INITIATIVES OF URBAN SECTOR IN KARNATAKA

Best Practice Catalogue 2014-15

CMAK
ಸಿಮ್ಯಾಕ್

.....workable solutions to help you make a difference !!

BEST PRACTICE PROGRAM

Best Practice Program and Documentation is a Flagship Program of City Managers' Association, Karnataka (CMAK). CMAK in association with Urban Development Department is documenting the best initiatives in the urban sector of the Karnataka.

Urban authorities are taking measures to control and divert the development into a sustainable living environment. For efficient functioning of the Municipalities innovative urban management tools and practices are a requisite. A **"Best Practice"** is a technique or methodology that, through experience and research, has proven to reliably lead to a desired result. It is such a practice which is sustainable for long duration and self sustainable.

In this context, any Best Practice that is taken up by any Urban Local Body has to be recognized and applauded. Identification and documentation of such practices will provide valuable database for capacity building of local bodies. It will also encourage the local bodies to adopt and evolve new ideas leading to the setting of new paradigms for effective governance and efficient urban management in future.

Initiatives that have been successful in solving problems in a city can be adapted to solve similar problems in other cities. Such Best Practices should be transferred to encourage the local bodies to adopt and evolve new ideas for effective urban governance and efficient urban management. A commitment to using the best practices in any field is a dedication to using all the knowledge and technology at one's disposal to ensure success.

Objectives of Best Practices Documentation:

- The programme aims to identify and document good initiatives undertaken by the Urban Authorities of the cities.
- Analyze how some of these initiatives succeeded as a measure for sustainable and better living environment.
- Encourage the idea of learning from existing examples.
- Platform for sharing of initiatives among all stakeholders for efficient planning, management and governance of the cities.

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Initiatives of Urban Sector in Karnataka (Best Practice Catalogue 2014-15)

Published by :
City Managers Association, Karnataka (CMAK)

In Association with :
Directorate of Municipal Administration (DMA) Government of Karnataka

PREFACE

One of the core functions of CMAK is documentation . “Best Practice” is the “knowledge about what works in specific situations and contexts, without using inordinate resources to achieve the desired results, and which can be used to develop and implement solutions adapted to similar problems in other situations and contexts”.

Increasing urbanization and the concentration of the population are associated with increasing issues in cities and towns, such as high population density, traffic congestion, pollution, slums, rise in urban poverty, environmental degradation, shortage of housing, civic services and infrastructure etc. Urban Local Bodies (ULBs) which bear the primary responsibility of providing basic civic amenities are experiencing a number of constraints such as poor revenues, inefficient organizational and human resources, lack of supportive environment etc. Hence, ULBs are constantly under the challenge to discharge their responsibilities effectively to improve service levels. This best practice program is giving a boost to their efforts and rewarding their activities.

Best practice program is also a step in this direction to collect and document some of the good initiatives implemented by the ULB’s in any municipal service sector. The process involves systematically documenting the activity and bringing out a printed version in the form of a Catalogue . The initiatives are subjected to a process of evaluation done by a Panel of experts from various fields to rank them and award the efforts as “ Best practice award” .

Seeing is believing !! Therefore, the already existing good practices of progressive ULBs can best illuminate the path for other ULBs in search of clues and directions.

The Catalogue is primarily a compilation and thematic organization of the information received from ULBs as well as other sources such as articles and reports available in the print and electronic media. The compilation is meant purely for sharing the information with others about the good and exemplary initiatives in the urban sector. We remain grateful to the Expert panel who have taken efforts in evaluating the initiatives.

A large number of persons from the MC and EC members to officials within CMAK, ULB officials, and experts have contributed to this compilation and Catalogue printing . While it is not possible to name every one, we recognize and appreciate the fact that this report is essentially the product of a collective effort.

DR. N. MANJULA, I.A.S
Gen Secretary - CMAK
& Director, DMA

FOREWORD

The role of urban areas as engines of growth has increased significantly as compared to the population. It is now recognized that National economic growth and poverty reduction efforts will be increasingly determined by the productivity of towns and cities. The positive role of cities has assumed more significance in this age of globalization, liberalization and information revolution. There is a growing realization that the problems associated with urbanization emanates from poor city management and finances rather than being endemic to city growth per se.

CMAK plays a vital role in backing the City managers with various capacity building activities and Training and Documentation being vital in its mandated tasks. This best practice documentation points to the improved practices of ULB management as a whole. It is a widely acknowledged fact that the different aspects of ULB management such as revenue optimization, cost-effectiveness, process reform & reengineering, transparency & accountability, people-centeredness, etc., are all interlinked and therefore need simultaneous and synchronous reforms. This study carried out by CMAK has tried to integrate all the perspectives of good urban governance while identifying the best practices and also in assessing their viability, sustainability and amenability to replication.

Hence, CMAK is attempting to consolidate the ULB's initiatives and subject them to generic analysis with a view to promote their replication and scale-up. The best practice documentation and Catalogue of CMAK highlights the scope and limitations of new initiatives / innovations in any particular sphere of good Governance in municipal services with the immediate context of the prevailing laws and policies. And further to appreciate and recognize the efforts of the ULB's / Line dept. with an Award for the initiative successfully implemented.

We at CMAK hope that this initiative and Catalogue proves to be a reference document for ULB's and cities that can learn from the experiences shared. It will be our continuous effort every year to call for new initiatives and encourage Govt. Authorities to award " Out of the Box" initiatives that have benefitted public in general.

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Commissioner, BBMP

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MESSAGE

CMAK is a membership based professional body of City Managers and Urban Planners, which works to strengthen and enhance the capacities of ULBs, and Association members in Urban Planning, Management and Development. CMAK works towards effectively utilizing and encouraging the existing expertise in urban development with a focus on innovative practices, trends and concepts.

Participatory action oriented training and systematic documentation of various activities and initiatives of the ULB's is another important activity of CMAK. I am happy to be associated with CMAK as a Mentor of Best Practice Program since this step of systematically documentation of the good initiatives of ULB's and Line departments encourages and applauds the efforts put in by individuals and community in striving to make betterment in the overall performance of public services.

Some of the success stories and case studies play a catalytic role in showcasing the society centric problems and finding solutions for solving such problems. It also is a step towards creating awareness in the areas of clean and sustainable development of Urban sector. The good initiatives are also an example to be replicated and followed by other agencies.

My good wishes to CMAK for their efforts. I thank the panelists for ranking the initiatives and giving valuable suggestions to improve service delivery. Finally I congratulate all the participants and the winners of the Best Practice awards 2014-15.

(T. K Anil Kumar)

ACKNOWLEDGEMENT

On behalf of CMAK I acknowledge the effort of all the ULB and Line dept officials who have contributed in sharing the initiative and sending for documentation.

Our sincere thanks and gratitude to Sr. T. K Anil Kumar , Secretary UDD for mentoring this initiative and holding the meetings under his Chairmanship. Special thanks to Sri G. Kumar Naik ,IAS, President-CMAK and Commissioner BBMP and Dr. N Manjula, IAS, General Secretary CMAK and Director DMA, who have been our constant support and source of inspiration in taking any initiative of CMAK forward and for being the Advisors for this program.

We Convey our gratitude to all the Managing committee members of CMAK who have always encouraged and guided us in all our activities.

Our appreciation and heartfelt thanks to all the Expert panel members who gave us their valuable time and expert opinion and evaluated the initiatives and helped us in ranking them.

In addition to the information provided by ULBs, several reports and articles available inthe print and electronic media were referred to and partly used in the compilation. A list of such sources has been enclosed at the end of the report. However, in case of any omissions, we wish to sincerely record our gratitude to all the authors of the information compiled in this report. The compilation is meant purely for the academic purposes and for the public benefit.

Special thanks to the translator and printer who have put in their efforts in turning this compilation of initiatives into a readable Catalogue !

Finally I extend my deep gratitude to the staff of CMAK who worked as a team to collect, compile, edit the best practice initiatives of 2014-15 and publish the Catalogue. An overall compilation in this Catalogue will reflect the efforts that have been implemented across Karnataka . This will serve as a good document on various initiatives implemented for a cause in the best of societal interest. I once again thank each one who has directly or indirectly contributed to the compilation and release of this Catalogue of the year 2014-15.

Smt. SHEETAL .N. SINGH
Coordinator - CMAK

BEST PRACTICE ADVISORS AND PANEL MEMBERS

City Managers Association, Karnataka has setup an Advisors and Expert Panel for Best Practices (Documentation and Awards) Program, consisting of IAS Officers from Line Departments and various individual experts from a varied backgrounds. This panel scrutinises and certifies the process of documentation & award.

ADVISOR – BEST PRACTICE PROGRAM

Sri G. Kumar Naik, IAS

G Kumar Naik , Officer of IAS cadre 1990 Batch , presently working as the Commissioner of Bruhat Bengaluru Mahanagara Palike.

A Civil Engineer with expertise in the areas of Land Revenue Management & District Administration, Social Justice & Empowerment, Backward Class welfare, Consumer Affair, Tourism, Energy Distribution & Transmission to name a few.

He has held key assignments and provided services as;

- Assistant Commissioner, Land Revenue Management & District Administration
- Joint Director, Civil Supplies Department.
- Chief Executive Officer, Belguam
- Deputy Commissioner, Raichur, Mysore, Bellary
- Managing Director, Bangalore Electricity Supply Company
- Commissioner, Tourism Department, Education Department, Public Instructions
- State Project Director for Education Department Sarva Shiksha Abhiyan,
- Executive Director for Health and Family Welfare Department,
- Secretary, Education Department, Primary, Secondary & Adult Education,
- Promoted as Principal Secretary and worked as Managing Director, Karnataka Power Transmission Corporation Ltd.,
- At present working in BBMP as Commissioner.

He has undergone Junior Level Training during 1996-1997 at Yashwantharao Chavan Academy of Development Administration at Pune and a Middle level training during 2001-2002 at Indian Institute of Management at Ahmedabad. Trained on Ethical issues in Today's Administration during 2004-2005 at Lal Bahadur Shastri national Academy of Administration at Mussoorie and Innovation in Public Service during 2010-2011 at Administrative Staff College of India at Hyderabad.

He has also undertaken trainings in Yashada Pune, Niham Tiruvanthapur during 1997 and IIPA New delhi during 1998. He is a very dynamic officer and known for his efficiency and diligence and has brought in many good governance practices into the system .

Dr. N. Manjula , IAS

Officer of IAS cadre 2002 Batch. Studied medicine at Bangalore Medical College and was first posted as medical officer in Kolar district. Later focused on the Civil Services and stood 25th in the 2001 results of UPSC Civil Service exams.

She began her career as Assistant Commissioner in Hassan, and then Director in the Rural Development Department- her first opportunity to work in the rural sector. Later when she took over as the CEO, Bangalore rural Zilla Panchayat, she undertook a massive sanitation drive, something unusual for an officer of her rank. Worked closely with the village elders and NGOs to help the people of 450 villages across 40 Gram Panchayats, where open defecation was the accepted norm, gain access to toilets.

This effort of Dr.N.Manjula was noted by the Central Government and was awarded the Nirmal Gram Puraskar, which included a citation and cash award of Rs 4 lakh for each of these Gram Panchayats.

Later she worked as CEO of Mysore Zilla Panchayat for one year where an intensive sanitation drive was taken up among 80 Gram Panchayats. She then worked as Deputy Commissioner of Chikkaballapur district, before being transferred as Addditional Commissioner, BBMP, Bangalore.

Presently she is working as Director, Directorate of Municipal Administration in Government of Karnataka.

EXPERT PANEL MEMBERS – BEST PRACTICE PROGRAM

Sri S.N. Sondur

S.N. Sondur , holds an Engineering degree in Chemical engineering and MIE . A Member of Institution of Engineers . He is a Fellow with Karnataka State Council for Science and Technology and has over 26 years of field experience in the areas related to GIS , Remote Sensing, Renewable Energy & Bio Fuels. He has monitored and handled projects of DST,GoI in the areas of chemical engineering and solar thermal power plants.

He has created Database for , Spatial Data Applications and Data Modeling under Natural Resources Data Management Resources (NRDMS) project sponsored by Department of Science & Technology Government of India and Government of Karnataka . Has managed NRDMS district Centre at Kolar in coordination with Zilla Panchayath, Deputy Commissioner's office and all district level line departments. Kolar District NRDMS Centre was selected for pilot studies under a special programme of United Nation Development Programme(UNDP) which was executed in collaboration with Indian Institute of Technology Delhi and Bombay(1994-2007). He is also a Principal Investigator for Bio Fuel Cell established at KSCST funded by Karnataka State Bio Fuel Development Board (2011 onwards). Work involves organizing trainings, workshops for officials and staff of district centers and promoting research in Bio fuels.

He has undergone training in Geographic Information System (GIS) application software like ArcInfo, Arc View, Map Info at National Level workshops and was deputed by Department of Science & Technology Government of India for a four months training in "*GIS based planning and Decision making*" at the International Training Centre (ITC) Netherlands under UNDP Fellowship in 1999.

Sri Pravinjith K.P

Pravinjith holds a Master's Degree in Engineering (ME) in Geotechnical Engineering from UVCE, Bangalore, Bachelor of Engineering (BE) in Civil Engineering from M.S.Ramaiah Institute of Technology and Executive MBA from Commonwealth IGNOU. He is currently pursuing his PhD from VTU. He is the Managing Director of M/s. Paradigm Environmental Strategies Pvt. Ltd., an Environmental consultancy firm. Mr.Pravinjith is a Chartered Engineer and a Fellow of the Institution of Engineers- India. He

An Engineer with over 25 years' experience in Project Management and has executed more than 180 major projects in the country and abroad in Kenya, China, Nepal, and North Korea. He is a Consultant to World Bank, UNICEF, German International Cooperation GIZ, ICLEI, IFEU Germany, Adelphi, etc. He

is Team member for the revision of the CPHEEO Manual for Solid Waste management India and Empanelled consultant to MOUD for Solid waste management. His professional expertise covers the field of Municipal Solid and Hazardous waste management, Waste Water Treatment, Rain Water Harvesting, Lake rehabilitation projects, Engineering Procurement & Construction (EPC) of Renewable energy Wind energy & Hydro power, Process and Infra structure projects.

His current assignments include Advisory service for Uttarakhand state under the National Mission for Clean Ganga, implementation of Non conventional sewerage system at Kochi, Implementation of fecal Sludge management WTE at Nashik in the capacity of National Expert to GIZ for Municipal Solid waste Management and sanitation. One of the project designed by him has secured the National Urban Water Award from the Hon'ble President of India.

Sri Sridhar Pabbisetty

Sridhar Pabbisetty, holds an MBA from Indian Institute of Management, Bangalore and a BE in Computer Science with distinction from MSRIT Bangalore University . A public policy and Urban Governance specialist, is the Chief Executive Officer of Namma Bengaluru Foundation, an organization working towards making Bengaluru a model city, be it in terms of well-planned infrastructure, well laid out neighborhood community models, or its people-driven governance measures.

He is also the Chief Enabler at Centre for Inclusive Governance, a citizens collective for social actions on public problems. Prior to joining Namma Bengaluru Foundation, Sridhar was the Chief Programs Officer at the Bangalore Political Action Committee (B.PAC - www.bpac.in). Sridhar is a regular speaker at various national and international fora on the issue of open governance and inclusive growth and also advises various Government departments regarding the same. He has been advisor to the Government of Karnataka's Sakala Mission in improving Transparency and Accountability in Governance.

He is also part of various Government committees including Samarthya - Enabling Informal waste pickers get formal recognition and Simplification of Citizen oriented forms in BESCOM. He is a special invitee to the Karnataka Tourism Vision Group. He specializes in nurturing inclusive enterprises across the world and helps them to develop long term corporate strategy and build business models with focus on scalability and sustainability. He has also worked on Electoral Reforms being part of the National Election Watch and leading the NEW efforts for the 2008 assembly and 2009 Lok Sabha elections in Karnataka.

He has also served as the Chief Operating Officer of the Centre for Public Policy, IIM Bangalore. His focus was on building and maintaining relationship with all members in the public policy ecosystem - Government, regulatory bodies,

industry, opinion leaders, researchers, partner institutions and foundations that are focused on policy research. Earlier Sridhar has worked with fast growing hitech companies including Zyme Solutions and Aditi Technologies. He is on the Board of Advisors of Namma Cycle and Reap Benefit and is on the panel of judges of various startup competitions including the Next Big Idea, Acara Challenge and the William James Foundation's Entrepreneurship challenge.

Sri Avinash Krishnamurthy

Avinash Krishnamurthy holds a bachelors degree in Mechanical Engineering from National Institute of Engineering, University of Mysore and based out of Bengaluru, Mr. Avinash Krishnamurthy has extensive experience working in the water, energy and small scale infrastructure sectors for over 13 years. His experience in these sectors encompasses Technology, Project development, Financing, Entrepreneurship and Partnership building issues. He currently holds the positions of Chief Operating Officer Small Scale Sustainable Infrastructure Development Fund and Executive Director, Biome Environmental Solutions Pvt Ltd, and Researcher & Advisor Biome Environmental Trust. In his recent professional past he has also worked as consultant to Greenpeace India on Decentralized Energy issues, and as Project and Operations Manager in Biome Environmental Solutions Pvt Ltd. In his earlier professional past he has been Portfolio manager and Partnerships in-charge at Small Scale Sustainable Infrastructure Development Fund, Project Manager at Infosys Technologies Ltd and Research Associate at Centre for Appropriate Rural Technologies (CART) Mysore. He has been working on Energy and water issues since his student days. His work on Micro-hydro began during his student days with his Engineering project. His work as research associate in CART, Mysore was focused on people's initiatives in Micro hydro in the Western Ghats.

He has authored a paper on Peoples' initiatives in micro hydro power of the Western Ghats. (see reference : http://sierraclub.typepad.com/compass/2011/06/the-water-wheels-of-time-micro-hydro-power-in-the-western-ghats-of-india.html) .Lead author of a paper titled "When Pigs Fly: Citizens at the centre of urban water management" – a paper based on a study as a part of an action research project in which an urban community engaged in decentralized water management. Co-authored "Taking Charge" a report published by Greenpeace on Decentralised energy case studies in India. He has also two publications to his credit of public education in a widely read national magazine called "Reading hour" (www.readinghour.in) titled "Water Conversations" and "Let the genie out of the bottle". He continues to write such articles in this magazine. The series of articles is aimed at deconstructing the urban mind-sets around water and demystifying relevant water science and knowledge.

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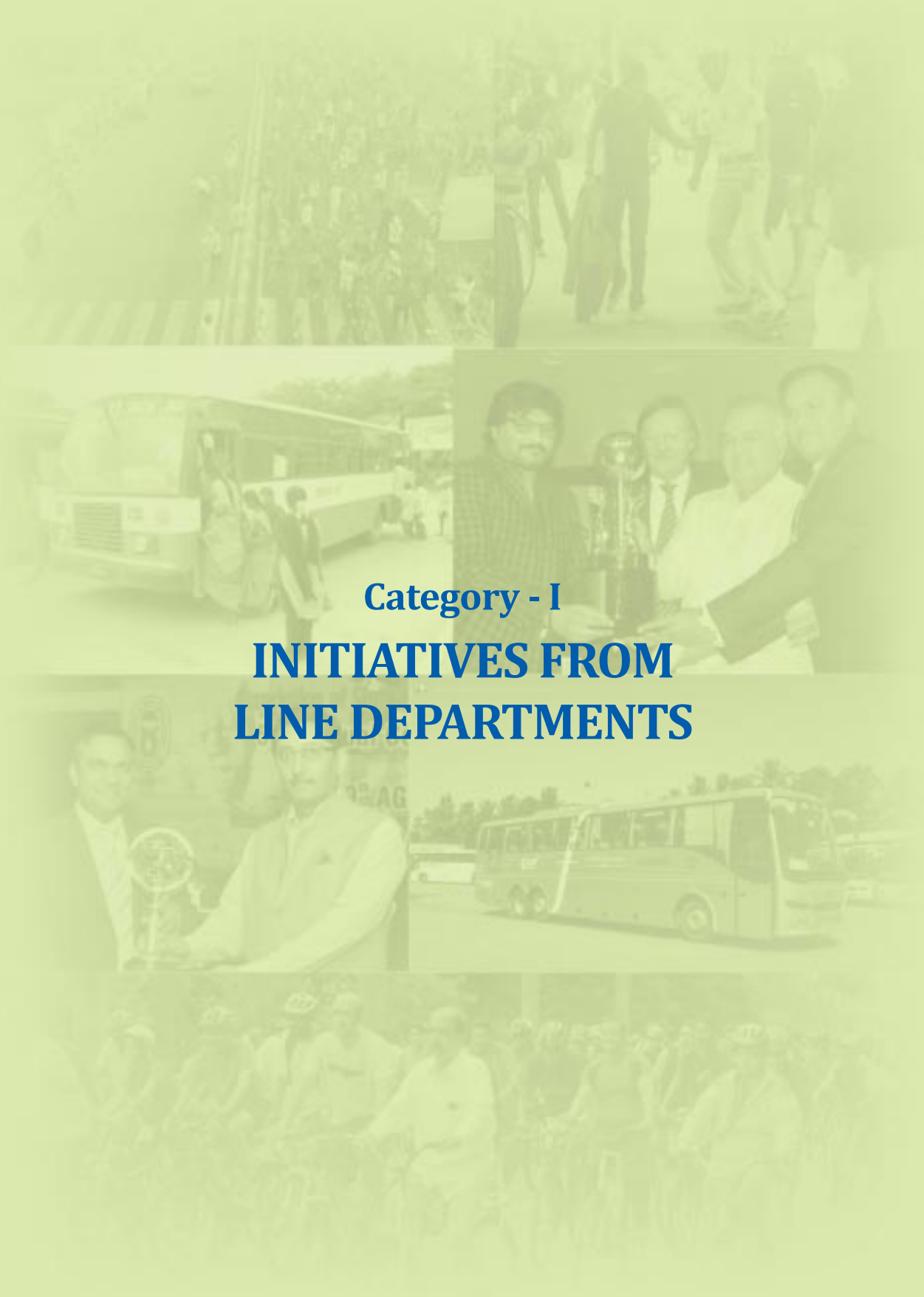


Category - I

INITIATIVES FROM LINE DEPARTMENTS

EVIDENCE BASED ENFORCEMENT USING CAMERA

By Bangalore Traffic Police

Year of implementation : 2008

Year of Completion : Still in progress

BRIEF ABOUT THE ORGANIZATION:

The Bengaluru City Traffic Police (Generally known as BTP) is a specialized unit of the Bengaluru City Police responsible for overseeing and enforcing traffic safety compliance on city roads as well as managing the flow of traffic in the city of Bangalore, Karnataka. The Commissioner of Police is the overall operational leader of the force, but the Force is normally managed by the Additional Commissioner of Police on behalf of the Commissioner. A few informal names and abbreviations exist for the Bangalore Traffic Police, the most common being the BTP. Within the city, it is simply known as the Traffic Police. The BTP's headquarters is located at #05, Infantry road, near Indian Express building.

ORGANIZATIONAL CONTACT DETAILS:

Shri M.A. Saleem, IPS, Addl. Commissioner of Police,
Traffic, Bangalore City,
Tel : 080-22942276, +919480801006, Email: addlcptrafficbcp@gmail.com

CITY PROFILE: Bangalore

- Population : 100 Lakhs
- Area in Sq kms : 1005 Sq.kms
- Density of Population : 4378 / sq. Km.
- Number of wards/zones : 198

DISTINGUISHING CHARACTERISTICS OF THE CITY:

Few cities in the world have the power to attract and motivate a casual visitor to move there permanently. Bangalore is one of those rare cities that make people who are new to the city to call themselves proud Bangaloreans. Bangalore, with a wonderful climate is already a pensioners' Paradise. With well developed residential areas, broad roads with big grown trees along sides and good shopping malls, people prefer to move here permanently.

SITUATION BEFORE THE INITIATIVE:

Before the Start of this evidence based enforcement using camera, traffic police is entirely depend on the FTVR (Field Traffic Violation Report) raised by the traffic constables manning the traffic junctions across Bangalore.

Field Traffic Violation Report (FTVR)

Generally the duty constables carry this small book along with him, for the duty and raise the violation in duplicate. They need to fill all the fields which is required for the generation of 133 (sec. 133 of MV Act 1988) notice to the vehicle owner.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

Video Surveillance Cameras – Around 179 junctions across the city has been equipped with PTZ (Pan-Tilt-Zoom) based surveillance cameras, which are again connected with the central Video surveillance system at the TMC using a network of leased lines. The live feed from the junctions are recorded at TMC and are presented to the desktops of experts sitting at the console room of the TMC. Two types of processing is performed over the live feed –

- Human Interpretation – Experts sitting over desktops understand and interpret the data into workable actions.
- All those visible violations are noted by the operators operating the corridor and saving the violation in the server by using mind tree application.

Corridor Management: The heavy traffic carrying roads are divided into 19 corridors for the conveyance of traffic handling. Each corridor is having 4 extended desktops to perform /monitor various activities like

- In the first monitor we can view entire surveillance camera of that corridor.
- In the second monitor the camera junction which is having traffic problem can be put
- In the third monitor we can open Signal light application to vary the signal timing in case it is require and In the fourth monitor all visible violations like
- Stop line violation.
- Riding without Helmet.
- Not wearing seat belt
- One way entry
- Use of Mobile.
- Junction parking.

Initially 179 cameras were installed across Bangalore at important junctions.
Feeds of all these cameras were brought to central place i.e. TMC via dedicated lines.

Mind Tree Application installed to capture and upload the photo shots of violating vehicles on line.
On line generation on 133 notices to the owner, whose information is fetched online from RTO server and notices are printed.
People can log on to our website www.bangaloretrafficpolice.gov.in and can view the violation against their vehicle.
Those who wish to pay the fine online can also pay the fine online.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE

- Increased stop line compliance on road.
- Sensitization of drivers/ riders.
- Contact less enforcement, hence public ego is not hurt as many people earlier used to object for getting down from vehicle to pay fine.
- Increased level of transparency.
- Increased fine amount collection.
- People can't claim alibi as the violation picture is available.
- Repeated violation - collection of enhanced fine.
- Les conflict on road between police and traffic rule violator
- No place for corrupt activities.

