Factory Inspectorate) & its field Offices, Various Government Boards, Corporations, 336 Local bodies and Departments, Construction Agencies, Registering Authorities, Sanctioning Authorities, Factories, Trade Unions, Association of Employers, Media, NGOs and Public.

Specific innovative ideas implemented

- Stakeholder consultation and Change management activities
- State wide training programs (at divisional and district level)
- Database restructuring and simplification of forms and formats
- Use of digital signature and QR code in documentation instead of conventional signed documents
- Push messages for keeping the beneficiary updated.

ENABLER INDICATORS

- Manual system was revamped to convert it into online application and service delivery. Now in case of online application, applicant is not required to visit the office at all. Thus No queues and increased citizen satisfaction.
- No affidavit/attestation of documents required, thus service delivery on the basis of self attested documents. The no. of documents required was also reduced making the process easier.
- Downloadable and digitally verifiable certificates/cards leading to ease as well as authenticity.

Change Management and Capacity Building

Project management & Monitoring adopted

- The entire system is broken down into functional & independent sub-systems called modules. The nodal officers nominated by the Labour Commissioner coordinated the designing and Development team of NIC for finalizing the requirements and desired functionality of the modules. NIC submitted the details of expected requirements and functionality to the department for approval.
- After development of modules the UAT was conducted and the portal was launched along with the training to all the concerned officers and computer operators. In 2014 the responsibility of BOCW module was shifted to local bodies so strategy was planned for smooth transition to the designated officer

in all the districts. For that trg and handhold support was provided and resource support was also provided for about a month.

- For project management, the whole project was implemented under the close monitoring by Labour Commissioner and Addl. Labour Commissioner. Nodal officers were also nominated for day to day managing the things. Full time Consultant from Department of S & T also provided required inputs and coordination support.

Special efforts to ensure sustainability

- Continuous handhold support and orientation as required
- Maintenance by NIC.
- Modification as per changing scenario
- Transition from 53 DLOs to 53 ULBs (For BOCW Module).

VALUE INDICATORS

Digital Inclusion

- Bilingual and Unicode supported portal
- Facilitation to citizens through lok sewa Kendra/kiosk operators.
- Contact details and other instructions/informations displayed at portal.
- Awareness through media and notices at field offices.

Green e-Governance

- Green e-Governance is about application of Green computing practices to the domain of e-Governance. It involves adoption of environmentally friendly practices with respect to creation, use, and disposal of ICT facilities. There are several dimensions to green e-Governance and prominent among these relate to Power and Paper consumption, and disposal of e-Waste.
- Less paper work and storing digital data (including MIS as well as scanned documents) has considerably reduced the paper consumption leading to sincere contribution towards Green e-Governance.

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**MUNICIPAL CORPORATION OF GREATER MUMBAI (MCGM) -
MOBILE APPLICATION (MGM 24 X 7)**

[Department of Information Technology, Government of Maharashtra]

Hitesh Vora

DESCRIPTION OF PROJECT

- Growing citizen awareness and adoption of mobile devices for availing various services, have led MCGM to think about expanding the current service delivery to mobile in order to reach wider citizen base. Within the current e-Governance framework, MCGM has decided to introduce m-Government, more specifically delivering citizen services through mobile devices as an alternate service delivery channel. Further the mobile based service delivery channel provides residents to avail MCGM services anytime, anywhere and on any device.
- The key considerations for developing mobile based service delivery through mobile application “MCGM24x7” at MCGM are: availability to users from all strata of society, ease of integration with existing applications, multiple communication mode and delivery mechanisms, payment instrument and telecom operator independent.
- In order to promptly provide an improved service delivery experience, MCGM evaluated adoption of mobile devices as a delivery channel. MCGM evaluated various service delivery channels available over mobile such as mobile application, mobile website, SMS, IVRS and USSD and was quick to deduce mobile application as a choice of interaction platform between citizens and government.
- A technical architecture which leveraged the existing application was envisaged such that the development effort and time to market was significantly reduced. MCGM identified a government agency in form of CDAC to promptly develop the application so that a laborious procurement process can be eliminated and application development can kick off instantly.
- An android & iOS based mobile by the name of ‘MCGM 24 * 7’ has been created which interfaces with bespoke java application and SAP through web based API and java connectors. The same application has been hosted on a virtualized environment in order to meet the scalability requirements of time sensitive services. MCGM identified that for the application to become acceptable, various modes of payment will have to be enabled and provided residents of Mumbai payment modes such as Credit Card, Debit Card, Net-banking and IMPS by enabling MCGM to leverage on NDML’s (NSDL Database Management Services Limited) payment gateway

- The mobile application “MCGM 24x7” makes possible payment of water bills, payment of property tax and renewal of licenses. Now, as the next phase of using the mobile application platform, the city administrators intend to enable the citizens to lodge complaints and address them more efficiently.
- The mobile application thus enabled the citizens to avail the services from of home or while they are on the move, thus providing services Anytime, Anywhere and on any device.

RESULT INDICATORS

- Payment of Water bills
- Payment of Property tax
- Renewal of Licenses (Shops & Establishments registration)

Benefits obtained

- Citizens can avail these services at any time, from anywhere and using any devices.
- Citizens can use multiple online payment options: Credit card, debit card, net banking & IMPS.

Implementation coverage till date

- The mobile application “MCGM 24x7” is available in Google play store and Apple App store. The respective stakeholders can download it from anywhere and avail these services from anywhere .

ENABLER INDICATORS

Process reengineering

MCGM offers following services using mobile devices:

- Payment of Water bills: In the existing scenario, payment of water bills was done manually, wherein the entity would receive the bill and would have to make a payment at the CFC through a DD, Cheque or cash. With the new mGovernance model, the m-application has been integrated with an online payment gateway which enables citizens to make payments of any amount online from any where with multiple payment options such as credit card, net banking, debit card and IMPS. This saves considerable efforts.
- Payment of property tax: Property tax payments are also now possible online through the payment gateway and have resulted in considerable reduction in effort for citizens who had to earlier go through the hassles of physical challans and payments at counter.
- Renewal of Licenses: This has been one of the biggest reforms because shops and establishment licenses can now be renewed on mobile by shop owners.

Earlier, renewal involved several trips to the MCGM offices and considerable paper work to get a license renewed. Shop owners can make payments online using mobile application and download their renewed licenses on their mobile devices post successful payment.

Change Management and Capacity Building

- The initiative was spearheaded by the Additional Municipal Commissioner and monitored closely by him till the very end. The backing from top management was one of the driving factors for the initiative to be successful.
- The initiative has not been completed because MCGM plans to leverage the mobile platform for as many services as possible and citizens will witness a continuous improvement in this service delivery channel over the years to come.
- The mobile application is very simple to use. The Marathi version of the application is also available. While launching the app, proper publicity was done through various Medias including hoardings on how to use the app. The user manual for the app is also available. Capacity building for MCGM was not required because their mode of operations remained the same. The Mobile App was mainly for citizens to use. The back end operations at MCGM remain the same making the transition smooth.

Special efforts to ensure sustainability of the e-Governance initiative

- The mobile application and entire infrastructure has been audited by the security audit vendor of MCGM to avoid any online data loss/ data thefts and secured payments.

The architecture was designed to be modular and scalable the following features:

- Mobile devices would connect to a central server placed with MCGM's data center.
- The central server will re-directed the request to the corresponding application based on the URL of the incoming request.
 - If the URL is for payment/ viewing water bills than the request will be redirected to Aqua application (Aqua is a web based application for payment of water bills)
 - If the URL is for payment/ viewing property tax than the request will be redirected to CVS application (CVS – Capital Value System is the webs based application for payment of property tax)
 - If the URL is for license / complaints than the request will be redirected to the SAP application (SAP ERP is used by MCGM for renewal of licenses)

and complaints management – SAP CRM (Customer Relationship Management) module

- After receiving the processed request from MCGM application, if the request involves making payments then the same is directed to the external payment gateway managed by a third party (NSDL)
- When any new service is to be connected to mobile application the following changes are made to the m-Governance framework:
 - New UI is developed for the front end mobile application
 - The back end application is connected to central server via APIs and Java Connectors (required for SAP system)
 - In case if the capacity of the central server is to be increased, then the same is through increasing virtual machines deployed on the physical server

VALUE INDICATORS

M-Governance was a new concept for MCGM. These m-Services are perhaps just the start to the journey of providing comprehensive set of urban services through mobile. Mobile penetration today ensures that people have access to cell phones more than desktops or computers. MCGM makes a constant effort now to provide maximum services through mobile platform (both iOS and Android).

Digital Inclusion

- The mobile application MCGM 24x7 has been made available in Marathi and English languages on Android and iOS platform for the convenience of the Citizens. Further to this, department has also planned to deliver the same solution in Hindi as well.

Green e-Governance

- In m-Governance initiative, the services are delivered on the mobile devices. The users can apply for the services on line without filling up the hard copy/ paper of the forms, download the soft copy of the receipts and certificates post successful payment in their mobile devices. This has reduced the consumption of papers which has reflected in a Green e-Governance initiative.

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COMPUTERIZED DESK AUDIT

[Department of Sales Tax, Mumbai]

Rajiv Jalota, IAS

DESCRIPTION OF PROJECT

- Computerised Sales Tax Department (MSTD) has been selecting cases for Audits based on various audit parameters for the periods from 2008-09 onwards. Most of the audit parameters are generated from the analysis of sales and purchase annexure. As MSTD started taking electronic annexure of sales and purchases from all dealers for the period 2011-12 onwards, the number of audit issues has increased substantially.
- To counter this issue, MSTD has generated Computerized Desk Audit (CDA) reports using SAS Business Intelligence (BI) Solution for selected dealers highlighting their tax liability against 11 audit parameters. These audit issues are informed to dealers by e-mails and SMSs. Dealers can see & comply the audit parameters directly on web-site. If the dealer pays additional tax with interests and files a revised return for the complete year, then he can submit such details in 'Compliance Web Form' on web-site. Thus audit parameters are getting closed without human intervention.
- In the first phase of implementation up to 15-01-2015, department is able to close 24776 cases with recovery of more than Rs. 110 Crore revenue. There is huge response as 61 % compliances were submitted and 55 % cases were closed.
- The objective of CDA project is to provide facility for dealers to close their audit issues themselves by complying online without visiting sales tax offices.
- There is improved Service Delivery to dealers resulting in time saving and cost of compliance is reduced for dealers. There is efficiency enhancement for MSTD resulting in financial savings for department. The resources can now be used for other productive work. Availability of consolidated data, advanced BI technology and integration with dealer portal has resulted in better monitoring of internal administration.
- The CDA system has created transparent administration and it curbs corruption as there is no manual intervention. The BI reports are used for decision making, hence manual discretion is removed. Because of geographical spread of web services, there is convenience in compliance by dealers.
- The core process of any tax department is audit of taxpayers' books of accounts. MSTD has automated the Audit process itself. The concept of CDA is to audit dealers' information using Business Intelligence Tools, to provide online intimation of audit issues and to provide a web based utility of

compliance for automatic closure of audit issues. As there is no human intervention in the entire audit compliance, there is value creation in terms of cost and time savings for dealers as well as department. The efficiency and convenience of compliance has also increased manifold.

- The MSTD has implemented Decision Support System using SAS Business Intelligence Solution. It's a Rs. 16 Crore project and used analytics to solve the business problems. There are various standard reports which are used for decision making in various functions like registration, return follow up, audit, refund, investigation etc. The BI reports are made available to MSTD officers through Web report studio across Maharashtra State on internal WAN system.

RESULT INDICATORS

The project is to provide Government to Citizen (G2C) Services directly on website so that the process of closure of audit issues becomes transparent and convenient to dealers.

Benefits obtained

- The benefit to dealers is that they do not require attending with books of accounts before the auditing officer. All the audit parameters are supported by transactions, so there is clarity in audit issues and hence online compliance can be easily submitted. MSTD is also getting benefitted as their resources are now used for other productive purpose and the manual workload is reduced.

Implementation coverage till date

- The CDA compliance system was available to all dealers across Maharashtra, so they can submit compliance from anywhere and at any time.

Year-wise wise transaction volumes for various services

- For 2011-12, 132952 cases were made available for compliance and for 2012-13, total of 131238 cases are now made available for CDA compliance.

Efficiency and Improvement Initiatives

Specific innovative ideas implemented.

- Before implementation of the CDA projects the cases involving audit issues were distributed to MSTD Officers. As MSTD started taking electronic annexure of sales and purchases from all dealers, the number of cases of Issue Based Audits (IBA) had increased substantially. The administrative cost of conducting such audits has also gone up due to scarcity of resources. Due to heavy workload the cases were converting into ex-parte assessments and thus the workload of appellate authorities has also increased substantially.

- To counter these issues, MSTD has innovatively integrated the CDA output of SAS® Enterprise BI Tools with direct Mahavat Web-site compliance and created a win-win situation for MSTD as well as dealers by saving administrative cost as well as cost of compliance. Thus now for most of the audit issues dealers are not required to visit MSTD office and this has increased the transparency in the working of MSTD.
- Salient Features of CDA Implementation are as follows:
 - Improve dealers experience by facilitating transparent compliance.
 - Enhance taxpayer services through self-compliance
 - Increase awareness about tax compliance so as to reduce tax evasion
 - Leverage integration of BIDW advance analytics with the Web Portal application.
 - Enabling direct website compliance for dealers using the Compliance Web Form and leveraging existing facilities of Mahavat portal such as e-payment and e-returns.

ENABLER INDICATORS

Process reengineering

- The Audit or Assessment of tax liability of dealers for every financial year is the core activity of department. This process gives lot of discretion to auditing officers and leads to corruption in the process. To increase transparency in this core activity and also to increase efficiency, MSTD has re-engineered the audit process itself by implementing Business Intelligence solution.
- The BI System audits dealers' information captured through various services based on Computer Assisted Audit Technique (CAAT) and generates audit parameters resulting in additional taxes payable by dealers. These audit issues are supported by buyers or sellers aggregated annual transactions. Thus dealers are in a position to take decisions whether to accept or deny the additional tax liability by going through the supported transactions.

Change Management and Capacity Building

- The concept of CDA has been supported by Finance department and the top management like Commissioner, Additional commissioners and the entire Commissioner's office. Necessary approvals have been received in time and cost of the project is approved for publicity in news papers, Radio, hoardings and banners, pamphlets etc. MSTD has conducted training sessions across Maharashtra major locations like Mumbai, Thane, Pune, Nashik, Kolhapur etc.
- Earlier there was resistance to the concept of computer generated audit parameters as the employees were not familiar with such a data driven system.

We leveraged on the knowledge of routinely used software applications like excel and Word to counter this problem.

- We developed utilities for supporting employee work like Mail Merge utility for customized courtesy letters and excel utility for legal intimations. We developed utilities for Interest calculations and also transactions search which are supporting audit parameters. Thus the handy utilities based on commonly used applications along with system support were used for capacity building and getting support for the CDA project. In case of the CDA initiative a special Helpdesk has been set-up comprising of EIU officers who attend to the various functional and or technical queries raised by dealers. Online Help in form of Detailed Instruction Sheet for CDA Compliance is available to Dealers. Also there is dedicated maintenance team available for 24 X 7 for technical support.

Special efforts to ensure sustainability

- The CDA project is self sustainable as it is a sub-project of existing internal automation projects. MSTD is now implementing SAP COTS product using Tax & Revenue Management Module. The future CDA compliance will be on Enterprise Portal of SAP and the CDA reports will be generated on SAP platform. SAP project cost is more than Rs. 170 Crore in first phase and Rs. 150 Crore in second phase.

VALUE INDICATORS

The objective of CDA compliance is to achieve real time audit system which is a core work of any tax department. With this vision MSTD plans to complete all pending audit years before March 2016.

Digital Inclusion

- The dealers can directly submit compliance without contacting the auditing officer or his consultant.

Green e-Governance

- The manual audit involves submission of papers for record keeping. The CDA compliance is the electronic compliance without any file record. Thus it is environmental friendly.

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ICAR EXPERTS SMS SERVICES TO FARMERS

[Department of Agriculture Research & Education, Government of Meghalaya]

Dr. S. V. Ngachan

DESCRIPTION OF PROJECT

The online application help the ICAR experts team under KIRAN (Knowledge Innovation Repository of Agriculture in the North East) to send the different types of SMS experts advisory to the registered farmers. Around 5600 farmers from the North-Eastern region have registered and 3690 farmers are getting benefits from the expert's advice for this project.

The application has been developed using open source tools (viz. JSP as the front End and PostgreSQL 9.3 as Back End).

The ICAR Expert SMS Services to Farmers consists of the following modules:

- **User Management:** The Administrator is responsibility to create the different users who will play in this project like Expert's User, Data Entry Operators and modification facilities is also available for the administrator.
- Audit log report of users is one feature where the administrator will be able to view the login or logout details, login fails attempted by user (with number of attempted), add/modify farmer, send SMS to farmer. All these information IP, date and time has been captured.
- **Master Data-Entry:** Master Data entry of Crops, Live-stocks, affiliation, organization, expert designation and expert specialization has been provided on this application.
- **Farmer Registration and modification:** Captures the farmer's data like name, mobile number, gender, affiliation and organization, permanent and present address with group of specialization of their crops and like stocks. During farmer registration additional option has been provided to farmer to avail the other services provided in the web like (KIRAN TRACKING SYSTEM, only this particular service or both, the farmer has the option to modify later if not required)
- **Expert registration and modification:** This process is used to capture the data of the ICAR experts
- **SMS to Farmers based on their specialization of crops and live stocks:** The ICAR user can send the Experts advisory SMS to farmers based on their specialization as per state login.
- **SMS Services to Farmers:** The ICAR users can send the common SMS to farmers based on the climate and seasonal factor. At a time one block can send SMS to farmers at 200 farmers/click

- **View SMS Reports sent to Farmers:** This report is generated based on four parameters on affiliation, organization, period (from and to) and specialization. It displays the number of SMS sent and the details sent to farmer's i.e the content of the advisory, mobile number, farmer's name and sent time. In this page we have also incorporated the searching technique for farmers based on farmer's name.
- **View Farmers registration:** This report is generated based on three parameters affiliation, organizations and specialization. It displays the number of farmers and the detailed summary of farmers like (Name and mobile number of the farmers). In this pages we have also incorporated the searching technique for farmers based on farmers name.
- **Other services** provided with this links are the details of the particular KVK (Krishi Vigyan Kendra) and Village Locators of the entire North Eastern Regions.
- **A web service** has been designed to expose the number of transactions which is consumed by the etaal portal of DeitY under MCIT, Government of India to record the number of transactions on day to day basis.
- Objectives
 - To help the farmers in receiving timely and accurate expert advices on their crops and live stocks through SMS.
 - To built a database of farmers which can be utilized in many e-Services. As of now two projects have been implemented using mobile based SMS service.

RESULT INDICATORS

- The system helps the ICAR experts to register the farmers details from various places in the North Eastern region.
- It helps the experts to send advisory SMS to the registered farmer about their crops and live-stocks.
- ICAR Experts send the SMS to farmers based on climatic/seasonal factors.
- The SMS advisory content has been implemented into two languages (English & Khasi)

Benefits obtained

- The implementation of the system increases the number of farmer registrations and farmers can are getting timely and accurate advice on crops and live stocks from the ICAR Experts using mobile technology.
- This process of sending SMS to farmers has greatly helped the farmers for the betterment of their crops and live stocks even avoiding financial losses.

- Due to this SMS technology the ICAR experts work load for visiting farmers has reduced and they are getting more time to concentrate on their expert specialization areas and other work.
- The reports help the ICAR Experts to identify which farmers or identify farmers that have not yet received the SMS advice.
- By utilising this e-service more than 200 farmers per month came forward to register themselves for the advisory service. Farmers are frequently contact with the helpdesk and ICAR team for the betterment; as a result there is more interaction between farmers and Experts.

Implementation coverage till date

- Around 3,690 farmers from the Meghalaya State are getting benefited from the experts' advice and around 5,600 farmers in the NE region has been registered in the system.
- The experts advisory contents has been implemented into two languages (English & Khasi)

Specific innovative ideas implemented.

- Many farmers in the North Eastern Region have different local languages; it is innovated to send the experts advisory content in their local languages, as of now only one Khasi Language has been implemented.

ENABLER INDICATORS

Process reengineering

- The ICAR administrator is responsible for assigned job to the ICAR Users, create user, monitoring the implementation and view the various reports.
- The ICAR users are responsible for capturing of farmers details, Send SMS experts Advisory to farmers, View SMS reports for confirmation/verification.
- The ICAR Experts are responsible for building the advisory content as per day to day bases

Change Management and Capacity Building

- The ICAR Experts organize the workshop to farmers by introduction the system integration on the experts advisory SMS by mobile technologies.
- Collection of farmers started from the KVKs.
- The ICAR Expert start preparing the advisory content in a precise format.
- Organize workshops to farmers for giving advice and information about subsidy policies.

- Before the Experts SMS services to farmers had started, the farmers were lagging behind in the development of their crops and live stock due to poor communication between ICAR experts team and farmers. ICAR expert's team came with the problem to the IT department searching for the best technique to resolve the issues of farmers. The solution development started with the collection of farmer's details from different locations based on their group of specialization so that ICAR expert's team can make the advice for each individual crops and live stocks. This process of sending SMS to farmers has greatly helped the farmers for the betterment of their crops and live stocks even avoiding financial losses.
- The awareness program has been given to the farmers about the new system.
- This project has been developed with different roles from top to bottom i.e from the ICAR Administrator, ICAR Experts and Data Entry Operators where the ICAR Administrator has the facilities to create role for users with different processes that are available in the system.

VALUE INDICATORS

Green e-Governance

- SMS Expert Advisory
- Report Generation
- SMS Expert Advisory: This content is stored in the electronic form and advice sends via mobile technology to farmers.
- Report Generation: There are various reports where ICAR user can generate like list of farmer, SMS details sent to farmers.

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KIRAN TRACKING

[Department of Agriculture Research & Education, Government of Meghalaya]

Dr. S. V. Ngachan

DESCRIPTION OF PROJECT

This online application helps the farmers to keep track and follow the advisory contents given by the Experts from ICAR (Indian Council of Agriculture Research) regarding upkeep of crops and live stocks from the day of procurement.

- The System has various modules which includes a) Online Dealer registration b) Approval of Dealer by ICAR c) Dealer sign in and connects or disconnects the registered farmers to his/her account from ICAR database. Once registered, the Dealer can proceed with the business transaction for those connected farmers only.
- Once the purchased or procurement is done, the system will send the advisory SMS to the farmers according to period of purchase or procurement. From the next day of purchase, the system will send SMS every morning till the end of the advisory cycle or the livestock or crops are fully grown or matured enough to sell in the market. Various reports that the system generates are
 - Purchase Summary (Displays the summary of purchases along with the quantity and number of purchases)
 - View Sent SMS (displays the sent SMS to farmers along with purchase ID and specializations)
 - View Purchase (displays all the sent SMS of any purchase ID (Reports can be sorted by Name, Date of purchased and completed cycle). Dealer can change own password and update profile.
- The role of ICAR is to approve the dealer registration and provide advisory cycle contents to the farmers from time to time and view the advisory cycle.
- The main objective of the e-Service is to help the farmers in receiving timely and accurate advices on their crops and livestock from the day of procurement from Dealer/Institutional till the end of the advisory cycle.
- Example in case of Poultry if the number of days has reached 42 from the date of procurement, the SMS will stop sending advice to that particular procurement ID).

RESULT INDICATORS

- The system helps the ICAR experts to provide various advisory cycle from day one till the day when the crops and live-stocks are fully mature to sell in the market.
- Dealer/Institutions update the procurement details of the farmers.