PARTNERS' INFORMATION:

As different parts are looked after by different vendors these are the vendors who involved in this activity

- Camera – Schinder
- Online connectivity – BSNL
- Photo snap and process – Mind Tree
- Data Processing – Thematics.
- Online payment process – Bangalore One.

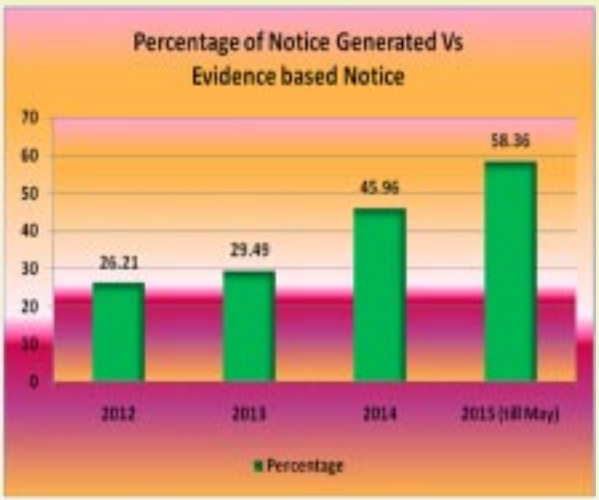
INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

This is first of its kind in Government organisation where a stress is put to bring more and more transparency by adopting evidence based enforcement on one hand and inculcating road discipline among the road users on the other.

PROBLEMS FACED:

Initially integration of different vendor Gadget into a process was the problem, once it has been overcame, the process became smooth. The next challenge was to identify the tech savvy employees who are willing to work in TMC. Training and enhancing their technical skills were handled through on job training.

SUSTAINABILITY:



TRANSFERABILITY:

As this initiative is both scalable and transferable and need very less technical knowledge in handling this. Hence the same can be used all over the country by respective traffic wing of police department.

The initiative is replicated by Mysore City Police and is working fine. Mangalore City police have already started the process to implement this intiative.

SAVE WATER CAMPAIGN

By BWSSB

Year of implementation : 2015
Year of Completion : 2015 (3 Months between 13.03.2015 to 12.06.2015)

BRIEF ABOUT THE DEPARTMENT/ ORGANIZATION:

The **Bangalore Water Supply and Sewerage Board (BWSSB)** is the premier Governmental agency responsible for sewage disposal and water supply to the Indian city of Bangalore. It was formed in 1964. Like other Metropolitan cities, Bangalore is not having its own source of water. Cauvery river water fulfils the cities requirement. Board is bringing the Cauvery water from 100 km to a height of 300 ft. by 3 stages pumping. BWSSB currently supplies approximately 900 million litres (238 million gallons) of water to the city per day, despite a municipal demand of 1.3 billion liters. Water for India's third largest city (with a population of 10 million) comes from a number of sources, with 80% of it coming from the Cauvery River. Water is also drawn from the Arkavathy River, but the supply does not meet the demand.The *per capita* water supply that BWSSB is able to provide averages 100 to 125 liters per capital per day. However, the actual availability of water to the poor areas of the city is limited by infrastructure, and so for these areas, the *per capita* supply can be as low as 40 to 45 liters per day. The *per capita* national standard for a city the size of Bangalore is 150 to 200 liters per day.

ORGANIZATIONAL CONTACT DETAILS:

Chairman
BWSSB, Cauvery Bhavan, K.G.Road, Bangalore - 560 009.
Tel : 08022945100, Email : chairman@bwssb.org
(Service Organisation –Supplying Drinking Water and Safe disposal of sewage generated in the city)

CITY PROFILE:

- Population : Around 10 Million Citizens of Bangalore.
- Area in Sq kms : 800 sq km Radius
- Number of wards/zones : City Core area and 7 City Municipal Corporations and one Town Municipal Corporations and surrounding areas coming under 9 Divisions of BWSSB.

SITUATION BEFORE THE INITIATIVE:

Since water is an issue of Global concern needs to create more awareness, about water situation Avoiding wastage, Leakage control, Conservator of water through Rain Water Harvesting etc.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

Creating Awareness is a Spontaneous process not giving immediate results.

BRIEFLY DESCRIBE THE BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

Creating awareness about precious water

PARTNERS' INFORMATION:

92.7 Big FM media partner

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

- We made e "PANCHAYATHI PUTTAPPA" an imaginary figure has Brand Ambassador for our campaign to communicate the message through radio. That varies messages like save water, Rain Water Harvesting, Recycle and Reuse of waste water etc., were incorporated in the campaign.
- Public outreach programme of "PANCHAYATHI PUTTAPPA" also conducted in popular malls like Mantri, Orion.(Pictures enclosed)

SUSTAINABILITY:

Such activation will be taken up cautiously in different Medias. Such activities will be taken up through different media forum periodically.

TRANSFERABILITY:

- Understand value of water
- Many individuals, Apartments, Industries Community organization adopted different aspect of water conservation.

RECOGNITION /AWARDS:

BWSSB wall calendar-2015 got corporate collateral Award- of Public Relations Council of India

CYCLE DAY

By DULT

- Year of implementation : 2013
- Year of Completion : 2015

BRIEF ABOUT THE ORGANIZATION:

Directorate of Urban Land Transport (DULT), Government of Karnataka. The DULT is functioning under the Urban Development Department of Government of Karnataka. The Directorate is in general responsible for overseeing all the urban land transport initiatives in Urban/ Local Planning Areas of Karnataka.

Karnataka is the only state in India to have an exclusive Directorate of Urban Land Transport (DULT). The directorate has been set up in 2007 by the State Government close on the heels of the National Urban Transport policy coming into force, to coordinate planning and implementation of urban transport matters in the State. For the first time qualified personnel trained in urban transport planning were introduced into the Government system.

ORGANIZATIONAL CONTACT DETAILS:

Ms. V. Manjula, IAS; Commissioner,
DULT & E/o Principal Secretary to Government of Karnataka
Tel : 9449852109/ 080-22226627; dultbangalore@gmail.com / dultcycleday@gmail.com
The Directorate of Urban Land Transport is a nodal agency under Urban Development Department, Government of Karnataka,;

CITY PROFILE: Bangalore

- Population : 10 million
- Area in Sq kms : BDA area – 1307 sq. km.
- Number of wards/zones : 198 wards, 8 zones of Bangalore (BBMP)/ 47 Planning Districts (BDA)

DISTINGUISHING CHARACTERISTICS OF THE CITY:

The city of Bangalore is a cyclists' haven, with the perfect weather to complement non-motorized modes of transport (cycling and walking). Bangalore having a considerable amount of green coverage (Bangalore was once known as the Garden City and Lake City of India on account of having around 12% of green cover, 70 tanks and lakes) and being an eclectic city which accommodates different culture is a perfect setting to start prioritizing a bicycle culture. Through the decades, Bangalore has grown from being a pensioner's paradise to an IT city with plethora of job opportunities, not only in the service sector but also in supplementary sectors.

With the burgeoning city boundaries (leading to sprawling of the city), all the IT jobs at the farther end of the city, increased standard of living, lack of mass transit infrastructure in place yet, and plummeting private vehicular ownership, Bangalore has become a city of traffic jams, the worst jams being at the silk board junction (considered as the junction with the highest amount of air pollution in the country) and at Whitefield (where most of the IT companies are situated and vehicular movement is an extortionate 45 minutes/per kilometre during peak hours).

The City of Bangalore has always kept its feet on the sustainable grounds by giving its residents a well serviced public transportation system like BMTC and soon to be completed phase I of Namma Metro. With the completion of a much needed infrastructure like Namma Metro, the onus will be on feeding and integrating these public transportation modes with active transportation facilities and infrastructure like cycling and walking.

SITUATION BEFORE THE INITIATIVE:

In 1981, the percentage share of cyclists in the city was around 16% which has come down to 3% in 2011. (Source: PBS, Bangalore study and Bangalore Mobility Indicators study by DULT.

Source: Comprehensive Traffic & Transportation Plan for Bengaluru (2011) - KUIDFC

In metropolitan cities, the people have been ignored in transportation planning and precedence has been given to the automobile. This has led to an increase in the number of road accidents where 56% of the fatalities involve pedestrians and cyclists being killed. (Source: Bangalore Injury/ Road Traffic Injury Surveillance Program (2008), NIMHANS)

This initiative is therefore a step towards making the citizens "shift" to sustainable modes of transport like walking and cycling for short commutes around the neighbourhood to increase the share of these non-motorized modes of transport as well as to change the perception of political and administrative bodies to put in more investments into people (by providing good footpaths and cycle tracks) and not only for automobiles (construction of roads/ widening of roads).

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

The first Cycle Day (an open street initiative) started in Bangalore on 27th October 2013. It is the first of its kind campaign to have started in India driven as collaboration between Government and citizens, following which RAAHGIRI was initiated in Gurgaon in November 2013 and subsequently Equal Streets in Mumbai in November 2014. Similar such events have been happening across India in cities like New Delhi, Bhopal, Ahmadabad, Hyderabad etc.

The initiative is not time bound and is being replicated in weekly intervals in multiple localities in Bangalore every Sunday and will complete 2 years in October 2015.

The Cycle Day campaign is driven by the Bangalore Coalition for Open Streets (BCOS) which consists of The Directorate of Urban Land Transport (as its Government anchor), NGOs like Praja RAAG, and ESAF and cycling enthusiasts as well as citizens who are interested in prioritizing a bicycle culture in this beautiful city of Bangalore to make it a liveable city with sustainable mobility options.

Vision: "To make Bangalore a healthier and greener city by increasing the usage of non-motorized modes of transportation".

Objectives:

- To promote the use of bicycles by reviving interests amongst people who perceive riding bicycles as unsafe on city roads. Walking and Cycling should become safe modes of urban transport (National Urban Transport Policy, 2014)
- Reclaiming road space for Non-Motorized transportation (walking and cycling).
- To get cycling communities together to encourage other non-cyclists to start cycling again.
- To experience and enjoy the city better (Studies show that people are more observant and enjoy their city better when they walk and cycle).
- To sensitize motorist about co-existence with cyclists on the roads.

Strategies:

First phase of the initiative (for the first 11 months) was seeded by the BCOS group where the event was held on the last Sunday of every month. The description of this phase is given below:

The Directorate of Urban Land Transport, drove the event with conducting weekly meetings with the core group of BCOS to plan the event for that month; providing the requisite permissions and clearances from various Government departments for conducting the events; funding the event and managing logistics; holding press conferences before the event to publisize the idea behind this initiative and being a nodal agency in bringing various stakeholders together. The BCOS core group members (who were individuals representing NGOs, cycling groups in Bangalore) helped with social media outreach and finding sponsors for the events.

The event includes two elements:

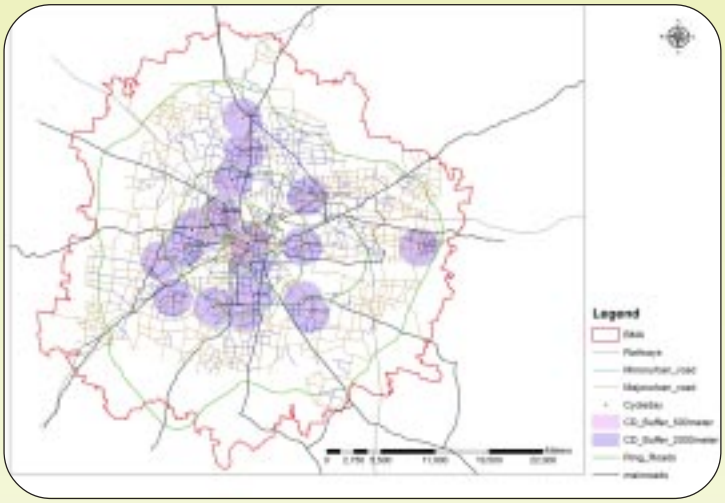
Element of Cycling: Free cycle rentals are provided at the venue on production of original photo ID; following which a cycle ride is planned across the neighborhood (3-5kms) which is protected at junctions by the traffic police and cycle day volunteers; after the cycle ride the cyclists can engage in open- street activities (open streets is a global culture where streets are reclaimed from traffic and enjoyed by people) on the blocked street. Workshops are held for cyclists which include knowing how to buy a bicycle, knowing how to adhere to traffic rules while riding a bicycle, safety during rides, etc.

The picture of a blocked half of the street showing how a sustainable city should be (where people are given more importance than automobile).

Showing the various activities during the event

a. Element of Open Streets: The open streets are road stretches in a neighbourhood that are blocked to all vehicular traffic for a few hours on every Sunday where street activities take place. The street activities include revival of traditional games like Kunte Bille, Batche, Lagori, Pagade, Chowka Bhara, Aluguli mane; playing street games; slow cycling races; snakes and ladders; hoola hoops; fitness routines like yoga, zumba, kick-boxing etc. These street activities are to get the kids out on the streets and reclaim the streets (as kids of the current generation are less physically active and are more into mobile gadgets and Television). This initiative thus provides the perfect platform for spirited neighborhood activities like art workshops, graffitti art on streets, waste management workshops etc.

b. Second phase of the initiative (since July 2014) was taken up by the Community Partners where the event format shifted from being a monthly affair to a weekly event held on every Sunday in different parts of Bangalore. The description of this phase is given below:



Showing the impact areas and reach of the initiative so far

In the second leg of its campaigning year, Cycle Day received unprecedented response from the citizen groups in Bangalore and hence the campaign has since moved from being a once a month event run by BCOS to a weekly event across various neighborhoods in Bangalore hosted by the Resident Welfare Associations/NGOs in their neighborhoods.

This format gave the campaign an opportunity to reach to more people, who were eclipsed in the earlier format.

The second phase of the initiative also gave the community partners a platform to engage in issues related to their community in particular and the city at large and to understand and engage in solutions to promote safe mobility specific to their community. It also gave them the sense of ownership of their neighborhood, instilling in them the resolve to approach authorities without hesitation and work with them to work on the issues in their neighborhoods.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE

Till date (in the past 1 year and 8 months until 31st July 2015) the event count has crossed 60 events and we have a significant number of communities wanting good non-motorized transportation infrastructure in their neighborhoods and across the city. The various benefits from this initiative have been as follows:

- Sensitizing the local elected representatives/ decision makers about the community's mobility needs and the barriers to walking and cycling. Also raising their acceptance to safe non-motorized infrastructure for various age groups.
- The initiative is providing active encouragement to thousands of residents of the neighbourhood (all age-groups) to access neighbourhood facilities by cycling and has catalysed an addition to long

distance cycling amongst hundreds as beneficial change in lifestyle for reasons of health, economy and social impact.

- This initiative provides a platform for formation of critical mass of cycling enthusiasts who can help change people's perception about city's mobility needs.
- The event further opens valuable doors to people without a social network in their community or even those with limited interaction to (a pattern observed to be on the rise in cities) to engage themselves socially and interact with other community members/neighbours.
- Vehicle free and pollution free environment on the blocked stretches of the neighbourhoods for half a day every Sunday.
- The streets are reclaimed for half a day every Sunday and kids and adults alike enjoy this noise and smoke free, safer reclaimed streets.
- Traditional games are revived and the current generation gets to learn some interesting mind-games of the past while the adults get to revive their childhood when they play these games and bask and bank on the goodwill created in the community.
- The neighbourhoods work together to pull off these events and hence this initiative has brought in a sense of ownership amongst the neighbourhoods and set the tone for a more affable setting where RWAs and other NGOs in the communities work together with the local authorities to resolve many neighbourhood issues.
- Creating a demand from the community partners to plan cycling infrastructure and traffic management plans for their neighbourhoods. DULT has in the past one year taken up preparation of non-motorized transportation plans for Yelahanka, Sanjayanagar, HSR Layout, Jayanagar, Rajarajeshwari Nagar neighbourhoods with active involvement of the communities during all phases of the preparation of the plans.


Cycle Day sees benefits pitch from enthusiasts

One of the many News clippings in mainstream media highlighting people's support and admiration for this initiative that has proved beneficial for the city.


We will continue to have monthly cycle day programme to popularise cycling in the area from May. So far, seven monthly events have been held that have attracted large number of cyclists

B.N. VIJAYKUMAR, Jayanagar MLA

Elected representatives reinforcing their faith in the beneficial effects of this initiative.

- The initiative over the past one and half years has sensitized motorists to look out for the safety of cyclists and pedestrians and has brought focus on the importance of providing equitable space on the roads for them.
- The initiative will soon be put up on the tourist calendar as an event to visit while in Bangalore through the tourism department.

PARTNERS' INFORMATION (IF ANY);

Cycle Day is a public-private initiative conducted by the Bangalore Coalition for Open Streets (BCOS) comprising of partners including ESAF (NGO), Praja RAAG (non-profit society for advocacy on civic issues) and individual cycling enthusiasts.

The Directorate of Urban Land Transport (DULT) works as a Government partner in this initiative along with citizen groups.

The other Government partners who have helped make this initiative successful are Bangalore Police (Traffic and Law & Order), and BBMP.

In its second phase of the initiative since July 2014, we have had 13 community partners (which includes RWAs, NGOs and other organizations). The various community partners include: Yelhanka United Environment Association; HSR Cyclists; Whitefield Rising; I Love Indiranagar; Malleshwaram Swabhimana Initiative; Social Virus; Federation of RWAs, Sanjaynagar; Sahakarnagar Women's Welfare Association; BMK RWA; Rotary Club, Uttarahalli; Care All Foundation; Rotary Club Kalyan; Youth for Unity.

A 6 year old and 60 year young learnt how to cycle at the Jayanagar Cycle Day in January 2014

Bringing the community closer to the local authorities. In the above picture we can see the police enjoying the open streets at Indiranagar in July 2014

One for the road! Young and old enjoying street activities

A Cycle Day activity which has adults in much needed mirth in an innovative way (for singular Selfies!)

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

The initiative is different from all other similar initiatives happening across India, as it is a unique public-private partnership whose composition and procedural aspects are worked out by a Government agency (DULT), but the essence outlines and profits reaped are all thanks to the high enthusiasm of the public, as it is the public who have nourished and nurtured this collaborative initiative and have breathed

life into it by their active involvement. It has leaped into the future in such a favourable way that it is not an understatement to say that it has added handsomely to the credibility of Bangalore as a brand to be reckoned with.

The activity has furthered achieved that pinnacle of popularity that it has been hoisted from a monthly activity driven by BCOS and DULT and has emerged into a weekly activity that is more citizen driven, and a neighbourhood event happening in 2-3 different locations every Sunday.

The innovative characteristic of this initiative is that it is activating the citizens of Bangalore towards a more community policed, responsible and close-knit character which is only seen in smaller towns and villages in India (where neighbours know each other, with emphasis on trust and safety as the derivatives of these community bonding activities). The initiative is "Community owned".

PROBLEMS FACED:

- In its initial phase (during the first few months of the initiative), a resistance towards the efficacy of what this initiative would bring about in the city was noticed amongst citizens and Government bodies alike.
- This resistance was a major hurdle which was overcome by sensitizing the stakeholders and making them understand how small steps were required towards making the vision of a liveable city possible.
- This initiative was a small step in softening the ideas of many towards having equitable allocation of space on the streets for cyclists and pedestrians. In less than two years of this initiative, the city has seen an exponential rise in interests in cycling as well as the number of cyclists in the city. More citizen groups have found a platform to voice their concerns about safety and security in shifting from private vehicles towards sustainable modes of transport.
- Since the event was a Government initiative along with citizen groups, the event could have been easily hijacked before it saw popularity amongst people.
- The team overcame this by developing strict branding and community partner guidelines as well as sponsorship guidelines for people interested in associating with the brand of "Cycle Day".

SUSTAINABILITY:

Today the event count has crossed 60 (in the past 1 year and 9 months until 31st July 2015) in 15 different locations of the city, and there is a significant increase in the number of communities wanting non-motorized transportation infrastructure in their neighborhoods and across the city. Also the number of people attending these events in different neighborhoods has consistently been around 1000-1500 and going up after every event.

The sustainability of the event is in the fact that more and more communities have desired to replicate this initiative and are comfortable with the idea of closing streets in their neighborhood for vehicles for a few hours on one day in the week. Also financially, the initiative has seen an increasing interest of corporate partners and other commercial entities in being a part of this good cause, which will help in making Bangalore a possible congestion free city.

TRANSFERABILITY:

The main take-away from this initiative is it is an innovative framework to involve and interweave communities in elements of city planning through building a sense of ownership towards their

neighbourhood as well as getting their inputs on the actual needs of the neighbourhood while working on projects in the community.

This can be replicated in other cities and people, specifically the decision makers, Government agencies and communities can learn how sensitization and awareness through events like this can actually create a buy-in for creating Non-motorized infrastructure in cities & thus help promote sustainable mobility planning.

The Horticulture department along with the Police department has initiated vehicle free Sundays at Cubbon Park, and asked DULT to associate with this initiative through the BCOS initiative of Cycle Day, where cycle rentals are provided free of cost for people to learn how to ride a bicycle in a vehicle free environment in the Central Park of Bangalore.

The tourism department has also approached DULT to relate cycling and tourism in various cities in Karnataka and is now planning to make M.G. Road in Bangalore vehicle free on one day of every month.

RECOGNITION /AWARDS:

We have not yet applied for any awards, but have showcased this initiative at various platforms like Urban Mobility India, 2013 and EMBARQ Connect Karo 2014.

The initiative was selected for a conference held in Nantes, France from 2-5, June 2015. The initiative's abstract was submitted as "Promoting Cycling and Open Street as way of life in Bangalore".

The Cycle Day events have been recognized and attended by major elected officials, administrative officials, corporate personalities, sports personalities, and other celebrities. Some of the important personalities that attended the event are the Mayor of Bangalore, Sri. Katte Sathyanarayan; Cricketers like Srinath and Venkatesh Prasad; Singer and Actress – Vasundhara Das; Mr. Nandan Nilekani; Ex- Commissioner, BBMP – Mr. Laxminarayan; Ex- Additional Commissioner of Police, Traffic – Sri. Dayananda and MLAs and corporators from all the 14 locations in Bangalore where the event was held.

The event was also attended regularly by members of JICA (Japan International Co-operation Agency) team working on ITS Master Plan for Bangalore and Mysore. The event was also attended by a delegation from the Netherlands who had come to Bangalore to conduct a workshop on making cities in Karnataka more Bicycle friendly similar to the cycling capital of the world – Amsterdam.

List of attendees of Cycle Day events

MONSOON STUDIO

By DULT

Year of implementation : 2014
Year of Completion : On-going initiative

BRIEF ABOUT THE ORGANIZATION:

Directorate of Urban Land Transport (DULT), Government of Karnataka. The DULT is functioning under the Urban Development Department of Government of Karnataka. The Directorate is in general responsible for overseeing all the urban land transport initiatives in Urban/ Local Planning Areas of Karnataka.

Karnataka is the only state in India to have an exclusive Directorate of Urban Land Transport (DULT). The directorate has been set up in 2007 by the State Government close on the heels of the National Urban Transport policy coming into force, to coordinate planning and implementation of urban transport matters in the State. For the first time qualified personnel trained in urban transport planning were introduced into the Government system.

ORGANIZATIONAL DETAILS:

Ms. V. Manjula, IAS, Commissioner DULT & E/o Principal Secretary to Government Directorate of Urban Land Transport (DULT),
Tel : 080-22226627 ; designwithdult@gmail.com

SITUATION BEFORE THE INITIATIVE:

The Directorate of Urban Land Transport works toward its mandate to promote, plan and implement non-motorised transport projects in the cities of Karnataka. Some of the larger – high value projects that have been initiated by DULT are the Hubli-Dharwad Bus Rapid Transit System in the twin cities of Hubli-Dharwad and the Public Bicycle Sharing System in Mysore city. Both these projects will have a significant impact at the city scale, and gives the opportunity for the city to rethink how urban areas can transform in future, after the full implementation of the projects.

Therefore it becomes important to have dialogues about the changing city with young professionals and the academic community in the cities where such projects are being implemented. The situation earlier would have been a scenario where the Government led projects would be planned and implemented with little or no interaction with the academic community in the concerned city. The Monsoon studio initiative helps bridge this gap by engaging students and citizens in a participative dialogue with the Government.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

The Monson Studio is an Annual urban design workshop conducted in collaboration with an architecture school in a city in Karnataka where DULT has initiated a project and has already built a relationship with the local authorities. The annual workshop travels to a different city each year, gathering knowledge and ideas to take forward.

The most important component of the annual Monsoon Studio is finding a suitable collaborator – in this case an Architecture College in the chosen city. Interaction sessions are held with the College to

showcase the works undertaken by DULT and the importance of the student community to engage with ongoing urban works in their city. DULT takes the efforts to choose relevant study areas for the students to work on during the studio session. In addition, eminent urban designers and architects are invited to present lectures on best practices in the field of urban design to the students. A final jury is formed to review the works of the student teams. DULT, as a nodal agency brings other Government agencies who are stakeholders to visit the review session and share their valuable inputs.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE:

The benefits conducting the Monsoon Studio is seen in the long term. Students who participate in the workshop, get the opportunity to take forward the best proposals formulated during the workshop, to a more detailed and implementable design. The relationship is further strengthened as DULT is open to young minds in the field to join the internship program and work for the in-house projects undertaken by DULT. This exchange of knowledge is mutually beneficial to both students and the Government agency, and becomes a good model for a participatory exercise to engage with citizens.

PARTNERS' INFORMATION:

The partner in the Monsoon Studio is a School/College of Architecture and changes every year as the initiative travels across the State of Karnataka

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

- Bridging the gap between the Academic community and a Government agency
- Students get the opportunity to detail out their conceptual ideas and can see the implementation process of the urban design proposals.
- DULT strengthens its urban design capacity for its in-house urban planning and other mobility related projects

SUSTAINABILITY:

The initiative is an ongoing effort by the Government and aims at travelling across Karnataka in the future. DULT is currently building its very own urban design studio in its office premises and hopes to engage with students as a long term plan.