- Farmers receive the advisory content right from the day of procurement and will end till the day when their crops are fully mature.

Benefits obtained

- The implementation of the system increases the number of farmers registration and number of procurement of crops and live stocks between dealers and farmers.
- Farmers are getting timely and accurate advice on crops and live stocks from the ICAR Experts Advisory Cycle using mobile technology after their procurement.
- This process of sending SMS to farmers has greatly helped the farmers for the betterment of their crops and live stocks even avoiding financial losses.
- Due to this SMS technology the ICAR experts work load for visiting farmers has reduced and they are getting more time to concentrate on their expert specialization areas and other work
- The reports help the Dealer to identify the number of procurement, quantities and completed cycle of any procurement.

Implementation coverage till date

- Around 540 procurement has been implemented for the poultry in the Meghalaya State.
- Expert advisory cycle for piggery is ready for procurement.

Efficiency and Improvement Initiatives

- With the implementation of this online KIRAN Tracking System, the farmers are able to cut down cost of procurement for their crops and live stocks which are normally incurred in the manual system. First of all the central government is able to cut down the cost of visiting the farmers in various locations.
- In the manual system, the ICAR experts have a very tough time to visit their farmers for the benefit of their crops and live-stocks even farmers are suffering losses for their crops and live –stocks due to the poor communication or non reach ability of the expert advice, but by introduction of the online tracking system the losses are reduced.
- From the citizen point of view, cutting down of the cost of investment for their crops and live stocks by using this e-service.

Specific innovative ideas implemented

- As of now two expert advisory cycle s(poultry & piggery) have been saved in the database in two languages (English & Khasi).

- Poultry advisory cycle has been implemented in the state (Meghalaya) during procurement between dealers and farmers.

ENABLER INDICATORS

Process reengineering

- **Front End Office**
 - The online dealer/institutional registration through the portal.
 - Once dealer is approved, the dealer can sign In and use the e-services that are available in the KIRAN TRACKING.
 - Dealer/Institutions connect the registered farmers to his/her account for procurement of crops or live stock.
 - Dealer updated the procurement details of farmers in the system.
 - Once procurement updated system will start sending SMS to that particular Procurement ID.
 - Various reports where Dealer/Institutional can view like purchase summary, purchase details and view the SMS sent to farmers who procured.
- **Back End Office**
 - The ICAR Experts gives the advisory cycle of each individual crops & live stocks to system from day 1 till the crops and live stocks are fully mature enough to sell in the market.
 - As of now poultry and piggery has been updated in the system.
 - The ICAR department approves the dealer registration.
 - The ICAR experts can view the whole advisory cycle which have been updated in the system
 - The ICAR administrator can reset the dealer password on recommendation from dealers.
 - The ICAR administrator can view the various reports.
 - System Intelligent - Every morning the system is executed at fixed interval of time (7:00 AM) to execute the cycle with each individual procurement who cycle is not completed.

Change Management and Capacity Building

- The ICAR Experts organize the workshop to dealers for procurement of crops and live stocks by farmers.
- Experts explain the farmers about the benefit from the system after procurement of crops and live-stocks from dealers/institutions.
- Explain the business benefit for dealers by adopting the KIRAN Tracking.
- Before the KIRAN TRACKING SMS services to farmers had started, the farmers were lagging behind in the development of their crops and live stocks

due to poor communication between ICAR experts team and farmers. ICAR expert's team came with the problem to the IT department searching for the best technique to resolve the issue of farmers.

- The solution development started for those registered farmers in the ICAR database, so that they can be connected to the dealer/institution account for procurement of their crops and live stocks. Even the dealer has to get the approval from ICAR to use the online KIRAN Tracking System
- The awareness programmed given to the farmers about the new system.
- This project has been developed with many roles from top to bottom i.e from the ICAR Administrator, ICAR Experts, System Experts and Dealer/Institutions where all these roles are given benefited to farmers and other process where indirect they are getting benefits.
- Encourage the farmers to the SMS world.

VALUE INDICATORS

Green e-Governance

- **Expert Advisory Cycle** : This content of experts Advisory Cycle is stored in the database and cycle is activated to send SMS when any procurement start for that particular crops and live stocks (Example poultry)
- **System Intelligent**: Every morning the system is programmed (say @ 7:00AM) to execute/sent the advisory SMS to those farmers who have done the procurement from the dealer. The cycle is repeated all the procurement whose cycle is not completed.
- **Report Generation**: There are various report like purchase summary, purchase details along with the SMS content sent to that particular ID view by Farmer's name, Date of procurement and complete procurement

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**CENTRAL PENSION PAYMENT & SELF VERIFICATION SYSTEM
(BIOMETRIC)**

[Finance Department, Government of Meghalaya]
Wanchwa Shallam

DESCRIPTION OF PROJECT

- In the manual pension payment procedure, the pensioners had to submit a monthly pension form duly signed to the Treasuries/Sub Treasuries every month, as per the mandate of the Meghalaya Treasury Rules 1985, for monthly pension payment.
- **Pension Automated System (PAS)** aims to automate and consolidate all the pensioner's monthly payment into a single bill. After successfully implementation in July, 2009 throughout the State, manual submission of monthly pension bills ceased to continue and introduced the frequency of physical appearance/life certificate from yearly to twice in a calendar year.
- PAS has the feature to create pensioner's profile, capture Image and auto generate monthly pension bill. The advice list generated from PAS is sent to the agency bank for making account payee payment. In addition, a soft copy is also sent to the agency banks to facilitate electronic payment. With the view to ensure timely credit of monthly pension payment, uniformity in the rate of dearness relief and to have centralise pension management system, The State Government had adopted a **Centralised Pension Payment System (CPPS)** in April 2010 where all pension payment is centralized from one single node, Shillong South Treasury as the Nodal Treasury to Disburse the Pension for the entire state.
- CPPS is a web based application with the objective to centralise and streamline the uniformity for all the pension payment throughout the state. The system allows Treasuries/Sub Treasuries to capture pensioner's profile, image, update appearance, upload the fingerprint, payment slip of pensioner and update pensioner's passbook.
- **Biometric System:** At present about 16,000 plus pensioner's payment is being made every month by the Nodal Treasury, normally the pensioner's had to either personally appear before the Pension Disbursing Authority or have the Life Certificate issued by authority concerned twice in a year. Because of the sizeable number of pensioners and time consuming process for validation of the appearance of pensioner, the inconvenience caused to pensioners has drawn the attention of the State Government, to address with the above problem, the State Government has adopted biometric system as an alternative automated method of verifying the life certificate of a the pensioners. This

automated system is known as "**Automated Fingerprint Identification System**" (AFIS). It aims to streamline the process and making user friendly system for the pensioners.

- The Biometric System was initiated in November 2013 as an alternative automated method of verifying the life certificate if the pensioner from July 2014. Pensioner can self verify themselves through Kiosk Machine and in case of sick/bed ridden pensioners, the Treasury Officer shall depute an Official to their residence for self verification through offline self verification system using a notebook/laptop

RESULT INDICATORS

- The system can generate pension payment slip, appearance status of pensioner, statistic of pensioner financially in volume, automatic monthly generation of pension payment, profile details of all registered pensioners.
- Pensioners can enquire about his details at any point of from the KIOSK available in different locations.
- Pension expenditure statement can be generated from the application at any point of time.

Benefits obtained

- The implementation of the system eliminates/removes the inconvenience cause to pensioners for physical appearance. The system is also easy to operate as no complex process is introduced and the pensioner can check his/her profile, payment entitlement and status of appearance from kiosk machine.
- it takes roughly about 1 to 2 minutes for the pensioners to self verify his life certificate using the "Automated Fingerprint Identification System (AFIS)" through the KIOSK.
- Workload of the treasury staff has drastically reduced, since verifying for physical appearance is automated. Non Employment Certificate and RE-MARRIAGE/NON MARRIAGE Certificate production cost is reduced.
- Automated Fingerprint Identification System (AFIS) uses fingerprint biometric to authenticate and allow pensioner's to self verify his/her physical appearance, declare self certification and query payment details, profile, entitlements which is free from inconvenience caused to them.
- A provision is made to view passbook and payment details if required.

Implementation coverage till date

- Treasuries/Sub Treasuries in all districts/sub divisions of the State has implemented the CPPS for pension payment and no pension payment is made without registering in the pension database system.
- Remote treasury where no connectivity is available, an offline verification system is used. Pensioner profile registration is sent to the Nodal Treasury to capture into the system.
- Kiosk machine is installed in all Treasuries/Sub Treasuries for self verification.
- Around 16000 plus pensioners from all the 16 treasuries and sub treasuries.

Efficiency and Improvement Initiatives

- Payment of processed pension takes T+1 for pensioner having bank account with agency bank while non agency bank may take T+4 which will be reduced with the introduced of National Automated Clearing House (NACH) payment.
- Cost of printing various forms and reports has been eliminated thus the state government is able to cut down cost on various overheads which are normally incurred in the manual system.
- From the pensioner's point of view, they are able to use the "**Automated Fingerprint Identification System (AFIS)**" through the KIOSK efficiently compare to the exasperating exercise in the manual system.

Specific innovative ideas implemented

- Biometric self verification which is beneficial to both the staff and pensioner as process of life certificate is reduced to great extend.
- Passbook printing.

ENABLER INDICATORS

- Back end office :
 - Nodal Treasury deals with all process of payment of pension after scrutinizing the documents like Non Employment, Non Marriage, copy of bank passbook, PPO, mandate received from treasuries/sub treasuries.
 - Conversion of family pension, stop or close the pension, modification pertaining to pensioner's details is being carried out from Nodal Treasury.
 - Nodal Treasury is responsible for printing the advice list, scroll and textfile and send to the bank for credit in pensioners' bank account.
 - Pension payment is auto generated and payment details/slip is printed for office record and audit purpose.

- Front end office:
 - Treasuries/Sub Treasuries are responsible for capturing of pensioner profile, family profile, image, fingerprint, update pensioner's appearance, printing of pensioner's payment for office records.
 - Any new Pension cases or changes in the Pensioner's PPO which may or may not affect payment is forwarded to the Nodal Treasury for necessary action.

Change Management and Capacity Building

- Team leadership impart training, management of system; any new changes to be made to the system as per departmental requirements and update the treasury staff about the new process.
- First Phase is the awareness programmed given to the treasury staff and pensioners about the new system.
- Infrastructure Assessment is being made available as per minimum requirement for implementation of the Application. After implementation and review, the application was upgraded with the latest requirement and necessities.
- Initial training and demo was given to the concerned treasury staff, how to operate the different modules available in the new application.
- Encourage the pensioners to use biometric system which is greatly beneficial to both government and pensioner were initiated on November 2013 and successfully implemented on July 2014.

VALUE INDICATORS

Green e-Governance

- Digitize of Pensioner's Payment Advice send to bank
- Digitize of Pensioner's Payment slip
- Digitize of Payment Advice send to bank: all scroll generated from department will be sent in soft copy to the agency bank via secure email.
- Digitize of payment slip: Pensioner can query his/her payment from the kiosk or pensioner portal and download the payment details if required.

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ONLINE MONTHLY EXPENDITURE REPORTING SYSTEM

[National Informatics Center, Government of Mizoram]
Lallianmawii Hnamte

DESCRIPTION OF PROJECT

Monthly Expenditure Report (MER) is required to audit the Government department expenditure based on their Budget Allocation on different account heads as well as to check exceeding expenditure. And also to watch fund flow within the Department. It is also helpful for tracing departmental purchase flow. It provides a clear picture on the expenditure incurred by departments on different Head of account. It also helps the State Finance Department in taking a decision whether the fund release request by any Government Department should be accepted or not. All the Government Departments had to submit their Monthly Expenditure Report to the State Finance Department so that the Finance Department can keep track of their Expenditure based on their Budget Allocation.

This system replaces the age old process of submission of hard copies of Monthly Expenditure Report by the Government Departments to the Expenditure Control Branch of Finance Department, Government . of Mizoram. Earlier the departments had to submit the Monthly Expenditure Report in three formats (Form-A, Form-B and Form-C) provided by the Finance Department, Government . of Mizoram before due date. But due to various problems there were lots of late submissions which increased the burden on the State Finance Department as well as the report generation became a huge problem day by day for the Finance Department, Government . of Mizoram. So they wanted a system which will increase the efficiency and effectiveness of the Monthly Expenditure Submission process as well as will reduce the submission delays and the burden on the officials. This resulted into the “Online Monthly Expenditure Reporting System” system, developed by Mizoram State Unit of National Informatics Center.

The system has three types of users: a) Administrator (State Finance Department), b) User department (All the Government Departments), c) Report User (Citizens). Now all the Mizoram Government Departments had to submit their Monthly Expenditure only on ONLINE through this system. Instead of earlier option of three predefined formats now they have to enter only the expenditure amount incurred. Now those three formats namely Form-A, Form-B and Form-C could easily be generated from the system which are used for official purposes. This reduces a lot of burden on both sides be it Finance Department or the Expenditure submitting departments. After the use of this system, the problem

for the report generation on the side of the Finance Department has reduced. It increased the efficiency of the Monthly Expenditure Report submission process. And by providing the Report Section open for the Citizens, this the Monthly Expenditure Submission process becomes more transparent than the earlier process. All total 92 departments under Government of Mizoram use this system for submission of Monthly Expenditure. Out of these 92 departments, 86 departments are within Mizoram State while other 6 Departments are outside Mizoram.

RESULT INDICATORS

This is a G2G project which allows the Government Departments to submit their Monthly Expenditure to the Finance Department, Government. of Mizoram so that the expenditure incurred by the Government Departments can be audited by the concerned State Finance Department.

Benefits obtained

- Monthly Expenditure submission becomes more efficient and effective
- Monthly Expenditure submission delays are minimized
- Reduced administrative burden and Increased employee productivity
- Expenditure incurred by the Government Departments becomes transparent

Implementation coverage till date

All the 92 state Government Departments use this system. Out of those, 86 departments are within Mizoram State while 6 Departments are outside Mizoram. Those outside Mizoram state are:

- Mizoram House, Guwahati (Assam)
- Mizoram House, Silchar (Assam)
- Mizoram House, Delhi
- Mizoram House, Kolkata
- Mizoram House, Mumbai
- Mizoram House, Bangalore

Efficiency and Improvement Initiatives

- Earlier departments had to submit hard copies of their Monthly Expenditure in 3 formats every month before the 15th of the following month to help the Finance Department to prepare consolidated Report for further audit of account of head wise expenditure. Those 3 formats were
 - Form-A , which was Major Head wise report
 - Form-B, which was Object Head wise Report
 - Form-C, which was Detailed Head wise Report

- It took lots of times on both the sides i.e. submitting department and the Finance Department and again sometimes the submission of these reports delayed due to other official liabilities of the departments. But after the launch of this system the departments have to submit the monthly expenditure only Online and they have to give only Monthly expenditure, no need for three different reports. Now those reports can be generated automatically from the said system making it time efficient and cost effective.
- To make this system successful Finance Department, Government. of Mizoram had issued letter to all departments to submit their Expenditure Details only through ONLINE.
- The system is actively used for all the Monthly expenditure related activities by all the departments involved. Finance department is using it for various financial decision makings.

ENABLER INDICATORS

The top three process changes effected in the system

- Submission of Monthly Expenditures made simple by removing the 3 report submission formats.
- Automatic Report Generation on both sides reduces the manual process of report making. Now they don't have to prepare report by themselves as they can easily download the automatic report in .pdf
- Incorporating Citizens in the process made the system transparent

Change Management and Capacity Building

- For the rollout of the project NIC, Mizoram organized various training sessions for the officials of all the 92 departments as well as the State Finance Department. Due to the fewer people in the State Finance Department this project is fully looking after by NIC, Mizoram State Unit with some help from the Finance Department, Government of Mizoram.
- For the help of the departments a Facebook group has been created which is of immense help in solving the problems faced by departments. The conversation in the group also helped in improving the system.
- There is not cost involved in this project as we used the available resources in NIC. As this project is fully developed and managed by the nominee himself.

VALUE INDICATORS

Digital Inclusion

It does not have that much of problems due to the effective use of the system. This project teaches us that if the system is easy to use and effective then no challenges can derail its impact.

Green Governance

This project follows the Green e-Governance concept as it removed the earlier printed hard copy submission of Monthly expenditure by the departments which in some cases may be more than 50 sheets. Now all deals on Online option.

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MOBILE MONITORING SYSTEM, JALORE

[Revenue Administration, Government of Rajasthan]

Dr. Jitendra Kumar Soni, IAS

DESCRIPTION OF PROJECT

- Collector office, Jalore has developed “MOBILE MONITORING SYSTEM FOR RURAL DEVELOPMENT WORKS” project which helps them in Inspection of MGNREGA, TSC Toilets, IAY Awas, ABSK & Backward Region Grant Fund works using latest technology and user friendly m-governance tools.
- The project uses the latest technology to eliminate delays and errors in inspection and monitoring of various projects/schemes laid down by State/Central Government. The project has a facility to capture the stage details, Images and Videos of work with other relevant data, carrying out Geo-tagging of work at various stage with GPS coordinates, generating inspection order and mailing the same automatically to inspection officer and ordering authority in pdf format. There is a linkage provided in the system where inspection report’s GPS co-ordinate link would be located and shown on map.
- As the system uses GPS linkage the duplicity of the work would be avoided. Also one can upload photos and videos into the system which will help the inspection officer and ordering authority in monitoring the progress and quality of the work carried out at the GPS mapped location.
- Collector office Jalore has developed “MOBILE MONITORING SYSTEM” project which helps them in Inspection of MGNREGA, TSC Toilets, Indira Awas Yojana Awas and Backward Region Grant Fund works using latest technology and user friendly m-governance tools like mobile application. The project uses the latest technology to eliminate delays and errors in inspection and monitoring of various projects/schemes laid down by State/Central Government. The project has a facility to capture the stage details, Images and Videos of work with other relevant data, carrying out Geo-tagging of work at various stage with GPS coordinates, generating inspection order and mailing the same automatically to inspection officer and ordering authority in pdf format. There is a linkage provided in the system where inspection report’s GPS co-ordinate link would be located and shown on map.
- As the system uses GPS linkage the duplicity of the work would be avoided. Also one can upload photos and videos into the system which will help the inspection officer and ordering authority in monitoring the progress and quality of the work carried out at the GPS mapped location. Using these facilities of the system and the MIS reports generated from the system the

authorized officials are able to know the stage wise, work wise actual status of the projects and help them to carry out further processing of the same.

- Capacity building of GramSevak, Patvari and other staff, who were going to use mobile application was done. Sensitization workshop for supervisor regarding importance of timeliness and reliable data collection and reporting were held. Review Meeting with various level officers and staff for gathering information regarding current reporting system and suggestions for improvement in current reporting system.
- Timeliness and quality of development works have improved. Due to timely reporting of works payments are done quickly with photo and GIS proof of development works. We can now ensure accuracy of reports up to 99%.

RESULT INDICATORS

- Government to Citizen: Qualitative and timely delivery of development work is done due to Mobile Inspection. Benefit is given to person for whom development work is sanctioned.
- Government to Government: Inspection and Monitoring of all type of development works done by district panchayat under various schemes. Real time submission of report is done. Desktop review of progress of all type development works is done.
- Government to Employee: Use of latest technology for improving performance with minimal use of resource. Mobile application gives facility of real time submission of report. Account officer have authenticate data for payment of development works. Real time availability of data for district authority.

Benefits obtained

- *Government to Citizen:* Quality and progress of development work has been improved.
- *Government to Government:* There is an improvement in reliability and validity of data for various development works. So now district authority is able to do evidence based decision making. With Mobile application inspection and monitoring of almost 20,000 development works have been completed with photograph of beneficiary, beneficiary's photo identification proof and development work with GPS tagging with minimal use of human resource. Government staff from any department can do inspection of any development work done in district. This type of third party evaluation has reduced a chance of corruption and false report submission.
- *Government to Employee:* There is an improvement in efficacy and efficiency of employees. Employees are able to complete inspection of all works in time with minimum resource utilization. Real time submission of report with GPS

tagging has improved authenticity of report submitted by employee. District authority and all level other officers can easily monitor progress of all development works with necessary information. There is a reduction in paper work.

Implementation coverage till date

- Mobile Inspection has covered 8 Panchayat Samitis of Jalore district. It has covered Development works done by District Rural Development Agency, and BRGF etc.
- Branch Officer of each department is assigned as ordering authority and other staffs are given role of inspecting authority.

Efficiency and Improvement Initiatives

The cost of each tab with software and services is fixed for three years and can be used for unlimited inspections without any extra cost. Tab and software licenses are permanent asset to the organization and any number of departments/schemes and works can be added for inspection. Hence over a period of 3 years the cost per inspection will go down drastically. Moreover latest technology like mobile and cloud have been used to keep overheads and running cost low in future. The data collected viz. Work status and GPS help in GIS based planning and decision making which cannot be quantified in money terms.

Specific innovative ideas implemented

- Use of Mobile Technology for field works monitoring.
- Use of GPS and Geo tagging for government development works.
- Data store and Sync to cloud on connectivity to overcome data connectivity issue.
- API and web services for two-way data sync.
- Map based visualization of reports for reviews, decision making support and planning of rural development works.

ENABLER INDICATORS

- Entire process of inspection of rural development works has been moved from manual to ICT based workflow.
- It is an agile approach with minimal viable products (MVP) followed by quick iterations of product.
- Perpetual Beta: Constant up gradation and changes are made based on user feedback and requests.
- Front-end process changes planned & implemented:
 - Online generation of inspection order by ordering authority
 - Order by SMS and e-mail to inspecting authority

- Download order in mobile application only after order is dispatched
- Data fill up forms in mobile with temporary save option
- GPS and Geo tagging
- Report submission intimation via sms and E-mail
- Sync data when data connectivity is available
- Availability of data for public
- Back-end Change process planned & implemented:
 - Print out of inspection in file for payment process
 - 100% inspection of development works

Change Management and Capacity Building

- Informal gather approach, call on need approach and feedback mechanism are used to increase adaptability in field.
- WhatsApp group is made for continuous discussion and feedback by Collector office, Jalore
- Informal meetings were held with all stakeholders involved in the project. Forms are discussed and standardized.
- Users were shown power point presentations which covers various aspects of ICT technology. Screen cast video were made and shown to all users to adopt ICT technology.

Special efforts to ensure sustainability

- Tight integration of ICT technology and official processes.
- Loop follow up system is established.
- Any department can do inspection of any development works in district. So it serves the purpose of third party audit or inspection.

Adaption of Social media platforms for the project.

- ICT device with software and services are fixed for three years and can be used for unlimited inspections without any extra cost. Tab and software licenses are permanent asset to the organisation and any number of departments/schemes and works can be added for inspection.

VALUE INDICATORS

Digital Inclusion

- User friendly mobile application is made for even if low level stakeholder can use this application.
- Currently mobile application is available in local language is available for better adaptability.

- Capacity building of all stakeholders are done through review meetings, informal gathering, power point presentations, screen cast video of mobile application, mobile application demo, WhatsApp messenger.

Green Governance

- Total development works are: 35651
- Total pages might be used in manual system:534765
- Pages used under mobile applications: 142604
- Total pages saved **392161**

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IMPACT
(INTEGRATED SYSTEM FOR MONITORING OF PCPNDT ACT)

[Medical Health & FW Department, Government of Rajasthan]
Naveen Jain, IAS

DESCRIPTION OF PROJECT

The issue of female feticide has assumed serious proportions and has turned into grave social problem. Therefore, monitoring of child sex ratio at birth has become a national priority. This underlines specific significance to control sex selection during pregnancy. The Government has brought out the PCPNDT Act (Pre-conception, Pre Natal Diagnostic Techniques Act) to curb this social evil. However, implementation of the act needs to be strengthened with adequate information for the concerned implementing agencies. This requires tracking of individual case of sonography undertaken at any health institution whether in government or in private sector. This needs to be adequately supported by technology tools for surveillance. An initiative towards the campaign “Save The Girl Child” is taken by the Government of Rajasthan, Department of Medical Health & Family Welfare joining hands with National Informatics Centre (NIC) by providing web based application named as IMPACT (Integrated system for Monitoring of PCPNDT (ACT)). This e-Governance application is used to monitor and keep eyes on the sonography centres registered under Medical Health & Family Welfare Department, Government of Rajasthan.