TRANSFERABILITY:

Urban Design workshops are common across the country. However it is uncommon for Government agencies to conduct such workshops and engage with the academic community. It becomes a valuable practice for Government agencies to adopt such participatory methods to have a dialogue with the citizens of the city. Such initiatives can be a learning experience for other Government agencies to engage with their citizen groups.



FLY BUS
By KSRTC

Year of implementation : August 2013
Year of Completion : On-going initiative

BRIEF ABOUT THE ORGANIZATION:

The **Karnataka State Road Transport Corporation** (KSRTC) is a state-owned road transportation company in the state of Karnataka in India. KSRTC was set up in 1961 under the provisions of Road Transport Corporation Act, 1950. It is wholly owned by the Government of Karnataka. In August 1997, KSRTC was divided to form Bengaluru Metropolitan Transport Corporation (BMTC). In November 1997, another new road transport corporation called North Western Karnataka Road Transport Corporation (NWKRTC) was formed to cater to the transportation needs of North Western parts of Karnataka. Later, the North Eastern Karnataka Road Transport Corporation (NEKRTC) was also formed with its corporate office in Gulbarga.

KSRTC services covers 92% villages in Karnataka. KSRTC operates with a total fleet of 17310 buses. It transports, on an average, 74.57 lakh passengers per day. It also operates to the neighboring states of Maharashtra, Andhra Pradesh, Telangana, Tamil Nadu, Puducherry, Goa and Kerala. KSRTC was the first state transport corporation to introduce Volvo B7RLE low floor city buses in India in 2005. At present, KSRTC operates Volvo, Mercedes Benz, Scania buses under the Airavat services (named after the mythical white elephant).

FLYBUS

Fully air conditioned nonstop luxury, Volvo multi axle bus service between Bengaluru International Airport and Mysuru & between Kempegowda International Airport and Kundapur with pantry, chemical toilets, live display of flight timings, GPS, wifi facilities and in-bus live entertainment.

ORGANIZATIONAL DETAILS:

Mr. Rajender Kumar Kataria IAS,
Managing Director, Karnataka State Road Transport Corporation,
Tel : 080 - 22221125 / 22253474 ; Email : md@ksrtc.org

DISTINGUISHING CHARACTERISTICS OF THE CITY: (Mysore –Bangalore)

Mysore has inter-city and intra-city suburban public transport bus system albeit not very robust. Mysore is the third largest city in the state of Karnataka, India which served as the capital of Mysore Princely Kingdom (Kingdom of Mysuru) for nearly six centuries, from 1399 until 1947. Tourism is the major industry in Mysuru. The city attracted about 3.15 million tourists in 2010. The growth of the information technology industry in the first decade of the 21st century has resulted in the city emerging as the second largest software exported in Karnataka, next to Bengaluru. In 2011, Mysuru city had population of 0.9 million, spanning an area of 128 sq km. Fly bus service is helping to boost tourism, economic growth and an alternative sustainable mobility to an important historical, cultural and tourist centre of the state.

Bengaluru the capital city of Karnataka State, one of the largest cities in India and ranked among top ten entrepreneurial locations in the world by the Economic Times. In 2012 Lonely Planet2 ranked it 3rd among world's top ten cities to visit. It serves as an important airport hub in South India for a number

of other smaller cities which see a large influx of passengers using the airport and also home to one of India's best airports-Kempegowda International Airport, Bangalore.

The big-city traffic loomed the largest for flight passengers who were commuting from these cities to the KIA. No public transport system connecting the neighbouring cities directly to the airport was in place, hiring a taxi is expensive & passengers had to struggle to reach the airport wasting their time and money.

To overcome, KSRTC launched flybus an ambitious and innovative project, placed with customer at the heart of the public transport system.

SITUATION BEFORE THE INITIATIVE:

Traditional transport planning aims to improve mobility, but the real purpose of transport is to improve access simultaneously reducing environmental, social impacts, and traffic congestion. Traffic congestion imposes economic costs by wasting people's time and by slowing the delivery of services. In Bengaluru 35-km drive to the city centre from the gleaming terminal can take two hrs. Bengaluru city's traffic jams make it sixth-most painful worldwide for commuters and second-worst for parking after New Delhi, according to 2011 survey of 20cities by International Business Machines Corp

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

Flybus – India's first intercity airport bus service introduced by Karnataka State Road Transport Corporation (KSRTC) between Bengaluru city and Mysuru city.

Fly bus has won the GLOBAL BRAND EXCLLENCE WARD -2014 from World Brand Congress at SINGAPORE.

Flybus nominated as one of India's best 100 projects by SKOCH National Award -2014

KSRTC is providing more than just a transport service from point A to point B but also minimizing hassle-free travel between airport and their respective outlaying cities. This not only reduces cost & time, but also diminishes the inconveniences on the move.

Features:

- In-Bus entertainment 70+Live channels to each seat
- Live display of flight timings
- GPS enabled
- Dedicated departure bay at Mysuru Bus Station and Bengaluru International Airport
- Earlier KSRTC Pantry & Chemical Toilet buses, toilet was fitted in the middle of the bus, resulting in many passengers showing reluctance to sit near the toilet. The flybus has toilet was fitted in the back side of the bus providing more comfort
- Bus travels directly from Airport-to-Mysuru, by passing the Bengaluru avoiding city congestion, saves lot of time

- Bookings at www.ksrtc.in & 900 booking counters
- Enquiry & spot ticket booking counter

The branding of flybus is done tastefully, implying luxury and stateliness in a subtle manner. The slanted 'f' character denotes swiftness and is placed across the height of the bus in such a way that it merges with the angle of recline of the seats. The colour used is primarily gold and silver, again symbolic of the premium-ness of the fleet. The name itself, 'flybus' is effortlessly memorised and rolls out of the tongue with ease. The tagline clearly denotes safest & luxurious travel for airport passengers- 'Switch to Flight mode even before takeoff'. The salient features in the bus are unique and exclusive.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE:

Initiative is all about attracting commuters to shift from private mode of transport to Public Transport. One of the persistent needs during recent times has been a safe and affordable transportation to Bengaluru International Airport (BIA), especially from upcountry locations. Most of the time, they are left with no choice as far as transportation is concerned. In line with vision to be the Gateway to South India for the rest of the world, KSRTC has tied up with KIAL to provide comfortable, safest and luxurious public transport facility to Mysuru directly from the airport with affordable cost.

KSRTC has conducted survey & received feedback on every completion of flybus journey. On every journey of flybus, the responses of commuters have been overwhelming. KSRTC has initiated survey through social and digital media. In Google ad words out of 40782 clicks, around 0.69 million of impressions, 1445 nos. of conversions received. In social media around 23500 follow flybus on face book & 2000 on twitter. Within less period of introduction, flybus has won the heart of millions of the commuters.

PARTNERS' INFORMATION:

One of the persistent needs during recent times have been a safe, luxury and affordable transportation to Bengaluru International Airport especially from upcountry locations like Mysuru, Mangalore, Tirupati, Coimbatore etc.

Joining hands with KIAL, KSRTC has incorporated many prominent features to influence mobility demands like real time flight information display, GPS enabled bus tracking, Personalized TVs, pantry and toilet, well trained & courteous driver & conductor for every trip, 100% punctual & regular operation even one day flybus is not cancelled, dedicated staff for maintenance of the bus so as to keep the vehicle on condition. Hence it enhanced the commuter base day by day.

Initially any new project to have its impact on customers it takes time, like wise flybus also incurred losses at the initial stage, after that it has gained popularity among the commuters and now it is trendsetting initiative in road transport industry.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

Bengaluru the capital city of Karnataka State, one of the largest cities in India and ranked among top ten entrepreneurial locations in the world by the Economic Times. In 2012 Lonely Planet2 ranked it 3rd among world's top ten cities to visit. It serves as an important airport hub in South India for a number of other smaller cities which see a large influx of passengers using the airport and also home to one of India's best airports-KIA.

The big-city traffic loomed the largest for flight passengers who were commuting from these cities to

the KIA. No public transport system connecting the neighbouring cities directly to the airport was in place, hiring a taxi is expensive & passengers had to struggle to reach the airport wasting their time and money.

To overcome, KSRTC launched flybus an ambitious and innovative project, placed with customer at the heart of the public transport system.

Details of FLY-BUS

SCH NO 12 F-1097

Sl No	MONTH	EFF KM (In lakh)	TOTAL Revenue (In Lakh)	MONTH COST (In Lakh)	Margin per month	Month EPKM	Month CPKM	Rev per Day	Cost per Day	Cost per Trip	Rev loss per Trip	No of Days	No of Trips per month	TOTAL PASSENGERS	No of On road	Vehicle Utln.,	Fleet Utln.,	KMPL
1	Aug-13	0.14	5.07	6.27	-1.20	37.37	46.22	-0.08	0.42	0.10	-0.02	15	60	531	15	904.5	100.0	
2	Sep-13	0.25	9.10	11.43	-2.33	36.99	46.48	-0.08	0.38	0.10	-0.02	30	120	995	30	820.0	100.0	
3	Oct-13	0.25	9.64	12.28	-2.64	37.92	48.32	-0.09	0.40	0.10	-0.02	31	124	1026	31	820.0	100.0	
4	Nov-13	0.25	9.30	11.63	-2.33	37.79	47.27	-0.08	0.39	0.10	-0.02	30	120	978	30	820.0	100.0	
5	Dec-13	0.25	10.36	11.78	-1.43	40.74	46.35	-0.05	0.38	0.10	-0.01	31	124	1084	31	820.0	100.0	
6	Jan-14	0.25	9.10	11.99	-2.89	35.79	47.17	-0.09	0.39	0.10	-0.02	31	124	1163	31	820.0	100.0	
7	Feb-14	0.23	10.67	10.16	0.51	46.46	44.26	0.02	0.36	0.09	0.00	28	112	1416	28	820.0	100.0	
8	Mar-14	0.25	10.22	12.67	-2.46	40.20	49.86	-0.08	0.41	0.10	-0.02	31	124	1483	28	907.9	90.3	
	TOTAL	1.87	73.45	88.22	-14.78	39.19	47.16	-0.52	3.12	0.78	-0.13	227	908	8676	224	836.6	98.7	
	2014-15																	
1	Apr-14	0.24	10.51	12.27	-1.75	43.39	50.62	-0.06	0.41	0.10	-0.01	30	120	1518	29	835.4	96.7	3.13
2	May-14	0.25	14.01	12.42	1.59	55.11	48.88	0.05	0.40	0.10	0.01	31	124	1851	31	820.0	100.0	3.01
3	Jun-14	0.25	13.47	12.30	1.17	54.77	50.00	0.04	0.41	0.10	0.01	30	120	1735	28	878.6	93.3	3.03
4	Jul-14	0.25	12.82	10.84	1.98	50.44	42.66	0.06	0.35	0.09	0.02	31	124	1589	31	820.0	100.0	3.12
5	Aug-14	0.25	14.05	16.43	-2.37	55.97	65.43	-0.08	0.53	0.13	-0.02	31	124	1742	29	865.8	93.5	3.10
6	Sep-14	0.25	14.88	13.13	1.75	60.50	53.38	0.06	0.44	0.11	0.01	30	120	1916	28	878.6	93.3	3.05
7	Oct-14	0.25	17.09	13.20	4.69	70.38	51.62	0.15	0.43	0.11	0.04	31	124	2300	26	977.7	83.9	3.06
8	Nov-14	0.25	14.35	13.29	1.06	58.33	54.04	0.04	0.44	0.11	0.01	30	120	1842	30	820.0	100.0	3.12
9	Dec-14	0.25	18.37	12.66	5.71	72.28	49.82	0.18	0.41	0.10	0.05	31	124	2362	31	820.0	100.0	3.14
10	Jan-15	0.25	16.61	11.95	4.66	65.33	47.00	0.15	0.39	0.10	0.04	31	120	2136	28	907.9	90.3	3.14
11	Feb-15	0.23	16.51	11.95	4.57	71.93	52.03	0.16	0.43	0.11	0.04	28	112	2116	28	820.0	100.0	3.07
12	March-15	0.26	17.32	13.81	3.51	66.62	53.12	0.11	0.45	0.11	0.03	31	124	2269	31	838.7	100.0	3.07
	TOTAL	2.99	180.81	154.25	26.56	60.43	51.56	0.07	0.42	0.11	0.22	365	1456	23376	350	1601	95.9	
	2015-16																	
1	Apr-15	0.24	15.92	11.00	4.91	65.70	45.42	0.16	0.37	0.09	0.04	30	120	2097	30	807.6	100.0	3.04
2	May-15	0.25	17.41	12.80	4.61	69.50	51.11	0.15	0.41	0.10	0.04	31	124	2334	28	894.6	90.3	3.00
3	Jun-15	0.25	17.23	13.26	3.98	70.06	53.90	0.13	0.44	0.11	0.03	30	116	2247	29	848.3	96.7	3.14
4	July-15 (up to 20th)	0.23	16.28	12.38	3.91	70.92	53.90	0.14	0.44	0.11	0.03	28	116	2125	28	820.0	100.0	
	TOTAL	0.97	66.84	49.44	17.40	69.03	51.06	0.15	0.42	0.10	0.15	119	476	8803	115	7903	96.6	

SCH NO 15 F-357

Sl No	MONTH	EFF KM (In lakh)	TOTAL Revenue (In Lakh)	MONTH COST (In Lakh)	Margin per month	Month EPKM	Month CPKM	Rev loss per Day	Cost per Day	Cost per Trip	Rev loss per Trip	No of Days	No of Trips per month	TOTAL PASSENGERS	No of On road	Vehicle Utln.,	Fleet Utln.,	KMPL
1	March 27th	0.03	1.01	1.59	-0.58	33.67	53.12	-0.12	0.32	0.08	-0.03	5	20	141	5	600.0	100.0	3.23
2	Apr-15	0.24	10.17	10.90	-0.73	42.38	45.42	-0.02	0.36	0.09	-0.01	30	120	1388	30	800.0	100.0	3.22
3	May-15	0.25	13.84	12.76	1.09	55.46	51.11	0.04	0.41	0.10	0.01	31	124	1870	31	805.2	100.0	3.50
4	Jun-15	0.24	12.79	12.87	-0.08	53.57	53.90	0.00	0.43	0.11	0.00	30	104	1717	26	918.4	86.7	3.73
5	July-15 (up to 20th)	0.23	12.15	12.38	-0.23	52.91	53.90	-0.01	0.44	0.11	0.00	28	104	1580	28	820.0	100.0	
		0.99	49.96	50.50	-0.53	50.57	51.11	0.00	0.41	0.10	-0.03	124	472	6696	120	225.0	96.8	

PROBLEMS FACED:

Place the customer at the heart of the Public Transport System: KSRTC has always treasured the traveller's choice. A recent study conducted by a Lead Cap Ventures3 found that almost 10% of passengers to KIA come from upcountry locations. Fly bus is a boon addressing exactly the travellers' needs.

Provide an integrated and first class offer of mobility service: flybus on Volvo multi-axle, uninterrupted WI-FI connectivity, in-bus pantry& chemical toilet, In-bus entertainment with 70+ personalised live TV channels to each passenger, seats with increased leg room, display of flight timings & related information, GPS enabled tracking.

Deliver alternative sustainable mobility: Based on the gaps identified in providing direct connectivity between Mysuru & KAI flybus was introduced which proved to be a successful alternative mobility. Research indicates 1/3 of travellers prefer buses compared to other modes.

SUSTAINABILITY:

Traditional transport planning aims to improve mobility, but the real purpose of transport is to improve access simultaneously reducing environmental, social impacts, and traffic congestion. Traffic congestion imposes economic costs by wasting people's time and by slowing the delivery of services. In Bengaluru 35-km drive to the city centre from the gleaming terminal can take two hrs. Bengaluru city's traffic jams make it sixth-most painful worldwide for commuters and second-worst for parking after New Delhi, according to 2011 survey of 20 cities by International Business Machines Corp.

Department of Urban Land Transport survey showed that travel time has gone up and total delay for a vehicle increased from 12 to over 30 minutes. For ex: a distance that would take 20 minutes during non-peak hrs took 32 minutes during peak hrs in 2008 and 50 minutes in 2011.

By Introducing flybus, journey reduces the travel time by 2 hrs per trip. KSRTC flybus is a step in the direction to achieve the grater usage of public transport reducing the travel time and leaving less carbon footprint.

Based on the success of this initiative on more schedule is added in the month of March 2015.

Since the model has assured KSRTC of success, soon the model is going to be replicated to provide connectivity to other cities like Mangalore, Shimoga, Coimbatore, and Pondicherry etc. The move is expected to encourage the public transport share and to increase the passenger mobility. The modal share to KSRTC buses has indirectly added revenue besides adding customer base. The commercial revenue strategies are being worked out. The customer can opt for his choice of travel at affordable cost.

TRANSFERABILITY:

Air transport in Karnataka State, as in the rest of the country, is still a fledgling but fast expanding sector. Karnataka State has international operations only from Bengaluru and Mangalore airports, while other important cities and towns in the states are not so well-connected.

Flybus is contributing to the integration of road transport and air transport. We found that there are a few categories of travellers, especially those who travel alone and are forced to take a cab that costs more than Rs. 3 to 4,000 per travel (flybus fare is Rs 800) and if they take public transport, they are forced to change at least two vehicles to reach either the Airport or Mysuru. Even though passenger can take cabs it has to pass within the city & time consuming one.

Flybus operates through outer ring road in the city completely avoiding the city traffic. For catching early morning departing flights the passengers from Mysuru were compelled to reach Bengaluru on the previous evening and take lodging facilities costing him the money and time.

In Annual IBM Commuter Pain Survey, a unique look into the interplay between traffic congestion and human emotions has been reported. The survey conducted among 8,042 commuters in 20 cities across 6 continents and key results are commuter pain index that ranks the emotional and economic toll of commuting in cities worldwide, Mexico City is the most painful and Bengaluru has been voted the 6th most painful cities for commuting.

In several surveys & feedbacks, KSRTC has been rated highest in traveller satisfaction. Research indicated that more than 1/3 of the travellers prefer luxury AC buses. Out of 600 to 660 outbound passengers travelling from Mysuru to KIA daily about 30 per cent of them preferred to travel by KSRTC bus. flybus avoids city limits while plying from KIA to Mysuru, it saves time and achieves the desired satisfaction.

RECOGNITION /AWARDS:

- FLYBUS initiative has won Global Brand Excellence Award-2014 at Singapore
- FLYBUS initiative has won Order of Merit by SKOTCH as one of the 100 best initiative of the Country

INTELLIGENT TRANSPORT SYSTEM AT MYSORE CITY

By KSRTC

Year of implementation : 17th November 2012
Year of Completion : 2015

ORGANIZATIONAL DETAILS:

Karnataka State Road Transport Corporation, Mysore City Transport Division, Mysore, KSRTC. The **Karnataka State Road Transport Corporation** (KSRTC) is a state-owned road transportation company in the state of Karnataka in India. KSRTC has the largest fleet of Volvo buses among state owned transport companies.

SITUATION BEFORE THE INITIATIVE:

Prior to implementation of ITS System, there was no system prevailing on tracking of buses, real time bus information displays, ITS enabled bus operations and MIS Reports thereof.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

With the implementation of ITS Project, KSRTC has improved its capability in managing the entire public transport system in Mysore efficiently, safely and be more Commuter and environmental friendly. The key stakeholders are the travelling public, the operative staff of KSRTC involved in efficiently running the buses as per schedule with well-maintained buses and meeting the quality of international standards, the management of KSRTC and various eco-system partners such as suppliers of various resources and components required for efficient running of the KSRTC services, insurance companies, environmentalists and other transport users in the city as two-wheeler / four wheeler users etc.

KSRTC has played a big role in implementing this innovative project. Following are the challenges faced in implementing the project successfully:

a) Domain related
- Unavailability of historical project data (lessons learnt from previous ITS implementations in Indian conditions of this scale)
- Unavailability of best practices & guidelines

b) Business Process related
- Time to map / adopt technologies vs. existing business processes
- Additional rework to meet ITS solution requirements - (routes redefined)
- Stabilize solution while continuously optimize business process
- Deploy rework changes during solution implementation
- Synchronizing massive daily operational changes to system requirements

c) Project Management related
- Delayed stakeholder engagement (PMC, M&E)
- Delayed scope finalization & additional rework
- Complex communication channels
- Complex Project financial management
- Long Project conceptual to awarding Contract

- Changes in business requirements and technology
- Recurring requirement changes

d) Solutions Deployment related
- Lack of environmental testing facilities (LED boards)
- Excessive rework during geo-fencing
- Multiple trips to capture, validate, and test physically
- Buses available only at night (for installations)
- Non-standard "in-bus" environment - different bus types/ designs
- Impractical to standardize procedures
- Non-standard cabling needs
- Issues of batteries, VMU and relay placement
- Design change requirements during implementation
- Longer installation time than planned (old buses)
- Availability of same voice-over (recording) for implementing changes
- Longer time to freeze PIS (passenger information system) format requirements
- Display multi-language formats per specifications
- Non-availability of a single font (for Kannada + English)
- Unable to perform Over The Air (OTA) activity for operational changes
- Non established ITS equipments like VMUs, PIS display boards, etc,
- Continuous VMU issues

e) Environment related
- Non-availability of power supply at bus-shelters
- Non-standard bus shelters
- Security of ITS equipment in public places
- Unplanned effort & cost
- Integrating existing in-bus equipment (protocol mismatch)
- Excessive vibrations in rural routes - affecting in-bus equipment performance
- Different types of buses
- Availability of 100% GPRS signal
- Availability and applicability of local insurance policies for ITS projects

f) Contract related
- Inadequate scope change control
- Lack of flexibility (in contract) to deal with field realities and changes
- Aligning existing procedures with World Bank expectations
- Goods & services, consultancy services
- Residual ambiguity in RFP
- Technical vs. functional requirement conflicts. E.g., LED boards, UPS need
- Missing / inadequate clarity on GIS scope, back-up power requirement

g) Business data related
- Geo-fencing shelter less bus stops
- Aligning documented (route) data with field
- Missing requirements in the beginning (dead KM)

h) Stakeholders / Commuters related
- Ensuring effective promotions & communications (ITS and its benefits)
- Setting clear expectations from ITS solution
- Other stakeholders
- Getting timely approvals and support from various local authorities like hospitals, tourist spots, railways, for deploying the PIS display boards

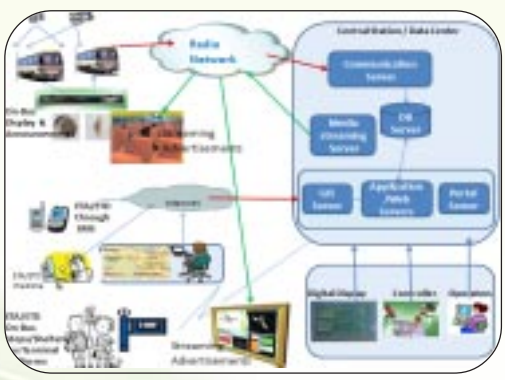
i) Skill building challenges related
- Lack of ITS domain knowledge
- Building competency within available time constraints
- Timely availability of skilled labours

j) Crew related
- Initial resistance to change – fear of scrutiny
- Adherence to geo-fence routes
- Adherence to schedules and trips
- Ensuring multi-lingual trainings
- Finalizing training needs & material

The City of Mysore needs to achieve a modal shift towards public transportation. A number of factors indicate that traffic situation will degenerate in the coming years in the absence of intervention. The negative impacts of trend development would include slower travel speeds, longer journey times, higher fuel consumption and associated pollution, more accidents, etc. There is no prospect of expanding the road network sufficiently to meet the travel demand growth. The project is aimed at offering - Real-time monitoring and tracking of buses and help reduce road congestion and other transport issues; Dynamic passenger information system (PIS) based on Geographical Positioning System (GPS); Advanced display and communication technologies, Central Control Station (CCS) and intelligent display boards. Overall, the intended project improves passenger safety, fleet efficiency, services and traffic situation through transmission of real time information.

The core proposition is to improve the attractiveness of the public transport, thereby gaining new users from private transport and retaining existing users. Provision of easily accessible relevant travel information to passengers before and during their journeys is seen as a major basis for increasing attractiveness of the public transport offer. With this background, KSRTC implemented the Intelligent Transport System Project at Mysore City conforming to Standard Practices in providing efficient operation and management of bus services. It is the first of its kind demonstrative project in India for the entire fleet of city bus services in the history of Indian State Transport Undertakings.

Technology & System Architecture



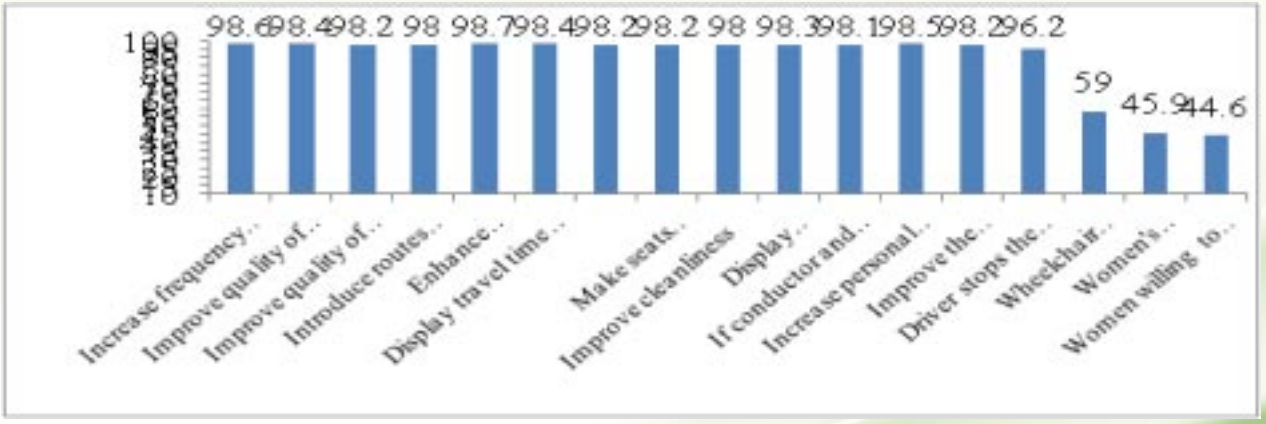
BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE:

Building intelligence into the transport system brings in the convergence of technologies providing a synergetic transformation in the commuter experience. ITS provides benefits in terms of reduced waiting time and uncertainty, Increase the accessibility of the system, Increase the safety of users, Reduce the fuel consumption and emissions, Reduce the operational costs, Improve traffic efficiency, Reduce traffic congestion, Improve environmental quality & energy efficiency and Improve economic productivity.

ITS played an important role in shaping the future ways of mobility and the transport sector. KSRTC used this innovative system to popularize the city bus services. ITS has ensured:

- Reduction in Waiting Time of commuters at bus stops and Uncertainty of bus services and improves economic productivity. Real Time information for passengers about arrival and departure helps them to better manage the time. In the recently conducted survey, it has been established that the average waiting time has reduced by 5 minutes from the earlier average waiting time of 21 minutes.
- ETA predicted before 10 minutes has an accuracy of more than 96%
- Scientific & reliable data for drivers driving habits can be obtained like sudden accelerations, harsh braking, speed violations etc which helps in achieving higher fuel efficiency
- ITS enabled operations have aided reduction in manpower managing the bus stand operations. ITS data has enabled KSRTC to take up revising the bus timing schedules on real time basis with scientific approach reducing operational costs.
- The data serves as a tool for defending the cases where buses are involved in accidents
- Increased the Safety of the Users – ITS system provides feedback on driving habits
- Reduce Fuel Consumption and Emission-Reduces traffic congestion, Shift to public transport from personal modes of transport
- Reduce Operational Costs- Lot of MIS data being generated, helps in optimizing the bus operations
- Improve Traffic Efficiency
- Software Application can show the action reply to drivers on their duty performance, which helps KSRTC to keep vigil on crew
- All segments of society - Students, Housewives, Employees, KSRTC operational managers, crew, traffic police etc. have praised the project deliverables.
- Traffic Police are using ITS bus data to decide on One-way, Two ways etc.
- Controllers at bus stations can now dispatch the buses through software application sitting in control room in place of manual dispatch. Depot managers can track all their respective buses in real time in their offices. Drivers can contact the Control Room sitting inside the bus in case of emergencies since there are two way communication facilities.

Shifting of non-commuters to KSRTC (if facilities listed below are provided)



KSRTC has procured the services of Independent Monitoring and Evaluation Consultants – M/s Intercontinental Consultants & Technocrats Pvt Ltd., JV with M/s Kimley Horn Consulting and Engineering for a period of 36 months, who have taken up periodical temporal surveys establishing Pre and Post Project Implementation results. The Monitoring and Evaluation Consultants are mandated with the task of presenting a periodic perspective on the progress of deployment of ITS in KSRTC Mysore. Feedback of consultants offers a panoramic view that is largely based on perceptions and expectations of people of Mysore, which will help KSRTC in improvising and stabilising the project outcomes. The modal share of KSRTC has increased from 39.8% in August 2012 to 42.2% by January-February 2015. 76% of the new commuters are shifting to KSRTC exclusively due to ITS. As of February 2015, KSRTC ridership has increased by 14.5% from March, 2014 modal share surveys and by nearly 47% when compared with baseline data of April 2012. This increase is due to normal growth of ridership, addition of new routes, expansion of the fleet size and introduction of ITS.

PARTNERS' INFORMATION:

- The project has been implemented with active stakeholder participation and extreme transparency from the stage of inception to till date. Before the preparation of Detailed Project, the citizens of Mysore City were interviewed/surveyed in large scale for assessing the commuter requirements
- Procurement for system integration has been done as per Standard World Bank Practices with huge participation through global tenders. Evaluation of bids has been done by committee representing various functional experts.
- Implementation has been done as per standard/best practices
- Before implementation, Dissemination Workshop was arranged on 21-09-2011 at Mysore City inviting all stakeholders of Project in general and Public of Mysore in particular. The stakeholders participated include citizens of Mysore City, NGOs & Associations, Media, Students, Public Representatives (Ministers, MLAs, Corporators etc.), Representatives of Mysore City Administration, KSRTC project stakeholders (Management, Drivers, Controllers, Conductors, Mechanics etc.), Govt. of India Representatives, Govt. of Karnataka Representatives (KUIDFC, Dept. of Urban Development), Project Consultants, Project Implementation Agency etc. All the participants were given the materials/ brochures explaining the components and benefits of the project.
- For the first time in India, a bilingual (Kannada and English) commuter portal mitra.ksrtc.in has been opened to the public. The website provides commuter with real time information on bus

arrival/departure with option to track the bus on GIS map with advanced search facility based on bus number/route/stop information. The website also provides many value added information on Mysore city bus services, tourist places, fare calculator, FAQs etc. Commuters can send their suggestions/grievances through this portal.

- SMS and IVRS facilities are provided to commuters at free of cost to enquire about the real-time bus information.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

- Bus Stop Mapping
- Exact Travel Time Data
- Rescheduling and route rationalization based on field travel times, route optimization – KSRTC was able to first time map all our bus stops across the city. The bus stops went from 900 stops to 2400 stops. We now have each stop numbered in the system. We then were able to rationalize our routes. Effectively, after many years we rationalized based on ground situation impacts and ITS data.
- Commuter Portal with Static & Real-Time Data, Passenger Friendly Commuter Website – http://mitra.ksrtc.in in English and Kannada
- Operations Management –Computers Aided dispatch, Schedule adherence, Incident management
  - Traveller Information-Channels-> Web, Mobile, In-bus, Bus Station, IVRS
  - Services-> Real Time, Online, Alert Services
- Security of equipments and infrastructure, incident management, driver aids
- Fully fledged SMS and IVRS
- Capacity Development – Exposure to KSRTC officers and staff for handling Project Management professionally
- An independent Monitoring and Evaluation Consultancy to track the reach of project objectives to public
- Decision enabling MIS Reports
- Multi-functioning of Central Control Station
- Instructions Manual for Crew and Staff
- High end Video-wall with value added GIS Map
- Two way communication between driver in bus and Central Control Station
- 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

The city of Mysore will serve as an example for sustainable transport solution of Intelligent Transport Systems (ITS) that is expected to be replicated across India. Based on Mysore ITS, KSRTC has been implementing Vehicle Tracking and Monitoring System project covering 2000 long route buses. All the executives of State Transport Undertakings have visited KSRTC for better understanding the project which would help them in implementing in their respective organisations.

- Increased efficiency of outputs/processes and effectiveness of outcomes

Services to commuters

- ✓ In-Bus & Bus Stop Solution
- ✓ Commuter Portal & GIS Application
- ✓ Improve economic productivity

Management Information System

SUSTAINABILITY:

a. Project has been implemented with well designed implementation approach
   - Building Knowledge Base – In-depth study, thread-bear discussions, consultations
   - Multi-lateral Co-ordination – City Administration, PMU, WB, Consultants, State Govt. etc.
   - Acquaintance with World Bank Procedures – Finance, Procurement
   - Team Work – KSRTC, Vendor, Consultants etc
   - Detailed Project Planning and Documentation
   - Sound Management Review Techniques – Weekly Meetings, Monthly Steering Committee Meet ings, Field visits, Adhoc meetings, and consultations with PMC etc.
   - Comprehensive Training Program
   - Procured Professional Project Management Consultants and key experts

b. Involvement of Stakeholders at all levels to ensure the sustainability of the project - Traffic Police, Local Administration, NGOs, Urban Planners, students, commuters, KSRTC crew, traffic controllers, officials, depot managers etc.

c. Public Outreach Measures – Extensive Public Outreach Campaign has been planned to increase the ridership of ITS enabled buses.

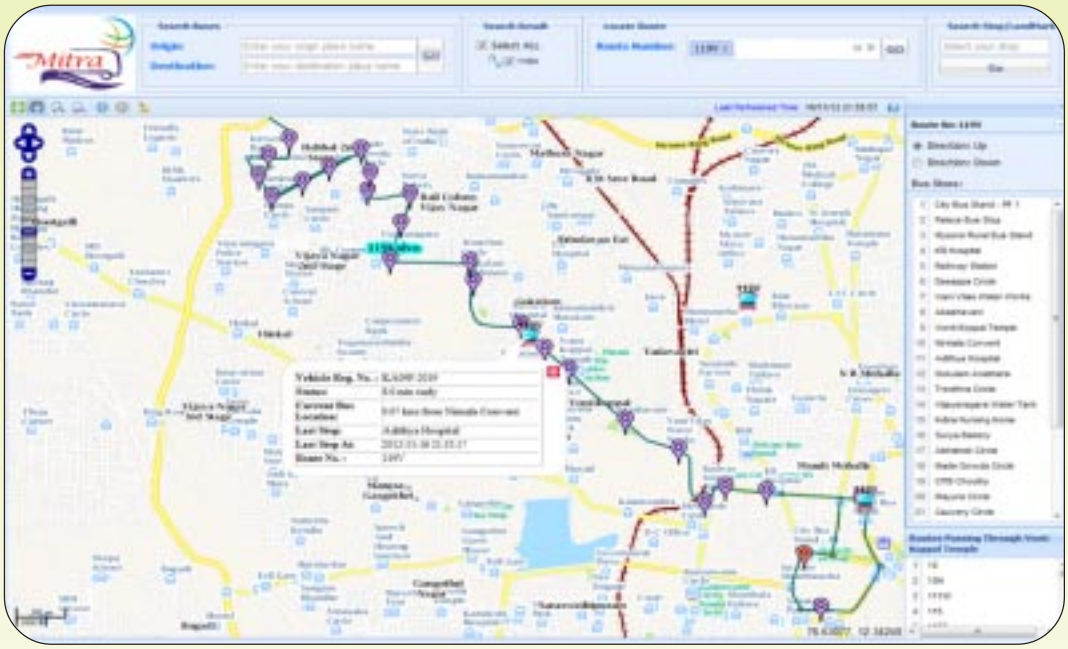
TRANSFERABILITY:

- 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

RECOGNITION /AWARDS:

- Best ICT enabled Urban Governance Initiative of the Year award at e-World 2012,
- Apollo- CV Award-2014,
- Golden Peacock Award-2013 @ Leadership and Quality Governance Summit,
- SKOCH Digital Inclusion Gold Award-2012 @ 30th SKOCH Summit
- SCM-Innovation AWARD 2013 by Indian Institute of Materials Management @ APCON 2013
- UITP (International Association of Public Transport) Regional Information Technology Award @ 60th UITP World Congress, Geneva.
- Award of Excellence by Ministry of Urban Development, Govt. of India 2014

ITS CONTROL ROOM



Dynamic Status Report on ITS application

STAFF DUTY ROTA SYSTEM AND LEAVE MANAGEMENT SYSTEM

By KSRTC

Year of implementation : 2013
Year of Completion : On going initiave

ORGANIZATIONAL DETAILS:

Karnataka State Road Transport Corporation, Mysore City Transport Division, Mysore, KSRTC. The **Karnataka State Road Transport Corporation** (KSRTC) is a state-owned road transportation company in the state of Karnataka in India. KSRTC has the largest fleet of Volvo buses among state owned transport companies.

ORGANIZATIONAL CONTACT DETAILS:

Mr. Rajender Kumar Kataria IAS, Managing Director,
Karnataka State Road Transport Corporation,
Tel : 080 22221125, 22253474 ; Email : md@ksrtc.org

SITUATION BEFORE THE INITIATIVE:

In KSRTC, every day leave sanctioned to staff is 9%, weekly off 17%, 10% reserved for other exigencies and only 64% staff available for operation. Earlier Manager was facing difficulty to operate services with 64% staff and he was having discretion of granting leave or fixing duties which was causing labour unrest, corruption, operational inefficiency. To address these issues there is a need for a scientific method of duty allocation and leave management to safeguard the interest of the staff and commuters. There is also a demand from Trade union or employees association brings transparent system.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY :

- KSRTC is one of the largest employed organisations having staff strength of 37831. Allocation of duty and leave management is very critical & sensitive issue to be handled carefully in road transport industry. Employee satisfaction is essential to the success of any business; high rate of employee contentedness is directly related to a lower turnover rate. Satisfied employee- healthier Organisation- Satisfied Commuters is the key for success.
- Staff Duty Rota System first of its kind initiative in road transport industry in India and Leave Management Kiosk System introduced by Karnataka State Road Transport Corporation (KSRTC).
- Duty Rota System: Duty will be allocated through seniority & counselling, it facilitates optimum utilization of staff, reduction in favouritism & nepotism, route cancellation by in turn increase in productivity and giving efficient service to the commuters.
- Leave Management Kiosk System: Touch screen, system generated leave application & approval, promotes discipline, transparent, avoids undue delay and reduces harassment and corruption.

Duty Rota System is first of its kind initiative in road transport industry in India introduced by KSRTC.

- 24 X 7 staff friendly kiosk system, having local language interface and biometric authentication.
- Automated duty allocation by counselling based on seniority.
- Time based approval of leave
- Staff can avail leave 30 days in advance.

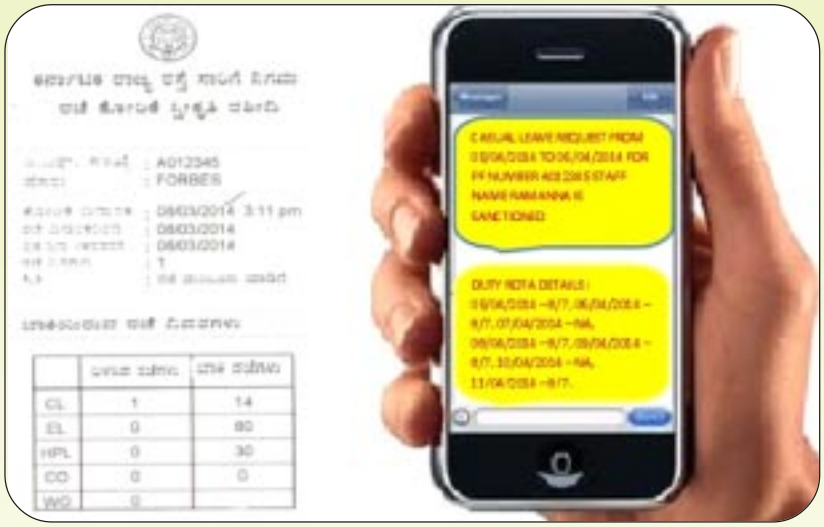
- Labour Harassment free/ Transparent
- System generated receipt & SMS as proof of leave approval / rejection.
- Planning staff requirement for operation & set threshold limit to achieve operational efficiency.
- No favouritism/nepotism
- Accurate leave accounting

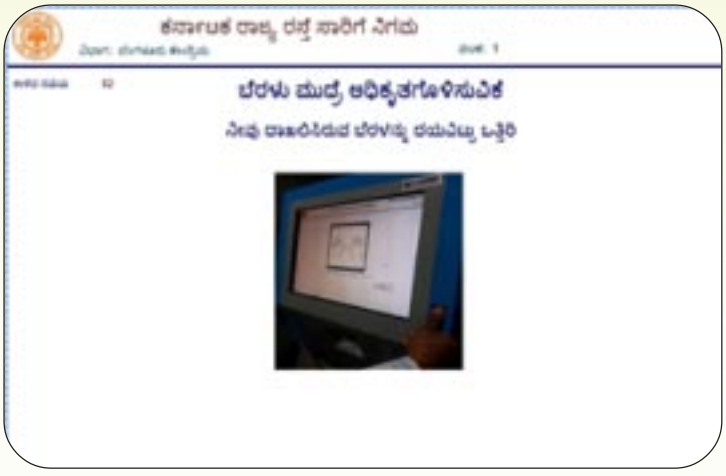
Organizational effectiveness reflects how effectively the organisation can discharge its obligations with respect to all its constituencies including employees, customers, general public, and other agencies.

M/s FORBES Technosys: Implementation agency providing KIOSK and developed new application for leave management.

KSRTC team: Developing interface application for integrating LMS with Depot Computerisation System; entering leave kitty, threshold limit and monitoring the performance.

Staff: Driver/conductor/mechanics involved for receiving feedback prior to introduction.





BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

Application has been developed keeping in mind of staff welfare & to provide efficient service to the commuters. System has been deployed at 94 locations spreading across 17 districts in southern part of Karnataka State. Number of staff benefited from this system is 37831 and number of passengers getting efficient service is 2.69 million every day. KSRTC initiatives have helped both staff & commuters significantly, 70% of the staff working in KSRTC are Drivers, Conductors and Mechanics. We can also see improvement in regularity and attendance and also it avoids all sorts of complaints. Satisfaction levels are adequate when turnover levels are at or below industry norms, in KSRTC employee turnover is below 0.25 % per annum.

KSRTC's core objective of this projects are to bring transparency, equalise personalities, reduce discrimination, favouritism, saving cost, ensure proper accounting, optimum utilization of staff and to improve operational efficiency thereby attain staff & commuter satisfaction.

SI	Factor	2013	2014	Increased	Reduced
1	Average off Road Vehicles	361.4	351.8		9.6
2	% off Road Vehicles	4.4	4.2		0.2
3	Number of Break Downs	3176	2894		282
4	Rate of Break Downs	0.04	0.03		0.01
5	Number of Accidents	1110	1005		105
6	Rate of Accident per 100000 KM	0.13	0.12		0.01
7	Traffic Revenue (Rs in Lakhs)	217262..47	240614.41	23351.94	
8	EPKM(in paisa)	2624.5	2897.4	272.9	
9	EPKM % Variation over PYR	2624.5	2897.4	10.40%	

Duty Rota System ensures punctuality and minimizes operational failure that bring higher customer satisfaction. Availability of staff can be managed by setting the leave quota, restricting the staff to avail mass leave to ensure flow of operation. Since the depot is managed by few individuals with huge number of labour force, high job satisfaction of staff is the key for maintaining operational efficiency to provide better service to the commuters.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

- Minimises disturbance and disruption
- Removal of manual process, bringing transparency, eradication of corruption, increased labour satisfaction, operational efficiency
- Improvement of services delivery processes
- Cost efficiency: Staff requirement is reduced and employee turnover is very minimal which saved an enormous amount of money in recruiting new employees, hiring process, training new employees.
- Safety: Rate of accidents is coming down because of reduced stress and satisfied staff.

PROBLEMS FACED:

Introduction of new technologies or modes, Touch screen based system, flexibility to plan the requirement of staff for operation, real time leave data, Major Refurbishment of existing systems and infrastructure, new applications developed for leave management and duty rota system & implemented in 94 locations situated in villages and small towns by deploying Kiosks, UPS, LAN & internet.

SUSTAINABILITY:

To allow our cities to evolve into an urban form that is best suited for the unique geography of their locations and is best placed to support the main social and economic activities that take place in the city. By ensuring safe, affordable, quick, comfortable, reliable and sustainable access for the growing number of city residents to jobs, education, recreation and such other needs within our cities.

Incorporating urban transportation as an important parameter, encouraging transport planning in all cities so that travel distances are minimized and access to livelihoods, education, and other social needs, especially for the marginal segments of the urban population is improved.

Encourage greater use of public transport and non-motorized, establishing institutional mechanisms for enhanced coordination in the planning and management of transport systems and associating the private sector in activities where their strengths can be beneficially tapped.

Use of IT in providing sustainable transport system for the commuters.

Taking up pilot projects that demonstrate the potential of possible best practices in providing sustainable urban transport.

TRANSFERABILITY:

Initiatives developed with the assistance of technology, that will bring efficiency, accuracy and corruption free system in the administration process. By this service delivery will improve and the satisfaction level of the employees will be increased. For labour oriented organization like KSRTC it is very necessary to win the hearts of the employees. The Staff Duty Rota System succeeded in this way.

Cost efficiency: Staff requirement is reduced and employee turnover is very minimal which saved an enormous amount of money in recruiting new employees, hiring process, training new employees.

RECOGNITION /AWARDS:

This initiative has won National Transport Innovation Award 2015

Mr. Rajender Kumar Kataria IAS, Managing Director, KSRTC received the ASRTU National Transport Innovation Award-2015 from Mr.Vijay Chibbar IAS, Secretary, Ministry of Road Transport & Highways, Govt. of India

FUTURE ROAD MAP OF THE PROJECT

Sky blue colour chosen for the kiosk which symbolizes trust, loyalty, confidence, faith about the system. Touch screen based kiosk deployed in each depot and leave management application has been designed giving valuable thoughts for more acceptability in terms of ease of use and convenient to operate. Various state transport undertakings have been visiting KSRTC to replicate the innovative features, designs and functionality in their respective organisation.

ORGANISED PUBLIC TRANSPORT CITY BUSES FOR SMALL AND MEDIUM TOWNS AND CITIES

By KSRTC

Year of implementation : 2013
Year of Completion : Every year KSRTC adds number of buses in different cities

ORGANIZATIONAL DETAILS:

Karnataka State Road Transport Corporation, Mysore City Transport Division, Mysore, KSRTC. The **Karnataka State Road Transport Corporation** (KSRTC) is a state-owned road transportation company in the state of Karnataka in India. KSRTC has the largest fleet of Volvo buses among state owned transport companies.

ORGANIZATIONAL DETAILS:

Mr. Rajender Kumar Kataria IAS, Managing Director, KSRTC, Central Office, K.H Road, Bangalore-560027
080-22221125, 07760990183, Email : md@ksrtc.org, lathaksrtc@gmail.com

SITUATION BEFORE THE INITIATIVE:

- Unorganized & dysfunctional city transport system
- Dependency on autos including shared autos, tum-tums, maxi-cabs
- Lack of effective public transport resulting in usage of two-wheelers & other personalized modes

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

- Mobility is very essential small cities' life, so how can we make getting around easier, better and more convenient for our small cities? How equitable and sustainable each option, in terms of accessibility, public health and environment? Considering this issued KSRTC has taken up the challenge to provide sustainable public transport in smaller cities.
- 'KSRTC Bus Service for small Towns and Cities'–Doubling Public Transport Share in the State of Karnataka. Karnataka State Road Transport Corporation (KSRTC) launched its City Bus Service in the state of Karnataka. The new city bus service started at Chitradurga on 1/8/2013, at Sagar on 16/9/2013, at Chikkaballapura on 28/10/2013 and at Chikkamagaluru on 26/01/2014, like-wise Hassan, Tumkur, KGF, Davangere, Kolar, Mandya, Mangalore, Mysuru. Number of new schedules was also added from 2013 in these cities at present total 11 cities operating 564 buses.

CITY SERVICE DETAILS AS ON 31.12.2014						
SlNo	**City**	**No.of Sch.**	**Passangers travelled (May-13 to Dec-14) (in lakhs)**	**Revenue realised (May-13 to Dec-14) (in lakhs)**	**No.of. Trips/Day (Single)**	**Load factor (%)**
1	**Mysore**	433	1947.54	19759.55	6703	72.30
2	**CKM**	5	12.36	50.76	72	43.13
3	**CBP**	5	16.84	102.13	80	76.96
4	**DVG**	20	114.40	5050.13	298	77.13
5	**CDG**	1	1.20	22.30	10	65.23
6	**SGR**	1	0.64	6.59	7	43.97
7	**MNG**	8	3.34	37.59	83	76.50
8	**TMK-1**	42	89.90	510.92	902	89.00
9	**KOLAR**	10	13.53	146.78	158	6.90
10	**KGF**	6	18.66	192.26	96	90.60
11	**Mandya**	11	39.93	303.71	127	73.20
12	**Hassan**	22	94.21	464.96	480	79.61
Total /AVG		**564**	**405.02**	**22102.67**	**9016**	**70.71**

- This initiative has proved that, Public transport services is the mobility of the future and are the only viable option that can ensure sustainable, equitable and uncongested mobility in liveable cities and smaller towns.
- Public transport always is the hallmark of urban bus system and effective operation is vital for the development of city or towns. In most Indian cities, there is an ever increasing preference for use of personal vehicles for commuting due to the absence of robust public transport service which in turn leading to the problems of road congestion, pollution, lack of safety in most of the small towns. Cities with a poor public transportation system and absent of unorganized & dysfunctional bus system are leading to have a higher availability of para-transit, private and other intermediate modes
- Considering the need, necessity and demand for public transport, KSRTC took up the visionary & strategic initiative of introducing organized public transport buses in 11 towns and cities, which is affordable, accessible, and efficient and offers a choice of transport mode.
- Cities are already making tremendous progress in achieving economic, environmental and social sustainability. In May 2013 United Nations survey of over 560,000 citizens from 194 countries revealed their top priorities are a good education, better healthcare and an honest and responsive Government4. KSRTC visionary leadership also knew that people want to live in cities that can provide with efficient public transportation. The introduction of public transport in smaller towns & cities has brought smart transportation with enhanced mobility, enhanced sustainability, and enhanced public transport market share.-
- As on today total number of buses is in operation is 564 with daily bus trips is 9016, number of passengers travelled from May 2013 to Dec2014 is 40.50 million and average load factor is 70.71% in 11 cities where city buses were introduced.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE:

Every once in a while, a revolutionary idea changes the way we see the world. Migration from villages to cities has lead to the phenomena of an unorganized, expandable growth for most of the cities in India. The quality of public transport in any city serves as a formative index of development, being the fulcrum of the functional efficiency for businesses and non businesses alike.

Most of the cities where KSRTC introduced city bus service are smaller towns first mile connectivity to last mile connectivity has ensured for seamless travel by providing interconnectivity between moffussil and city bus services; provision for both kinds of bus operations from same city bus stations; wherever there are different bus stations providing connectivity services with more number of frequency; at Mysore City passenger information boards for real time information deployed at City Railway Station etc.