Benefit from this project is availability of online details of every single case of pregnant woman on whom the ultra sonography test is conducted. (Form F). Process flow of complaint ALERT by doctor through SMS to higher authorities against patient, If patient or her relative force doctor to conduct sex determination of fetus. Renewal of registration of the centre is online through IMPACT. Details of all registered Sonography centre with Radiologist, Sonography machine and active tracker made available in the system. Details of doctors who is conducting sonography and also who is referring the case for sonography is also being entered. Detail of every case of MTP indication diagnosed by the doctors available in the system. Auto SMS integration on exceptions to the higher authorities and also SMS being sent to each registered mobile number for IEC toward save the girl child campaign. Auto SMS before 60 days for renewal of registration to centres is being sent by the system. Monthly Progress Reports and Quarterly Reports are being entered online from districts for timely and transparent monitoring. Online details of court cases and FIR filed against centres are available in the system to monitor the cases against centres.

RESULT INDICATORS

Government offices have now digitized data of each & every pregnant women whom sonography is being conducted at any of the sonography centre in the state and can be monitor easily. Better IEC by SMS to the patient, better monitoring of the centre, transparent system of centre registration & renewal of license.

Implementation coverage till date

Rajasthan state (Total 2431 centres are registered in the system. 1431 are functional and 993 are non functional.)

Efficiency and Improvement Initiatives

Web based online application was started in three month efforts initially. Since then continuous improvement is being done and facility of SMS Alert, MPR formats, PIR format & graphical analysis incorporated into it.

Specific innovative ideas implemented

SMS is being sent for IEC to every pregnant woman at the time of registration in to the IMPACT. Also Doctor can send complaint ALERT by SMS to higher authority if any patient or her relative force him for sex determination.

ENABLER INDICATORS

Process reengineering

- Data entry form design in two parts but it print in one part. VB.Net is used in front end and SQL Server as back end. Major role in implementation of the software was of SMS integration. Every update and information reaches to the centre owner by SMS.
- In Non ICT process at block level in place of SDM, Block CMHO is made Appropriate Authority. It was important step for monitoring purpose.

Change Management and Capacity Building

District PCPNDT Coordinators were prepared as leaders to monitor the web application under the supervision of state level team having PD PCPNDT, Scientist C from NIC, Consultant IT from department and a helpdesk operator.

Sensitized the PCPNDT Coordinators in initial phase. Also workshops organized at state and district level. Ata state level training organized. Every three month one workshop organized to update about changes in web application.

VALUE INDICATORS

Digital Inclusion

The web application is more concerned with centre owners who are sending mandatory information to the government. For citizen communication is for IEC only and which is in Hindi.

Green e-Governance

Major role in software implementation we did use SMS for sharing new information. We have online feedback system to communicate on the issues and provide the solutions. We use Notice Board for latest changes to interact with users and no paper communications with about 1500 centres users in the state. Monthly progress report from district to state is online which saves lots of papers and efforts. Currently physical copy is required as per provision on the act and High court order. But it will be really fruitful if only digital copy will be sufficient and for that need to make provision in the ACT.

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ONLINE SOCIAL SECURITY PENSION SYSTEM

[Social Justice & Empowerment Department, Government of Rajasthan]

Ambrish Kumar, IAS

DESCRIPTION OF PROJECT

'The online Social Security Pension System provides the public & social assistance to the weaker sections of the society by facilitating timely and hassle free disbursement of the Social Security Pension payments.'

Online Social Security Pension System is an e-Governance initiative of Government of Rajasthan for effective and timely disbursement of Social Security Pension. It is a web based solution to facilitate and maintain Pensioner information, verification of pensioners, Sanctioning of pension and Disbursement of pension Payments. The Application facilitates the printing of Money Orders and electronic payments. The software is being used in the treasuries, Sub-treasuries, Offices of Sanctioning authorities e.g. Sub divisional Officers (SDO) and Block Development Officers (BDO) and verification authorities e.g. Tehsildars. It covers various Social Security pension schemes of Government of Rajasthan. The application has also been integrated with the crucial projects of the state that includes E-Mitra/CSC, Bhamashah and UID projects to facilitate Yearly verification of the pensioners.

State Government of Rajasthan is committed to place high premium on providing social assistance to weaker sections of the society. Efficiency and transparency in disbursement of the social security pension is one of the utmost priorities for the Government. To ensure transparency and accountability in government financial Transactions, State Government has taken up this project. This is an e-governance initiative for effective and timely disbursement of Social Security pension.

The project required Online Social Security Pension System be developed and implemented. In view of the above objective, it was decided to develop integrated software for Social Security Pension with further objective of:

- Preparation of computerized money order for disbursement of pension payments.
- Preparation of system for Application receiver.
- Facilitate to Verification and Sanctioning authorities for verification and sanctioning of pension.
- Delivery of Data in softcopy for electronic Payments to Post Offices.

- Delivery of data to Banks for crediting the banks accounts of Pensioners.
- Generation of Different Monthly and Annual Reports.
- Facilitates pensioner to track pension application status.
- Facilitate to decision makers for monitoring of schemes.

The application was released on 19/10/2011 while the total pensioner count was around 10 lakhs. State government made changes in the pension criteria rules time to time and the total pensioners counts increased manifold. A 'Pension Mahaabhiyaan Campaign' was taken up in the state and various camps were arranged throughout the state. This RAJSSP system were used extensively during the campaign period and presently total pensioner counts has increased to 58 lakhs plus. The system is operational across the state and being used extensively for the Pension Sanction, Verification and Payments. It is well integrated with the important projects of the state and UID.

RESULT INDICATORS

- **Sanctioning & Verification Authorities**

The Project is aimed at timely and proper service to beneficiaries besides maintaining accurate accounting.

- It covers offices of Sub-divisional Officers and Block Development Officers as they are the Application Receiver and Sanctioning Authorities.
- It covers Tehsil offices as Tehsildars are verification authorities.
- The System facilitates the Application receiver to capture all the basic data of the pensioners approaching for getting pension.
- The System facilitates Sanctioning authorities to sanction and issues sanction order to pensioners.
- The system facilitates Verification Authorities to capture details of verifications.
- The system facilitates to maintain master data of pensioners scheme wise so as to be further analyzed while required.

- **Treasuries & sub-treasuries**

Benefits of the Online Social Security Pension System were not useful, until Treasuries & sub-treasuries would have used it for disbursement of Pension to beneficiaries. All the Treasuries and sub-treasuries are accepting only computerized sanction orders.

- The Sanction orders are forwarded online to treasuries and sub-treasuries for further processing of pension payments.
- The Treasuries and sub-treasuries prepares money orders using this systems and sends to post offices for disbursement of pension payments..

- Treasuries generate money order and bank account list and send to post office and banks respectively with the help of this system.
- Treasuries generate various reports e.g. payment registers, money order returned register etc.
- The System facilitates to feed data in case of returned Money Orders.
- The System facilitates to generation of electronic money orders.
- The System assists in generation of electronic payments.

- **Departments**

Online Social Security System facilitates departments e.g. Finance Department and Social Justice and Empowerment Department (SJED) for MIS purpose.

- Finance Department uses these data for further processing in different schemes.
- The System facilitates various MIS report to be used by the Finance Department and SJED.

- **Pensioners**

Social Security Pension system is an initiative aiming pensioners to provide timely payments and sanctioning of Pension.

- The system helps pensioner to track his application status.
- The System facilitates timely disbursement of Pension.
- The system facilitates generation of money Orders.
- The system facilitates quick transfer of pension payment into banks accounts of the beneficiaries.

- **Post Offices & Banks**

The Social Security Pension System also facilitates post offices and banks because the system generates softcopy of data for electronic money order and bank list for banks. This facilitates banks for credit of pension information into beneficiaries' account.

- **E-Mitra/CSC**

Social Security pensioners are required to be verified once in a year. Either pensioner is required to go to Verification authority or they may be verified using their UID based Biometric authentication at the E-Mitra/CSC kiosk.

Efficiency and Improvement Initiatives

- ***Direct Cost & Time Savings to avail services***

Before discussing the cost involved, the concept behind the project is elucidated here. The project aims at providing all the Social Security Pension related services faster and more accurately to beneficiaries as well as Government Department. The cost to benefit ratio of this project cannot be measured merely in terms of Rupees incurred, spent, saved or earned but in terms of improved efficiency leading to improved performance for Pension processing and lowered cost of delivery of services for the government.

There was no cost involved in availing the services for the beneficiaries. The software was developed by NIC on cost plus basis. However, availing the services saved significant time for the beneficiaries as well as Government.

- ***Direct Cost And Time Savings to deliver services***

The cost of delivery of services in the earlier system includes the manpower cost involved in repetitive non-value added services & in writing money orders in lakhs. In the current system, it was deliberately planned to keep technology simple and use the internal resources and manpower to the maximum possible extent so that, acceptance is high and risk due to change is minimal. This has been biggest area of the success in this project. The processing time has come down significantly as only minimum changes are required to process and print the Money orders. Also, availability of the application status and Other Reports on the net made accessible easy and faster without moving of beneficiaries. Electronic Data Exchange with Banks and Post Offices, instead of bulky money orders, also saves cost of printing the money orders. Also, printing of money orders save lots of time in comparison to writing with hands.

- ***Replication***

The Project is so simple and flexible that it can be replicated in any other State without involving the much cost. The other states are not required to incur any expenditure on the part of the software development. However some customization may require depending upon the working of other states.

- ***Implementation Model***

The Project is fully owned by Government. The Directorate of social justice & Empowerment with the technical support of NIC implemented the Project. The Software was developed by NIC after a rigorous system study.

- ***Innovative Ideas***

- Yearly verification process through UID biometric authentication was introduced.
- Electronic Payments was introduced which saves lakhs of rupees as a commission of Money order and lots of paper are saved by not printing Money Orders.
- Intimation of Sanctioning of Pension through Voice Call was introduced.

ENABLER INDICATORS

Process reengineering

To implement the Social Security Pension System in a sustainable manner various Government Orders were issues and reforms were carried out.

- Treasuries & sub-treasuries were asked to entertain only computerized sanction orders.
- Format of pension Application were changed and receipt format were modified to cope up with the use of technology.

- Unified Coding pattern was adopted. Uniform Codes for States, Districts, Block, Gram Panchayat and Villages were used in the software.
- Pattern for allotment of Sanctioning order were changed and made uniform.
- Electronic data exchange with Post offices and Banks were finalized and emphasized electronic money order and Electronic Payments.
- Social Security Pension Rules were amended according to the need of online system.

Change Management and Capacity Building

Various training programs and workshops were organized to train and sensitize the workforce. Initially master trainers taking 4 persons from each treasury consisting of one person from Treasury, One from Sub-treasury, One from SDO Office and One from BDO Offices i.e. 136 personnel were imparted training and declared as master trainers to impart further training at their respective locations to rest of the users. Video conferencing sessions were also held to impart the training to users. Refresher training sessions were also organized for the master trainers to make aware them the changes carried out time to time in the application. Training sessions were also organized at district locations.

VALUE INDICATORS

Digital Inclusion

The application has been developed with bilingual (English & Hindi) interface so as to make understandable for beneficiaries.

Green Governance

Electronic Payments have been introduced in the System. Payments through Bank Accounts are increasing exponentially. Earlier payments were only being made through Money Orders. Money Orders were being printed in lacs and it consumes lot of papers and Power. Electronic payments save consumption of paper and power. In such a way, green governance is being implemented through this project.

Other Information

Project URL is <http://rajssp.raj.nic.in>.

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e-DISTRICT PROJECT

[Information Technology Department, Government of Tamil Nadu]
S Nagarajan, IAS

DESCRIPTION OF PROJECT

- The Government has envisioned that instead of people approaching the Government, the Government reaches the people. To make the dream come true, the e-District Project has been conceived and a Software application developed to facilitate the citizen to apply for Government services through the Government authorized service delivery outlets viz., Common Service Centers (CSC) which are established in the nearby locality of the Citizens.
- The e-District application is fully automated with workflow system. Various certificate services of the Revenue Department, Welfare Scheme of Social Welfare Department, Scholarship Schemes of AD&TW Department and BCMBC Department are offered through e-District Portal. The application was developed by NIC, Chennai and hosted at a centralized environment at SDC.
- The system will handle the complete process right from receipt of application from citizen till the approval and issuance of the Certificates / sanction of Schemes by the Competent Authority. This brings in transparency by enabling the citizen to know the status of their application online.
- Enables the higher officials at the State level to view and monitor the status of services requested by the Citizen through MIS reports.
- All the Master creation and certificates are maintained at State-level and hence controlled centrally and are easily retrievable at any point of time.
- All the applications are scrutinized at District-level and records of all the workflow are maintained by the system for any future reference or auditing purposes.

RESULT INDICATORS

- Efficient delivery of services at an affordable cost
- Enhanced delivery of services to citizen
- Delivery of Government Services at their door step of the Citizen
- Speedy delivery of services (i.e. In Manual process time taken for delivery of services is 15 days. After implementation of e-District Project the delivery of Services to Citizen is drastically reduced from 15 days to 2 days).
- e-District project provides various Government Departments' services under one umbrella.

- Citizen can avail services under e-District without any geographical discrimination with-in the State i.e. any-where at any-time.

The category wise services delivered through e-District project are listed below

Category : Government to Citizen

- Revenue Department – Five (5) Certificate Services, namely
 - Community Certificate
 - Nativity Certificate
 - Income Certificate
 - Deserted Women Certificate
 - First Graduate Certificate (No Graduate in the Family Certificate)
- Social Welfare Department (Welfare Schemes)
 - Six (5) Marriage Assistance Scheme and one (1) Child Protection Scheme, namely
 - Marriage Assistance Scheme
 - Widow re-marriage Assistance Scheme
 - Widow daughter Marriage Assistance Scheme
 - Inter-Caste Marriage Assistance Scheme
 - Orphan Girl Marriage Assistance
 - Girl Child Protection Scheme I & II

The above mentioned 11 services are offered through the Common Service Centers available across Tamil Nadu.

Category 2 Government to Students

Scholarship Schemes of AD & TW – Four (4) Online Scholarship Scheme

- GoI Post Matric Scholarship for SC Students
- GoI Post Matric Scholarship for ST Students
- State Special Scholarship for Post Matric Students
- High Education Special Scholarship Scheme

Scholarship Schemes of BC & MBC - Four (4) Online Scholarship Scheme

- Issuance of Post Matric Scholarship
- Educational Assistance to the students in Professional Courses
- Educational Assistance to Graduates
- Educational Assistance to Polytechnic Students

The above mentioned 8 services are offered through the Education Institutions in all Districts.

Benefits obtained

Citizen:-

- Citizen can avail their Services at their doorstep.
- Citizen can monitor their application status at any point of time.
- The time taken to deliver the services is drastically reduced from 15 days to 2 days.

Government Officials:-

- Higher Official can effectively monitor the status of any application in their respective Dashboard.
- The GPR (Government Process Re-engineering) has simplified the work process of the Government officials.
- The e-District software facilitates the Government officials to work flexibly at their convenient i.e. at-time and any-where.

Students:-

- Processing the Scholarship Schemes are simplified and the sanctioned scholarship amount is remitted to the beneficiary's account directly through ECS.

Implementation coverage till date

Stakeholder involved and covered in this project are:-

- Citizen
- District Administration
- Government officials of Various Departments (Currently Revenue Department, Social Welfare Department , AD&TW Department, BC & MBC Department)

Implementation Stakeholders

- Tamil Nadu e-Governance Agency - SDA
- Respective Line Departments.

Service Centre Agency

- PACCS (Primary Agriculture Cooperative Credit Society)
- VPRCs (Village Poverty Reduction Committees – of Pudhu Vaazhvu Project)
- ELCOT (Electronic Corporation of Tamil Nadu)
- TACTV (Tamil Nadu Arasu Cable TV) and
- Others

Technical Stakeholders

- NIC (National Informatics Centre – Tamil Nadu)
- STQC (Standardisation Testing and Quality Certification – Tamil Nadu)
- CDAC (Centre for Development of Advanced Computing)
- WIPRO
- CMS (SI)

Efficiency and Improvement Initiatives

- Improvement in delivery of services from 15 days to 2 days

Specific innovative ideas implemented

- To track the status of the application submitted by the Citizen, SMS alert is sent at various stages by using MSDG (Mobile Services Delivery Gateway).
- For verifying the genuineness of the certificate issued through e-District Portal, QR Code has been introduced and embedded in the certificates. These QR codes can be used to verify the genuineness of the certificates using Mobile Apps. Apart from this each certificate has a unique 16 digit code which can also be used to verify the genuineness of the certificate in the e-District portal.

ENABLER INDICATORS

Process Reengineering

- Earlier citizen has to approach various Government Departments for availing various types of services. Now under e-District Project, all Government Department services are brought under one roof which facilitates the citizen to apply and avail the services through CSC available in their nearby locality.
- The manual processes of issuing certificates are completely eliminated and the records are digitized & preserved, so it could be easily retrieved at any point of time.
- Earlier retrieval of manual records in Government Departments was a major challenge. After the introduction of e-District project the retrieval of the document is made easy.
- For Authentication purpose, DSC (Digital Signature Certificate) is provided to Government officials for signing the certificates. The entire process is reengineered.

Change Management and Capacity Building

- Initially though there were lots of resistances towards the change to the e-Governance initiatives in the State, with the formation of DeGS (District e-Governance Society) in every District under the Chairmanship of District Collector there has been a positive approach towards implementing the e-District project / e-Governance initiatives in the State. And with several orientation and training programmes it has been easier to the make them understand the feasibility towards adapting to e-Governance.
- Today we have officials in all cadres using the e-District application (Revenue, Socials Welfare Department services).
- Through Change Management, radical transformation can be seen among Government Employees.

- The Capacity building strategy adapted for e-District project includes extensive class room training with hands-on practices given to the Government Officials and CSC operators (Revenue Department and Social Welfare Department) on the e-District application.
- Totally 9361 Government officials and CSC operators were trained under e-District Project.

VALUE INDICATORS

- Enhance the Efficiency, Transparency, Reliability and effectiveness at affordable costs.
- Faster processing of public cases/appeals/grievances dissemination of information.
- Proactively disseminating information on the Government schemes, planned developmental activities and status of current activities.
- Efficient electronic workflow system for District Administration
- Seamless integration of the Departments for providing services to the citizens - by integrating various District databases
- Capacity building to empower employees to own and operate the IT enabled Systems with confidence.
- Enhance the standard of living of the Citizen.

Digital Inclusion

- The e-District Software application has been developed in bilingual language (English & Tamil) to facilitate the stakeholders.

Green e-Governance

- Manual way of processing application & issuance of certificate to the citizen has been completely stopped. This has drastically reduces the paper consumption and as part of Green IT initiatives, Servers are hosted in a centralized location i.e. in SDC, which reduces power consumption enormously, eliminates procurement of unnecessary hardware and eliminated e-Waste.

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NATIONAL FOOD SECURITY CARDS

[Civil Supplies Department Government of Telangana]

Dr. Rajat Kumar, IAS

DESCRIPTION OF PROJECT

National Food Security Card is an online software application that helps the Civil Supplies Department in allocating Essential Commodities to FP shops, seed the FSC database with Aadhaar of the beneficiaries so as to eliminate bogus / dead / migrated / duplicate cards / units or ineligible persons and carry out mutations received from MeeSeva. The major modules developed to carry out the activities of the civil supplies department are Food Security Cards Management System, Aadhaar Seeding, Dynamic Key Register Generation, Allocation, Integration with MeeSeva and eSeva, Commodity Off-take and ePoS Devices.

Food Security Cards Management System – The entry of UID / EID in FSC database has helped in weeding out duplicate cards. Whenever request for new card comes, the system checks whether the member exists in database by comparing the UID / EID number and allows the issue of new card only after this validation is checked. The Food Security Cards management system is integrated with MeeSeva (Common Service Centres). So the FSC card holders can get the details in their cards updated or request for migration of card to another shop / place or request for duplicate card etc., by visiting the MeeSeva Centres. The required documents for proof are uploaded and the entire data rests in FSC Management module where in necessary approvals are given by Inspector / ASO / Tahsildar through digital signatures.

Aadhaar Seeding Module – Aadhaar number or the UID / EID number is seeded in the FSC database for all the Card holders to eliminate the duplicate and bogus entries who are eligible for the supply of food grains / benefits. The State Resident Data Hub, SRDH, has a database of all the UIDs issued so far in the state and has given a service based on UID / EID number to give UID / EID name and the individual photograph. This is used to display the photograph and the UID / EID name for a given UID / EID number. This name is compared with the FSC card member name and also the photograph is checked against the family photograph for accepting the seeding.

Allocation Module – Allocation module enables allocation of ECs to the FP shops. Once Commissioner, Civil Supplies gives allocation in NFSC, system calculates shop wise allotment taking the Closing Balances (CBs) and the card strength into account. The District Supply officer (DSO) at the District Level, with the click of a button can allocate. No discretion at any level is allowed as the proceedings are generated online. It is linked with eSeva for direct remittance in eSeva kiosks for issue of ROs (Release Orders).

Dynamic Key Register – DKR was being generated every month for allocation and distribution of commodities to the ration card holders with the real time data.

ePoS – This module comprises of ePoS devices implementation at FP Shops. ePoS devices are being used to fetch the card and quantity of commodities details (generated in DKR) at FP shops. After the distribution of requested amount of commodities post back the balance commodities details to DKR for further distribution.

Supply Chain Management – The primary objective of this module is to carry out transportation of essential commodities from FCI / Buffer godown to Mandal Level Stockist (MLS) points and dispatch from MLS point to Fair Price Shop (FPS) Dealer in time. Post generation of allocation order in NFSC, this module completely takes care of the complete supply chain cycle of Public Distribution System starting from FP Shop payment, payment to FCI, generation of Release order, issue of Commodities, generation of truck challan, gate pass and to capture the information pertaining to the receipt of goods by FPS dealer.

RESULT INDICATORS:

In this project Aadhaar Seeding is one of the major result indicators in this application which is helping the department to deactivate 14.53 lakhs bogus & duplicate units from April, 2015 to July 2015 and thus saving Rs. 6.80 Crores to the Government for each month.

Allocation is other result indicator in NFSC. Once Commissioner, Civil Supplies gives allocation in NFSC, system calculates shop wise allotment taking the Closing Balances (CBs) and the card strength into account. The District Supply officer (DSO) at the District Level, with the click of a button can allocate. No discretion at any level is allowed as the

proceedings are generated online. It is linked with eSeva for direct remittance in eSeva kiosks for issue of ROs (Release Orders).

Services:

Web Services that have been developed for carrying out various operations are listed below:

- ePoS Monthly Key Register Shop Wise: Getting FP Shop wise card wise allocation details based on card strength.
- ePoS Posting Service: Updating FP Shop wise commodities quantity after distributing to the beneficiary.
- RO Transactions for Shop Wise: Getting details of commodities allocated for the shop for RO payment.
- RO Posting Service: Posting the Release Order payment details.
- RO Cancelled Transaction: Cancelling RO payment in case of paying for other commodities.
- FSC Ration Card Search: Online search has been provided for searching the FSC card using FSC reference number or Aadhaar number or Old RC number.
- eTaal Service: Updating the daily transactions in eTaal dashboard.
- New Ration Card Service: Generating new FSC card.
- FSC Mutations:
 - Address change: Change the address of the beneficiary.
 - Card type: Changing the card type (FSC / AFSC / AAP).
 - Member modifications: Modifying member details such as name, age, gender, relation, etc.
 - Member addition: Adding new member to the card.

Benefits obtained

Citizens: The ultimate beneficiaries of this application are citizens of Telangana state. The FSC card holders can get the details in their cards updated or request for migration of card to another shop / place or request for duplicate card etc., by visiting the MeeSeva Centres. After generating the Dynamic Key Register and Allocation process which under goes every month, the card holders will visit the respective Fair Price Shop and collect the essential commodities allocated to them based on the card type (FSC / AFSC / AAP) and Number of members in the card.

MeeSeva & eSeva Operators: Beneficiaries reach to MeeSeva / eSeva centres for new card application or any mutation applications, similarly FPS dealers reach out to MeeSeva / eSeva centres for making Release

Order (RO) payments through which some amount is being earned by the operators.

FPS Dealers: The F.P. Dealers are able to directly go to MeeSeva / eSeva and pay the amount for allocated commodities for getting Release Orders and once R.O. is approved, the commodities will be delivered to FP Shops directly. Their time and energy is saved now, unlike before, wherein they had to wait in the offices for getting manual allotment and R.O. Approvals.

Government: Aadhaar seeding plays a very crucial role in eliminating the duplicate and ineligible persons that helps in controlling the subsidy leakage and cross diversion of commodities has been minimised by using ePoS at fair price shops.

Efficiency and Improvement Initiatives:

FSC is seen as a realization of the direct and manifested will of the citizen. The political leadership channelized the demand of people into an effective delivery of citizen-centric services. It also allowed a relook into age-old archaic procedures, which were no longer relevant. The reconfiguration of the business processes of the departments became a prerequisite as well as the by-product of FSC. The efficiency levels of departments have also increased as IT deployment drastically reduced their avoidable workload.

ENABLER INDICATORS

Dynamic Key Register: A key register will be generated every month by the Commissioner for the allocation and distribution of commodities based on the type of card (FSC / AFSC / AAP) and number of active cards, units associated with the cards, etc. Based on this evaluation, commodities will be allocated to the card holders.

Digital Signature: Officials are requested to use their digital tokens for carrying out authorized operations such as any kind of approvals (new cards, request for mutation, etc.), generating DKR and allocation securely.

eSeva Payments: FPS dealers are provided with online payment feature through web services at eSeva centres. The details of allocation and commodities are sent to the eSeva centre on giving a fair price shop number by a web service from NFSC and the payment made is immediately realized in NFSC. The fair price shop owner coming for multiple release orders with partial payments is also immediate and online.

The release orders are also available to MLS points / ASO s of circle offices for dispatching the stocks immediately.

Reports: Many reports like Application Status Count Report, Seeding Report, Dynamic Key Register Report, Allocation Report, ePoS distribution Report, etc., are kept in public domain and also provided in all the logins for the analysis of number of beneficiaries, distribution of commodities, percentage of duplicate cards elimination, etc.

Change Management and Capacity Building

Food & Civil Supplies department played a key-catalysing role in the entire process. It evolved the concept, became the main implementer and technology partner. Once the ball was set rolling, the sceptics also joined the band-wagon and success was achieved.

Change management was a major issue and was handled sensitively, involving all the stakeholders like the officials, their Employees Associations. FOOD & CIVIL SUPPLIES department has adopted strategic approach to train Government employees through repetitive and interactive training sessions to use the system without reducing their perceived importance in the entire administrative set up.

VALUE INDICATORS

An **Android application** named as “**Food Security Cards App**” has been developed for National Food Security Cards, Telangana. This app mainly consists of 3 features.

Online FSC Search: This feature has been developed for the easy way of searching FSC card details in 3 ways.

- Old Ration Card number
- FSC card reference number:
- Aadhaar number:

Reports: Under the reports feature, few reports for presenting the high level information such as number of total applications, units and seeded data from state through FP shop.

Dynamic Key Register (DKR): With this feature the details such as total AFSC & FSC cards, AFSC &FSC units, AFSC & FSC Rice Quota (in Metric Tons) can be found by provided month, year.

Digital Inclusion

- Following are the specific steps taken to address Digital Inclusion:
Lot of information about allocation, distribution, seeding, etc., is shared efficiently and transparently to citizens by overcoming traditional methods.
- Capacity building by providing training to department officials and operators.
- Fostering the development of a knowledge based society and bridging the digital divide

Green e-Governance

The allocation is linked to eSeva through web service and the dealers are able to pay at eSeva centres as per the system generated shop wise allocation. Details of payment are also recorded instantaneously in NFSC. The entire process is online, saving the papers used for government approval process for delivery of various services.

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HAWK EYE -

A Multi-faceted Mobile App

“To Empower Public to be a Citizen Police”

[Hyderabad City Police, Government of Telangana]

M. Mahender Reddy, IPS

DESCRIPTION OF PROJECT

- In the most modern world, usage of mobile (smart) devices amongst the public is exponentially growing year-on-year and outpaces other channels of communication. This generates a tremendous opportunity to deliver public services through the mobile platform and has potential to transform the face of Citizen Services delivery across the state.
- With the advent of mobile technology and its reach to the general public, it is imperative to innovate Citizen Services delivery through Mobile App. Hyderabad City Police Department has envisioned Citizen Services Delivery through Mobile Technology which in turn resulted into an end product called “Hawk Eye”. The unique feature of Hawk Eye is integrating the Police communication network system for prompt response to citizens. It also serves as a tool in improving the operational efficiency of the Police and in enhancing collaboration between Public and Police, specially for establishing a Safe and Smart Hyderabad City.
- This tool emphasizes police to achieve its primary function / objective to respond to Citizen’s reports / complaints for assistance in emergencies in the shortest possible time with appropriate resources. Efficient and timely action / response are critical in building up the confidence and courage in Public. Though, a common man every day comes across several petty crimes / issues, violations etc, they don’t tend to report to Police, as they feel it is a cumbersome and time consuming process.
- In view of the above, it is essential to facilitate access to Police using a Streamlined Work Flow embedded Mobile Application through their smart phones and tablets to file complaints such as Crime against women, Traffic Violations, and any immediate information regarding occurrence of crime etc., and also for posting information relating to women safety while on travel, servants/workers/tenants, enrollment of citizens as Citizen Police Officer for Community Policing, violations by police, etc. Hawk Eye was a result of this thought.

RESULT INDICATORS

- Report an incident, traffic violation, suggestion, or a request under this Service with a touch of a button, a Service Request (SR) is generated. The following details are captured for each SR:
- Police Station – Based on the area from where the SR is made, Police station is automatically selected, immediately communication sent to concerned police officials at Zonal DCP, Divisional ACP and Station House Officer through SMS, Mobile Alert, or Email (in case user registered in HawkEye App)
- Status Updates with Action Taken by the department to each SR, an instant notification sent to the SR owner (User). User can also be viewed the SR and dashboard on web/online.
- A citizen friendly initiative to ensure safe travel to women. The following options to effective and ease of use of this Service by the User as:
 - Option to capture Vehicle details while boarding
 - Automatic pickup of police station based on Area selected
 - Simple & Ease of use SOS button in case of any emergency / distress situations, initiates SOS process based on victims current location with high priority alerts / alarms to the police net
- Inform us and Be Informed
 - Register the details of Tenants, Servants, Utility and Security Services personnel before seeking services. It would help to track and nab the culprits in case of any incident emerges while at User workplace
- Touch this – we are there!
 - User registers (5) contact numbers to send standard emergency messages in case of any distress/panic situation. SOS button is generated on the home page of the mobile menu
 - On pressing SOS button, the SOS process is initiated as follows:
 - Auto pickup of Lat/Long of the Complainant
 - Send emergency message to the nearest “Police Patrol mobile” officers with Lat/Long bias for action integrated on Map
 - Auto and instant alerts to concerned SHO, ACP, DCP & Main Control Room based on Lat/Long
 - Status Update with Action taken to complete the SOS process
- Be a Citizen Police
 - Citizen can opt and register to serve the society for general policing services.

- Keep a track of your requests
 - Web Panel interface to know the status of Service Requests (SR) by the User
- Watch this before you start your ride
 - Instant and continuous notifications on Traffic Congestions, Diversions, Violations, Processions, Alerts and customized information
- An awareness initiative
 - Push notifications to all registered users on various initiatives, awareness messages / programs, crime related situations etc.,
- Facebook pages of each police station to access up-to-date information
- At your service!!!
 - Contact details of all Police Stations for ready reference
- Ease of use for entry and viewing screens
- Web Panel for updates, verifications, querying and viewing
- Aadhaar Integration for verification of authenticity of the Personnel

Benefits obtained

- Police Services available at finger tips through smart devices for the stakeholders to instantly report any Service Request, report incidents and know the up-to-date statuses without visiting the police stations and direct interactions with the police.
- The App based services have built the trust and confidence on the police; also provided transparency to the police on the citizen reported requests / incidents with transparency and visibility to listen to the citizen and prioritize for resolution
- Any service request or incident reaches in the police net instantly the moment it is reported for quick action with central monitoring
- This service has provided women an option of reporting their movements while travelling in a public transport for the safety and security.
- Also SOS option has boosted the confidence for women in case of distress / panic situation as the information floats to various police authority layers for immediate action to avoid any unwarranted situations by tracking the crime incidents and criminals.

Efficiency and Improvement Initiatives

- In case of Distress / Panic, Immediate information to Mobile Patrol Officers, with a dynamic link and pinpoint hovering of Victims Position on a MAP , through tracking of GPS coordinates which in turn enabled

to initiate an immediate responsive action by avoiding further delay and preventing Crime.

- On hand information and dynamic linking of Aadhaar based Authentication enabled the Common Man to know the genuineness of the personnel with respect to Tenants, Servants and other Utility Services. It also helps the Police Officers to have a strict watch over suspected offenders.
- Traffic Alerts on Traffic Jams, Diversions etc, considerably reduces the travel time and plan the journey accordingly and also acts as a ready on hand traffic information tool for common man.
- Immediate information to higher officials resulted in monitoring the sub ordinates performance, and thereby improving the working efficiency and result orientation.
- Report of any violation to Police as observed by the Citizens for a prompt police action resulted in building confidence and trust.
- Crime Notifications and Alerts created a sense of awareness among general citizens on the crime related happenings across the city.
- Enhanced Communication across Police Officials improved transparency.

Specific innovative ideas implemented.

- The innovative concept of “Broken Window Theory”, according to which, the Police should be able to provide all possible services to common man, without visiting police station has lead to a major paradigm shift in policing. This paved its way towards achieving its new objective of “Citizen Friendly Responsive Policing” and in turn made police more responsible, approachable and reachable to common man.

ENABLER INDICATORS

Process reengineering

- Plans have been implemented. [describe both front-end [also referred to as front-office] and back-end [also known as back-office] process changes]
- As a part of Citizen Friendly Responsive Policing, Hyderabad City Police is swiftly moving at a high pace towards providing all services related to “Non Cognizable Offences” in such a way, that a common man need not visit police station for availing any of these services.
- Processes such as Report a Violation, Be a Citizen Police (Community Policing) also have been successfully changed from manual to online based registrations

- Use of Innovative Technologies, Smart Phones and work flow mechanisms for Business Process has been successfully implemented, with respect to the Hyderabad City Police Commissionerate.

Change Management and Capacity Building

- Project envisaged by Commissioner of Police, Hyderabad City
- Around 6000 Police Personnel have been trained on this initiative including all SHO's, Supporting Staff of all Police Stations, ACP, DCP offices, SHE Teams, Patrol Mobile Staff and other direct / indirect staff involved in operation
- In addition to the above, Hyderabad City Police have organized and organizing various Awareness training programs on using this APP at different Colleges, Private Organizations, work places etc.
- Regular Training to staff and conducting Awareness Campaigns on changes and modifications of this initiative.

Special efforts to ensure sustainability

- Monitoring of Citizen Feedback
- High level analysis by Higher Officials in taking up some good initiatives mentioned by Citizens.
- Regular feedback sessions and quality control checks

VALUE INDICATORS

Digital Inclusion

- The App is in English and most of the users comfortable in using this app. No cultural or language differences have been raised by any of the user till date.

Green e-Governance

- The objective is to achieve paperless office by minimizing the paper consumption without entry any content.
- The adoption of ICT equipment that preserves eco-friendly environment and reviews the power consumption.

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MyCITY – MERASHAHAR MERI DEKHREKH ME

[District Administration, Government of Uttar Pradesh]

Dr.Roshan Jacob, IAS

DESCRIPTION OF PROJECT

MyCity is a facebook-based complaint redressal system, which allows urban citizens to post complaints regarding urban and other municipal issues in a user-friendly format and bring them to the attention of the district administration / other authorities. It also enables district authorities to review progress of urban/municipal projects on the basis of departmental alphanumeric data and citizen-generated graphic data.

Besides this, on JNNURM page, an up-to-date pertinent detail of more than 300 running works in Kanpur under JnNURMscheme, is also uploaded. The status of these works, is updated time to time with onsite latest photograph. Presently it operates on **eight sectors** namely;

1. Sanitation and garbage disposal
2. Electricity supply
3. Water supply and sewerage
4. Traffic
5. Road repair
6. Street lighting
7. Encroachment
- 8 JNNURM projects

Goals & Objective: ‘MyCity’ was started to enable the urban citizen to post a complaint or an observation regarding such complaints by means of a photograph and simple quick running text comment on a dedicated facebook page. The pictures and text posted on the Facebook page becomes the basis of departmental action, review and monitoring by the district administration. The project uses facebook as its platform, since in an urban setting, the numbers of registered Facebook users are large and growing; there is no further need for registration/authentication of complainants. In that system, the users do not have to fill cumbersome complaint forms and the complaint is submitted by just posting pictures and simple running text on f.b. pages. The wide spread use of smart phones means that complainants can put up the complaint/observation while on move. For example, while driving on the morning commute, a person who sees a clogged sewer pipe and damaged road causing a traffic jam, can quickly take a picture with his mobile phone and using his facebook account, can put up the complaint on my city facebook page. Thus, the discomfort by the citizen becomes a complaint for necessary action in the

domain of the concerned authorities in real time, with graphic and alphanumeric data, and with minimal inconvenience for the citizen. Though the project is limited to urban users (due to the user base of social media and the smart phones being largely urban), it can also be rolled out in rural areas.

RESULT INDICATORS

The project delivers Government to Citizens services in the sense that it provides an alternate method to citizens for lodging civic complaints and getting its status on the other side the project provides Government to Government service by providing a monitoring tool to the district administration to watch department wise redressal status and intervene wherever necessary.

Benefits obtained

- **Community:** The most benefitted stakeholder is general public. Previously, public have to visit different government office for their pty complaints related to a sewer jam or non working streetlight or polluted water coming from taps. My city enables the urban citizen to post a complaint or an observation regarding such complaint by means of a photograph or quick running text comment on a dedicated facebook page. The pictures and text posted on the Facebook page becomes the basis of departmental action, review and monitoring by the district administration. Moreover, there is no further need for registration/authentication of complainants; by posting pictures and simple running text, the users do not have to fill cumbersome complaint forms; the wide spread use of smart phones means that complaints can put up the complaint/observation while on move. for example, while driving on the morning commute, a person who sees a clogged sewer pipe and damaged road causing a traffic jam, can quickly take a picture with his mobile phone and using his facebook account, can put up the complaint on my city facebook page.
- **Government:** With the application of MyCity, burden on district administration has considerably reduced. Previously, urban citizen had no option other than visiting “Janata Darshan” or “Tehsil Divas” etc. if civic departments were not responding to their problems. Implementation of MyCity has given an alternate way to the urban citizen to lodge their civic amenities related complaints more conveniently. So, naturally the ICT savvy citizens are adapting this innovation rapidly. This has reduced burden on district administration for keeping / tracking records of their paper application. Also, redressal monitoring has also become more convenient. 3. Civic Departments: In the same manner, number of paper grievances received in participating civic departments has reduced. Redressal of complaints received on their facebook page can now be monitored and responded by their executives more

conveniently. Their executives may now see more accurate situation of a particular service they provide, and can understand the ground realities. Previously, they had no other option other than believing on their ground staff.

- Presently, we have just switched from plain facebook page to an MIS application in the form of facebook App, for more precise monitoring and making it more responsive by using SMS integration. We are sure that this would enhance user satisfaction and after three years our user base would be many times higher than that we have now. The project demonstration was given to highest state authorities including chief secretary, Government . of Uttar Pradesh. The authorities are convinced for state wide roll out of this model. As, it is based on common urban issues, and is easily replicable, so we see shortly it is likely to be implemented at state level.
- After completing necessary formalities, the project is likely to be shifted in NIC server and may be integrated to NIC SMS gateway. This will result in zero running cost and will be able to deliver more reliable services. More sectors of public interest would be accommodated adapting same model.
- **Targeted population** of this project is all citizens of Kanpur city. But statistics derived from facebook shows, at present our fans are located in more than 15 cities of India and in 17 countries excluding India. Probably, members of Kanpur based families settled outside Kanpur, are using this initiative to sort out problems of their native locality. Currently more than 12,000 fans are connected to this initiative and we are constantly receiving complaints from public.

Efficiency and Improvement Initiatives

- Previously, public had to visit different government offices for their minute complaints related to a sewer jam or non working streetlight or polluted water coming from taps. My city enables the urban citizen to post a complaint or an observation regarding such complaint online using any computing device e.g. tab / computer or even by Smartphone. Moreover, he or she can further track the status of this complaint same way. This saves time & conveyance cost of public.
- Similarly, in nodal departments, complaints are received / disposed electronically. Being a paperless procedure, this not only saves stationery cost but also saves clerical manpower to be consumed in record keeping of received complaints. At the same time, district administration has access to live data of complaints related to different civic issues. Specific innovative ideas implemented in e-Gov area and their impact on services.
- *The fact that differentiate it among other similar efforts is, its uniqueness in the sense that it is not only complaint handling system. But, it puts detailed data of more than 300 running works under JnNURM scheme in public domain. Here,*

public is able to watch the progress of individual work and can post comments or real time onsite photographs in case of dis-agreement. The progress of these works is time to time updated by executing agency (U.P. Jal Nigam) with not only figures but by posting a latest onsite photograph. This is first of its kind project which sets up a convenient mechanism for public, to connect to **multiple government departments for reporting their problems**. *That too, without writing any paper application, no formalities, no queues to seek their number to come in any Janata Divas or in any special campaign like this.*

- The initiative has been integrated to external ICT system facebook and uses facebook authentication for signing-in to the application instead of a putting in a separate sign up process for citizens.

ENABLER INDICATORS

An alternate method of ICT enabled grievance submission has been provided to public, which was absent earlier. The plan was to provide a convenient, hassle free and paperless platform to public for sharing its problem related to civic issues. So, from public point of view this is a vital process change and we have implemented our plan satisfactorily at front-end side. As far as, back end side is concerned, a separate ‘Administrative module’ is also active, where nodal officers of related departments log in and update the complaint status depending upon action taken by them or by their department on that particular complaint. But the functionality, related to actions taken on a complaint within a department, is not undertaken by the project. But, on the other hand, monitoring of every single complaint is possible at district administration level using the admin module. So, from back-office point of view we have succeeded to partially change the process.

Change Management and Capacity Building

All nodal officers have been given training on ‘Admin Module’, whenever a nodal officer is changed due to transfer / retirement, new nodal officer for that department is appointed. He /she is assigned new password and is given proper training by local NIC. Their detail is also updated on server by NIC. Change management and Capacity building strategy defined and status thereof. Given in previous paragraph.

Special efforts to ensure sustainability

The development / maintenance of the project is being done by local NIC and for sustainability of the project all necessary steps related to technical issues are taken by NIC. To meet out recurring expenses of hosting / SMS, expenditure is made from District E-governance Society. No third party assessment has been done so far.

VALUE INDICATORS

Digital Inclusion

As, the application is intended for local use, where primarily Hindi & English are the only two languages spoken, no linguistic issues have been observed so far, as the application is bilingual in nature and Devnagari script can be typed using UNICODE font. Cultural difference has nothing to do with use of this application.

Green e-Governance

No hardware has been procured under the project, so no issue of e-waste management is involved. The project discourages the use of paper. All processes e.g. complaint entry, complaint closure, monitoring reports etc., are available online and don't need paper work

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e-District

[National Informatics Centre and Government of Uttarakhand]
Satyender Kumar, S K Sharma and Rajeev Lakhera

DESCRIPTION OF PROJECT

e-District is one of the twenty-seven Mission Mode Projects under NeGP under the Department of IT, Government of India. e-District aims at providing support to the basic administrative unit i.e. “District Administration” to enable content development of G2C services, which would optimally leverage and utilize the three infrastructure pillars(SWAN/SDC/CSC), to deliver services to the citizen at his doorstep.

e-District is proposed to adopt an integrated approach for delivery of citizen services by district administration through automation of backend. e-District Uttarakhand is use to enable the automation of workflow and internal processes of District Administration with seamless integration of various departments like Revenue, Employment, Social Welfare, Panchayati Raj & Urban Development etc.

The main objective of the e-district project is to computerize the workflow system and internal processes of the administration of the pilot districts with the help of information & communications technologies (ict). The state envisages meeting the following objectives with the implementation of e - districts project:

- Implementation of an efficient electronic workflow system for District Administration.
- Infusion of transparency and accountability in operations.
- Reduction of workload of department personnel.
- Ensuring longevity of the data / protection from damage from moisture and other climatic factors
- Electronic security and control of confidential data
- Fast processing of public Applications/grievances dissemination of information as per public requirement
- To create an efficient delivery mechanism from the Government that brings citizens to the district administration
- To disseminate the information required by citizen
- To proactively provide an efficient system of disseminating information on the Government schemes and status of current activities

RESULT INDICATORS

Benefits obtained

- NIC – Technically competency proved, capacity building, enhance in domain knowledge of various state government sectors, how to handle various barriers & bottlenecks for implementing ICT projects in State Government.
- State Government/ Various Departments & ITDA (Nodal agency for implementation) –
 - Infrastructure for IT,
 - Monitoring become easy & transparent,
 - All Gaps plugged in,
 - Capacity building
 - Feedback mechanism devised
 - Service available anytime, anywhere.
 - Time & Money saving
 - Customer/ Citizen satisfaction
 - Improved face of government
- Citizens-
 - Transparency,
 - Any time anywhere,
 - SMS intimation,
 - Status tracking
 - Service in time bound manner
 - Time & Money saving

Implementation coverage till date

Throughout the state of Uttarakhand

- Districts – 13 Nos. ,
- Tehsil – 84 ,
- Blocks- 95 ,
- CSC’s- 309,
- Other offices -12

Efficiency and Improvement Initiatives

Earlier time was scheduled as 15 to 30 Days Now it is 3 to 10 days

Later it will be link Right to Service Act

Specific innovative ideas implemented

Name of activity	Process (Before)	Process (After)
Knowing the status of an application	No process	SMS notification to the applicant at each level
Work Flow	No work flow	Work flow based

Tracking the status of an application using unique id	No Tracking Process	Tracking Process enabled by entering unique number from user end/ CSC / Devbhoomi Jansewa Kendra
Escalation Matrix	No Confined Escalation Matrix	SMS / Reports available to higher officer
Dashboard for daily transaction report for all	No Dashboard	Private and public Dashboard
Audit Trails	No audit trails	Audit trails with action details
Mobile App	No App	App is available for reporting and status tracking

ENABLER INDICATORS

Process reengineering

- All Applications are submitted electronically with all supportive documents and one unique acknowledgment number through SMS is given to the applicant. All process or actions are provided to applicant through SMS.
- Movement of Document is fully electronically and Only concern documents are routed to officer, printout or hard copy is not required. This reengineering improves the system for delivering the requested service in a timely and an efficient manner.
- No. of steps were reduced in work flow. Application automatically routed to concern verifying officer, in manual system senior officer mark to junior officer and so on then finally application were reached to verifying officer which wastes lots of time now this has been reduced.
- All applications are routed automatically to the concerned officer as per defined workflow of the service. In manual system officer has to remember the name / designation of officer and bother where to send this application or who is concern officer. Now Software takes care of all such things and save time of officer/applicants.
- All officers have their own dashboard which updates them all the time how many applications are there for approval/how many applications are for forwarding or for printing etc. Now no need to ask any subordinate for bring the file he may just click on number and file is on computer screen for action.
- Application software end all dependencies on other officer's presence one can perform his task/actions from anywhere any time and other officer will get the information as soon as he/she login to the system.