KSRTC new city bus service

KSRTC has always treasured the traveller's. Reliability of service, time of schedule, safety, customized city buses with unique design, wide doors, sufficient standing space, LED boards, GPS based next stop announcement system, with adequate frequency, even drivers and conductors were identified from KSRTC pool and imparted proper training and orientation for city bus services, where operating to fixed time schedule is critical.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

As towns grow, their ecological impact increases and despite the flexibility and apparent freedom a personal vehicle might bring, a town or city cannot function without a sustainable public transport network which allows their citizens to move. Karnataka is one of the fifth most urbanized states in the country and it is estimated that 50% of the population of the State would be living in its urban areas by 2030. Urbanization brings many challenges in its wake and a significant one of them is that of ensuring sustainable mobility options for the urban populace.

PROBLEMS FACED:

- Whether sustained city bus operation can be introduced in the cities having population of 3 or below lakhs?
- If so, can the city operations be viable and can they generate sufficient revenue to take care of operation, maintenance and depreciation costs?
- Considering the constraints on capital expenditure which has to be borne by the operator (KSRTC)

itself, what minimum configuration of components in the city buses can be put together, so as to optimize capital costs?

- Whether add-ons like Destination sign boards and next stop announcement systems, which lead to additional costs, would be good value for money and would promote and encourage modal shift to public transport?
- To what extent the provisions of Urban Bus Body Code can be incorporated in such city buses required for Tier-II cities?
- City Buses can be taken only for few high density routes in these cities. What should be the methodology of route identification?
- What should be the frequency of the city bus operations and how the bus scheduling should be taken up?
- What is the extent of need and necessity to which infrastructure from the local municipal corporation would be necessary, particularly in setting up the bus shelters and bus stop signage?
- Estimating the number of city buses that may be required for city bus operations - number of city buses less than the optimum would be insufficient for modal shift to public transport, and number more than optimum may lead to increased cost of operations, making the project unviable.
- Need for consultation and end user involvement so as to have "commuter buy-in" and to make people develop a sense of ownership towards the city bus operations.

SUSTAINABILITY:

KSRTC Management & Staff: Prior introducing, extensive field surveys were taken up, to assess requirements, deployment, route selection –periphery to periphery through city centre, frequency & timings.

Vehicle manufacturers: Procurement of buses exact requirement of city buses in Indian road conditions.

Local city administration: Successful implementation of the services (Auto Rickshaw strike opposing bus services commissioning and local police helped in maintaining law and order), Municipal Authorities (Bus shelter construction, maintenance)

Monitoring & Evaluation consultants: Surveying customer satisfaction level & analyzing bus operations for further deployment of services

Media: extensive public outreach programme.

Public: Both Commuters and non-commuters were involved for assessment to implementation and for business re-engineering. Public contact meetings for identifying their needs & feedback, local Government agencies like, local police department. Since the buses were seen as a threat to Para-transit modes, auto-rickshaw unions went on strike in the cities demanding to withdraw city buses from the cities. KSRTC with the assistance of the local police streamlined the operations. The city buses have now become the lifeline of the people in these towns.

TRANSFERABILITY:

Efficient public transport system is the sine quo non for a modern city. Karnataka has already had a popular bus-based transit system evolved over the years that has been refined recently. Need for an efficient public transport system in growing medium size cities has not been successfully met so far. Spatial growth in the city – growth impulses and growth axes, existing transport infrastructure caused dysfunctional city transport system.

Initiatives and the methodology of introduction of city services and learning's accrued there from can be replicated for taking up similar organized city bus services in other Indian cities. What needs to be done is proper project preparation in terms of route planning, bus design, participatory processes, fare fixation and revenue model and best practices in operation and maintenance. Success of this, has led to plan bus services in other 30 cities of Karnataka.


2.77 lakh have travelled by city transport buses

Overwhelming response has encouraged dept to start service in Hassan


city bus service: A dream comes true for citizens

Good response from people; dozen buses to be added soon

Table : Rating of KSRTC bus service

KSRTC Services	Very Good	Good	Poor	No response	Total
1. Information at bus stops	9.3	84.7	4.6	1.4	100
2. Frequency of buses	1.4	89.7	2.8	6.2	100
3. Quality of Bus stop	6.9	87.1	4.5	1.5	100
4. Quality of bus	6.8	88.0	3.8	1.4	100
5. Does sufficient buses plying on your route of travel	6.5	87.7	4.2	1.6	100
6. Reliability of KSRTC services	8.4	86.1	4.2	1.3	100
7. Travelling time	6.3	87.6	4.6	1.5	100
8. Bus Fare	5.0	88.3	5.1	1.6	100
9. Availability of seats	5.5	86.4	6.4	1.7	100
10.Cleanliness	7.8	86.4	4.2	1.6	100
11.Behavior of conductor and driver	6.8	87.5	4.3	1.5	100
12.Security in bus	7.3	86.8	4.4	1.5	100
13.Driver stopping at place enmarked for bus stops	5.5	85.0	7.8	1.7	100
14.Driver skipping the bus stops	1.8	69.5	27.2	1.5	100
15.Identification of particular route bus	6.2	82.7	8.9	2.3	100
16. Wheelchair accessibility	1.9	52.5	24.90	20.7	100
17. Driving quality	5.0	73.5	3.2	18.3	100

Based on the success, Karnataka State has taken up city bus operation in 30 cities spanning 2104 buses. This initiative has helped to double the market share of public transport in the city and region. In the city of Mysore alone 0.3 million people depend on KSRTC city buses daily

CONTROL ROOM RESPONSE CENTRE
By KUWSDB

Year of implementation : Dec-2014 to March 2015.
Year of Completion : March 2015 and in operation

ORGANIZATIONAL DETAILS:

Karnataka Urban Water Supply and Drainage Board is an implementing body for Water Supply and Under Ground Drainage schemes in 213 Urban areas of the State except Bangalore city. The Board aims to provide adequate Water Supply from assured and safe sources of supply and also proper sanitation to all the Urban areas.

ORGANIZATIONAL CONTACT DETAILS:

Lt. P. Manivannan. IAS, Managing Director,
KUWSDB, Jal Bhavan, BannerghattaMain Road , BTM Layout , Bangalore.
Tel: 9632060006, 080-26539003; Email-Id: mdkuwsdb@gmail.com, mani1972.ias@gmail.com,

SITUATION BEFORE THE INITIATIVE:

There was no common platform to express the grievances of public, officers/officials of the Board, Contractors. Further there was no specific structure for the complainant whom to approach to their problem. This was creating problems and delay in solving the issues. There was a huge gap in communicating the problem between the public, the stake holders and the board (KUWSDB) due to which the work progress and the decisions implemented was being delayed. There was no transparency in terms of work and lack of communication between the board officials, stake holders & the public.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

The initiative was initially discussed in the Organizational Review Meeting (ORM) chaired by the Managing Director along with top officers of the Board. The requirements was placed before the Information Technology Technical Advisory Committee (IT TAC) of the Board and based on the requirements the proposal was obtained from the KEONICS for manpower, hard ware and software. The proposal was placed before the Board of KUWSDB for approval. After the approval of the Board, the implementation of the CRRC was initiated.

The main requirement for setting up the CRRC was telephone lines with fancy numbers to facilitate the public to remember the numbers easily. Accordingly the telephone numbers were booked from the service provider. Similarly to facilitate SMS, fancy mobile number was obtained from the service provider. In order to forward the complaint through web address was also reserved. The Soft ware Requirement Study (SRS) was carried out by KEONICS and the development of the software based on the requirement was developed. The IT TAC met regularly and monitored the implementation. The officers/officials of the KUWSDB were also trained during development of the soft ware.

The complainant calling the CRRC over telephone, the voice would be recorded. Once the complaint is received the docket number is auto generated and is sent to the complainant automatically. Further the concerned officer/official also get the complaint and its details on his/her mobile with the details of the complainant. Then the concerned officer/official would attend the complaint and inform the CRRC about the status of the complaint. CRRC maintains the threads of all the complaints in the computer system for records in addition to voice records being maintained. The CRRC would call the complainant and update

the action taken on his complaint. The complaint would be only closed after the satisfactory reply from the complainant.

The complaints have been categorized based on the time taken to resolve the complaint. Specific time has been allotted to each of the complaint. If the concerned officer/official does not attend the complaint then CRRC would escalate the complaint details to the higher up. Similarly the complaint can also reach the Managing Director in case the complaint is not resolved. The CRRC maintains the daily reports of the complaints received in all the three shifts which works 24 x 7 on all the 365 days.

The CRRC was set up in the first floor of Jal bhavan, Bannergatta Main Road, BTM Layout, Bangalore where the Corporate Office of KUWSDB is located. A State of the Art CRRC was established and the workstations for the executives to operate with all facilities like telephone, computer systems and other infrastructure are provided. Separate chambers for the Manager, hardware maintenance Engineer and also to serve snacks for the CRRC team is also provided. There is also a provision for pantry to prepare tea/coffee is also provided. The entire infrastructure was implemented in a record time of 30 days.

Telephone lines with stand bye have been provided with fancy number 080-40001000. SMS facilities are also provided through mobile with a fancy number 9220092200. E-mail portal is also provided: waterboard161@gmail.com. In order to lodge complaint or grievances through website web application was also developed: ocr.kuwsdb.org. Facility for lodging the complaints through social media viz WhatsAPP, TWITTER, FACEBOOK are also provided. The CRRC helpline number and other details has been circulated throughout the state in order to provide the access to each and every beneficiary of the state who can obtain the services from the board with ease of calling CRRC.

There were many significant activities taken up to implement the initiative as coming up with a strategy to implement the 24*7 service in a Government sector with a fully fledged technical work environment. Selecting suitable man power who have relevant experience for the work at CRRC were selected. Establishing a technically sound environment, with higher end systems and equipment for quick transactions and accurate results. Providing class one corporate work environment infrastructure for the CRRC staff with high end electronic gadgets and the software to support the work flow and simultaneously support the data base of KUWSDB.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- Public are able to communicate effectively and address their grievances related to water and UGD problems in their region with a view of successful and quick resolution at any time and day on a a24*7 basis.
- The employees can avail the 24*7 facility with respect to all the communications, work related, emergency requirements, telephone numbers, address etc, with a hope of completion and satisfaction.
- The contractors are able to approach the board officials and the higher administration for their payments and work related issues with respect to their part of work without any hassles and are satisfied with the response and service delivered by CRRC and is dependents for their entire relation with the board through CRRC.
- The news items appearing in the dailies with respect to water or the KUWSDB are compiled and are recorded both in hard and soft copy.
- The general information like address, telephone numbers, email address of the important persons, are also provided to any officer/official of the Board on request.
- The data base of all the State and Central Government offices are maintained at CRRC and are provided to any officer/official based on the requirement.

- CRRC also acts as bridge to transmit the relevant information in the TELEGRAM from different groups of the KUWSDB.
- CRRC will also communicate the comments made by the management heads like Chairman, Managing Directors to the concerned officer/official and maintains the records of the same. Further they also remind the concerned at times based on the necessity.
- The quality of information from the Board has improved and the confidence of the public with the Board has been increasing.
- The facility has also been extended to the ULBs where water and UGD are not maintained by the Board. The complaints of all the ULBs are received as that of Board and are transferred to the concerned in the ULBs.
- The Board has also made a request to all the District Administration in the State to utilize the CRRC effectively.
- The Rural water supply department is also requested to utilize the services of CRRC in the interest of public and the State at large.
- The CRRC is helping the officers of the Board to remind them on the critical issues which needs to be attended to about any grievances. Thus saving the time of the officers.
- The CRRC also follows up with the vendors to get the information or any material used for execution, thus the officers of the Board may concentrate on the quality and progress of the work.
- The CRRC collects the information like Weekly Project Progress report (WPPR) of all the works from the Executive Engineers and the Chief Engineers of the Board and compiles them in the required format and submits the same to the management during review.
- CRRC also reminds the pending issues with officers/officials, ULBs, vendors, contractors and others.
- The benefits from CRRC cannot be quantified in terms of value but tangential benefits are many which helps the Board to perform better.

The activities of CRRC are not only of a call centre. It works as a Cloud Secretariat of KUWSDB at the administration level being a bridge/links for all internal communication of the board and the subway for all the implemented decisions and to monitor the work progress with respect to all the ongoing projects and schemes taken by KUWSDB. The CRRC will also act as an emergency unit for public as well as the employees for quick response and help for the demanding situations in KUWSDB.

By this initiative the old traditional Government work culture has been eradicated and the employees have been updated and upgraded technically in order to provide a dedicated service to the public like wise the other beneficiaries have been convinced and satisfied for the quick access and response with a descent resolution for their concern. The retired employees are also satisfied with the CRRC services related to their pension or the HR issues that have been unresolved from many days and appreciated the staff for their regular updates and help.

PARTNERS' INFORMATION:

KEONICS a state owned department is the partner for development of software and its maintenance and also providing manpower to CRRC.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

- Starting a 24*7 work setup with the access to all the criteria with respect to the complete administration of the board.

- Establishing CRRC as not only for complaints but also as a cloud secretariat which defines it more than a call centre and transforming it into a hub of information where anyone can access for any information or support.
- Making use of all possible social medias like what's app, face book, Twitter, Telegram for obtaining and provide the services to the public, stakeholders, contractors, employees etc.,
- Proactively taking up the initiatives of addressing the grievances from public and ensuring the proper resolution and directing them to the concerned irrespective of the work limits or the Government departments.
- Making use of telegram for the administrative work as an effective communication media for clear transparency and to avoid delay in work approvals and work progress.

PROBLEMS FACED:

As every initiative will be faced by the obstacles on the way of implementing, there were few hassles turned up in the process of implementation such as, strong internal and external opposition from the board as well as the Government higher authorities. Employees of the board were very reluctant for the new work setup as it will increase the transparency of work flow at all levels of administration. To convince the officials and to make them adopt to the upgraded system of work culture in terms of professionalism.

The concept was discussed in detail with the higher authorities of the board and the Government sector explaining the benefit and importance of this initiative. All the employees of the board were educated and convinced in the organizational review meetings regarding the benefit of the initiative with a view of quick progress and transparent work culture. Lot of encouragement and appreciations was made by the Management for the initial users which created confidence in the other users to adapt to the new culture. The print media also published many articles in their daily's which created zeal to the officers of the Board. The officer/officials slowly under stood that CRRC is benefitting them in many ways in their day to day activity, the employees accepted the CRRC and is now functioning smoothly.

SUSTAINABILITY:

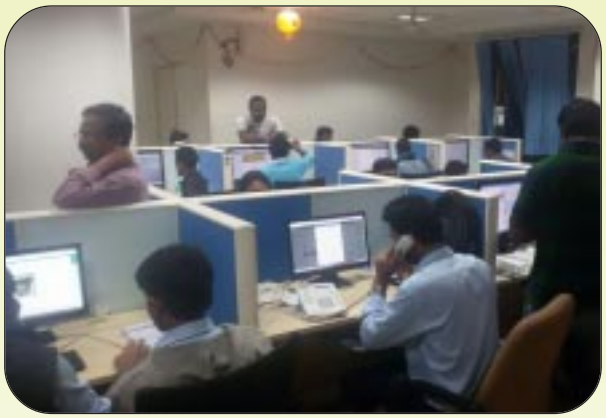
After the establishment of CRRC, there was a moderate response from the officials as well as the public at the initial stages. When after the awareness of CRRC was taken long over the whole state, people started using CRRC for all the official purpose for resolving their issues related to water and UGD, the employees took full fledged assistance from CRRC at all levels for all the administrative work and now this initiative has been transformed into a strong bridge between the board and stakeholders as it is interlinked and inter dependent with all the beneficiaries. Hence the proportion of sustainability wills very much high with present commitment and the services rendered.

- Pro- active approach
- Effective utilization of 24X7 work culture in Government setup.
- Effective utilization of social Medias for public services to provide ease of access and quick resolution and response.
- Increased transparency at all administrative levels of work flow.

TRANSFERABILITY:

This initiative is first of its kind with a blend of 24X7 helpline and secretariat work. in a Government setup. Hence not applied or implemented in any of the Government organizations of Karnataka. However 24X 7 call centres of BESCOM, and other departments exist.


KARNATAKA URBAN WATER SUPPLY & DRAINAGE BOARD
RESPONSE CENTRE



COMMUNICATION IN KUWSDB - TELEGRAM

By KUWSDB

Year of implementation : SEPTEMBER 2014
Year of Completion : OCTOBER 2014 and is in operation

ORGANIZATIONAL DETAILS:

Karnataka Urban Water Supply and Drainage Board is an implementing body for Water Supply and Under Ground Drainage schemes in 213 Urban areas of the State except Bangalore city. The Board aims to provide adequate Water Supply from assured and safe sources of supply and also proper sanitation to all the Urban areas.

ORGANIZATIONAL CONTACT DETAILS:

Lt. P. Manivannan. IAS, Managing Director,
KUWSDB, Jal bhavan, Bannerghatta Main Road , BTM layout , Bangalore
Tel : 9632060006, 080-26539003, mdkuwsdb@gmail.com, mani1972.ias@gmail.com,

KUWSDB is a State Government Parastatal agency for implementation of water supply and drainage projects for all 213 ULBs in Karnataka except Bangalore City.

SITUATION BEFORE THE INITIATIVE:

- Interaction within the officers of the Board was using only telephones, mobiles, emails and faxes.
- Delay in communications
- Communication medium was traditional and found many hurdles to reach people in the important situations as well.
- It was difficult to send and receive important communication and documents like Office Memorandums, photos etc.
- Contractors were finding difficulty to reach the higher authorities for their concerns.
- There was no bonding with the officers of the organization.
- Instructions issued over mobiles or telephones were not documented and evidences could not be created.
- To issue written instructions the officers required infrastructure like computer, printer and other accessories.
- Delay in submitting the information by the subordinate officers sought by the higher officer.
- Communication to the different level of officers required different mediums since the officers are located at different geographical location.

The instructions to the lower officers had lot of scope for slippages and escapism since documentation of the instructions would take more time. The views of all the stake holders were left unattended due to the time gap to communicate the field problems to the Board. The communication between the stake holders and the officers located in different geographical location needs alternative modes like fax, email etc. to communicate. Officers used to carry documents every time to the seniors officers and to communicate. There was only two communications medium (through phone and email), it used to take longer time to address any communication through documentation. Board was unable to communicate with the concerned officers for important updates on the works and was unable to know the progress of the work; consequently board was not able speed up the work progress.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

The initiative was initially discussed in the Organizational Review Meeting (ORM) chaired by the Managing Director along with top officers of the Board. This application is available free of cost and there is no financial implication, no other approvals were initiated. After the decision was taken to implement TELEGRAM as mode of communication in the KUWSDB, the application was down loaded in the mobile phones of all the officers of the Board. Different groups like TEAM KUWSDB where in the top officers of the Board were members of this group, followed by a group involving all the top officers and the stake holders like Contractors and others as part. Similar zonal groups were also created to communicate among the members or officers/officials in that zone. Each group had admin and the business rules were drawn and communicated to all the members of all the groups on Do's and Don'ts while using the TELEGRAM. This took about a month time to train the users remotely. Initially, the users were allowed to make mistakes which were reduced in a short duration. Now the officers/officials, contractors, elected representatives in some ULBs are efficiently using the TELEGRAM.

The officers/officials who did not have SMART mobile phones were informed to have the mobile phones compatible to the TELEGRAM. Then the application which is available free of cost was down loaded to all the mobiles. The admin of each group added the concerned member to the group depending on the necessity. Further, each of the member who is already in the group could add any member required and it is not mandatory that the interested party needs to be added on his own. Once the member is added to the group he/she is available for discussions in the group without and financial implication.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE:

- Everybody in the board can share their concerns and can communicate with the senior officers.
- The contractors and other stake holders can also communicate with the officers of the Board on a common platform.
- We can share the ongoing scheme and work related photos and documents.
- Reports and graphs can also be posted and shared.
- As all the senior officers will be there in the group, there will be transparency and every body can express their views.
- This initiative made Officers competitive as the progress of all over the state is shared in one platform.
- Saved Time and money as meetings at central office were reduced and things were sorted out on the application meetings.
- The decisions taken in the meetings are communicated instantly to all the members in the group by way of posting the proceedings in the TELEGRAM.
- The common instructions of the higher officers could be communicated in a single message in the group and this message can be copied and posted to other groups.
- Total transparency in communication.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

- This can accommodate 200 members in a group and where as other similar applications can accommodate maximum 100.
- The service available is free of cost.
- The documents from the TELEGRAM could be printed using external printers.
- Can upload and download huge documents.
- In case of problems in mobile phones the TELEGRAM application could be accessed using computers.

PROBLEMS FACED:

As every body in the organization were not very friendly with the mobile application little initiative was required to make them understand about the importance of communication. Further the senior officers were above 50 years of age and many of them were not IT savvy, initial encouragement and the benefits were demonstrated and this was easily resolved. As our officers work in the remote areas (work sites) the availability of the network and internet is still an issue for them to communicate on the go. Further some officials did not have smart phones Board encouraged them to buy the same.

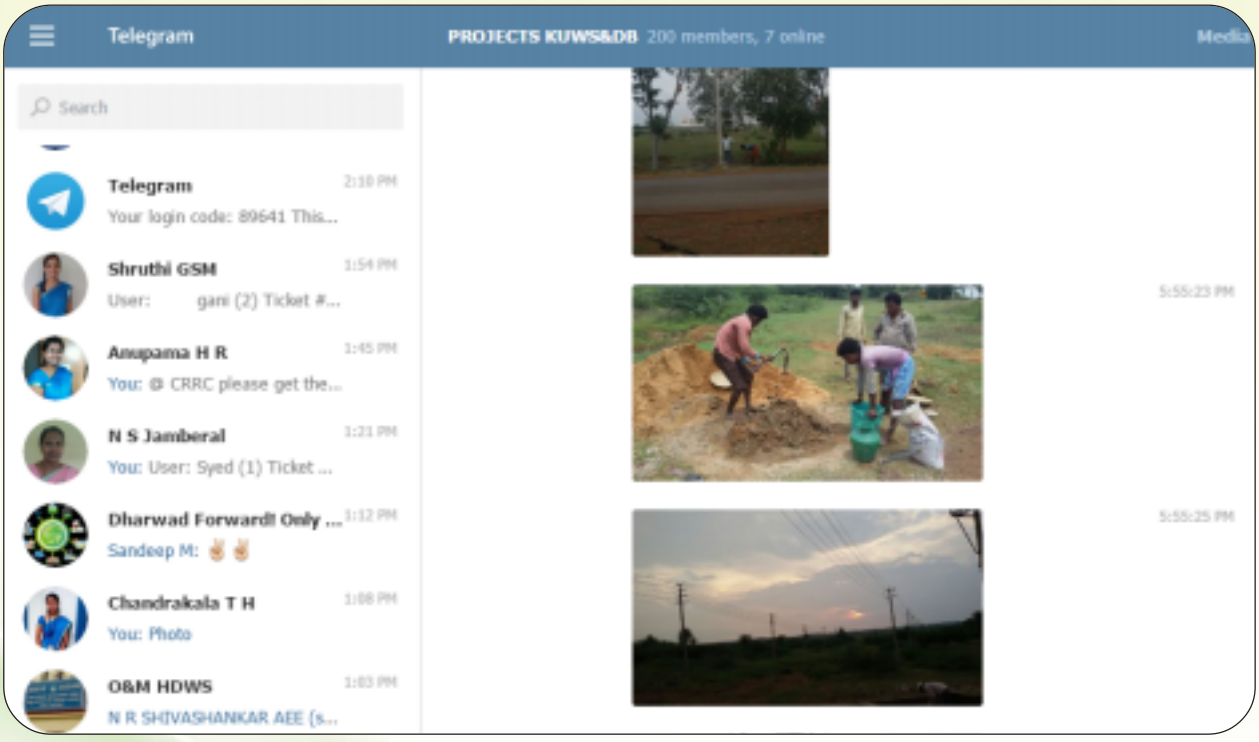
SUSTAINABILITY:

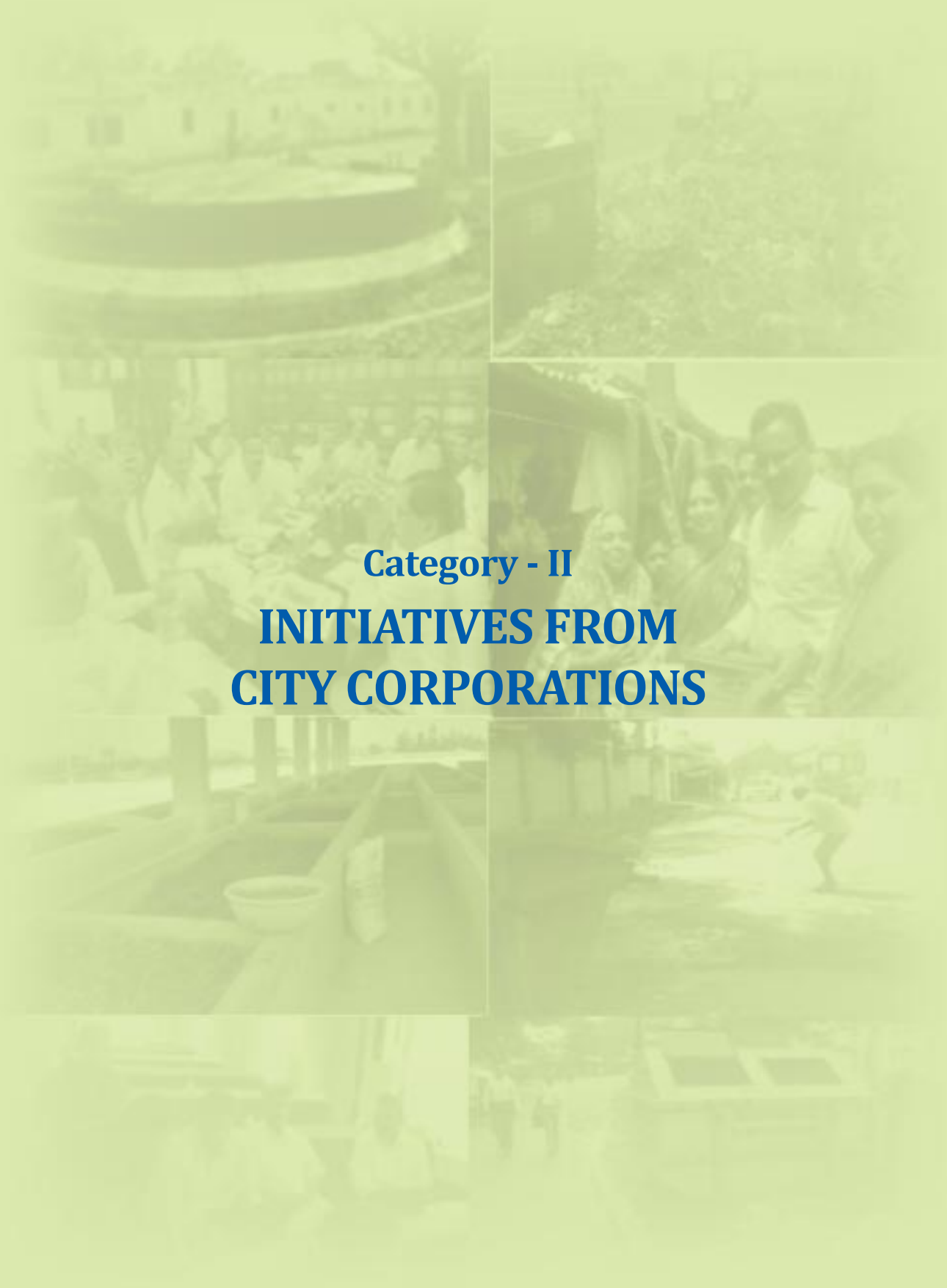
As this application is compatible with the computers even users can login to laptops and PCs can download this application for window and even this application is available Web also. This application works equally as an email work, because we can even share the big files. Sustainable because the files shared can be downloaded and can be saved on the secured platform. Furthermore there is no investment required for any renewal of license fee etc, this is sustainable in Government environment. Only requirement for transfer of data is 2G environment is necessary. With the concept of DIGITAL INDIA initiative it is hope full that this issue of internet could be resolved and the TELEGRAM could be used from any remote location in the Country.