Change Management & Capacity Building

- Comprehensive training given initially to Master Trainers and later to various users at work places/remote locations, User Manual, Training Manual are also provided to each user.
- Now lekhpal and other officers are doing and enjoying their work on computers very efficiently. Approval Officers & verifying officers are ready to verify online uploaded documents.
- Capacity Building focused on
 - Domain Knowledge
 - Training to master trainers
 - Infrastructure
- Change Management focused on
 - Mechanism defined for change management
 - Feedback from stakeholder
- Knowledge Documents –
 - System Requirements Specification document
 - User's manual
 - System Design Document

VALUE INDICATORS

Digital Inclusion

The users/citizen those are not having internet connectivity – they have to approach nearest CSC

Green e-Governance

User can apply online, digitally signed certificate may be provided in his e-mail account. In this way less paper will be consumed. We have moved in direction of green e-governance.

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ACCOUNTANT GENERAL PORTAL

[Accountant General, Government of Uttarakhand]

Ashok Sinha

DESCRIPTION OF PROJECT

With the re-organization of Uttar Pradesh, Uttarakhand was created in November 2000. The composite office of Accountant General, Uttarakhand initially functioned from Allahabad and was shifted to Dehradun in May 2002. The independent office of Accountant General (A&E), Uttarakhand came into existence in July 2008. The accounts & entitlement functions are being rendered from rented premises since inception, **with consequent spatial and infrastructural constraints. At present, the office is functioning at 51% staff deficiency.**

Comments of C&AG of India of 2004

Comptroller & Auditor General of India during his visit to Dehradun in January 2004 had impressed upon the then Accountant General and the State Government to consider development of an interface to obviate the practice of duplicate data entry at Treasury level as well as the Accountant General's office.

Comments of Dy. C&AG (LB&A) of 2009

During his visit in September 2009, Deputy Comptroller & Auditor General (LB&A), Office of the Comptroller & Auditor General of India directed that the possibility of providing GPF status on-line on AG's website and on subscribers' cell phones should be explored.

Purpose & Priorities of the Initiative

It was observed that due to difficult geographical terrain and inhospitable conditions of working the internet facility not available in remote areas in Uttarakhand. Many GPF subscribers were unable to access the Accountant General Website (www.agua.cag.gov.in) through internet to know the current status of their GPF Account. Due to this constrains it was decided to provide this G.P.F. status through SMS facilities.

Date of Implementation of the Initiative

Name of Implemented Module	Date
1.Treasury Interface	April 2009
2.GPF Computerization Calculation	July 2009
3. GPF On-line Service	October 2009
4.GPF SMS (Push) Service	July 2010
5.GPF SMS (Pull) Service	January 2011

6.GPF On Line Final Payment Status	October 2011
7.On-line Grievances Redressal System	October 2011
8.On Line Reconciliation Feedback	December 2012
9.Pension Payment Status	January 2014
10.On Line data(GPF,Accounts)from Treasury Portal	March 2014

RESULT INDICATORS

- Improvement in delivery time of service
- Better beneficiaries feedback
- Timely completion of MCA since April 2009. Finance and Appropriation Accounts being generated in time.
- Out of Rs. 381 crore O.B suspense, Rs.310 crore has been cleared. Reconciliation has become easier and speedier.
- Created an atmosphere of confidence and motivation in this office that notwithstanding staff, infrastructure, technical capacity, a determined effort of the existing staff can achieve difficult tasks and objectives. An innovative exercise in an office facing 51% shortage of staff depicting excellent team-work and a high degree of coordination between AG office, State Government, NIC and Treasuries.
- Established excellent and much needed cooperation between a newly created A.G office and State Government; a closer understanding of each other's role and functioning.
- Increased transparency in procedures with mutual participation of both A.G and State Government.
- Performance ranking of this office has remarkably improved.
- The entire operation was at no cost to Government.
- With the help of the new software, against an output of 15-20 cases per month by Accountants, 20-25 cases (25% increase) are being settled monthly and the figure is expected to rise to 30-40 cases monthly (40% increase) once accountants get familiarized.
- Enhanced supervision as it provides month-wise subscription, refunds, withdrawal and progressive figures of deposits and withdrawals at a glance.
- The grading of GPF wing improved from 'C' to 'B'.
- Complaint cases of non-receipt of GPF accounts slip reduced by 80%
- Improved service delivery resulted in substantial clearance of missing/unposted Dr./Cr. Items and 99.28% data accuracy achieved
- No waiting time for receipt of Accounts Slip
- Less dependency on D.D.O.
- Widely appreciated by subscribers, media other stakeholders.

Key beneficiaries of the Project

- State Government Employees
- Pensioners
- Head of the Department

Efficiency and Improvement Initiatives

These are some highlights/positive features of the initiative under each of the following important dimensions:

- Transparency and stakeholder participation -These initiatives are very user friendly & have enhanced the transparency & effectiveness in Government Process.
- Innovativeness of the initiative and its replicability - Use of ICT (Information and communications technology) to improve Service Delivery Mechanism and making Public delivery systems efficient and corruption free .This service can also be replicate in other Accountant General offices to improve the service Delivery mechanism.
- Increased efficiency of outputs/processes and effectiveness of outcomes .
- Sustainability of the initiative

ENABLER INDICATORS

GPF on Line System of AG for approx. 1 lakh subscribers of State Government .

The ADVANTAGE OF GPF ONLINE SERVICE is

- No need to wait for Account Slip
- Less dependency on D.D.O.
- No need to wait for a year to know the current status
- Easier way for redressal of grievances
- Great transparency
- SMS Push & Pull facility

On Line status of **GPF & PENSION** payment is available in this portal. Web based **on line redressal of grievances** related to GPF and pension is implemented under this portal. Department is giving response within 24 hours and complainers may see Department response on line in AG website.

Process Reengineering

This project has faced four re-engineering processes. A one line description of the TOP THREE process changed effected-

- On Line Reconciliation from HOD
- Online Status of Payment of Pension
- Online status of final payment of GPF

Change Management and Capacity Building

- This IT Solution is under our own maintenance. Every year, new features/modules are being added as per the requirement of the department and we organized different level of user training session.
- On line redressal of grievances related to GPF and pension is provided in this portal for giving response within 24 hours and complainers may see Department response on line in AG website.

VALUE INDICATORS

The objective of this Web-Application is to provide the transparent, effective, efficient and hassel-free solution for all stakeholders/citizen.

It was observed that due to difficult geographical terrain and inhospitable conditions of working the internet facility not available in remote areas in Uttarakhand. Many GPF subscribers were unable to access the Accountant General website through internet to know the current status of their GPF Account. Due to this constrains it was decided to provide this G.P.F. status through SMS facilities.

Digital Inclusion

Initially all the DDO has to contact to the AG for getting GPF payment reports for reconciliation purposes. This was tedious and costly affair in the hilly state like Uttarakhand. The current IT solution provides all the major required information and details/reports through web and SMS service.

Green e-Governance

This Software Application is really the best example of Green e-Governance; it involves adoption of environmentally friendly practices with respect to creation, use, and disposal of ICT facilities. There are several dimensions to green e-Governance and prominent among these relate to Power and Paper consumption, and disposal of e-Waste.

This project is one of the best IT solutions of extensive use of web and SMS service. All the reports/details are delivered to citizen and other Stakeholders in the form of SMS service. The SMS service reduce & simplifies both storage, bookkeeping and save so large number of papers.

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AUTOMATION IN COMMERCIAL TAX DEPARTMENT

[Commercial Tax Department, Government of Uttarakhand]

Satyender Kumar

DESCRIPTION OF PROJECT

There has been a strong demand for streamlining VAT administration through citizen-centric, service-oriented processes, and establishing a certain degree of standardization with respect to Commercial Tax (CT) administration. Since the CT departments mainly interface with businesses and often account for 60–70 per cent of the total revenue of the States and Union Territories (UTs), their functioning can directly affect the attractiveness of a State or UT as a business destination. It is against this backdrop that the Commercial Taxes MMP was conceived. Under this MMP, various recommendations have been made to facilitate simplification of administrative procedures and reduction of processing timelines.

Some of the key recommendations are noted below:

- Electronic filing of returns
- Electronic clearance of refunds
- Electronic payment of tax
- Online dealer ledger
- Online issuance of CST statutory forms
- Facility to dealers to obtain various online information services

In the case of Commercial Tax Department Uttarakhand (CTD-UK) the base data is formed by dealers information, payment of taxes, gathering of tax return along-with sale/purchase lists, issuance of statutory forms, declarations of tax by dealers, refund of payment, disposal of legal cases, road permit for importing goods from other States, road permit for passing through the State boundaries etc.

The digitization of dealer's details and automation of registration process forms the foundation block for building the ICT model of the department. All other modules like payment of taxes, filing of e-Return, generation of online permit, issuance of statutory forms revolve around basic data of a dealer. The various modules which are developed and successfully implemented as part of CTD-UK computerisation project are - e-Registration, e-Profile, e-payment, e-Return, e-TaxDeclaration, e-Tripsheet, e-Transit, e-Refund, e-Legal, e-FormC, e-FormXI

The computerization project has been evolved from implementation of backlog data-entry module for digitization of dealers data and then online web-based application module for e-Registration of dealers. The dealers information in digital

form on web through user-id/password based access by dealers made way for implementation of subsequent modules. E-Profile and enablement of e-Payment facility for payment of taxes by dealers were the next modules which have been implemented. This resulted in building up the trust in using online services for registered dealers of the department. E-Filing, e-Refund, e-Legal e-TaxDeclarataion were the next modules which were implemented next.

Generation of online Tripsheet module (e-Tripsheet) is used by transporters for declaring dealer-wise goods being imported into the State. The statutory forms (Form-16) issued to a dealer are also utilized through this module and invoice wise details of goods are recorded into the system for better assessment of tax liabilities of a dealer.

The e-Filing module is also designed and developed in such a manner that a dealer has to fill only invoice-wise details of sale & purchase made during a quarter in a macro enabled offline utility for preparation of e-Filing data. The summarized quarterly return format is auto generated from source data of sale/purchase list and is uploaded onto the Commercial Tax Department's portal. The invoice-wise filing of return reduces possibilities of data manipulation by dealers for tax evasion. Also , invoice-wise sale/purchase data in digitized form helps department in verification of ITC(Input tax Credit) claims by dealers.

RESULT INDICATORS

Government-to-Business

- e-Registration, e-Filing, Quarterly Return (eForm3, eForm3A, eForm3B), Annual Return (eFormIV), e-Payment, e-Taxdeclaration, e-Tripsheet, e-Transit Pass, e-Refund, e-Legal, e-FormC, e-FormXI, e-Forms16

Government-to-Government

- Disposal of applications for e-Registration, Dealers Profile Management, Amendment in Dealers information, Cancellation of dealers registration, Suspension of dealers registration, Restoration of dealers registration
 - Issuance of statutory Forms for import of goods into the State, Tax Assessment, Maintenance of DCR (Daily Collection Register) for manual payment of taxes by dealers
 - Monitoring of Goods being imported into the State
 - Mobile services for officers for dealer's business location verification
 - Analysis of e-Filing data for the quarterly processing of verification of ICT(Input Tax Credit)
 - Generation of all types of reports being maintained in the Commercial tax Department

Benefits obtained

- **For the person willing to get registered with Commercial tax Department Uttarakhand**
 - Facility to apply online for registration under VAT Act, CST Act
 - Timely disposal of their e-Registration applications
- **For dealers registered with Commercial tax Department Uttarakhand**
 - Almost all the services for which a dealer need to interact with Commercial Tax Department have been e-Enabled through Login/Password based web interface. The benefits of availability of web-based e-Services for any client of a Government department are obvious.
- **For Transporters carrying goods into the State**
 - A transporter can online generate e-Tripsheet for the purpose of declaring dealer-wise goods being imported into the State. If a goods carrier is carrying a single page online generated e-Tripsheet with him , he will not be enquired to show different types documents by mobile squads of Commercial tax Department Uttarakhand. The State of Uttarakhand has abolished all the border check-posts when this online e-Tripsheet system was launched in the State in 2012.
 - Similarly a transporter can online generate e-Transit Pass for the purpose of carrying goods from one State to other and where Uttarakhand State boundaries are being used as corridor for movement. Such transporters are required to generate e-TransitPass before entering into the State boundaries and have to declare it as utilized after leaving the State.
- **For Commercial Tax Department Uttarakhand Officials**
 - Most of the functions of the department have been e-Enabled. Therefore sale/purchase transaction data of all the dealers is available in digitized form. This enables department to generate various type of analytical reports for the purpose of planning for increasing tax revenue of the State. Availability of this data also helps mobile squads and enforcement wing of the department to curb tax evasion in the State.

Implementation coverage till date

- Geographical area : State of Uttarakhand
- Category of stakeholders : Business dealers, Officer of Commercial tax Department

Efficiency and Improvement Initiatives

- Entrepreneur need not come to office for applying for new registration.
- Dealer can pay taxes online therefore reducing time in going to banks or treasury for payment of taxes.

- A transporter has to only generate online e-Tripsheet or e-TransitPass for hassle free movement in the State.
- Generation of Form-C,F,11,16 are online and dealer need not visit office for issuance of these forms. The annexure data uploaded by a dealer as part of quarterly return enables a dealer to self-generate Form-C and Form-XI .
- e-Tripsheet and e-Transit data is real time data which is available to mobile squads of the department. This ensures easy tracking of trucks moving in the State unauthorized manner.
- The mobile app for physical verification of business premise by commercial tax official as part of grant of VAT registration eliminates chances of fraud by a dealer/applicant. The geo location data captured through mobile app is integrated to google map for online display of actual location of the business premise.

Specific innovative ideas implemented

- A mobile app has been developed for officers to physically verify the business premise/location by capturing GPS coordinates and photo of the location.
- Every registered dealer has been provided downloadable Excel file for filling up the invoice-wise sale and purchase details. The macro enabled Excel file auto generates summarized quarterly return data. The XML file so generated can be uploaded by a dealer using his/her user credentials. This feature is unique implemented in any of the State Commercial tax Department across the country.

ENABLER INDICATORS

Process reengineering

e-Registration

Entrepreneur has to come only at the time of document verification

Officer grants registration online.

e-filing

Dealer is not required to come at office as he files return online using login id assigned to him/her. The sale & purchase data of a quarter is also submitted in digitized form as part of e-Filing.

- Department need not compile return details as they are available online.
- Defaulters list is generated at a single click.
- The Input Tax Credit (ITC) claims by dealers are easily verifiable by commercial tax officers.

e-Tripsheet

Transporter can make tripsheet detail from anywhere before entering in the state
Goods details being imported to state are immediately available to officers/mobile squads

e-Form 16

Form 16 is available online to dealer earlier he has to go office to get Form-16
Officer issues Form-16 using his login credentials from anywhere.

Payment

Dealer can pay taxes online through various banks online
Status of e-payment is available to officers online.

e-Form C

Dealer generates Form C online
Officer need not carry out any manual work.

Change Management and Capacity Building

The top management of the Commercial Tax Department normally Secretary (Finance) and Commissioner took keen interest in implementing the computerized system in the department. All 75 Sector offices of the department across the State are equipped with computers and other peripherals and also are connected with State Wide Area Network (SWAN).

Special efforts to ensure sustainability

The application software for web-services has been security audited from time to time by CERT-in empanelled agencies in compliance to Government of India's security guidelines. The project has been compared with similar computerization projects implemented in other States for improving the service

VALUE INDICATORS

Digital Inclusion

Dealers in remote hilly region in Uttarakhand, face difficulties in using e-services due to poor internet connectivity in most areas. Also illiteracy/lack of awareness among users is a factor for not using the e-services

Green e-Governance

Most of the paper work has been discontinued due to facility of online submission of application, return and issuance of forms etc as all the data is available to the officers in digital form. The printing of statutory forms having security measures has been discontinued after implementation of e-Form16.

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SOCIAL SECURITY STATE PORTAL OF UTTARAKHAND(ESPAN)

[Social Welfare Department, Government of Uttarakhand]

S. Raju, IAS

DESCRIPTION OF PROJECT

- Social Security State Portal of Uttarakhand at <http://ssp.uk.gov.in> using NIC Uttarakhand's eSPAN-version-2.0 successfully implements transparent workflow, web-based process automation, instant information dissemination of Government's Social Welfare Schemes and e-payments of monetary benefits to the state's needy citizens. eSPAN has been awarded with an "Order of Merit" at Skoch Summit 2014 at New Delhi and with eLetseGov Award 2015 at Dehradun, after a thorough peer review.
- **Current Status:** Currently, monetary disbursements using <http://ssp.uk.gov.in> are being made to around 6% of state's total population in four schemes. Out of these Old Age, Widow and Disability Pension schemes are partly centrally-funded and partly state-funded, whereas the Kisan Pension scheme is fully state-funded. This year, transparent disbursements of monetary grants towards marriage of daughters and medical treatment of patients belonging to needy SC / ST families have also been included in <http://ssp.uk.gov.in>. In addition, automation of five newly announced fully state-funded pension schemes, viz. Bauna Pension, TeeluRauteli Pension, ParityaktataNaaree Pension, Purohit Pension and Disability pension for minors are being added to <http://ssp.uk.gov.in>.
- **Goals / Objectives:** The immediate purpose of automation was to usher in transparency and efficiency in the disbursement process. This has been achieved to the maximum possible extent.
- **Benefits:** eSPAN with user interface in Hindi has successfully bridged 'last mile(s)' gap between the government and the beneficiaries. Today, it is possible for beneficiaries and their well-wishers to access G2C 'citizen services' through web (<http://ssp.uk.gov.in>), mobile (Android Apps available for download on the portal), IVRS (through toll-free no. 1800-180-4094) and SMS, thus achieving the purpose of digital inclusion and community outreach.
- **Value Proposition:** The G2G integration of eSPAN with NSAP portal as well as to state's e-District and Treasuries portal with latter's further G2B integration with banks portals have ensured seamless data exchange, financial inclusion, fiscal management and e-payments. Such integration has contributed significantly to departmental efficiency in serving the needy.

RESULT INDICATORS

- G2C services - Submitting of online application, monitoring its status, monitoring of current as well as previous payments of eligible benefits (like pension passbook), knowing current rates of eligible benefits / eligibility conditions / supporting documents required / relevant Government Orders / whom to contact / beneficiary details across the state / district / tehsil / development block / Panchayat / village / bank / bank's branch, providing online feedback / complaints.
- G2G services - appropriate linkages through web services to State's Treasury portal (for e-payments directly into beneficiary's bank account and receiving its acknowledgement), e-District application (for receiving applications through CSCs / information kiosks), e-Taal portal (for recording the e-count of e-Gov transactions), NSAP portal (for updating details related to NSAP beneficiaries)
- G2B services – free of cost services to banks (for beneficiary details, location-wise, bank-wise, branch-wise), media houses (for analysis, monitoring, reporting of any inconsistencies, etc.), NGOs / RTI applicants / academicians and researchers (for information, analysis, research, etc.)

Benefits obtained

- Earlier, AAA of Altitude, Accessibility & Availability in the difficult geography of Uttarakhand posed a significant challenge from public's point of view. The citizens faced difficulty in getting status information, delay in getting the promised benefits, there were widespread apprehensions about fake beneficiaries, they had difficulty in getting corrected calculation errors / exact arrears and there was botheration due to lack of transparency.
- Today, the in general benefits after the successful implementation of ofeSPAN at <http://ssp.uk.gov.in> are: 24 x 7 instant and transparent information dissemination, Financial / Digital inclusion, Social / Gender empowerment, Social Welfare Department's Fiscal management and workflow based efficient system, Seamless data interchange among organisations.
- For particular benefits specific to each kind of service, please refer to the aforementioned G2C / G2G / G2B services details under 'Services' subsection.
- Moreover, the success of eSPAN at <http://ssp.uk.gov.in> by the Social Welfare Department has led to the successful implementation of State's Student Welfare Portal at <http://escholarship.uk.gov.in>, providing end-to-end workflow based citizen (student) services under the Government's financial benefit schemes. Initially, the Social Welfare Department launched the SC / ST / OBC scholarship scheme last year. This year, the Tribal Welfare Department's

“Gaura Devi KanyaDhanYojana”, Minority department’s “Scholarship scheme for minority students of Classes 1 to 10th” and Soldier Welfare Department’s “Scholarship scheme for the wards of ex-servicemen” are being added to <http://escholarship.uk.gov.in>.

Implementation coverage till date

- Complete state of Uttarakhand with a ready updated database of around Six Lakhs beneficiaries (out of the state’s total population of 101 Lakhs)
- For category of stakeholders, please refer to the aforementioned G2C / G2G / G2B services details under ‘Services’ sub-section.

Efficiency and Improvement Initiatives

- The online disbursement of benefits to the beneficiaries under the pension, scholarships and other benefit schemes has significantly improved the efficiency at the backend by almost 95% and ensured considerable cost savings (a minimum of Rs. 2.5 crores annually) to the Social Welfare Department.
- The complete pension and other benefit disbursement process involving new beneficiary registration/modification of existing beneficiaries, verification, approvals/rejections, processing of pension and scholarship at the district offices, necessary action including e-payments at district treasuries / banks, acknowledgement of e-payments made to the beneficiaries and information dissemination is instant, transparent and electronic. Manual intervention is now limited only to the physical verification of new or existing beneficiaries.
- Earlier calculations and manipulations were done manually using calculators, or at best MS-Excel sheets. After DSWO’s approval, treasury bills were to be prepared manually & submitted to the district treasury for withdrawal of funds. If any errors were noticed before DSWO or Treasury approval, the list used to be prepared afresh. After the treasury’s approval, bank-wise lists and cheques were prepared by the clerks, submitted to DSWO for approval and signing of cheques before instructing the individual banks / Post Offices for further disbursement to the beneficiaries. The acknowledgement from banks / post offices of disbursement made was rarely received. The Social Welfare Directorate as well as the Government never used to get reported the exact figures of pension and scholarship disbursement on time.
- With the introduction of online workflow based systems of pension and scholarship disbursement, the scenario is completely changed as all the up-to-date information about disbursement is available online, 24x7 since FY 2011-12 The Government . of Uttarakhand easily monitors its social security schemes online, predict the fund requirements for the next quarter or next financial year and does not depends on the district offices for the fund-requirement estimates.

- Before automation, pension and other benefit processing, submission to treasuries, issue of instructions and cheques to banks, receiving of acknowledgement and verification of payments made, compiling district and state-wise benefit disbursement details was a highly time consuming, efforts consuming and paper consuming process. With the online automation as well as the instant and transparent information dissemination, all these costs are optimized and rationalized to the bare minimum levels.

Specific innovative ideas implemented

- The following phase-wise implementation, using a mix of bottoms-up and top-down approach, wherever and whenever found suitable was adopted to achieve the desired results, after introducing ICT in the Social Welfare Department.

ENABLER INDICATORS

Process Reengineering

Front-end: The beneficiaries may not be in a position to access on their own, but their relatives / well-wishers and other stakeholders are using the following facilities extensively:-

- Single web interface to access beneficiary details is available for all stakeholders, viz. beneficiaries, citizens, public representatives, department officials, Government agencies, banks, media, NGOs, academicians and researchers.
- IVRS facility and Android Mobile applications to access current status of e-payment of a beneficiary's benefits on the basis of the beneficiary's bank account number or mobile number registered with eSPAN.
- Back-end: With the use of eSPAN at <http://ssp.uk.gov.in> and subsequently <http://escholarship.uk.gov.in>, the Social Welfare Department's officials have to a large extent reduced their dependency on paper work - bulky registers and files. The formats / templates / processes have been standardized and made uniform.

Change Management and Capacity Building

- Besides numerous meetings, approximately 15 state-level and an equal number of district level workshops / training programmes have been organized to implement the department's ICT initiatives. The participants include almost all the stakeholders. Besides regular training, technical as well as administrative support over emails, telephone and Videoconferencing

VALUE INDICATORS

Digital Inclusion

- eSPAN's user interface is in Hindi.
- Besides online presence, alternative mechanisms like IVRS, Android mobile applications, SMS, etc. have been provided.
- Extensive publicity is likely to help the beneficiaries and their well-wishers, who may not be able to use the aforementioned mechanisms, to take the assistance of IT savvy persons in their neighbourhood.

Green e-Governance

- eSPAN's complete workflow based ICT system has enabled significant reduction in paper consumption and cost to the Social Welfare Department. Provision of online application submission, online sanctioning process, online disbursement, online monitoring through reports has led to environmentally friendly practices.
- As mentioned earlier, eSPAN has significantly improved the efficiency at the backend by almost 90% and ensured considerable cost savings to the Social Welfare Department, which is saving a minimum of Rs. 2.5 crores annually after introducing NIC Uttarakhand's ICT initiatives.

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ONLINE BUS BOOKING SYSTEM OF TRANSPORT CORPORATION

[Transport Corporation, Government of Uttarakhand]

Brijesh Kumar Sant, IAS

DESCRIPTION OF PROJECT

Roads are the only mean of transport in most parts of Uttarakhand. Uttarakhand Transport Corporation is a Government Public Utility service provider for passenger public transport for entire state. Uttarakhand also has a vast tourism potential. A tourist would always like to plan and confirm his travel itinerary in advance as it saves him time in the overheads of inquiring and standing in long queues for securing tickets. Similar is the case of frequent travellers. Uttarakhand is mostly reachable through roads and Uttarakhand Transport Corporation(UTC) is a major stakeholder in carrying tourists and commuters from one place to another. The online bus booking system, designed and developed by NIC Uttarakhand State Unit, launched on 20 May 2013, was initially started with small number of Volvo bus services. Within a very short period of time it has grown now to more than 600 interstate and intrastate routes of bus services involving AC/Deluxe/Ordinary/Volvo buses. The stake holders of this system are travellers, UTC, UTC authorised booking agents. The System has been developed and implemented with technical supervision of NIC.

The objective was two-fold – facilitation of customer and maximization of fleet utilization for UTC. As per the stake holders, the objectives are as follows:-

For Travellers

- Simple, smart, hassle free, transparent, convenient and secure online system, which facilitate to book the seats using either debit/credit card facility or net-banking.
- A system which facilitates the customer right from booking of seat till boarding of bus through email and SMS services opted by the customer during registration process
- Direct interface for customer with UTC without involvement of a middle man.

For UTC Management

- A System which makes things more effective, more efficient with travel analysis, more transparent with less paper system for overall management and monitoring of fleet operations which include adding a new bus service, route creation, layout creation, trip chart generation and assignment of bus etc.
- Increment in number of passengers resulting in increase of revenue and therefore better profitability

For UTC Authorised Agents

- Real-time Availability of Seats
- Online verification of security amount deposited.
- Automatic updation of balance in account
- Direct delivery of Ticket to the customer
- Instant availability of commission.

Stakeholder wise brief description:-

- The travellers have to first register online with UTC with a valid email id and mobile number. The registered user can book the seat of his choice online. After successful booking the ticket is confirmed by email/SMS. Traveller need not to carry printed ticket.
- The SMS/Email and Ticket details using mobile app are accepted. The seats availability, bus time table, cancellation of tickets and booking history are other facilities available online to travellers.
- The salient feature of the system is that the user is kept informed by SMS and email at every step starting from Registration and ticket booking to boarding of bus. Services of ticket cancellation with online refund have also been provided.

RESULT INDICATORS

Benefits obtained

- Stakeholder wise benefits obtained from the System are as follows

For Travellers/Agents:

- Simpler, smarter, hassle free, transparent, convenient, secure and Instantaneous Advance Booking and Cancellation–Travellers& Agents
- Online Payment using net banking, credit/debit card-Travellers
- Paperless Ticketing. User can use SMS or Mobile App as proof of booking, so no need to carry printed ticket anymore-Travellers
- System facilitates and gets well informed it's users from registration to boarding the buses, through email and sms services at different stages such as booking, cancellations, movement of bus etc.-Travellers
- Selection of Bus service and seat as per choice-Travellers& Agents
- Identification through registration.-Travellers
- Helps in Advance tour planning.-Travellers
- Online Account Information & Management- Agents

For Management:

- Better Fleet Management
- Revenue Improvement, extra earning from reservation charges and cancellation

- Utilization Increased
- Manipulation & error chances have been eliminated

Implementation coverage till date

Online System Booking System is available for all stake holders. Other than online, services are also available with Mobile APP.

Authorised Agents: To deliver the service the Authorised Booking Agents are also available at following locations: -

Bus Services made available for online booking:-The Bus Services were made online in a phased manner . Yearly increment in numbers services is as follows.

Year	Type of Bus Service			
	Volvo	AC	Deluxe	Ordinary
2013-2014	42	40	38	40
2014-2015	60	52	48	164
2015-2016(August)	78	58	56	180

Efficiency and Improvement Initiatives

The online bus booking system has made available the services of the Uttarakhand Transport Corporation at the door step of the citizen. The reengineering of the business processes of the departments became both the prerequisite as well as the by-product of this system. The efficiency levels of departments have also increased as IT deployment drastically reduced their avoidable workload. The impact can be quantified as follows for some of the services, which are being targeted in the first phase:

Parameter	Earlier Manual Process	Online System
Citizen Satisfaction	Poor	Very Good, not a single feedback/call reporting the unavailability or any problem has been received in last 6 months.
Service Availability	Only at UTC Booking Counters	Available at the convenience of the customers . To access online system just require a computer and internet connection To avail service using mobile

		only require the data service.
Transparency in Information	No Transparency	Every information like fare , availability of seats etc are online available
Procedure in Availing Service	In the earlier manual system of ticket booking, it was time consuming, in convenient for the customers to go to bus stations for enquiry of buses and booking/cancellation of tickets. The customers have to fall in long line for query/booking/cancellation. It weekends or peak season time the situation become even more worsen. Furthermore there are customers who are not satisfied with the given seats because the actual layout of bus was not available on display. For booking through travel agents the customers have to pay extra amount of money	After the implementation of this system the Customers, specially frequent Travellers and tourist, don't have to leave the confines of their comfort to book a ticket, and to help them get a ticket when they need it the most without involvement of any middle layer.
Citizen Time & Money spent in availing service	High	Low
Information Dissemination	There was no mode available to inform the customer about any change bus service, ticket confirmation. Bus boarding information	Now from registering in the system, booking of the ticket to bus departure every information has been made available on the mobile of the user
Decision Making	In manual system due to non availability of booking information management was not able to do netter planning for increasing the buses whenever required	Due to centralized database , instant information about booking is available to management. According to Traveller flow no of services used to be increased for better revenue realisation

Specific innovative ideas implemented

- The project is simple in nature and yet innovative.
- This is automatic information dissemination (AID) system
- It is harnessing the benefits of the telecom technology in providing information to the Travellers
- It integrates mobile / telephony network with I.T. for providing the timely information to all stake

ENABLER INDICATORS

Process reengineering

This initiative has taken a holistic view of UTC procedures, paying more attention to Government process re-engineering to increase operational efficiency and citizen satisfaction. It has enabled the procedural changes in various front and back office processes to enable faster delivery of services, optimization of operational cost and improvement in quality of service delivery.

Front Office: The traditional method of Service delivery required a Traveller to visit UTC Booking Counter or Authorised Agent; now this system has increasingly brought booking services close to citizens. The services are delivered through easy to use web interface and mobile applications.

- Real time availability of seats has been made available through the system
- Online Booking and cancellation facility has been provided
- Multiple feedback platforms (help desk, email etc.), where citizens can directly contact service providers for registering their feedback.

Back Office: The back office work of UTC has also been computerized earlier. Earlier where the manual process was involved in generating various MIS reports, making routes , planning fleet management etc. and other works has become completely online.. Now this has completely transformed the scenario and successfully implemented the technologically advanced solutions, as explained below:

- Real time availability of financial transactions and related MIS to Management for decision making
- Online route creation fare creation and fleet management facility has been made available for dept. The work of booking counter has completely become online. The information about the daily collections and earlier deposits is
- Centralization of the Database
- Improving/ Establishing Connectivity was essential since many of the transactions require substantial flow of data. Internet connectivity is provided or improved to all level of department users. The Horizontal Connectivity scheme of the GOI is used for this purpose. Most of offices are connected and working on UKSWAN

Change Management and Capacity Building

The success of this system is due to the active support by the top authorities. In starting the feedbacks /complaints received through email was monitored by the team of General Manager (Technical) and Deputy General Manager (Technical) of Uttarakhand Transport Corporation.

Change management was a major issue and was handled sensitively, involving all the stakeholders. As the department is a major stakeholder and beneficiary of this project, so each level of the staff was trained. Starting from Regional Manager, Depot manager, Booking Counter Clerks, Help Desk Staff and Bus Conductors were trained as per their role in the system by repetitive and interactive training sessions to use the system without reducing their perceived importance in the entire administrative set up. Once the ball was set rolling, the skeptics also joined the band-wagon and success was achieved.

The approach to service delivery needed a complete transformation in capacity which was strategized to be achieved by bringing in Innovation in organizational and Technological Model. This was done by going through with the following cycle department after department. A complete realization that the process had to move through all stages starting from visioning and leading to a sustainable model of service delivery was the cornerstone of the overall strategy.

Training was also imparted to authorized booking agents.

To educate the Travellers help documents have been provided on the website.

VALUE INDICATORS

Digital Inclusion

Online Bus Booking System is an all-inclusive program, and has vastly benefitted routine Travellers, tourists and UTC .Being a main stake holder of the system booking/cancellation/availability check etc processed has been made easy.

Following are the specific steps taken to address Digital Inclusion:

- Efficient and transparent service delivery to citizens by overcoming traditional methods.
- Capacity building by providing system training to department officials.
- Access to system through internet, mobile app, through authorized booking agents and booking counters at various stations.
- Incorporating innovative methods of communication: SMS, Email
- Fostering the development of a knowledge based society and bridging the digital divide
- System has been developed in such a way that it can be converted in any local language and ready to use for other Transport Corporations in India

Green e-Governance

- The online bus booking system is less paper system Centralized architecture eliminating the requirement of huge hardware establishment at regional levels has saved lots of power consumption and e-waste.
- All the services are online served through web-portal and mobile app , saving the papers used. Booking agents can now submit the payment details online to UTC. The payment gateways have been provided interface for downloading the daily scroll and settlement of the payment. Thus no movement of papers
- UTC has authorized the use of the ticket received through SMS or email , thus Traveller need not to print the ticket thus a paperless ticketing system is contributing in the Go Green Initiative of Government of Uttarakhand
- Mobile app has been provided to all bus conductors. Now they can see the trip cart on the mobile and can verify the ticket, this no need to carry printed trip chart which in turn a little continuation to the green e –governance

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WEB-PORTAL OF CORBETT TIGER RESERVES

[Forest Department, Government of Uttarakhand]

Samir Sinha, IFS

DESCRIPTION OF PROJECT

Corbett Tiger Reserve (CTR) has captured the imagination of many with its diverse wildlife and breathtaking landscapes. The natural uniqueness of the area was recognized long ago and so it was way back in 1936, Corbett attained the distinction as the first National Park to be established in the country. Corbett has been a favorite haunt for tourists and wildlife lovers since long. Eco-tourism activities are allowed in selected areas of CTR, which gives the visitors an opportunity to see its splendid landscape and diverse wildlife. With over 2,00,000 visitors coming to the Tiger Reserve, the number of people coming here has increased exponentially, in recent times.

Corbett Web Portal is a joint effort of NIC and Corbett Tiger Reserve (CTR) administration in order to make it easy for nature lovers and tourists to get all information about CTR at one place as well as undertake booking for Jungle Safari and Night Stay on the day of their choice. The web portal was launched by Hon'ble Chief Minister, Uttarakhand on 15th November 2011, with the basic information architecture and jungle safari booking. With the passage of time various value additions were made in the web portal. Online payment facility was made available in year 2013. The more sought after Night stay booking service was made available to the public in year 2014.

Behind this initiative the main goals of CTR were

- To provide a single point information delivery.
- To provide an easy to use, anytime, anywhere available medium to render its ecotourism services to all nature lovers.
- Make the booking process more convenient, more transparent, fully automotive and more effective
- Make the complete booking process online, which starts from booking by the visitors and ends with depositing the collected fund to Government Treasury.
- Online availability of Account and Booking Reports to CTR Management

Situation before the initiative

- Earlier a visitor willing to visit the world famous park had to either send an application for booking or come to Ramnagar to see if on the dates she/he desires to visit the park, any rooms are available or not. Hence a visitor was never very sure about getting a booking.

- The situation for foreign visitors was even more difficult as in lack to direct contact, they often have to contact a tour operator for booking purpose.
- The main job of CTR Management is to manage and protect flora and fauna of the Tiger Reserve, whereas earlier the bookings etc used to be an additional burden for the management. In peak season, answering the queries of visitors and making necessary arrangement for booking used to put additional strain on the staff.
- The accounts and MIS related work were manual.

Main features of Web Portal

- All the information about CTR, its flora and fauna, rest houses in Jungle is available at one place, which any one can access from the comfort of their houses 24X7.
- Availability of Interactive Maps, Information about each location of CTR, easy 3 steps online bookings and availability of multiple payment gateways are some of the main attractions of this web portal
- A visitor willing to take Jungle Safari can now see the availability and make advance booking for the same 45 day's in advance. A confirmation of booking is sent immediately through a SMS.
- Similarly, for Night Stay bookings can be done 45 days in advance. This facility has been extended to foreign visitors more than 90 days in advance so that after getting the confirmation they can plan their visit accordingly.
- Online feedback system accessible through web-portal is helping CTR in improving its services.
- For CTR administration online account management, module for informing the visitors through SMS/email and notice board, online opening and closing of online booking etc are main useful features of the web-portal

RESULT INDICATORS

- In last 3 years the success of the web portal are self explanatory by following:-
- Website Visitors : More than 12 Lakhs
- Total Visitors: Approximately 4.5 Lakhs which includes more than 10 thousand foreign visitors.
- Revenue Earned: -More than 20 crores.

Key Performance

G2C Services:

- Single Point Source of Information about the Tiger Reserve.
- Online Jungle safari and Night Stay Booking Facility
- Feedback and Help Desk

- Important contact numbers and help desk
- Notice Board for any important information.

G2G Service

- Online MIS for CTR, to help in better account management
- Automatic depositing of the revenue share to Government . Treasury
- As there are currently 2 payment gateways (PG) integrated in the portal, for payment settlement an interface has been provided to each PG. Using the interface PG can download daily scroll and make query of the transactions. CTR has not to worry about anything related to payment settlement and refunds of failed or cancelled transactions.

Benefits obtained

Tourist and Nature lovers

- As each zone of CTR is famous for its unique diversity of flora and fauna. The web-portal now provides a complete package of information in form of text, interactive maps, photos and videos about flora, fauna, and facilities available in different sections of the park.
- Confirmation of booking as well as any important information is given through SMS and Notice Board.
- The web portal facilitates convenience of time, location and mode of service delivery, justifying the concept of anytime, anywhere service. 24X7 availability of services.
- Exclusion of complexity and hassles of traditional methods is the key transformation area facilitating transparency and simplicity of procedure to citizens.
- Drastic reduction in service delivery time reducing logistics cost and eliminating role of agents/brokers/touts etc.
- Easy access to service providers, as CTR has facilitated multiple feedback platforms (help desk, online feedback etc)
- 45 days' advance Jungle Safari- online booking
- The night can be booked 45 days advance for Indian Visitors and 90 days for foreigners.
- In case there is any change in schedule or cancellation of jungle safari and night stay service, the user got advance information through
 - Notice board
 - SMS and email to the registered mobile number and email id (in permit)

CTR Management

- Reduced involvement of the staff in giving basic information and undertaking booking using manual methods. As a result they can now devote more time for other crucial activities.
- Online availability of MIS Reports facilitates better record keeping.
- Hassle free payment settlement by Payment Gateways leading to ease for visitors and Corbett administration.
- Automatic fund transfer to Government treasury is the next thing which is being processed now.
- Online management of services

Implementation coverage till date

Stake Holders

Tourists & Nature Lovers

- The web portal is 24x7 available to everyone
- Around the world, to avail the services of web-portal one just needs a PC and net connectivity.

CTR management

- Most of the ecotourism related booking and management work has been made online
- The automation of the services delivered through CTR Counter at Ramnagar is in pipeline.
- As checking of permits at entry gate is soon going to become the part of online system, it will restrict the unauthorized access in CTR reason.

In 1st phase online booking service was made available for Jungle Safari. Now the booking for night stay of the rest houses in CTR has also been made available online.

ENABLER INDICATORS

Process reengineering

This initiative has taken a holistic view of CTR procedures, paying more attention to Government process re-engineering to increase operational efficiency and citizen satisfaction. It has enabled the procedural changes in various front and back office processes to enable faster delivery of services, optimization of operational cost and improvement in quality of service delivery.

Change Management and Capacity Building

- NIC played a key-catalyzing role in the entire process. It evolved the concept, became the main implementer and technology partner.

- To implement the solution the CTR management staff was given proper training. Training was imparted to the CTR staff, before making any new module live.
- Change management was a major issue and was handled sensitively. Before making any module live the repetitive and interactive training sessions were organized for CTR staff. Starting from directorate staff to the staff posted at entry gates training was imparted.

VALUE INDICATORS

Digital Inclusion

The web portal is an all-inclusive program, and has vastly benefitted nature lovers and tourists. Following are the specific steps taken to address Digital Inclusion:

- Efficient and transparent service delivery to citizens by overcoming traditional methods.
- Capacity building by providing system training to department officials.
- Access to system through internet and booking counter at Ramnagar
- Incorporating innovative methods of communication: SMS, Email
- System has been developed in such a way that it can be converted in any local language and ready to use for other Transport Corporations in India

Green e-Governance

- The online booking system is less paper system.
- Centralized architecture eliminating the requirement of huge hardware establishment has saved lots of power consumption and e-waste.
- The booking service and related information are online served through web-portal, saving the papers used. The payment gateways have been provided interface for downloading the daily scroll and settlement of the payment. Thus no movement of papers

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KANYASHREE ONLINE 2.0

[Department of Women Development & Social Welfare,
Government of West Bengal]

Roshni Sen, IAS

DESCRIPTION OF PROJECT

Key concerns relating to West Bengal's female adolescent population are child marriage and retention in school. Evidential studies show that child marriage has a negative impact on maternal and child health and mortality, leaves girls financially and socially disempowered and vulnerable to child labour, trafficking and other forms of exploitation. In fact child marriages and low education levels perpetuate generational cycles of ill-health, illiteracy and poverty. KanyashreePrakalpa is a Conditional Cash Transfer Scheme that seeks to reverse these negative trends and improve the status and well-being of adolescent girls in the state. It has two conditional financial components:

- An annual scholarship of INR 500 (increased to Rs. 750 in 2015-16) is designed to facilitate the completion of education amongst unmarried girls aged 13-18 years enrolled in Grades VIII-XII or equivalent
- A one-time grant of INR 25,000 is meant for unmarried girls aged 18 years pursuing education, vocational or technical training courses or sports, or are residing in J. J. Homes.

Note: The scheme is open only to girls from families whose annual income is Rs. 1,20,000/- or less. For girls with special needs, as well as for girls currently residing in child care institutions, this criterion is waived. The scheme's objectives are:

- To increase the retention of girls in the education matrix, thereby giving them a better foundation for their adult lives
- To prevent child marriages, thereby reducing the risks of early pregnancies, associated risks of maternal and child mortality, and other debilitating health conditions, including those of malnutrition.
- To establish the foundations of financial inclusion by providing the scheme's benefits directly to bank accounts in the girls' names
- To reinforce the positive impact of increased education and delayed marriages, the scheme also works to enhance the social power and self-esteem of girls through a targeted behaviour change communication strategy.

Kanyashree's implementation is a model of good governance: Kanyashree Online is the Scheme's end-to-end e-governance portal (<http://wbkanyashree.gov.in/>). The Scheme is implemented by the Department of Women Development and Social

Welfare and Child Development in convergence with 13 government departments, the banking sector, National Informatics Centre, West Bengal, UNICEF, NGOs and the private sector, and multi-layered monitoring mechanisms promote efficiency, transparency and accountability. Timely delivery of scholarships is being ensured through “West Bengal Public Services Delivery Act”.

The Scheme is also backed by political support, ensuring its visibility and financial sustainability.

Kanyashree Online ensures that the Scheme is end-to-end e-enabled with the following features:

- One window service delivery through educational institutions (schools, colleges, madrasahs, open schools/universities, vocational, technical and industrial training institutes) with bank accounts being opened in neighbourhood banks.
- Transparent, zero-leakage processing of applications as enrollments, verification and validation of applications and sanctions are completed online, and benefits are paid through direct bank transfer to beneficiaries’ accounts.
- Beneficiaries can communicate with the system through various channels: directly through schools and block and district offices, through SMS and through web-based grievance mechanisms.
- Kanyashree Online serves as a real-time MIS for all implementers (in educational institutions, at block and district offices, and at state level)
- Its security and privacy mechanisms are of the highest standards.

RESULT INDICATORS

Kanyashree Online is a Government to Citizen (G2C) initiative with three broad categories of users:

- **Citizens** – Adolescent girls, the primary beneficiaries of the scheme’s conditional cash transfers, and their parents.
- **Implementors of the Scheme** (state, district, block project management units), key administrative officers at each level and educational institutions
- State, district and block level **steering and monitoring committees**

Benefits obtained

- **Citizens**- Applicants to scheme (and their parents) can track their applications’ status online, as well as submit grievances for redressal.
- **Implementing stakeholders** (i.e educational institutions block and district offices) conduct end to end processing of applications: data-entry of application forms and uploading of certification of eligibility, online verification of applications, sanctioning of applications and generation of sanction lists for banks to facilitate the direct bank transfer.