TRANSFERABILITY:

The communication could be used 24x7 availability, group discussions and instantaneous, pro-active approach, supported with evidences and documents and more than all free of cost.

On seeing the success of use of TELEGRAM in KUWSDB, Karnataka State Highways Improvement Project (KSHIP) have also initiated the use of TELEGRAM facility.





Category - II

INITIATIVES FROM CITY CORPORATIONS

INTEGRATED CENTRALIZED AND DECENTRALIZED SOLID WASTE MANAGEMENT

By Mysore City Corporation

Year of implementation : 2012-2015
Year of Completion : 2015

BRIEF ABOUT THE CITY:

Mysore City identifies itself in the global level for its rich heritage, culture and tradition. **Mysore ,** officially renamed as **Mysuru**, is the third largest city in terms of population in the state of Karnataka, India, which served as the capital city of Mysore Princely Kingdom (Kingdom of Mysore) for nearly six centuries, from 1399 until 1947. Located at the base of the Chamundi Hills about 146 km (91 mi) southwest of the state capital Bangalore, it is spread across an area of 128.42 km^2 (50 sq mi). According to the provisional results of the 2011 national census of India, the population of Mysore is 887,446. Mysore City Corporation is responsible for the civic administration of the city, which is also the headquarters of the Mysore district and the Mysore division. Mysore is the cleanest city of IndiaAlso known as green city, clean city & beautiful city. Mysore is noted for its palaces, including the Mysore Palace, and for the festivities that take place during the Dasara festival when the city receives a large number of tourists. It lends its name to the Mysore style of painting, the sweet dish Mysore Pak, the Mysore Peta (a traditional silk turban) and the garment known as the Mysore silk saree. Tourism is the major industry, while information technology has emerged as a major employer alongside the traditional industries. Mysore is the southern-most city of Karnataka, and is a neighboring city of the states of Kerala and Tamil Nadu in the south, flanked by the state cities Mercara, Chamarajanagara, and Mandya. The city is located between two rivers: the Kaveri River that flows through the north of the city and the Kabini River, a tributary of the Kaveri, that lies to the south.

ORGANIZATION DETAILS:

Dr. C.G Betasuramat, Commissioner,
Mysuru City Corporation, New sayyaji Rao Road, Mysore,
Tel: 0821- 2418803 / 9449841234, comm_mcc@yahoo.co.in

CITY PROFILE:

Population	: 9,38,386
Area in Sq kms	: 128.42 Sq Km
Density of Population	: 7307/Sq.Km
Number of wards / zones	: 65 wards / 9 Zones
Number of Properties	: 172783

SITUATION BEFORE THE INITIATIVE

The estimated quantum of MSW currently generated in the city is approximately 402 MT. MCC is carrying out collection and transportation of MSW in the city by deployment of its own resources and through private operators. The MSW generated within the limits of the MCC area, prior to year 2001, was dumped in an ad-hoc manner at several locations as convenient in the peripheral area of the city. A compost facility of 200 TPD capacities was set up for treatment of MSW in the year 2001. The facility was set up

at Vidyaranyapuram and has been in operation since August 2001 and now the operation and maintenance of the centralized composting facility is done by M/s IL & FS.

But the efficiency of the compost plant is curtailed due to the un-segregated wastes being dumped in the compost yard. Often complaints of bad odour are raised from the local people, due to the fact that the compost plant is over burdened and huge dumps of wastes are being piled up. Approximately 2 lakh metric tons of wastes is piled up in the compost plant yard unattended attracting rodents, birds etc. In rainy season due to the leachate movement causes ground water pollution and leaves the ground water non-potable for the local residents. Often the dumps are caught fire suffocating the local residents.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATERGY:

- Mysore City Corporation (MCC) was handling about 402 TPD of Municipal Solid Waste (MSW) in a centralized manner. The centralized MSW management accounts to huge O&M expenditure with minimal revenue generation. MCC brings out a change in strategy in the management of solid waste by resorting to integrated centralized and decentralized waste management system.
- As already mentioned a centralized compost plant of 200TPD is operated and maintained by IL&FS and are paying MCC a sum of Rs 6.00 Lakh/annum as lease, rent and royalty and 5 % of the total compost produced.
- With the success of the Zero Waste Management (ZWM) pilot project at Kumbarakoppalu, Mysore, MCC has established 9 ZWM plants of 5-10 TPD in all 9 zones out of which 8 are functional. In the current decentralized system, the waste is segregated at source, collected and subjected to secondary and tertiary segregation. 26 categories of recyclables are recovered from the dry waste & sold. The wet waste is subjected to aerobic composting. The uniqueness of the project is that the SHGs and RWAs are directly involved in the operation and maintenance of the ZWM units thus providing employment opportunities.
- To increase the capacity of the ZWM units and to reduce the manual handling of waste MCC has procured and installed 10 TPD capacity Garbage sorting and shredding machines in 7 ZWM units.
- A bailing unit of capacity 1TPD will be procured under state budget 2014-15 to bail the plastics segregated in ZWM unit. Letter of Award is issued to the successful bidder
- Biogas units of capacity 1TPD will be set up in 6 ZWM units .

GARBAGE SORTING & SHREDDING MACHINE

BIOGAS UNIT

BAILING UNIT

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE

- Requirement of Containers reduced.
- Transportation charges and maintenance of vehicles required for transportation reduced.
- The life of the Sanitary Landfill Facility increases.

IMPLEMENTING PARTNERS INFORMATION & THEIR ROLES AND RESPONSIBILITIES

- **Local administration (Municipal Corporation) :** Providing the basic infrastructure like ZWM sheds, electricity, water supply, identification of SHGs and providing them training & financial support to maintain the unit, monitoring etc.
- **Community Associations/RWA's (Public):** Source segregation, handing over wet & dry waste separately and directly to waste collectors, paying SWM cess.
- **NGO/ SHG's**: Providing awareness to waste generators.
- **Women's Self-Help Groups**: Implementing the project in the field documenting, IEC for segregation at the house hold level, marketing and revenue generation from the wet & dry waste and self sustenance of the system.

INNOVATIVE CHARACTERISTICS ABOUT THIS INITIATIVE:

In this initiative waste is not treated as waste. Instead waste is treated as a resource. This initiative provides employment for the needy. This is an initiative where waste is recycled and is a source of income generation. This initiative reduces the requirement of landfill sites.

PROBLEMS FACED:

- Segregation at source
- No proper market for recyclables and compost
- Lack of support from public in spite of rigorous IEC activities

SUSTAINABILITY

With the success of Pilot project of Zero waste management in Kumbarkoppal MCC has established 9 ZWM plants in all its 9 zones which are running successfully. ZWM units are maintained by Self Help Groups and NGO's thus providing employment opportunities to self help groups.

TRANSFERIBILITY:

Officials and many other interested people from within the state and other states are visiting the Zero waste management units and are carrying the idea of establishing the ZWM unit in their places/areas.

RECOGNITION/AWARDS

- **"Award for excellence in SWM"**: Awarded by MOUD for the year 2009 & 2011 in ICON SWM, organized by Center for Quality Management System, Jadavpur University, Calcutta.
- Union Ministry of Urban Development awarded Mysore City Corporation as **second clean city in May 2010** considering parameters like -maintaining cleanliness, disposal of solid waste, maintenance of UGD system, rain water harvesting, rejuvenation of lakes, door to door collection of waste, public toilets and other parameters.
- **"Award for excellence" :** In Appreciation of Participation in Municipalika-2011 9th International Exhibition on "Urban Infrastructure, Municipal Services and Built-Environment" Bangalore on 27 – 29th January 2011.
- Urban Development Department of Karnataka State Awarded Mysore City Corporation as **First "Best Clean City" on 01-02-2011 with Rs. 10 lakh**
- **Best Practices Award 2010 :** In recognition of the initiative "Community Participation Initiatives" Ranked first under City Corporation Category amongst "Initiatives in Urban Sector- Karnataka-2010" and awarded with Rs. 3 lakhs Cash Prize
- **Best Urban Local Body Award 2009-10 :** In recognition of the best performance in Municipal Service delivery as evaluated through Service Level Bench Marking Project, MCC is ranked under City Corporation for the year 2009-10 and awarded with Rs. 10 lakhs cash Prize.
- Mysore city has bagged the Award for **environmentally sustainable city** among 29 Indian cities in the **5th Euro India Summit held at Belgium in the year 2011**
- **India Today Best City Award**: Mysore City Corporation is awarded with Best City Award 2014 for Cleanliness, Environment and Entertainment

GPS FLEET MANAGEMENT SYSTEM

By Mysore City Corporation

Year of implementation : 2011-2015
Year of Completion : 2015

BRIEF ABOUT THE CITY:

Mysore City identifies itself in the global level for its rich heritage, culture and tradition. **Mysore ,** officially renamed as **Mysuru**, is the third largest city in terms of population in the state of Karnataka, India, which served as the capital city of Mysore Princely Kingdom (Kingdom of Mysore) for nearly six centuries, from 1399 until 1947. Located at the base of the Chamundi Hills about 146 km (91 mi) southwest of the state capital Bangalore, it is spread across an area of 128.42 km^2 (50 sq mi). According to the provisional results of the 2011 national census of India, the population of Mysore is 887,446. Mysore City Corporation is responsible for the civic administration of the city, which is also the headquarters of the Mysore district and the Mysore division. Mysore is the cleanest city of IndiaAlso known as green city, clean city & beautiful city. Mysore is noted for its palaces, including the Mysore Palace, and for the festivities that take place during the Dasara festival when the city receives a large number of tourists. It lends its name to the Mysore style of painting, the sweet dish Mysore Pak, the Mysore Peta (a traditional silk turban) and the garment known as the Mysore silk saree. Tourism is the major industry, while information technology has emerged as a major employer alongside the traditional industries. Mysore is the southern-most city of Karnataka, and is a neighboring city of the states of Kerala and Tamil Nadu in the south, flanked by the state cities Mercara, Chamarajanagara, and Mandya. The city is located between two rivers: the Kaveri River that flows through the north of the city and the Kabini River, a tributary of the Kaveri, that lies to the south.

ORGANIZATION DETAILS :

Dr. C.G Betasuramat, Commissioner,
Mysuru City Corporation, New sayyaji Rao Road, Mysuru.
Tel : 0821- 2418803 / 9449841234, comm_mcc@yahoo.co.in

CITY PROFILE:

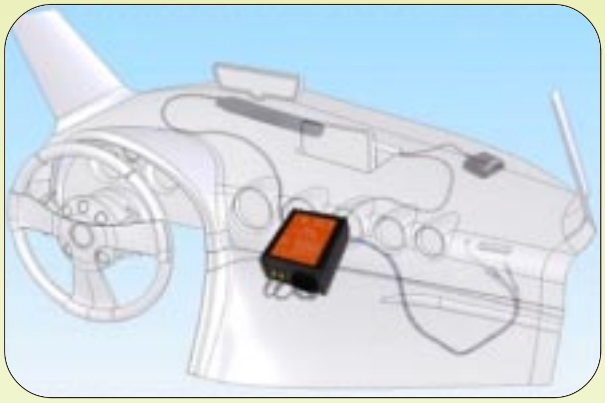
Population	:	9,38,386
Area in Sq kms	:	128.42 Sq Km
Density of Population	:	7307/Sq.Km
Number of wards / zones	:	65 wards / 9 Zones
Number of Properties	:	1,70,645

SITUATION BEFORE THE INITIATIVE

- The garbage collection vehicles use to take the garbage from Collection points and some drivers used to dump it midway trying to save fuel.
- There was no mechanism to track about how many trips the vehicle had made and what quantity of garbage it had collected.
- The fuel consumption of vehicles could not be regulated as the number of trips done by the vehicle could not be ascertained. As a result fuel consumption could not be regulated.
- It was physically impossible to monitor if all the containers have been lifted.

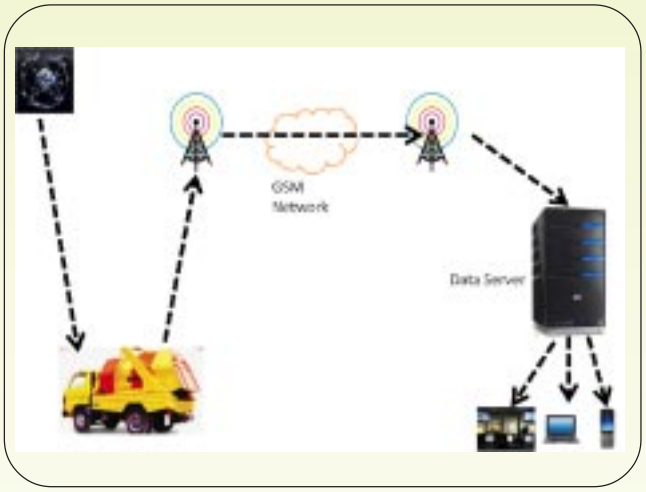
DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY

- Officers Vehicles – 55
- Health & Civil Works – 270
- A Fleet of 325 Vehicles
- Virtual geo-fencing of animal waste collection points
- Alerts on crossing city limits

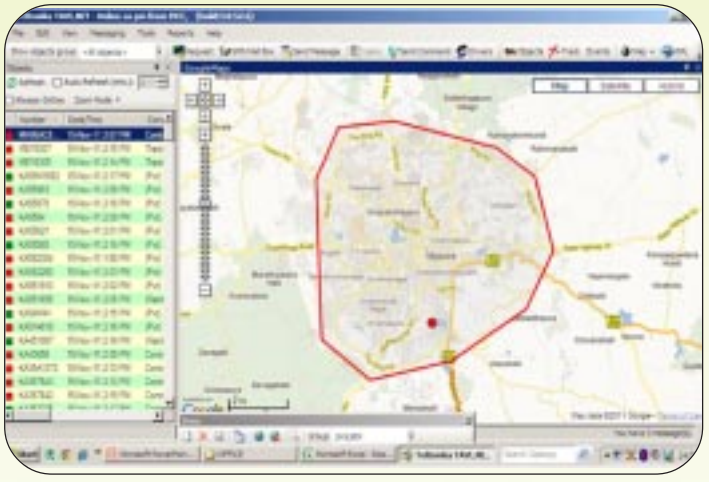


Device works by using Battery Power

Device has been fixed to each vehicle as per the instruction of MCC



HOW THE SYSTEM WORKS?



MCC Vehicles

ACTIVITIES TAKEN UP TO IMPLEMENT THE INITIATIVE

- Dead weight of every vehicle was done at RTO
- Mileage of every vehicle was calibrated

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE

- Illegal Dump Report – For un-authorized garbage dumping outside the designated area
- Driver Attendance Report – Used for releasing contractor payments
- Reports on crossing City boundary – Prevents un-authorized use of MCC Vehicles

- Work Hours – For Street Sweeping Machine Payments
- Ward-wise work report for Auto Tippers

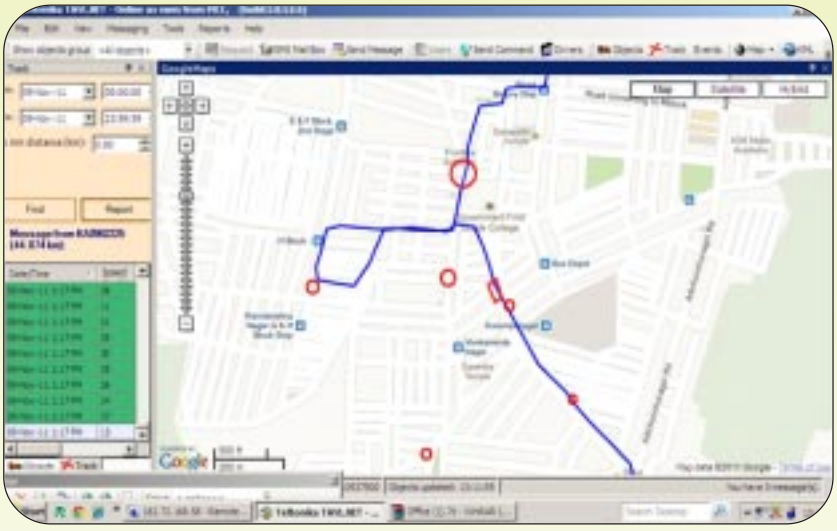
PARTNERS INFORMATION

Kallatra Technology, Bangalore

INNOVATIVE CHARACTERISTICS ABOUT THIS INITIATIVE

The following details are easily obtained:

- Illegal Dump Report – For un-authorized garbage dumping outside the designated area
- Driver Attendance Report – Used for releasing contractor payments
- Reports on crossing City boundary – Prevents un-authorized use of MCC Vehicles
- Work Hours – For Street Sweeping Machine Payments
- Ward-wise work report for Auto Tippers



PROBLEMS FACED

Initially drivers opposed this system later they were sensitized about the system and gradually system was accepted.

SUSTAINABILITY

GPS maintenance is outsourced to private agency. Hence its is managed efficiently.

TRANSFERIBILITY:

It is easily transferable and other ULB's can use the concept of Fuel savings system, vehicle tracking and garbage disposal can be easily monitored.

Vishakhapatnam Corporation adopted the concept of system.

IMPLEMENTATION OF SOLID WASTE MANAGEMENT

By Tumkur City Corporation

Year of implementation : 2012-13
Year of Completion : 2014-15

BRIEF ABOUT THE CITY

Tumkur is located at 13.34°N 77.1°E. It has an average elevation of 822 meters (2696 feet) above mean sea level. The city has a station on the South Western railway line 43 minutes N.W. from Bangalore. Tumakuru is believed to have been mutated possibly from "Tumbe ooru" due to the abundant availability of Tumbe huuvu - a kind of flower. It may have also derived its name based on "Tamate ooru" - due to the usage of Tamate a folk musical percussion instrument. Tumakuru is also known as the coconut city.

Another story states that during the rule of the Cholas, Gulur was their capital. Since Tumakuru was at high elevation the guards used to be stationed on the hills with Tumaki (a kind of drum) and used them raise alarm in case of any attacks; hence the name ***Tumakuru.***

The major agriculture / horticulture products are coconut, millet, rice, pulses, areca nut and oil seeds. The chief industries are manufacturing of coarse cotton clothes, woolen blankets, ropes, watches etc. and the chief industrial houses operating here are Hindustan Machine Tools, WIPRO, TVSE, SCII and Karmobiles Ltd. which is merged with Rane Madras. "Tumakuru Glow for Beauty Crowns" SWARNMANDIR is engaged in chiseling out the intricate nuances of Gold Crown for Miss India sponsored by TANISHQ. Also for many Temple Crowns even for Sri Channakeshava Temple, Belur etc the industries around the town are involved. Tumkur is a good study centre from primary education to higher education. It has its own university. Within the town, there are four technical institutions and two medical institutions. Hence, Tumkur City is also called as **"City of Education"**

ORGANIZATIONAL DETAILS:

Sri. Ashaad R Shariff, Commissionner,
Tumkur City Corporation, Tumkur.
Tel : 08162278480, 9449872601, itstaff_ulb_tumkur@yahoo.com

CITY PROFILE:

Population	: 305821
Area in Sq kms	: 48.60 Sq.Km
Density of Population	: 6292/ Sq.Km
Number of wards/zones	: 35
Number of Properties	: 94,650

SITUATION BEFORE THE INITIATIVE:

Tumakuru was facing a huge problem of lack of Solid waste management processing & Disposal site since from last 30 years. There was no SWM site for Tumakuru, Because of this garbage was dumping inside and outskirts of the city. There was always a huge threat of spreading the epidemic diseases like Malaria, Chikungunya and Dengue etc. People were constantly complaining about dumping of garbage along the road side and NH road of city**. It was a burning issue for Tumakuru city.**

Public agitation was started opposing for the commencement of Solid Waste Management at Ajjagondanahalli finally the Writ petition no 22970/ 2012 filed by the petitioners had been disposed by the Hon'ble High Court of Karnataka on 21/11/2012. Then CMC Tumkur has proceeded towards construction of compound wall to the site at that time again local people opposed for construction. Taking police protection compound wall construction was completed. Then when construction work for other Infrastructure was going on, again People started protests and held up the ongoing

works. At that time various meetings were conducted by distinguish dignitaries including Our Hon'ble Chief Minister.

In spite of conducting various meetings by Dignitaries of the State with the local protestors and public of Ajjagondanahalli the public has not agreed for commencement of SWM site hence the Civil works which was under progress has stopped.

Because of this huge opposition TCC has no way for dumping the waste, So the situation raised in such a way that lot of Garbage is accumulating inside and outskirts of the city. Probing a problem of arising of epidemic diseases in the city, at that time Chairman DLSA has intervened to secure public health and for the cleanliness of the city

- Strict legal service Authority Chairman and Principle District Magistrate meeting date: 10/11/2014
- Visit to Ajjagondanahalli by Principle District Magistrate, DC, SP CEO, Thahashildar, Environmental Officer PCB, Commissioner and Staff of TCC : 10/11/2014 .

Later with the directions of Chairman DLSA, TCC has started lifting the waste from inside and outskirts of the city by taking Tippers, JCB, Hitachi etc. on Hire basis and transported and disposed into the SWM site at Ajjagondanahalli. Approximately 7593 Tons of Garbage has been lifted to SWM site from 13/11/2014 to till date. About 50% of the Garbage was converted to compost at the dumped it's been dumped in engineering pit.

Transportation of Garbage

Transportation of garbage was taken day and night

Transportation of garbage was taken day and night

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

- Initially in the year 2014 TCC Has started Door to Door Waste Collection in All the 35 wards through Outsource Agency.
- Auto tippers are using for Door to door Collection, One Auto tipper for every 1000 -1100 households.
- TCC has got Good Response from public and gradually started Segregation Ward by wards.
- Local level Meetings were conducted for public, NGOs, and for different Stake holders in the city under SWM.
- Door step Awareness campaign (Pamphlets, Mike announcement, Local Paper) are conducted in different wards of the City.

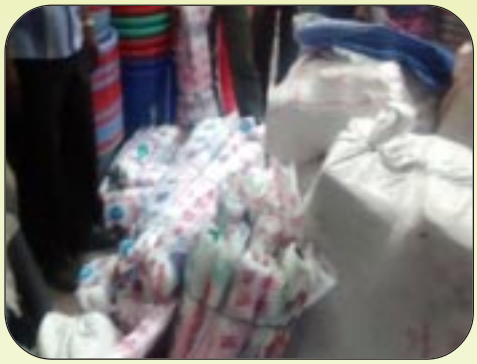
- Old Waste accumulated from past so many years in & around the city was lifted by using Tippers and JCB, and successfully shifted and properly disposed at SWM site.
- Work stopped earlier at SWM site due to Public opposition and was restarted with the support of District administration.
- Regular transportation of garbage to land fill site.
- Segregation of dry waste at landfill site, shedding of wet waste by using shredders.
- Processing of wet waste by vermin compost and windrow compost method.
- Bailing of plastic waste by using bailing machine.
- Awareness campaigning through different Media.
- Distribution of two colored Dustbins to households to promote source segregation.
- Plastic below 40 micron is banned and given awareness to public through different medium like permanent holdings, Paper notification, jathas etc.
- Raids were conducted to bulk vendors and fine was imposed and collected Rs 1 lakh
- Council Resolution was passed for Plastic prohibition
- Council Resolution was passed for separate collection of waste from Chicken and mutton stalls, choultries, Hotels, Restaurants, and other commercial establishments.
- Separate fine is imposed for the construction debris collection.
- Promote the public to remove the waste spots by putting rangoli.
- Door to Door collection of waste in all wards by deploying auto tipper.
- Meetings are conducted for local stake holders.
- Separate collection of segregated waste by auto tipper.
- Separate transportation of segregated waste to landfill site.
- Construction of dry waste collection centers in the city.
- Quantification of intake garbage at landfill site by Weigh Bridge.
- Commissioning of shedders, koppala model machine, for wet waste
- Commissioning of rotary screening machine and bailing machines
- Processing of wet waste by vermin compost and windrow compost method.
- Segregation of dry waste at land fill site.
- Bailing of waste plastic and stored separately.