- **Steering and monitoring committees** Monitor the performance of the scheme through its real-time MIS reports

Implementation coverage till date

KanyashreePrakalpa covers the entire state of West Bengal. As on 23rd August 2015, Kanyashree Online serves:

- 25.90 lakh applicants of the annual scholarship, and 4.16 lakh applicants of the one-time grant.
- 14,298 educational institutions and 695 colleges, vocational and technical institutions functioning as service delivery windows
- 428 block / municipal offices and 65 sub-divisional offices (functioning as block – level project management units)
- 20 district offices (through district project management units)
- Department of Women Development & Social Welfare & Child Development (functioning as state level project management unit)

Efficiency and Improvement Initiatives

Beneficiaries fill in their application forms and hand them over to designated persons in their educational institutions. These forms are immediately entered into the portal by the educational institutions, with certificates scanned and uploaded as well. Once uploaded, these become visible for scrutiny and subsequently sanction and payment through direct bank transfer. There is no physical movement of paper forms, and no manual generation of scrutiny or sanction lists. These are entirely automated, and applications become visible to the appropriate officer / unit (user) depending on the user's authorization level. Only in cases where the educational institutions are unable to process applications because of lack of computer facilities, application forms are sent for data-entry to the appropriate block office.

In the case of renewal of applications for annual scholarship, and for girls upgrading from the annual scholarship to the one-time grant, application forms with details of the applicant are generated by the portal on demand, thereby reducing the amount of information that has to be manually written on the form, as well as entered on the portal. This also reduces the time for verification of details, as these will have been verified in previous years.

Wherever possible, batch processing of applications has been implemented, without compromising on data or process integrity.

The application is running on web and is available 24X7 365 days, so there is no cost of uploading or verification, only internet connection is needed.

Specific innovative ideas implemented

- The Scheme's implementation was intended to be e-governed from its very inception.

- The entire application life cycle has been automated.
- It is a transparent, work flow based system.
- ICT infrastructure available with educational institutions and administrative offices are being utilized, resulting in no extra cost to the exchequer or to the environment.

ENABLER INDICATORS

Process reengineering

The processes involved from submission of application to receiving of scholarship have been planned keeping in mind “Process re-engineering” aspects to ensure timely delivery of scholarships in a transparent and efficient way. The electronic workflow ensures ‘zero delay’ in processing scholarship applications.

The “Ten commandments” followed for Process Re-engineering:

- **Comprehensive Planning:** The reengineering strategy has been envisaged in a comprehensive way and assessed periodically by top management.
- **Stakeholders Analysis:** Implementing stakeholders are mainly officials from government departments, district and block administrations and educational officials. Technical consultancy has been judiciously sought for the scheme’s communication strategy and its monitoring and impact assessment strategies.
- **Selection of technology:** Latest but simple technology has been used at the front end for the benefit of the end users.
- **No legacy system:** The issue of a legacy system does not arise as Kanyashree is a new scheme. Continuous monitoring and course corrections were done throughout the life cycle of the scheme.
- **Innovative design of scheme:** KanyashreeOnline’s design and functional aspects are guided by the Scheme’s administrative needs and aligned with principles of e-governance, and its initial design was validated through consultations with a wide range of stakeholders, including end-users. Moreover, the design and structures are extensible, and are in a continual process of improvement depending on user’s needs and feedback.
- **Selection of appropriate software architecture:** Software architecture has been carefully drawn with the help of National Informatics Centre, the e-governance major.
- **Comprehensive M&E framework:** All the processes have been placed under electronic monitoring, and the Scheme has a comprehensive monitoring and evaluation plan.
- **Clarity of Roles:** Planning has been taken care of at the top-most level to ensure clarity at each steps and roles.
- **Long term commitment of Government :** The Government is very committed to ensure proper running of the scheme and it’s a long term

commitment to ensure that the scheme fetches empowerment of the girl child as a whole.

- **Proper Technical planning:** All technical decisions are carefully considered before implementation.

Change Management and Capacity Building

Capacity building activities include: (Figures as at August 2015)

- 24 video conferences at Secretary level
- 200 workshops with training of over training of 15,000 users (ADMs, DSWOs, DPO-ICDS, DIs / AIs / SIs DIO-NIC, SDOs, BDOs, BIOs, BWOs, DEOs and School and college teachers, Members of PRIs and ULBs)
- 10 state level master trainers
- 150 district resource persons
- Continuous capacity building of primary stakeholders is one of the key success factor of the initiative. Also the capacity building strategy improved the user performance and approval mechanism.

VALUE INDICATORS

Digital Inclusion

- Training of Stakeholders: DWCD with the assistance of National Informatics Centre (NIC) have completed training on the use of Kanyashree software in 21 Districts of West Bengal. Need based trainings are conducted as per requests received from Districts. NIC has also designated its nodal officers to provide technical help to those districts.

Green e-Governance

- Apart from paper-based application forms and certification, the entire process is conducted electronically, including sanctioning of applications and transfer of funds to beneficiaries, leading to a paper-less system. Many educational institutions have computers and internet connections, as do administrative offices. The number of new ICT facilities is therefore relatively low.

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INTEGRATED FINANCIAL MANAGEMENT SYSTEM

[Finance Department, Government of West Bengal]

H. K. Dwivedi, IAS

DESCRIPTION OF PROJECT

The Integrated Financial Management System (IFMS) project, which went live from 1st April 2014, is a web-based application implemented by the Government of West Bengal (GoWB) with the goal to ensure better fiscal management and efficient financial operations of the government. The system integrates financial activities of all the Departments, Offices, Directorates, District and Field Offices, Treasuries/ Pay & Accounts Offices (PAO), Local Bodies / Panchayati Raj Institutions (PRIs) and Drawing & Disbursing Officers (DDOs) and the specific modules supporting in these processes are briefed below.

- **Modules under IFMS**
 - The application has six modules having distinct characteristics and features of which the following four have already been implemented and are functional.
- **e-Bantan:** Online Fund Allotment Platform
 - Through e-Bantan, funds are being allotted from the Finance Department to 66 Administrative Departments and subsequently to about 8000 DDOs instantaneously through a pre-defined hierarchy of Directorates, District and Field offices. Allotment redistribution, withdrawal and re-appropriation facility is now possible among departments, sub-allotting officers and DDOs. Electronic Allotment Register of the specific treasury is updated as soon as budget is allotted to any DDO. Allotment orders are also available in dematerialized form. This has saved at least 2 to 3 months on an average over the previous system when allotment of funds and receipt at the DDO level was completely manual..
- **Centralized Treasury System (CTS):** Web-based Centralized Treasury System
 - Treasury Functions like Receipts & Payments, Pension, National Pension Scheme, Stamp, Local Fund & Personal Ledger Operations, Deposit accounts, Provident Funds of operators and Monthly Accounts of all the treasuries in the state are now accessible on IFMS portal (www.wbifms.gov.in). Monthly Accounts of all the Treasuries are available online to the system of Accountant General (AG), West Bengal.

- **e-Pradan:** Online Payment mechanism
 - West Bengal is the **first state in the country** to make e-payment through treasury level integration with **e-Kuber**, the core banking system of RBI. The payments to all types of beneficiaries / payees are instantaneously credited to their bank accounts, once those are passed by Treasuries/ PAOs.
- **e-Billing:** Online Bill Preparation & Submission
 - All DDOs are able to submit their Bills online using Digital Signature Certificates, which are individually provided. e-Billing is integrated with other modules of IFMS so as to eliminate multi-point data entry and data validation. The application has made the bill submission, processing and payment paperless to a large extent.
- **In addition** to these, the **Human Resources Management System (HRMS) module** of IFMS is under advanced stage of development. Through this module, the functions related with personnel database, pay and personal claims, loans, leave, transfer, posting and joining, promotion, retirement etc. of all human resources of the state government will be executed. This module with a comprehensive database is expected to facilitate planning and management of all employees of the state government. Further, the present dedicated receipt portal of the GoWB (called the **Government Receipts Portal System, GRIPS**) through which all tax and non-tax revenues are collected online is also under process of integration with the IFMS portal.

RESULT INDICATORS

- **e-Bantan or budget distribution system**
 - Funds can be allotted/ sub-allotted / withdrawn from & re-appropriated to the field units **instantaneously in dematerialized form**. Earlier allotment of funds and receipt at the lowest level used to take 2-3 months.
 - Due to strong integration between e-Bantan and CTS, the Fund allotment directly reflects at Treasury level which enables hassle free and faster bill processing.
 - Different types of reports are available which facilitates in taking informed decisions.
- **CTS**
 - Preparation, checking and reconciliation of Monthly Accounts and online submission to AG, West Bengal.

- CTS extend online payment facility for LF/PL/PF Account operators who can now issue online advice instead of Cheque for payment to any beneficiary. This is a major improvement that saves at least 10 to 15 days.
- Online tracking of Bills, Challans, PPO, Stamp Indent, Availability of balance fund at Treasury level, etc. is possible.
- Central monitoring of performance of all 88 treasuries from DTA.
- The pension of a new pensioner and retiral benefits will be credited to the pensioner's account in any bank on the day of his 1st appearance in Treasury. Normally it used to take about 30-45 days to get the first pension credited in to the bank account.
- **e-Billing (online bill submission)**
 - System based Validation of Fund Availability at the time of Bill Preparation with the Budget Allotment
 - Number of Bill Forms reduced from 70 to 30
 - Bill Register, Appropriation Register and Reconciliation Register are system generated
 - Bills are received at Treasury through Bar Code/QR Code on the bill leading to savings in time and manpower.
 - Duplication of Work eliminated through:
 - Instead of entering all components of the bill, the current system requires minimal data entry and all Schedules are subsequently generated by the system
 - Transfer of entries are not required to be entered at Treasury/PAO end
 - Pay order not required to be written in Treasury/ PAO
- **MIS and Dashboard:** Availability of real-time MIS and dashboards facilitates efficient decision support system to all the officials by providing real time data/ reports/ queries on accounts, funds, balances and status of bills and payments as well as receipt data across components like major head, scheme and DDO for various kind of analysis.
- **Pension Payment Management module** has automated the process of pension bill, preparation and disbursement. Pension bills can be generated accurately and quickly at all the treasuries in the state without any manual intervention. Pension is paid online to the accounts of the Pensioners.
- **Online Bill Status enquiry** service helps DDOs to know the status of bills along with the voucher details which are submitted to the treasury. This facility saves time and travelling cost of stake holders.

G2C Services

The various G2C services delivered currently and the benefits obtained from these services by the stakeholders are:

- Online payment to all types of beneficiaries / payees are instantaneously credited to their bank accounts once passed by Treasuries / PAOs
- “Know your e-Payment Status” link available on IFMS website enables all beneficiaries including pensioners to know the status and details of their payments from any/ all treasuries & PAOs in a secured manner.
- Challan Query service enables the stakeholders / depositors of Government revenues & deposits to know their challan status as well as the treasury challan details online.
- SMS Alert system helps the users/ beneficiaries by:
 - Informing about their user credentials
 - Receiving SMS regarding the details of payment once their bills/ claims are passed by Treasuries /PAOs
 - Intimating Budget allotting and receiving authorities whenever any fund allotment / sanction are issued from / to them.

Benefits obtained

- All Departments of the State Government., which are of 66 in number, get their financial sanctions instantly, once it is uploaded by the Finance Department.
- About 300 Directorates and over 1000 Regional, District and Field Offices receive all funds from the Department in dematerialised format instantaneously
- Payments out of Local Fund accounts of about 500 Local Bodies / PRIs is directly credited to their beneficiaries’ account
- Online application is available for re-allotment / withdrawal / re-appropriation of fund by about 1000 Budget Allotting & Sub-Allotting Officers
- All Drawing & Disbursing Officers (about 8000) submits online Bills and Payment requests to the Treasuries for direct transfer to beneficiaries bank accounts
- All Pay & Accounts Office / Treasury Office’s Staff & officers (about 1000) have access to System based processing and passing of bills.
- Government Employees / Non-Government Employees (about 9 Lakhs) get their salaries & other claims directly credited to their bank accounts.
- Pensioners (more than 6 Lakhs) get their pensions and other retiring benefits directly credited to their bank accounts.
- Scholarships and Social Security Pensions are also paid directly in to the bank accounts of the beneficiaries.
- Suppliers / Contractors / Service Providers (5 lakhs) get their all claims directly credited to their bank accounts.

Implementation coverage till date

- All 88 Treasuries and Pay & Accounts Offices, about 8000 DDOs, Operators of Local Fund/ Personal Ledgers/ Provident Funds Accounts, 10 lakh employees, more than 6 lakh pensioners, about 10 Lakhs suppliers/ contractors /service providers and around another 30 lakh expected beneficiaries of stipend, scholarship, social pensions across the state of West Bengal come under the implementation coverage of various modules of IFMS.
- Daily hit count of the website on an average is 2.1 million approx. (2,166,881). Average page view per day is 1.6million approx. (1,674,286).

ENABLER INDICATORS

- **Abolition of LOC** (Letter of Credit System) – Faster bill processing of all the Works Departments like of Public Works, Forest, Irrigation, Public Health Engineering (PHE) etc. are done through e-CTS & e-Pradan, instead of the earlier LOC System. Dual Accounting System of these departments has thus become redundant.
- **Direct Payment Procedures** - Direct e-Payment from the Treasury to Beneficiary's Bank Accounts instead of huge nos. of cheques being printed and delivered to DDOs.
- **Improved Treasury Accounting** - Accounting of failed transactions which was not possible earlier has now been incorporated. Also, with abolition of LOC system, Accounts of all Works department are now incorporated into the Treasury Accounts.
- **Simplified Bill Forms**: Existing bill Forms are clubbed, restructured, and redundant Forms abolished where ever necessary. Now, only 30 Forms are in place of 70.
- **System-based Budget Release** –Individual fund allotments from the Finance Department to field level used to happen through multiple channels of distribution.This has been replaced with system-based fund allotment and validation.
- **User convenience in Pension Payment** – Earlier, the cheques for the Pension of the pensioners were sent manually to the banks having pension bank accounts for credit into the respective accounts of the pensioner. Pensioners were required to have their accounts only in Treasury linked banks. With implementation of e-Pradan module, pensioners can now hold their accounts in any bank and pension will be directly credited to their bank accounts through online payment.

Change Management and Capacity Building

The biggest challenge was establishing institutional linkages between the technical team and domain experts. To address this, the Finance Department specially posted

an IAS officer of the rank of Secretary to the Government. to provide leadership to the team. A dedicated IFMS cell was created with about 10 senior, experienced and dynamic officers on full-time basis to provide domain support to Technical team and train the master trainers.

All the stakeholders were trained at different level locations. Modes of capacity building activities adopted were:

- Master Training to Resource persons
- Class Room Training to Users
- Hands on Training on dedicated Training Server
- Web based Training
- CBT (Computer Based Tutorials)
- User Manual and FAQs

The System Integrator has already provided classroom trainings to the Master trainers for about 155 training days who, in turn, have imparted multiple rounds of training to their respective subordinates and other users.

VALUE INDICATORS

Digital Inclusion

- In this project, no such hindrances have been faced yet. Cultural, language and demographic differences do not apply here as payment is basically a banking operation and is conducted mostly in English.
- On one hand, the government functionaries carry out most of their payment and accounting functions in English, while on the other hand, the beneficiaries too, get SMSes in English from the system stating the nature and amount of transaction.

Green e-Governance

- Availability of Allotment letters in dematerialized form to all stakeholders has substantially reduced use of papers.
- Complete elimination of printing of about 21 lakh cheques per year due to e-Payment has led to huge savings of paper, cartridges and printers.
- Comprehensive 1-2 page online e-bill forms reduced the use of paper to a large extent.
- Huge saving in fuel due to curtailment of requirement of multiple visits of DDOs to Treasury, Beneficiaries to Treasury/Bank & Treasury to Bank.

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eABGARI

[Excise Department, Government of West Bengal]

Smaraki Mahapatra, IAS

DESCRIPTION OF PROJECT

The West Bengal Excise Department plays the twin role of mobilizing resources for the State, and managing a sector which has a significant social and public-health import. The department is primarily concerned with regulating the manufacture, supply, distribution and sale of liquor and other intoxicants in the state, and the collection of state excise duties, fees and other monies derived from such regulation, while, at the same time carrying out enforcement activities to curb the manufacture, supply, distribution and sale of illicit and spurious intoxicants in order to minimize hazards to public health.

eAbgari was developed as an I.T.-enabled platform that would make it easier for liquor retailers, wholesalers and manufacturers to transact business with the department, while, at the same time, provide the departmental authorities an effective and efficient mechanism to regulate the manufacture and sale of liquor in the state. It has been designed as a system which, while ensuring timely and transparent delivery of the department's services to its stakeholders, would also check the evasion of state excise taxes and ensure that all liquor available in the state is sourced and sold through legal channels. All offices under the department have been computerized down to the Circle level and linked via MPLS based WAN connectivity during the last two years.

RESULT INDICATORS

- **Online Import Permit Module:** West Bengal being a net importer of alcoholic spirits procures most of the spirit used for manufacture of liquor and for industrial purposes from other states. The entire process, right from the raising of requisition by the importer to the approval and grant of Import Permit by the competent authorities, is handled online using the web based eAbgari platform.
- **Online Transport Pass Module:** All movement of liquor within the State is handled online using this module. Information regarding issue, despatch, unit wise stocks and liquor in transit is captured on a real-time basis. All information starting from the number of bottles to the specific attributes like liquor type, brand name, measure, batch number, batch date, strength, duty and fee involved with details of deduction etc. are logged into the system which are aggregated to generate intelligent reports.
- **Inventory Management Module:** Inventory data of liquor imported into or manufactured in or transported within the state is managed online using

electronic supply chain management tools. The movement of each bottle of liquor can be tracked and traced across the supply chain.

- **Barcodes and QR Codes:** As a part of the government's decision to improve the present system of supply chain management of packaged foreign liquor and country spirit, and to establish a mark of authenticity on the bottled liquor produced in or imported into the state, barcode and QR Code based supply chain management methods have been incorporated in the eAbgari package.
- **eReturn and Business Intelligence Module:** Monthly revenue and consumption returns are uploaded by concerned users across the State and such data is captured, collated and aggregated through M.I.S linked to such modules. The excise establishment wise detailed revenue figures, receipt and sale figures including stock inventory of bottled liquor is available to officers across the hierarchy. This provides intelligent data for effective administrative and policy interventions.
- **Daily Preventive Raid Reporting System:** The Daily Preventive Raid Reporting System ensures that data regarding enforcement activities of the department are logged into the system on a daily basis by all the revenue and preventive units. All data regarding number of places raided, cases detected, seizures and arrest figures are available on a real-time basis. Such data is processed, consolidated and aggregated by the system to generate unit wise, district wise and state wise intelligent M.I.S reports.
- **Online Application for New License and Renewal Modules:** In keeping with the expedient eGovernance initiatives of the government, a dedicated Citizen's Corner has been developed and deployed in eAbgari, whereby ordinary citizens can access an online eService for preparing and submitting applications for new retail excise licenses. The workflow based system facilitates tracking the entire movement of the application from end to end. Also, the Renewal of License module, which has been in operation for the last three years, ensures that all applications for renewal of existing licenses are processed online.
- **Court Case Monitoring System:** This module ensures that the status of cases under appeal pending in the Hon'ble Supreme Court of India, the Hon'ble High Court, Kolkata and other Tribunals are tracked on real-time basis.
- **Excise Case Monitoring System:** The quasi judicial proceedings against erring license holder of the Excise Department are processed and handled using this online eService.
- **Chemical Examination Laboratory Module:** Under this eService the chemical testing of contraband seized articles is being handled online. This expedites the process of prosecution of offenders.
- **GIS Mapping of Excise Establishments:** The geographical coordinates of all licensed establishments across the State have been mapped using GPS Tools based on Android applications.

Benefits to Government / Organisation

- Administrative processes have been standardized and scope for discretion minimised.
- Holistic, integrated transparent and accountable governance model.
- Minimal human intervention and reduced chances of error.
- No burden of physical document management.
- Digital archiving of documents / information and easy data retrieval process.
- Intelligent M.I.S data available for effective administrative intervention and policy formulation.
- Effective enforcement on account of enhanced monitoring and reduced risk to public health from spurious and counterfeit intoxicants.
- And above all the collection of Excise revenue has gone up from Rs. 1769 crores in 2010-11 to Rs. 3582 crores in 2014-15, registering a CAGR of 19.3 %, mainly on account of better monitoring and regulatory practices.

Benefits to Citizens

- Availability of all relevant information regarding the statue, rules and procedures and ease of business with the Government.
- Reduced discretion of local offices and governance with minimal human interference.
- Overall and drastic reduction of service delivery time.
- Delivery of life saving drugs to CCUs within 90 % reduced time and ease of availability.
- Reduced risk of public health hazards owing to enhanced monitoring and effective enforcement activities of the department.
- Ease of transaction of business with the department for liquor manufacturers, wholesalers and retailers.
- Availability of service request status information both online and through SMS.
- Round the clock and universal accessibility of eServices offered by the department over the World Wide Web.

Benefits to other stakeholders

- Licensing and procurement of life saving narcotics medicine by Hospitals / CCUs made easy and hassle free.
- Procurement of spirits for medicinal and academic purposes by Hospitals and Educational Institutions made easy.
- Employees of the department no longer need to take the burden of physical document management.

- Record retrieval and data compilation is easy and error free leading to reduced burden for employees.
- Other Government departments / organisations like the Commercial Taxes Directorate have benefitted from the project due to data sharing on manufacture and distribution of taxable goods that fall jointly under the purview of both the departments.
- Online payment of State Excise Duties and Fees leading to reduced burden on Banks / Treasuries.

Implementation coverage till date

- All the 20 administrative districts, with 87 Excise Ranges and 215 Excise Circles, in the State of West Bengal are covered under the project.
- Though the project is primarily targeted at businesses engaged in manufacture, distribution and trade in potable liquor and industrial spirits as also the health care sector in so far as procurement and distribution of life saving narcotic medicine is concerned, the benefits accrue to the entire population of the State. Also, 100 per cent of the population can access the citizen centric services offered under the project.

Specific innovative ideas implemented**Innovation**

- Use of Web based mechanism instead of intranet for dissemination of the project ensuring universal access.
- Use of smart pop ups for dissemination of all necessary information.
- Use of smart built in validations in order to ensure compliance to the statute.
- Work flow based processes removing superfluous layers within the administrative process chain.
- Standardisation of processes through built in validation checks minimizing discretionary human intervention.
- Use of GI tools like GPS based mapping of Excise Licenses across the State.
- Use of BI tools for generation of intelligent M.I.S data.
- Pendency checker for tracking process pendency at all hierarchical levels.
- Online dynamic dashboard for excise officials / licensees.
- Free auto SMS alerts / notifications through Push SMS to stakeholders.
- Application tracking (status, remark trail) on the click of a mouse.
- Extracting process status information or validating authenticity of permits / passes / packaged liquor through free SMS Pull service.
- Checking authenticity of Bar-coded Permits / Passes of in transit consignments through mobile apps by excise officers using smartphones.

Impact

- 24x7 Service time Window for licensees - no more bank/government office time constraints for submissions of application, requisition, payment of excise duties/fees
- Reduced Cost of Compliance for excise licensees – time and cost - no more standing in queues, any time submission, no more stack of papers, no more multiple copies of returns
- Locational independence for compliance - just a click away, through internet access anywhere - services adding to transparency and reduced person dependency
- e-Abgari portal works as a mentor for licensees/applicants for licenses - what, how, when - user friendly guide for licensees and citizens regarding all aspects of West Bengal State Excise
- Availability of Information - copy of latest Acts, rules, notifications are available instantly on portal, copy of notices and acknowledgement sent to licensees to their e-Abgari inbox
- Tracking service delivery of department - licensee can track status of his applications from portal, resulting in reduction in visits, time & cost
- Quick Service towards RTI and to stakeholders - with availability of all information in a single, central system, excise authorities can render quick services to all concerned
- Reduced cost of collection for each rupee of Excise Revenue generated - less time to reconcile, reduced follow-ups, prompt collections
- Real-time supervision & monitoring of work by the Excise Commissioner / senior officials - availability of real-time work task information at all levels of hierarchy – completed, pending, ageing, etc.
- Real time complete data - latest positions of revenue collection, generation and availability of uniform and accurate data
- Sharing licensee ledger with licensee - improved transparency, self-verification by licensee about stock inventory, duties/fees, returns, etc.
- Policy making and decision making - MIS, detailed analysis, slicing-dicing available which assists in reviewing policies and decisions
- Ensuring licensee's satisfaction – maximizing impact - electronic services available on 24 x 7 basis, dedicated cell available for quick redressal of queries / problems / requests, application tracking system available for online requests – reduces phone calls / visits to excise offices
- Exchange of Information - data available on electronic format can be exchanged between different government departments / agencies
- Increase in compliance - due to availability of all information, cross checking of information, increased transparency results in increased duty/fee compliance

- Reduction in time-barred cases - reduction of time in scrutinizing all information, reduction of time in gathering information for statutory compliance on monthly, quarterly/half yearly/yearly basis, more time available to focus on assessment, refund and recovery
- Opportunity for process improvement - with information being available centrally and online checks available, number of manual checks going down gradually
- Dynamic routing of electronically-filed documents to the concerned official within e-Abgari, based on the type of service request
- Reduction in costs – less time to process files based on documents, to scrutinize requisitions in details resulting in netting of more revenue, reduced consumption of stationery, reduced expenditures towards courier / postages.
- Electronic workflow systems to augment speed and ensure service delivery
- Storing of all approved documents of state excise as part of electronic records, including provision of access to electronic records for the stakeholders
- Increasing efficiency of scrutiny in issuance of permits/passes by system-verification on availability of adequate bond value, label registration of brands, auto-calculation of duties/fees
- Enhancing identification of defaulting licensees
- Reduction in opportunities for corrupt practices by allowing ‘anywhere’ and ‘anytime’ access for excise licensees & citizens from the Internet and eliminating the human interface i.e., licensee/citizen and department interaction during grant of license or issuance of permits/passes
- Online Tracking of Status of different processes viz. Grant of License, Issuances of Transport Pass, Import Permits etc. by service recipients.
- Providing alerts to higher authorities when the services are not rendered within the stipulated period
- Enabling quicker responses to licensee/citizen grievances
- Integration with State Payment Gateway GRIPS and Commercial Tax Application of West Bengal
- Preservation of knowledge for state excise employees in a centralized and easily accessible repository comprising of acts, rules, circulars etc.

ENABLER INDICATORS

Process reengineering

The specific areas where major ICT process changes were planned and implemented are:

- Import Permits for Spirits used for the manufacture of liquor and for bottled liquor
- Import Permits for Spirits used for industrial or medicinal purposes

- Transport Passes for movement of Bulk Spirit and Packaged Liquor within the State
- Stock Inventory and Stock Transaction management at liquor businesses
- Registration of brands and labels of Foreign Liquor and Country spirit
- Grant and Renewal of Excise Licenses
- Payment of Excise Duties and Fees
- Collection and aggregation of data regarding revenue, production and sale of liquor, excise-related crimes and enforcement activities

It is significant that, between 2010-2011 and 2014-2015, the Excise Revenue of the Government of West Bengal grew by nearly 114% while sales of liquor in the state increased by only 54%. This was achieved largely on account of the process re-engineering exercise implemented by the department

Change Management and Capacity Building

Considering the reach and extent of the re-engineering initiative a separate I.T Cell was created under the Excise Directorate during 2012 which is being headed by an officer of the rank of Additional Excise Commissioner. Also, the top administration was sensitised and trained in the initial stages of project implementation and given defined roles for co-ordination with the stakeholders. Project Monitoring Units were set up under officers of rank of Additional Excise Commissioner and Joint Commissioner of Excise who can be reached over telephone and e-mail 24 x 7. Innovating use of social media platform like Facebook, Twitter and Youtube was made for awareness and expanding reach of the project.

- Support services are made available to all stakeholders round the clock.
- Resource personnel identified at all levels – including State and District Levels – and trained under the TOT model.
- Regular training sessions at the Excise Training Institute at Excise Directorate HQs and also at Regional Training Centres.
- On-site support to businesses and officers posted at distillery, manufacturing units etc.
- District level orientation and training exercises with all stakeholders conducted at regular intervals.
- Hands on support facilities made available throughout by hiring software support personnel.

VALUE INDICATORS

Digital Inclusion

- Local language user interface has been provided for widening of outreach and easy dissemination of information.

- The application is hosted on the World Wide Web which makes access universal. Practically anyone with basic computer hardware and an internet connection can access the services.
- Efforts have been made to make the interface user friendly with online user manuals available for each process re-engineered.

Green e-Governance

- The project has been designed for achieving paper-less office.
- Electronic Information Management System has ensured easy retrievability of data at any time and hence obviated the need for taking print outs.
- The Electronic Inventory Management at business premises has reduced the need for physical visits to such premises by officers which in turn has reduced fuel consumptions and vehicle use for such exercises.
- Information sharing and communication amongst offices at all levels using BI tools built into the project has reduced the need for manual delivery of information which in turn as further rationalized vehicle use and reduced carbon footprint.

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**NATIONAL TRACKING SYSTEM FOR MISSING & VULNERABLE
CHILDREN (TRACKCHILD2.0)**

[Child Development, Women Development and
Social Welfare, Government of West Bengal]

Roshni Sen, IAS

DESCRIPTION OF PROJECT

The pilot programme of “National Tracking System for Missing Children” was launched in West Bengal way back in 2007-08. After successful implementation over next few years, the system rolled out nationally in 2012-13. DWCD, West Bengal provided active technical support from NIC-WBSC pioneered this initiative. The system also paves the way to effectively implement “Anti Human Trafficking Initiatives” by DWCD & Police.

Objectives of TrackChild

- To create a systematic and centralized mechanism for tracking of missing children & adult.
- To ensure restoration and rehabilitation of the missing and vulnerable children
- To build real time monitoring mechanisms in order to ensure proper care and development of the children residing at the Child Care Institutions
- To set up a framework for participating organization involved in the process of child protection.
- To set up a Web-enabled Child Protection Management Information System (MIS) for various ICPS bodies.

Features of TrackChild

- Online resource directory of Child Protection Service Providers like Police, Child Care Institutions, Child Welfare Committees, Juvenile Justice Boards, ICPS stakeholders like SCPS and DCPU
- Online data repository for all missing and recovered persons including women & children
- Online data repository of all children residing in Child Care Institutions throughout the Country.
- Monitoring of overall progress & development of children residing in Child Care Institutions
- Built-in Workflow for Anti Human Trafficking Units (AHTU) of State & Districts to track & monitor “Women & Child Trafficking Syndicates”
- Automated Progress Report Generation (Physical / Financial) for Integrated Child Protection Scheme (ICPS)

- Effective Searching and Matching mechanism to track missing children/person.
- Monitoring by the District Magistrates / Superintendents of Police
- Monitoring through Legal Services Authorities

RESULT INDICATORS

A Report as on 20-08-2015 shows that the system is being used by West Bengal Stakeholders in a very extensive way. A total of children admitted to CCI in India is 34,163 and in West Bengal are 12,673

Key Performance

- Government -to-Citizen-
 - Online complaint lodge for a missing and sighting child.
 - Photograph gallery of missing and found children.
 - Advance searching facility.
 - Online recovery status checking of a missing case any time through the portal.
 - SMS based alert for a missing and found case.
 - Multi-lingual home page for better understanding of usefulness of the portal.
 - Searching details of various law enforcement agency like
 - Police Station, Anti Human Trafficking unit etc and ICPS bodies like CCI, CWCs and JJBs
 - Automated matched child list.
- Government to-Government -
 - Centralized Database for storing the details of Missing and found child.
 - Combine near about 16,000 PS and others law enforcement agencies like CID, DCRB etc into one system.
 - Combine near about 5,400 CCIs and others ICPS bodies like CWCs, JJBs, DCPUs etc in to one system.
 - Advanced searching mechanism.
 - Multi-lingual data entry forms
 - Automated Matching system.
 - Automated SMS alert system at various levels.
 - Online MIS reports generation and print for better monitoring.
 - Online Technical support system.
 - Training Handholding of officials of State DWCD and ICPS stakeholders
 - Data Entry Support to enter every CCIs infrastructure other details. Data entry for Childs Profile, Orders of CWCs, JJBs etc
 - Technical Support to 22,000 CCIs, ICPS Bodies and other stakeholders through National Help Desk.

- Automated MIS for decision making and monitoring
- Automated E-mail & SMS alerts
- Matching Alerts Information
- Data Entry for Missing & Found Children
- Automated Face Matching for better matching and repatriation

Implementation coverage till date

The portal is running in all states throughout the country. In West Bengal all 54 registered CCIs are uploading data on the portal.

ENABLER INDICATORS

Process reengineering

- Online searching and matching mechanism of missing and recovered persons including children. Automated match alerts for stakeholders of the system.
- Facility of sending quick alerts to authorities by citizen to inform a missing / sighting. Alert can be sent from mobile phones also.
- Mechanism to maintain online health registers for children placed at various Child Care Institutes.
- Auto forwarding of missing cases pertaining to Anti-Human trafficking Unit.
- Design of modified web-based data capturing formats for use of stakeholders. New data capturing formats have also been developed where ever needed.

Change Management and Capacity Building

- The Ministry of Women and Child development(MWCD) have been closely working with all the stake holders working in the area of child protection in the country and have organized various meetings/consultations specially with the State governments, Ministry of Home Affairs (MHA) National Crime Records Bureau (NCRB), State Department of Home (Police), National Institute of Public Cooperation And Child Development (NIPCCD), Central Adoption Resource Authority (CARA), Zonal Integrated Police Network (ZIPNET) of Delhi Police and ChildLine India Foundation
- Two National Conferences were also organized, on 30.10.2012 and 12.12.2013 and Four Regional Consultation Programs were conducted in 2014 to sensitize the high level Officers of States' department of WCDs, Police personnel and other stakeholders.
- MWCD with the assistance of National Informatics Centre (NIC) have completed training on the use of TrackChild software for Police officials and ICPS functionaries in 36 States/UTs. Need based trainings and Video Conferences are conducted as per requests received from States. NIC has also designated its nodal officers to provide technical help to 36 States/UTs.

TrackChild nodal officers have also been appointed by departments of WCD by States/UTs. E-mail and telephonic support is also provided to users.

VALUE INDICATORS

Digital Inclusion

- **Multilingual Support:** In order to provide full benefit and ease of access to diversified users having linguistic issues, decision have been made to make the portal available in all officially recognized languages in India. Currently English, Hindi and Bengali language support is provided and other language support is in process.
- **Regional Training of Stakeholders:** MWCD with the assistance of National Informatics Centre (NIC) have completed training on the use of TrackChild software and ICPS functionaries in 36 States/UTs. Need based trainings are conducted as per requests received from States. NIC has also designated its nodal officers to provide technical help to 36 States/UTs. TrackChild nodal officers have also been appointed by departments of WCD by States/UTs to deal with state/region specific issues.

Green e-Governance

- TrackChild maintains e-profile of children/person receiving services from ICPS Scheme. The portal provides transparency to all stake holders. Data entered at the lowest level is available to all higher level competent authority 24 X 7, 365 days, thus avoiding the age old tradition of paper-based data transfer. Feedbacks and grievances are also processed online.

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Section-IV
About SIGeGov



ABOUT CSI SPECIAL INTEREST GROUP ON EGOVERNANCE

(CSI-SIGeGOV)

Ashok Agarwal and R K Bagga

Background

Computer Society of India (CSI) has implemented the concept of “Special Interest Groups” to promote activities and research in major focused areas. Special Interest Group on eGovernance (SIGeGov) has been formed in Hyderabad during 2006 with support from CSI HQ and CSI Hyderabad Chapter. The basic objective has been to focus on an important area where Information Technology can be leveraged and bring likeminded professionals together to add value by bringing out recommendations relevant to various stake holders. CSI is the only professional society covering individual users and citizens as members and is most appropriately suited to focus and add significant value to the successful implementation of eGovernance initiatives in our country. Because, eGovernance has the capacity to take our country to next generation as developed nation and mission of CSI-SIGeGov is to play an important role in that process. SIGeGOV has become more relevant now with the Government of India launching mission ‘Digital India’ using Social Mobile Analytics Cloud (SMAC).

Objectives

CSI-SIGeGov objectives include knowledge sharing with all stakeholders through holding conferences, Knowledge Sharing Summits (KSS) and recognizing eGovernance initiative by giving CSI Nihilent eGovernance Awards (CNEA). CSI has instituted Nihilent eGovernance Awards and SIGeGOV is expected to organize these awards and implement judging process; SIGeGov has Secretariat for eGovernance awards and maintain updated databases of all relevant stakeholders in this area; Support research in selected areas assessment framework and implementation strategy for e-Government projects; Participate in the processes for evolving standards in technology, processes and databases; Conduct of National and International conferences in eGovernance individually or by joining hands with other institutions; Interact with international bodies like IFIP and SEARCC to benefit India by sharing our experiences with other nations. With this context, the following activities were undertaken by CSI SIGeGOV.

I. CSI Nihilent eGovernance Awards (<http://www.csinihilent-egovernanceawards.org/>)

CSI-SIGeGOV has instituted a series of awards by recognizing contributions made in the field of eGovernance in the country. This exercise is being sponsored by Nihilent Technologies Ltd., Pune. The awards are given for recognizing the efforts made in eGovernance area, specifically for States and Projects. There is an active participation for these awards from State and Central Government authorities and many Undertakings, research establishments. Participation by many of these Central and State level organizations have made these Awards an awaited event, every year since 2002. Concept of field visits and Analytical Hierarchy Process (AHP) was implemented to make the award process to government officials. Publishing the shortlisted nominations in the form of a book is another feature for wider circulation and knowledge sharing.

II. Knowledge Sharing Summit (www.csi-sigegov.org)

The National level eGovernance Knowledge Sharing Summit (KSS) is an annual event organized by CSI-SIGeGOV in collaboration with respective States. The summit aims to provide a forum for policy makers, practitioners, industry leaders and academicians to deliberate, interact and develop an actionable strategy for transparent and good governance. To grow rapid and successfully, there is a need to respond proactively to the changing environment. This essentially calls for strengthening the capabilities, seizing and exploiting the opportunities. There is an inherent need to explore and share success stories, best practices and achievements spread across the country for better implementation of eGovernance initiatives. The KSS intends to provide a forum for discussion on eGovernance initiatives, implementation strategies and challenges and to share learning from national best case studies. SIGeGOV launched a website to act as knowledge portal for all eGovernance initiatives in India. In 2009, the first KSS was held at Hyderabad with the support from Erstwhile Government of Andhra Pradesh. In 2010, the second summit was held in Bhopal with support from Government of Madhya Pradesh. In 2011, third summit was held in Gujarat with support from Government of Gujarat. As a special gesture - during KSS-2011 CSI conferred on Shri Narendra Modi, Hon'ble Chief Minister of Gujarat its first e-Ratna award recognizing unique leadership using ICT in the State of Gujarat for providing better citizen services over the years. In 2012, KSS was held at Raipur with support from Government of Chattisgarh. Shri Raman Singh, Hon'ble Chief Minister was conferred as e-Ratna award for the year 2012. Then in 2013, KSS was held at Visakhapatnam along with 48th CSI Annual Convention with Shri J Satyanarayana the then Secretary, IT was the Chief Guest for Awards ceremony. In 2014, KSS was supported by Government of Telangana and held in conjunction with 49th CSI Annual Convention at JNTU, Hyderabad.

III. International Conference on eGovernance (www.iceg.net)

International Conference on eGovernance (ICEG) was founded at IIT Delhi in 2003 to address the growing need for furthering our knowledge in eGovernance. It is organized under the umbrella of International Congress of e-Government (ICEG) which is a forum for the advancement of knowledge in eGovernance and to promote various government levels across the globe. ICEG is to serve as a premier global organization where various stakeholders (academics, government officers, industry, professionals, NGO, citizens, government and international agencies) can participate and share ideas and resources for the knowledge creation, skill development, networking and spread of e-government at various levels. It became a beacon for eGovernment policymakers with its very first conference in 2003 when the then President Dr APJ Abdul Kalam guided the conference as Chief Guest. SIGeGOV jointly organized ICEG series at University of Hyderabad in 2008; at IIT, Delhi in 2009; at IIM, Bangalore in 2010; at NIRMA University, Gujarat in 2011; and at SCMS, Kochin in 2012.

IV. Research Projects

The following are some of the important research activities with which CSI-SIGeGOV has been associated in the recent times

- a) A research study on “eGovernance in Kerala – G2C strategies for augmenting citizens experience” funded by the International Centre for Free and Open Source Software (ICFOSS), Government of Kerala was successfully completed by SIGeGOV and a report was submitted to the Government of Kerala.
- b) SIGeGOV has one of the largest repositories of India-centered eGovernance case studies. With a view to opening up these to researchers, Government functionaries and the larger public, a searchable database has been created and incorporated into a fully revamped state-of-the-art SIGeGOV portal.
- c) The Research Center for eGovernance [RCeG] of IIIT-Hyderabad undertook a project for the development of advanced teaching case studies for use in eGovernance capacity building programs. Some of the senior members of the SIGeGOV participated in the project and helped ensure that the outcome was as desired by National e-Government Division [NeGD] of Government of India.
- d) A special bonding exists between the Research Center for eGovernance [RCeG] of IIIT-Hyderabad and SIGeGOV. It is expected that members of SIGeGOV will be involved in projects of national importance expected to be undertaken by RCeG during 2015-16 – projects such as study of technology trajectories related to the security of individuals and physical

infrastructure in India, development of eGovernance systems dynamics models, conduct of advanced eGovernance capacity building programs etc

V. CSI Hyderabad Chapter (<http://www.csihyderabad.org>)

CSI was born in Hyderabad in 1965. CSI Hyderabad Chapter is one of the largest Chapters in India with many senior members and large number of student branches. It has been a vibrant chapter since the inception with many programs and conventions conducted on regular basis. The team at Hyderabad chapter has a blend of Members from Industry and Academia with a mission to bridge the gap. Hyderabad chapter is the only chapter in the country which has its own Social Networking website (<http://www.csihyderabad.ning.com>). CSI Hyderabad has tied-up with corporate organizations to provide in-depth training and executing live projects for students in the final year engineering colleges, as a part of their curriculum. The program starts off with an intensive training program that is customized based on live projects, covering programming languages, platform, database management, software development life cycle, project management, documentation, team work and soft skills etc.

VI. CSI Students Branch (CSISB) at IIIT, Hyderabad (<http://csi.iiit.ac.in/>)

CSI has large number of student branches with over one lakh members including India's most famous IT industry leaders, brilliant scientists and dedicated academicians. The mission of the CSI Student Branch at IIIT-Hyderabad is to facilitate research, knowledge sharing, learning and career enhancement for all categories of IT professionals, while simultaneously inspiring and nurturing new entrants into the industry and helping them to integrate into the IT community. Based on recommendations of a SIGeGOV, a syllabus on eGovernance suggested for Universities/Engineering colleges. As a pilot, successfully introduced at IIIT Hyderabad, four courses on eGovernance have been completed.

VII. CSI SIGeGOV Publications

The following *eleven* Books covering research case studies on eGovernance, were released during Annual Conventions of CSI and are available free to download at www.csi-sigegov.org/publications.php.

1. Digital India in Action - Selected e-Government initiatives in India. Ms Ayaluri Sridevi and Dr K S Vijaya Sekhar (2015).
2. Envisioning a Digital India: Selected eGovernance initiatives. Harish P Iyer, K S Vijaya Sekhar, Sridevi Ayaluri and Dr Piyush Gupta. Religiarte Interactive (2014).
3. Compendium of Selected eGovernance Initiatives in India. Harish P Iyer, K S Vijaya Sekhar, Sridevi Ayaluri and Dr Piyush Gupta. Virtual Reality Books (2013)

4. Inclusive Growth through eGovernance: Selected eGovernance Initiatives in India. Surendra Kapoor, Prabhu Gollamudi, Nityesh Bhatt and Harish P Iyer. Universities Press (2012)
5. Widening eGovernance Canvas: Selected eGovernance Initiatives in India. Surendra Kapoor, GSN Prabhu and Niytesh Bhat. ICFAI University Press (2011)
6. Enablers of Change: Selected eGovernance Initiatives in India. Piyush Gupta, R K Bagga and Ayaluri Sridevi. ICFAI University Press (2010)
7. Fostering eGovernance: Compendium of Selected Indian Initiatives. Piyush Gupta, R K Bagga and Ayaluri Sridevi. ICFAI University Press (2009)
8. Transforming Government: eGovernance Initiatives in India. R K Bagga and Piyush Gupta. ICFAI University Press (2008)
9. Compendium of eGovernance Initiatives in India. R K Bagga and Piyush Gupta. University Press (2007)
10. eGovernance Case Studies. Ashok Agarwal. Universities Press (2006).
11. The State, IT and Development. R K Bagga, Kenneth Keniston and Rohit Raj Mathur. SAGE (2005).

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LIST OF ACRONYMS AND ABBREVIATIONS

APMC	Agricultural Produce Market Committees
CMA	Commissionerate of Municipal Administration
CSS	Cascading Style Sheet
DR	Disaster Recovery
GIGW	Guidelines for India Government Websites
GPR	Government Process Re-engineering
HTML	Hypertext Markup Language
JK-ERMS	J&K Electoral Rolls And Epic Management System
JSON	Javascript Object Notation
KVK	Krishi Vigyan Kendra
MMP	Mission Mode Project
NIC	National Informatics Centre
OGD	Open Government Data
OS	Operating System
PeMT	Project eManagement Team
PHT	Pre-Harvest Test Certificate
PMU	Project Management Unit
RCeG	Research Center for eGovernance
RTE	Right To Education
RTI	Right To Information
RWD	Responsive Web Design
SaaS	Software as a Service
SAN	Storage Area Network
SDLC	Software Development Lifecycle
SSL	Secure Sockets Layer
TINXSYS	Tags Information Exchange System
WCAG	Web Content Accessibility Guidelines
XML	Extensible Markup Language
KMS-	Knowledge Management system
eLeave	Leave Management System
eTour	Tour Management System
eProMIS	Web enabled Project Management Information System

Digital India – In Action, Selected e-Governance Initiatives in India

Digital India, a flagship initiative of the Government of India has gained recognition as a key driver for Nation development through digitally empowering citizens and build a knowledge economy. Knowledge based transformation aimed at improving institutional good governance to citizens is planned to be achieved through co-ordinated efforts at Central and State Governments.

Programs like NeGP, launched earlier identified a no of Mission mode projects both at Central level as well as at Stat level, which have helped in creating an invisible thread of e-Governance community engaged in interactions, cross learning and knowledge sharing to drive cost effective and efficient solutions. To substantially realize and scale up the advantages of investments towards this journey of achieving a knowledge economy focus is being given to macro themes like organizational efficiency, reengineering of processes, applying of innovative ways to achieve the goals and for Technology adoption.

Computer Society of India's Special Interest Group on e-Governance (CSI SIGeGov) has the privilege of assessing several of such e-Governance projects over the last many years as part of the CSI Nihilent e-Governance Awards initiative. Pioneering workof several Government entities both at Central as well as States/UTs have also been recognized by way of CSI Nihilent e-Governance Awards, since the launch of these awards 13 years ago. Documenting such success stories, like this compendium is an important activity towards building a knowledge driven society, learning by experience of best practices from across the practioners.

It is our view that the casespresented in this compendium reflect 'Digital India' in action helping the policy makers to review, invent and reinvent newer ways of providing services by making stake holders truly participative through reliable, relevant & ease of use information/digital data. CSI SIG and the authors believe that compendiums like this will serve the cause of 'Digital India' with the published case studies reflecting ground level action scenarios- successful projects accompanied by learnings.



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