MACHINARIES

SHEDS







BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- Tumkur city is Providing Clean and Hygienic Environment to the Society.
- Improvement in the Pollution Free Environment in the city (As there is no burning of Garbage and over spillage of garbage)
- Reduced the threatening of the Epidemic Diseases.
- Reduced the Stray dogs and Stray Animals menace.
- Reduced the blockage of Sewer lines and Open Drains.
- Reduced the contamination of Ground water Reservoirs.
- MSW is converting into compost and Valuable Recyclables.
- Now waste is not a waste it is considered as a Valuable Resource to TCC.
- Enriching soil fertility by organic manure produced from composting.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

Solid waste Management was a burning Issue in Tumkur since from Past twenty years. As there was no processing site physically with the ULB. Because of this every day People, media, Elected Representatives is regularly complaining the Garbage issue. Villagers near Ajjagondanahalli were not allowing the Garbage Vehicles. Protests were made from both the sides.

In order to solve the Problem Various Meetings were conducted even by our State Head Hon'ble Chief Minister followed by Dist in charge Minister, MLA and also District Administration with Villagers and Protesters.

Huge Protest and agitation happened, one Police Officer was attacked severely and he had been admitted to hospital and his condition was critical during the agitation.

All these Protests and agitation had been overcome successfully by disposing the waste to the SWM site this is been a greater achievement by TCC in that Situation.

This was started from 12th Night of November 2014, since then TCC is success fully managing the waste. For the continuous one month all the TCC Officials work hard Day and Night for this Solid waste Disposal to the site, Because of this TCC was able to clear the lots and lots of accumulated garbage in & around the city.

From November 12th onwards, Action was also taken to finish the ongoing civil works very fast. The Main intention was to start the Processing of the waste in a scientific Manner very soon. In order to achieve this action was initiated to speed up the works as well as Tender Process.

Again one more threaten came in the middle of Dec 2014, where again the villagers were started damaging the vehicle which was passing through their village immediately, TCC has identified the NAKASHE Road with the help of Tahashildar and Deputy commissioner. Action was taken to construct the new road. The new Road was constructed within a span of 3 months. this new road was very nearer to Main road and was not passing by any village, because of this now TCC vehicle can pass safely without interruption by the people.

Now Necessary processing machineries, Windrow Plat Form, Vermin compost unit, with Godden, Watch man Room, Weigh bridge, Water and Electrical facilities has been built. TCC had out sourced the entire operation of the Plant to the Private agency from past one month and the processing is going on smoothly.

TCC also had taken initiative to do the Automated Culture spray for absorbing the bad smell. this is totally automated and will absorb the bad smell coming out from garbage maintaining the clean and clear environment in and around the Plant.

In spite of lot of opposition from the people with the support from Chairman, DLSA., District administration, TCC has finally Disposed the waste to the SWM site successfully.

PRESENT SITUATION






PROBLEMS FACED:

- Lack of landfill site availability due to public protest.
- Lack of awareness to the public regarding SWM.
- Shortage of labours for SWM activity.
- Shortage of vehicles under SWM.
- Public agitation.

SUSTAINABILITY:

Now the Plant is running quiet effectively and producing Compost from MSW and all the recyclables are processing. Same will be continued effectively. And in order to sustain the plant for next 20 years, Another DPR is also been submitted to State Govt. for enhancing the capacity of the plant. In this Proposal, Processing unit in a closed shed with higher capacity of the Machineries is been proposed.

TRANSFERABILITY:

This can be adopted by any ULB who are all facing the site Problem and Public agitation.

E-BUDGET (PAPERLESS BUDGET)

By Tumkur City Corporation

Year of implementation : 2014-15
Year of Completion : 2014-15

BRIEF ABOUT THE CITY

Tumakuru is located at 13.34°N 77.1°E. It has an average elevation of 822 meters (2696 feet) above mean sea level. The city has a station on the South Western railway line 43 minutes N.W. from Bengaluru. Tumakuru is believed to have been mutated possibly from "Tumbe ooru" due to the abundant availability of Tumbe huuvu - a kind of flower. It may have also derived its name based on "Tamate ooru" - due to the usage of Tamate a folk musical percussion instrument. Tumakuru is also known as the coconut city.

Another story states that during the rule of the Cholas, Gulur was their capital. Since Tumakuru was at high elevation the guards used to be stationed on the hills with Tumaki (a kind of drum) and used them raise alarm in case of any attacks; hence the name ***Tumakuru*.**

The major agriculture / horticulture products are coconut, millet, rice, pulses, areca nut and oil seeds. The chief industries are manufacturing of coarse cotton clothes, woolen blankets, ropes, watches etc. and the chief industrial houses operating here are Hindustan Machine Tools, WIPRO, TVSE, SCII and Kar mobiles Ltd. which is merged with Rane Madras. "Tumakuru Glow for Beauty Crowns" SWARNMANDIR is engaged in chiseling out the intricate nuances of Gold Crown for Miss India sponsored by TANISHQ. Also for many Temple Crowns even for Sri Channakeshava Temple, Belur etc the industries around the town are involved. Tumkur is a good study center from primary education to higher education. It has its own university. Within the town, there are four technical institutions and two medical institution. Hence, Tumkur City is also called as **"City of Education"**

ORGANIZATIONAL DETAILS:

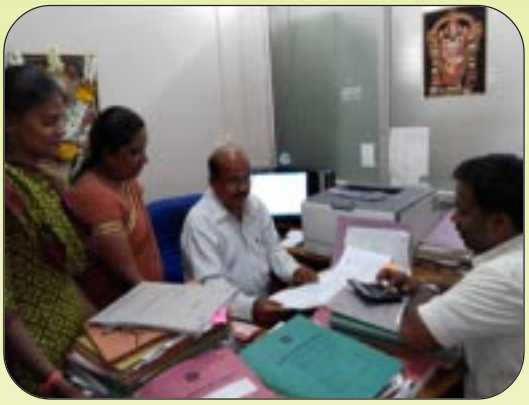
Sri. Ashaad R Shariff, Commissioner,
Tumakuru City Corporation, Tumakuru
0816-2278480, 9449872601, itstaff_ulb_tumkur@yahoo.com

CITY PROFILE:

Population : 305821
Area in Sq kms : 48.60 Sq.Km
Density of Population : 6292/ Sq.Km
Number of wards/zones : 35
Number of Properties : 94,650

SITUATION BEFORE THE INITIATIVE:

Prior to the initiative, manual method of preparation of budget was in practice. It has resulted in more use of papers, manual collection of data and time consuming. Modification, allocation & correction of budget data were laborious. The pictures given below depict the same:



DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

(a) Two levels of training in computer/laptop operation were given to the corporators and the staff involved in budgetary process. The details are given below:

(b) The assistance of the computer operators working in computer cell of the corporation was availed for the accurate and meticulous execution of the "'e'-budget"

(c) The beginning journey was tough especially to train the corporators in the operation of the laptops. Gradually, they were imparted with the basic operations of laptop, the commissioner and computer staff succeeded in bringing them in to right track. The corporators have given enormous and remarkable support with great interest. The task of the commissioner and the official's easened and the goal was fulfilled. The glimpses of the journey are given below

A Hon'ble Mayor, Deputy Mayor, Chairman of the Standing Committee, Taxation, Finance & Appeals with "'e'-budget"

Presentation of the "'e'-budget" speech in the Visual screen.

Viewing of "'e'-budget" speech by the public in the screen.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- Control on budgetary preparation expenditure.
- Faster and accurate modifications of allocation and correction of budgetary data.
- Quick access of information's and data from the different departments of the corporation
- Budgetary data from different departments are supplied in soft copies and incorporated directly to the draft "'e'-budget".
- Public meeting resolutions pertaining to 'e'-budget were incorporated directly after series of dis cussions. Hence, incorporation of public suggestions in 'e'-budget if they are essential become easier and simple.
- Incorporation of suggestions and modifications resolved in finance committee and the council are done instantly.
- Corporators and staff are acquainted with computer basic knowledge and budgetary speeches are uploaded and given to the corporators which they could read in their laptops displayed in visual screen inside the council hall and also in the premise of the corporation for the public.
- The whole budgetary process was transparent and friendly to citizens.
- The use of papers can be minimized and in turn promote greenery.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

Preparation and presentation of "'e'-budget" May be first time in ULB level
The following highlights of the news papers depict the same:


Tumakuru Palike presents e-budget

Paperless budget for 2015-16, the first of its kind in State, has an outlay of Rs 189.61 cr

Deccan Herald dated :01-04-2015


ಪಾಲಿಕೆಯಲ್ಲಿಂದು ಇ-ಬಜೆಟ್ ಮಂಡನೆ

Udayavani dated :01-04-2015


'ಇ-ಬಜೆಟ್' ಪ್ರಯೋಗ ಸಫಲ

189 ಕೋಟಿ ಆದಾಯ

187 ಕೋಟಿ ಮೀಸಲು, 2 ಕೋಟಿ ಉಳಿತಾಯ

Vijaya Karnataka
dated :01-04-2015

PROBLEMS FACED:

- To train the corporators to operate the laptops.
- To create awareness about 'e'-budget to corporators, officials, staffs and stake holders.
- Political oppositions.

SUSTAINABILITY:

The process of implementation of paperless office is in progress. As a part of this initiative "'e'-budget" is implemented and this initiative will be continued in future years.

TRANSFERABILITY:

Can be easily replicated in any other Corporation, CMC, TMC, and TP.

RECOGNITION /AWARDS:

Appreciated by media and citizens

SEGREGATION OF DRY WASTE FROM SCHOOL STUDENTS

By Belagavi City Corporation

Year of implementation : 2014
Year of Completion : Under progress

BRIEF ABOUT THE CITY

Belagavi is the oldest city in Karnataka with a rich history and culture. It is the 4th largest city in the state and the fastest growing urban center. Belagavi is also a business hub and education center of Karnataka. The city has been shortlisted by Ministry of Urban Development for development as one of the 100 smart cities in India. Belgaum is the anglicized form of *venugram*, from the Sanskrit *Velugrama*, for *Venugrama*,ie "Bamboo village". Of late, the city has carved itself a new name as "Kunda nagari" because of its famous sweet dish, Kunda, made with milk, sugar and spices. The city is also known as the "Sugar Bowl of Karnataka", and the district as the "Sugar District" because of the enormous scope of its sugarcane cultivation and production facilities. The city is known as Belagavi in the state language Kannada . On November 1, 2014, the city's name was changed from Belgaum to Belagavi by the Karnataka Government, with approval of the Central Government of India along with 12 other cities. The city is in the northwestern parts of Karnataka and lies at the border of two states, Maharashtra and Goa on the western ghats (50 km from the Goa state border). It is one of the oldest towns in the state, lying 502 km from Bangalore, 515 km from Hyderabad and 500 km from Mumbai. Belgaum district is the biggest district of Karnataka. Situated near the foothills of the Sahyadri mountain range (Western Ghats) at an altitude of about 779 m, 100 km from the Arabian Sea with the Markandeya river flowing nearby, Belagavi exhibits swift and kaleidoscopic changes in topography, vegetation and climate.

ORGANIZATIONAL DETAILS:

Shri. M.R. Rajesh, Commissioner, City Corporation, Belagavi,
Tel : 9986502491 E-mail : itstaff_ulb_belagavi@yahoo.com

CITY PROFILE

Population	: 5,20,000
Area in Sq kms	: 94.07 sq.kms
Number of wards/zones	: 58
Number of Properties	: 1,09,159

SITUATION BEFORE THE INITIATIVE:

Belagavi city is generating garbage about 200 TPD, after partial segregation of at source, the segregated plastic waste is sent for recycling & rest to MSW site.

This office had conducted meeting with local residents, communities to motivate & to create awareness among the people for segregation of waste in to dry and wet. As due to non co-operation from local residents this office is unable to achieve 100% segregation at source.

Hence office has started initiative to create awareness among the school children's for segregation or collection of dry waste in association with swaccha vishwa & KSPCB office. The initiative was started in Mahila Vidyalay School, Belagavi.

DESCRIPTION OF THE INITIATIVE/ IMPLEMENTATION STRATEGY:

In association with Swaccha Vishwa this office has distributed collection bags to all school students in which the students were directed to bring all recyclable materials/dry waste generated in the homes once in fifteen days. Based on the quantity of dry waste collected from the students prize distribution was announced.

- The interaction and group discussion made with school students.
- Training was given to students.
- Brief description was given on dry/ recyclable materials.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE:

- This office had achieved 100% success for creating awareness among the students for segregation in the school.
- To avoid open dumping of waste from the students.
- To keep City clean & environmental friendly.
- Effective recycle, refuse & Utilization of waste generated
- The amount after selling of dry waste is utilized for education of poor students from the NGO's

PARTNERS' INFORMATION:

Swaccha vishwa is an NGO run by Vijay More.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

To create awareness among the students for segregation of garbage.

SUSTAINABILITY

In every fifteen days students were collecting around 500 kg of dry waste and which is then sold to the rag pickers. The same amount is utilized for education of poor students from the NGO's. In every week each students were collecting around 5 kg of dry waste & for every week this office.

TRANSFERABILITY:

People can create awareness for segregation of garbage through school students

ESTABLISHMENT OF SCIENCE CENTRE

By Hubli-Dharwad City Corporation

Year of implementation : 2008-09
Year of Completion : 2009-10 to 2015-16

BRIEF ABOUT THE CITY

Hubballi-Dharwad are twin cities in Indian state of Karnataka. Hubballi-Dharwad is the second-largest conurbation in Karnataka after Bengaluru. While Dharwad is the administrative headquarters, the city of Hubballi, situated about 20 km south-east of Dharwad, is the commercial centre and business hub of North Karnataka. The cities have a single municipal corporation called Hubli-Dharwad Municipal Corporation (HDMC). **Hubli** officially known as **Hubballi** is an agglomerating city in the state of Karnataka, India. The name Hubballi literally means "Flowering creeper" in Kannada. The twin cities of Hubli and Dharwad, collectively referred to as "Hubli-Dharwad", is the largest city in Karnataka after Bengaluru. While Dharwad is the administrative headquarters, the city of Hubli, situated about 20 km south-east of Dharwad, is the commercial center and business hub of North Karnataka region. Crops including cotton, chilly and peanuts are grown aplenty in the surrounding rural agricultural areas, and Hubli is a major trading center for these commodities.

ORGANIZATIONAL DETAILS:

Sri C.M. Noor Mansoor, Commissioner, Hubli-Dharwad Municipal Corporation, Hubbali
Tel : (0836) 2213800, Fax No. (0836) 2350855, Mobile No. 9483531835,
E-mail : commissioner.hdmc@gmail.com

CITY PROFILE:

Population	: 9.43 Lakhs (As per the 2011 Census)
Area in Sq kms	: 220.23 Sq. Km
Density of Population	: 4381/Sq. Km
Number of wards/zones	: 67/12
Number of Properties	: 2,18,319

SITUATION BEFORE THE INITIATIVE:

In North Karnataka there was no science centre and mobile science centre was established. The Hubballi-Dharwad Municipal Corporation did MOU with Agastya International Foundation Bangalore for establishment with providing free of cost building & water facility with mobile van.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

Earlier the centre was established at small room in Lamington School MOU with Agstaya International Foundation Bangalore for 3 years subsequently the centre was shifted to nearby vacant building of the corporation with full equipment of Physics, Chemistry & Biology practical also with information technology. The earlier centre gave free practical training in Physics, Chemistry & Biology for 2000

students. Subsequently it was appreciated from the local school students as well as medias & parents of the children's forced to increase the capacity of the science equipments for their children usage. Demand from all the corner HDMC provided a platform for conducting Mega Science Fair and competition of science projects at State Level & National Level since 2011-12 in the month of January every year. During first science fair there was 18000 students with 120 science project participated, Best 10 projects were selected and gave award with cash prize. During 2012-13 Science Fair the participation of students and school teachers increased by 25000 during 3 days fair on the opinion of local citizens the fair was extended for 2 days for the benefit of children's and teachers. 2013-14 & 2014-15 the Mega Science Fair was conducted at National Level 13 States participated with 180 projects with 35000 students participated during 5 days. So by establishment of Science Centre and Mega Science Fair International & National dignitaries visited Science Centre including Sri. N.R. Narayan Murthy Founder and Chairman of Infosys, the Doctor Gururaj Deshpande Founder and Chairman of Deshpande Foundation some international dignitaries from France, Switzerland & Amsterdam University students visited and appreciated they supported this kind of activity done by the Corporation. During Mega Fair 3 projects were selected for Boston University of America. Initially the centre was given free of cost training to the 2000 children during 5 years 1,69,147 students and 5162 teachers taken free of cost science project information and practical methodology so far. The science centre is open between 10 to 5.30 pm. This activity was supported by Despande Foundation by providing 14 vehicles for the centre to extend this activity to rural area.

ACTIVITIES TAKEN UP TO IMPLEMENT THE INITIATIVE:

- Hubballi-Dharwad Municipal Corporation providing financial assistance to conducting Mega Science Fair every year during January month.
- One Mobile Van cost of Rs. 8.50 lakhs given to Agstaya Foundation for carry out the science activities in slum area of the city which will help Urban Poor Children.
- The Science centre is running in HDMC building which is given free of cost by HDMC.

BRIEFLY DESCRIBE THE BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE:

The Hubballi-Dharwad city is having more than 120 High Schools with more than 75000 children were studying in 8th, 9th & 10th standard this will help the children in science activity which will help them in future technical courses & strengthening the Urban Poor Children for their education.

PARTNERS' INFORMATION

Agstaya International Foundation Bangalore & Deshpande Foundation Hubballi

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

The Science Centre established with Mobile Van, the students will take the science information through Mobile Van as well as fixed Science Centre in Physics, Biology & Chemistry projects at free of cost.

PROBLEMS FACED:

Earlier it was difficult in getting building & space for establishment of the center. Subsequently it was established at availability of small building with less number of tutors. After expansion training was

provided to science graduates and were appointed as tutors . The vehicles given by Deshpande foundation eased the burden of transit among children to reach the science centre.

SUSTAINABILITY:

HDMC provided separate head of account for supporting this activity with provision of financial allocation. This activity taken up by the HDMC under the provision of KMC Act 1976 under section 59 (23).

TRANSFERABILITY:

This will help Urban Poor Students to gain a proper understanding of sceince and technology and can be implemented by any city.

RECOGNITION /AWARDS:

Proposal submitted to All India Local Self Government Ahmadabad for Nagar Ratna Award.

COLLECTION AND TRANSPORTATION OF MUNICIPAL SOLID WASTE IN MANGALORE CITY-2015

By Mangalore City Corporation

Year of Implementation : 2015 (Start of Collection & Transportation of MSW Activity)
Year of Completion : 2022

BRIEF ABOUT THE CITY:

Mangalore is an important city in Karnataka and is situated on the west coast. After integration the city is developing fast in all directions viz. in the field of education, industry and commerce.

Mangalore is headquarters of Dakshina-Kannada District, largest urban coastal center of Karnataka and the fourth largest city in the State. The city is an administrative, commercial, educational, and industrial center. An all weather port is located in Mangalore and is the only major port of Karnataka. The topography of the city is from plain to undulating with four hilly regions natural valleys within the city. The ambient temperature varies minimum from 17°c to a maximum 37°c. There is a heavy rain fall of about 4000mm per annum of which about 90% received in the monsoon period. The relative humidity is generally very high reaching saturation levels during the summer period. The geology of the city is characterized by hard laterite in hilly tracts and sandy soil along seashore.

ORGANIZATIONAL DETAILS:

Dr. H.N. Gopalkrishna, Commissioner,
Mangalore City Corporation, Lalbagh, M.G.Road, Mangalore,
Tel : 91-824-2220310, 9448401460 Email: commissioner.mcc@gmail.com

CITY PROFILE:

Population	: 484785 (as per 2011 census)
Area in Sq kms	: 132.45 Sq. Km.
Density of Population	: 3660 per Sq. Km.
Number of wards/zones	: 60
Number of Properties	: 191006

SITUATION BEFORE THE INITIATIVE:

Health Department plays a key role in Mangalore City Corporation managing basic services for the citizens for instance sanitation, public health services, issuing birth and death certificates, managing solid waste disposal etc.,

Solid waste management is one the most important service which is handled by the Health Department of Mangalore City Corporation. The most pressing problem faced is rapid urbanization & changing lifestyles have led to the generation of huge amount of garbage and wastes in the urban areas. So, over the past few years; just handling this Municipal Solid Waste has assumed the proportion of major organizational, financial and environmental challenges.

Despite Municipal Solid Waste Management being major task of the local Government, typical accounting for a sizeable portion of the municipal budget, yet the Urban Local Bodies are unable to provide effective services. Today the waste is disposed in an unscientific manner, with crude open dumping in low – lying

areas being the prevalent practice followed by most Urban Local Bodies. The results of these are foul smell, breeding of flies & other pests and generation of liquid runoffs (Leachate), which pose a serious threat to the underground water reserves. The area coming under the jurisdiction of Mangalore City Corporation produces an average of 330 TPD of wastes, with a daily collection frequency of 300 TPD. The waste collected has a composition of 55% of organic, 25% of inorganic, 10% of combustible & 10% of recyclable wastes.

As per Municipal Solid Waste (Management & Handling) rules 2000, including all administrative, financial, legal planning and engineering functions involved in the whole spectrum of solutions to problems of solid wastes thrust upon the community by its inhabitants.

The Major components like Primary Collection, Street Sweeping, Garbage Collection, Bulk Waste Collection, Non-Vegetarian Waste Collection, Weed Cutting, Drain Cleaning & Secondary Transportation is as shown below;

- In Mangalore City 47 wards out of 60 wards 8 zones was made for primary collection, street sweeping, garbage collection, drain cleaning, weed cutting & secondary transportation. The remaining 13 wards were managed by MCC Pourakarmika workers.
- Where the old system of conventional vehicles was being used for the door to door collection of garbage, wherein the contractors were made responsible for collection of user fee. The success rate was less than 30%.
- The contractor was also made to collect the bulk waste from bulk waste generators, but the contractors use to collect the waste where the generators pay user charges, the waste generators use to throw on the road sides or on the drains.
- Secondary transportation was in the form of Twin container dumper placers has found partial success due to the poor door to door collection. But the waste was still lying outside the containers and makes the surroundings much filthier. Old traditional trucks and lorries were also being used for transportation of garbage to increase the weighment capacity and make only single trip to the site.
- MCC vehicles trucks, tippers, single container dumper placer and other vehicles were also being used for the collection of garbage. Since the vehicles are of more than 30 – 35 years, regular repair problems create stagnation of garbage for more no of days. Due to the elaborate procedures for repairing the vehicles.
- Since the tender were called for a short term period the local players used to bid the tender, and the deployment of new vehicles becomes more difficult. With lack of professionalism & more competition which made the local contractor bid low and no proper works being carried out.
- The monitoring of the collection activities was a major hurdle, since the contractor used to collect the garbage from the nearby Gram panchayaths and Town panchayaths.
- Lack of Transparency.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY

- Collection of data from City Corporation for preparation of Detailed Project Report.
- Discussion with the council body for approval of the new proposal on Solid Waste Management.
- Discussion with Deputy Commissioner, Dakshina Kannada District for approval of the proposal.
- Approval of the Directorate of Municipal Administration and State Level Empower Committee.
- Preparation of tender document without any consultant's involvement.

- Approval of the Council Body for the Estimate and Proposal at the general body meeting.
- Approval from the Directorate of Municipal Administration for the tender document and approval from the State Level Empower Committee.
- Approval for the Proposal and the Estimation from the Cabinet, Government of Karnataka.
- Preparation of Draft Tender Schedule, calling Tenders at Indian Trade Journals.
- Constitution of Evaluation Committee headed by Joint Commissioner of MCC, Superintendent Engineers of Public Works Department, Superintendent Engineers of Minor Irrigation,



Superintendent Engineers of Zilla Panchayath, Superintendent Engineers of New Mangalore Port Trust, Executive Engineer of MCC, Chief Accounts Officer & Health Officer of MCC.
- Evaluation of the received tenders –
  - o Evaluation of Technical Qualification of all the Bidders, Approval of the Technical Evaluation from DMA.
  - o Financial Evaluation of all the Bidders and, Approval of the Financial Evaluation from DMA.
  - o Negotiation of the financial bid with the scrutiny committee.
- Approval from the Council Body to the Financial Evaluation and submission to DMA. And approval from the cabinet for the financial bid of the contractor.
- Issue of Letter of Acceptance for the bidder.
- Contract Agreement finalization, approval and signing of agreement.
- Procurement of Bank Guarantee for the entire contract period.
- Issue of Work Order.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE :

- **Door to Door Collection:** 100% Door to Door Collection from entire 60 Corporators wards covering 100% of the properties using hydraulic vehicles of the types of Auto-tipper/refuse collector etc., and the remaining inaccessible areas is be covered using different means like pushcarts, tricycle, wheeled bins etc., all the 7 days of the week the door to door collection is in practice. Same vehicles are used to create awareness w.r.t garbage disposal (using mike system)
- **Mechanical Sweeping:** Sweeping of roads using mechanically powered sweepers for a stretch of 25 km/day, where the vehicle shall be fitted with GPS equipment to record the real time and vehicle location.
- **De-Silting Machine:** Deployment of de-silting machine for clearance of drain which is less than 1mtr.
- **Secondary Transportation:** 100% deployment of hydraulic vehicles (i.e., Compactors, Tippers etc.,) for operation of secondary collection for MSW.
- **GPS Installation:** Adoption of GPS technology to all the Primary & Secondary Collection Vehicles recording the real time fuel level & vehicle locations.
- All the vehicles/equipments to be deployed, operated & maintained at the cost of the contractor

- Collection of user – fee charges through Property Tax as Solid Waste Management Cess.
- The concepts aims at implementing the Municipal Solid Waste (Rules & Regulations), 2000 on cent basis – avoiding Multiple Handling of Garbage, Door to Door Collection, GPS system being the highlight of the project.
- All new mechanized hydraulic vehicles have been deployed for the purpose.
- Public grievances are being attended immediately.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

- Experimental project first of its kind to be developed in Karnataka.
- Project is on a long term contact basis (i.e., for 7 years).
- All the components of city sanitation are being outsourced to a single entity for each zone.
- Deployment of hydraulic operated vehicles & GPS system at the cost of contractors.



PROBLEMS FACED:

Scientifically prepared estimates taking into account market rates of different Solid Waste Management vehicles, Global Positioning System, EMI's for vehicles, Vehicle Insurance Costs, Road Transportation Office costs etc., which makes the estimate more practical.

- For the first time (Solid Waste Management) SWM tender document made in line with the Finance Department approved KW6.
- Practical Terms & Conditions like Escalation Clauses for Fuel & Labor as per Karnataka Transparency in Public Procurement (KTPP), Cushion for increment in Garbage Quantity, Corporation Limits Expansion etc., which might attract many of the high quality eligible companies for the bidding process.

SUSTAINABLILITY:

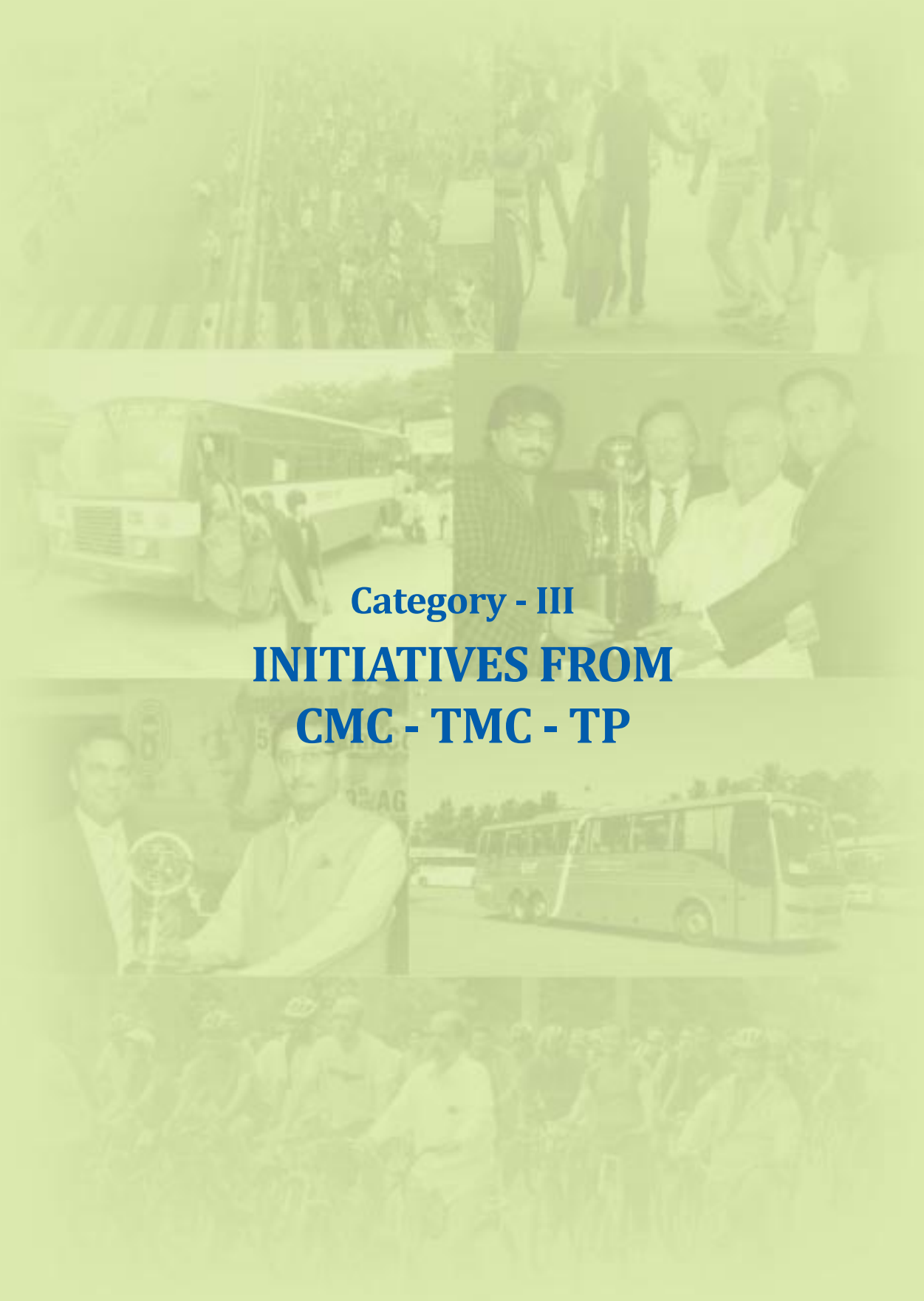
- The project is implemented for 7 years of time frame which involves collection of SWM Cess Collection
- No capital investment for purchase of vehicles from MCC for next 7 years.
- No maintenance of Vehicles, No Purchase of Equipments etc.,

TRANSFERABILITY:

If the system of cess collection and transportation is improved it can be replicated by any Corporation.

RECOGNITION/ AWARDS:

The initiative has been recognized by the other ULB's, and the neighbouring ULB is planning to adopt the same system.



Category - III

INITIATIVES FROM CMC - TMC - TP

FIRST KEROSENE FREE CITY IN THE STATE

By Ullal CMC

Year of implementation : 2013-2014
Year of Completion : 2014-2015

BRIEF ABOUT THE CITY:

Ullal is a renowned city located 12 kms away from Mangalore City . Presently it has been upgraded from TMC to CMC. Ullal is famous for its historic location like Someshwara Temple, Summer Sand Beach resorts, Ullal Beach, Seyyed Madani Durga . Ullal was also ruled by Queen Abbakka in the middle of 16th century.

ORGANIZATIONAL DETAILS:

Smt. Roopa T. Shetty,
Municipal Commissioner, CMC Ullal
Tel : 9886163309, Co.ullal@gmail.com

CITY PROFILE:

Population	: 53808
Area in Sq kms	: 11.8
No. of Population	: 4560
Number of wards/zones	: 27
Number of Properties	: 15127

SITUATION BEFORE THE INITIATIVE:

Initially women used firewood for cooking & also used kerosene stoves for cooking purpose.




DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY :

Grants were reserved under 24.10% 7.25%, 3% & also Municipal Fund. At the beginning stage the focus was on only SC/ST population (24.10% scheme) , later on the focus was given to other backward classes (7.25%) . Since lot of applications were received LPG gas connections were distributed to the BPL families initially and then to the rest of the applicants.

BENEFITS DERIVED FROM IMPLEMENTATION OF THE INITIATIVE

Ullal CMC was recognized as the first city in the state to be declared as kerosene free city.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

There were initial hiccups of difference of the opinion from the ward Councilors to take up this initiative but however the problem was overcome by consulting and taking everyone into confidence.

PROBLEMS FACED:

In the year 2013-2014 a lot of applications were received. There was dearth of grants to fulfill the requirements. Hence the Councillors were consulted and ward wise applications were shortlisted. A household survey was conducted to get the exact numbers of families without LPG gas connection and they were prioritized to the give the connections. A Gas connection Mela was also organized by the staff of Municipality on the awareness of the usage of gas stoves and reduction of kerosene as cooking fuel.

SUSTAINABILITY OF THE IMPLENTED PROJECT/ INITIATIVE:

Since the citizens applied for gas connections during the mela, most of them were benefitted with the new connections and ease of operations. They are also aware of its benefits now. The women are convinced with the usage and are happy hence they will continue to use the LPG gas instead of kerosene stoves.






TRANSFERABILITY:

In order to make Karnataka State a kerosene free state all the local bodies and Corporations can join hands to achieve it . An awareness camp can be organized in any ULB to promote the usage and it can be implemented in similar way.

All local bodies including Mangalore Corporation in Dakshina kannada have taken up this initiative of making Kerosene free cities.

RECOGNITION /AWARDS:

Food & civil supplies Department of Dakshina Kannada have appreciated Ullal CMC and given an award of recognition.

DOOR TO DOOR COLLECTION OF MUNICIPAL SOLID WASTE, SCIENTIFIC DISPOSAL AND PRODUCTION OF VERMI COMPOST

By Bailhongal TMC

Year of implementation : 2014-15
Year of Completion : 31-03-2015

BRIEF ABOUT THE CITY:

The Bailhongal city is located 46 kilometers away from district headquarter Belgaum. It has polpular for the Kittur Rani Channamma Samadhi and the birth place of of the Great Freedom Fighter Sangolli Rayanna. Bailhongal town is also famous for its Cotton mills.

ORGANIZATIONAL DETAILS:

Sri Shivappa Giriyappa Ambiger,
Chief Officer, TMC, Bailhongal,
Tel : 9880879451

CITY PROFILE:

Population : 49282
Area in Sq kms : 15.29 Sq.Km
Density of Population : 3223
Number of wards/zones : 27
Number of Properties : 10794

SITUATION BEFORE THE INITIATIVE:

The Door to door collection of Municipal Solid waste covered only 4 wards before the implementation of this initiative, now all the 27wards in the city are covered under MSW door to door collections. Also usage of less than 40 microns plastic carry bags and tea cups is restricted by carrying out regular raids and imposing fines by the municipal authorities

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

Earlier only one Dumper placer, two tractor trailers were used for the municipal solid waste handling which seemed inadequate. Later on after the procurement of 2 Tractors, 3 Auto tippers and 1 Hydraulic Tipper and installation of public addressing systems to all the vehicles on awareness of door to door collections it was possible to cover all the 27 wards .

It is also observed that source segregation is in practice in 4 wards now .


The City Municipal Council too initiatives and split the health department staff into four teams and distributed the pamphlets to generate awareness among the citizens . They organized training programmes for self help groups regarding door to door collections of municipal solid waste and the advantages by the use of songs and voice recordings in the garbage collection vehicles and played it during the collection.


BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- A total of 500 places are identified where containers, dustbins and black spots for accumulation of solid waste, There are managed systematically and sweeping is carried out daily to make sure no litter is left out.
- The door to door collection has helped in maintaining good clean surroundings and it is observed that gutters and roads are clear from litter due to this practice.
- The source segregation in 4 wards helps to collect organic waste which is used for vermi composting.


PARTNERS' INFORMATION:

Wards councilors, all municipal staff and mainly co-operation of Pourakarmikas are the main partner in this initiative.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

The Door to door collection practice in almost all wards on all the 7 days of the week keeps the city clean.

PROBLEMS FACED:

During the beginning of door to door collections of municipal solid waste the public were hesitant and reluctant to pay user charges. After taking a massive awareness programmes and convincing them regarding advantages of door to door collection public cooperation was achieved. Now there public are aware and also make an effort to complain through PGR if municipal vehicles do not pick up the garbage. This cooperation of public has helped in keeping the city clean.

The ban of plastic was also opposed and it was objected since other cities were using plastics below 40 microns. Later this problem was also over come by involving prominenet people and citizens form the city who were taken into confidence and several meetings held with them to convince them about the harmful effects of using plastics . This has now led to restriction of usage of plastics below 40 microns.





SUSTAINABILITY:

For effective MSW door to door collection vehicles allotted should have GPS system and a minimum user charge along with property tax needs to be collected . This will help in systematic managing and collection as well as maintenance of the vehicles on a regular basis.

TRANSFERABILITY:

- Municipal solid waste door to door collection can be a mandate for all the cities . This can be easily transferred and hence help in maintaining cleanliness of the cities. IT also makes a city litter free and improve overall sanitation..
- Use of cloth bag or jute bags should be promoted and hence reduce the plastic carry bag usage . This initiative can also be taken up in any city or town hence avoiding pollution in the environment .

DRY WASTE COLLECTION

By CHIKKODI TMC

Year of implementation : 2014
Year of Completion : 2014

BRIEF ABOUT THE CITY:

Chikkod is a taluk city in the Belagavi district of Karnataka. Chikkodi is situated at the Karnataka-Maharashtra border and town is surrounded by hills in all directions. The town lies amidst hills with open at the eastern side and it is mainly a commercial town. Around 200–300 years ago, Chikkodi was called as Chik-kodi (small village) where as the nearby Hirekudi (big village) was bigger than Chikkodi. Overtime, Chikkodi experienced growth due to its famous betel leaves and came to lie on a major road.

ORGANIZATIONAL DETAILS:

Shri Mahaveer B. Borannawar,
Chief Officer, TMC Chikkodi,
Tel : 08338-272151, 9448692358 ; E-mail: itstaff_ulb_chikkodi@yahoo.co.in

CITY PROFILE:

Population : 38307
Area in Sq Kms :18.29
Density of Population :2094
Number of wards/zones : 23
Number of Properties : 7910

SITUATION BEFORE THE INITIATIVE:

- Guruwar Peth and K. C. road a busy commercial road use to frequently get choked up due to haphazard disposal of dry waste in gutters. There would be 20-30 kg of waste every 20-30 feet of gutter.

- Ramnagar is an area where people belonging to weaker section of community reside. There are various communities like Nomads, soothsayers, rag pickers, labors etc. These people also collect dry waste from the town bring them home, take what is useful to them and discard the unwanted waste beside their houses. This has caused a lot of littering and garbage piling in these areas.

DESCRIPTION OF THE INITIATIVE/IMPLEMENTATION STRATEGY:

- It was proposed to keep bins (Ghamelas) throughout the commercial areas .
- It was proposed to distribute bins for collection of wet waste and polythene bags for collection of dry waste.

- Awareness was created to shop owners by personally visiting all the shops by the ULB staff on not throwing waste in gutters and convinced them to install bins for dry waste disposal. The investment for the purchase for bins was made by the shop owners and residents. The locking system for bins and service for lifting the waste collected in the bins was made by the ULB. With the constant efforts of ULB staff and cooperation of the residents the waste was collected only in the bins.


- Awareness was created to the residents by holding ward level meetings with concerned ward representatives and bins and bags were distributed. IEC activity was carried out through distribution of booklets and household visits.


BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE:

- The haphazard disposal of waste in gutters has stopped due to this initiative the gutter is now garbage free without any choke up of waste and there is free flow for the drain waters .It has also saved the manpower required for cleaning twice a week.
- The waste which would be scattered everywhere in Ramnagar is now being segregated by the community .The wet waste is collected daily and dry waste is collected two times a week at designated place and timings by the ULB.



PARTNERS INFORMATION:

Shri.N.R.Nerlikar (ULB President), Shri.Ravindra Hampannavar, Shri Abhaya Bassargi, Shri Rama Mane have joined hands and taken up the promotion and implementation of this activity .

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

- The residents who wanted to get respite from waste were so interested to make the road garbage free that they took up the financial burden for the initiative and also participated in awareness activity. They whole heartedly cooperated for collection of waste in bins.
- The people of the community are mostly illiterate but because of the awareness and efforts from ULB the waste is 100% segregated in this area and it is also now the cleanest area of the town.

PROBLEMS FACED:

- Initially the shop owners and residents were not interested with the idea of bin system and also with the financial involvement for the initiative. With the conjugate efforts of ULB staff, ULB Corporators and prominent residents it was possible to implement the initiative.
- Since the people residing in this area were poor and illiterate they were not aware of cleanliness and this was not their priority . They were reluctant to participate in any meetings hence ward meetings would be conducted in mornings and evenings to make sure every person was targeted before they went out for their work or got back from work.

SUSTAINABILITY:

- The waste disposed is constantly monitored by the ULB staff and regularly lifted at designated time for any inconvenience.
- The wet and dry waste is collected through ULB at designate time and all the activities are monitored by the ULB officers , this practice can help the initiative to sustain.

TRANSFERABILITY:

- This initiative is simple and can be implemented in all towns without much financial burden. If there is proper awareness and guidance this initiative yields good results.
- A place which was a community of poor and illiterate people resided is now one of the cleanest places in the town. A problem specific solution was implemented to get the desired result which can be replicated by public participation in any town/city.

DISPOSAL OF MEDICAL WASTE

By Madhugiri TMC

Year of implementation : 2014-15
Year of completion : 2014-15

BRIEF ABOUT THE CITY:

The history of Madhugiri town dates back to 15th century during the Maratha dynasties. The town was called by the name Madhugiri forts and other monuments which were built during that centuries and still intact, thus becoming a major heritage center in the state.

Evidences are still in place to prove that they had intellectual skills for water preservation, ponds and pools which were built by palegars can be seen even today.

During British administration, under the Mysore wodeyar rule in 1927, the town was recognized as Town Municipal Council. Jnanapeeta awardee Sri Masthi Venkatesha Ayyangar served here as Assistant commissioner.

The town is located at 13.66^0 latitude and 77.21^0 longitude and the average rain fall recorded is 564 mm. It is a place where Asia's second largest monolithic hill exists and is situated at the height of 755 meter from the sea level. The town has sub divisional offices of revenue and other departments. The district is the head quarters for education department with reference to the above the town is striding towards becoming regular district head quarter. To the north 107 kms from the state capital Bangalore and 43 km from the district head quarter Tumakuru. National Highway 234 and state Highway No. 3 pass through this town and also Tumkur Rayadurga Railway route in progress.

ORGANIZATIONAL DETAILS:

Sri Naveen Chandra G,
Chief officer, TMC, Madhugiri
Tel : 8105204846, Email : itstaff_ulb_madhugiri@yahoo.co.in

CITY PROFILE:

Population : 29152
Area in Sq kms : 8.81 Sq kms
Density Of Population : 3308
Number of wards/zones : 23
Number of Properties : 13881

SITUATION BEFORE THE INITIATIVE:

The earlier practice of collecting municipal solid waste is by using push carts (7 no.s), auto tippers (2 no.s) and tractor (1 no). The Collected waste was then transported to landfill site for processing and disposal. Under Madhugiri municipal there are 6232 houses, 4 prominent private hospitals, 8 clinics and medical laboratories. The waste that was produced by the above was used to get mixed with regular domestic waste it had a harmful effect on environment and also it caused lot of inconvenience to Pourakarmikas.

Even through a separate space was provided for the dumping of medical waste that was getting mixed with the other municipal waste at the primary stage of collecting, transporting and disposing .Due to this there are adverse effects on public, pourakarmikas and environment also.

Due to modernization there is a change in life style of people; usage of sanitary pads has drastically increased due to lack of awareness regarding their disposed there was inconvenience experienced by public and pourakarmikas. This lead to big challenge in scientific disposal of waste.

Bio medical waste in municipal dustbins.



DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

From 09/10/2014 steps were initiated to collect and segregate waste as organic, dry waste and recyclable. During this while segregating (offensive waste/ sanitary pads), manually, due to foulness and embarrassment there was hesitation among pourakarmikas. This lead to friction between public and pourakarmikas. At this stage measures were taken to persuade and recalling the facts to pourakarmikas about their duty and responsibilities to collect whatever the waste produced within the limits. By this an important stage was successfully completed in the initiative.

In the later stages there were few more challenges like, where and how to dispose was the first thing. Then there was the question of availability of labor. When possible alternatives for disposal was enquired, there was no clarity regarding that, but it is found that same machineries available. Even through machineries available in the market, they were not appropriate to the standards set by environment department and those which met the standards were exorbitant for local bodies like ours to purchase and maintain. So a proposal is made to a company which carries out disposal of bio medical waste.

All private doctors, medical officers and medical technicians were called for a meeting under the chairmanship of municipal president on 10/02/2015. In the meeting regarding the disposal of medical waste, talking them into the confidence, an agreement was made between medical institution and the company this was another important stage in the process of initiation. And by this, mixing of bio medical waste with the rest has been controlled to considerable extent.

The company (Medicare company) with which the agreement was made is collecting and disposing scientifically in its own plant away from madhugiri. This is being carried out on alternate days regularly.

In this way we are succeeded in avoiding bio medical waste from institution and sanitary waste from households (domestic) mixing with municipal waste. Thus implementing integrated bio medical waste disposal management successfully. The town is made pollution free.

Meeting with private medical practioner headed by municipal president and Taluk health officer.


TMC is educating the pourakarmikas and an IEC activity is carried out with help of health department and Shree Darmasthala Grameena Abhiruddi Samsthe. TMC provides separate bins to pouarkarmikas for collecting sanitary waste.

IEC Activities



BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- Segregation at source has helped to treat wet waste, dry waste and sanitary waste scientifically.
- Clear understanding between pourakarmikas and public.
- Choking of latrine pipes have reduced
- Manual scavenging is avoided.
- Clarity in work of pourakarmikas.
- At the SWM site mixing of bio medical waste, with municipal waste is completely avoided.
- The land given to private medical practioner for bio medical waste can be used for SWM activities.

Collected sanitary waste and the vehicle.


PARTNERS' INFORMATION:

For the disposing of sanitary waste the municipality has tied up with sembramky environment management Pvt ltd.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

In Madhugiri town we are avoiding the mixing of bio medical waste with municipal waste. The waste is segregated into wet waste, dry waste and sanitary waste at source which makes the waste processing in a scientific manner.

PROBLEMS FACED:

In the initial stage, women pourakarmikas were hesitant to handle sanitary waste. The efforts were made to eradicate their embarrassment and put them into work.

Talking to other departments like health & Family welfare department and private institution like Sri Kshetra Dharmasthala Grameena Abhiruddi Samsthe into confidence and all other available sources were used to educate the public.

SUSTAINABILITY:

This initiative is considered to be sustainable as wet waste, dry waste, and sanitary waste at the source is collected by pourakarmikas. We are establishing system for each type of waste.

TRANSFERABILITY:

From this initiative if we collect segregated waste at source we can dispose wastes scientifically and completely avoid mixing of bio medical waste with the municipal solid waste.

SWM SEGREGATION AND COLLECTION

By Karkala TMC

Year of implementation : 2014
Year of Completion : 2015

BRIEF ABOUT THE CITY:

The Town Municipal Council (TMC) Karkala was constituted in 1973; it has a population of 25,824 as per census 2011. Karkala TMC stretches to an area of 23.06 SqKms. The TMC has 23 wards and equal number of councilors. The name Karkala has been derived from the Kannada word Karikallu, meaning black stones. Karkala is a town of historical importance and a famous pilgrim centre for Jains. The famous single stone 42-foot (13 m) statue Gomateshwara (Lord Bahubali) is located about 1 km from the center of the town. The Bahubali statue is the second tallest in the State. Karkala has many places of worship like the Attur Church of St. Lawrence and the Lord Padutirupathi Sreenivasa and Venkataramana Temple situated in Karkala town itself which is above 550 years old. It is 45km from the iron mining centre Kudremukh and 40 km from Sringeri & Horanadu.

ORGANIZATIONAL DETAILS:

Shri Rayappa,
Chief Officer, Town Municipal Council, Karkala
Mob: 9449805561, E-mail: itstaff_ulb_karkala@yahoo.co.in

CITY PROFILE:

Population	: 25800
Area in Sq kms	: 23.06
Density of Population	: 1078
Number of wards/zones	: 23
Number of Properties	: 10500

SITUATION BEFORE THE INITIATIVE:

- Initially people were not aware about segregation, they used to throw the waste wherever they want. It was creating nuisance to the public while walking in the road side.
- Source segregation was nil.
- Door to door collection was 30%
- Street sweeping was 80%
- Block spots were seen at every corner of the street

Situation prior to initiative

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

Initially the Chief Officer along with his team visited to each and every house present in karkalla city to create awareness to the people about SWM by giving notices. People should segregate the dry and wet waste separately and hand it over to municipal vehicle. The team also visited hotels, commercial complex and conducted a lot of activities like Jatha, street play (drama) and for college students presentations were conducted. It was informed to the public that those who throw the waste outside their house or some other places, they should pay 500 to 5000 rupees as per the Municipal Act section 224, 265,276. The municipality also have conducted training to the Pourakarmika's. This process took around 3 months to come up with the output of 100% collection and 80% segregation.

Area	23.06 sq.km.
Population	25800
Wards	23
Road Length	92 km.
Total Number of Properties	9765
Waste Collection Per Day	10 Ton
Collection	100%
Segregation	80%

- Initially IEC activities such as street plays on SWM, awareness programs were conducted
- Initially IEC activities such as street plays on SWM, awareness programs were conducted
- Frequently conducted awareness programmes such as Jathas in co ordination with the schools, colleges and other NGO's
- The chief officer with his team went to every door step to educate the people regarding the segregation of the waste

- The display banners on segregation of waste are placed in the city.
- Around 3000 green and yellow buckets were provided to the public. Yellow is symbol of dry waste and green is symbol of wet waste.

Green city –Clean City Karkala
PRESENT SCENARIO OF TOWN






Clean snapshot of Karkala
(after door to door collection)


Conducted awareness programs at Colleges


ಮನೆ ಮನೆ ಭೇಟಿ


ಸಾರ್ವಜನಿಕರಿಗೆ ಹಸಿರು ಮತ್ತು ಹಳದಿ ಬಕೆಟ್ ವಿತರಣೆ



ಕಾರ್ಯಾಚರಣೆ
ವಿಚ್ಛರಿಕೆ / ಸೂಚನೆ

Paper Notifications


TMC officials lead by example


In Karkala, Garbage Disposal Brings Together SHGs, Babus

Conducted Jatha


BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- All wet wastes collected is being composted as biogas
- Dry wastes is further segregated as plastic, carry bags, recyclables & inert. Waste Plastic, carry bags are sold to scrap dealers and a small amount of revenue is generated out of it.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

- All wet waste is being composted by windrow method so Vermi compost yard is under construction.
- Biogas plant is under construction. Already in one house biogas plant is implemented and they are using it.

Wet waste compost

Vermi Compost Yard

Biogas

PROBLEMS FACED:

The process almost took 3 months to overcome this initiative. Due to meager involvement of the public, the MC conducted awareness programs and visited many times to their house, hotels and commercial complexes and provided training to the pourakarmikas too. By applying all these methods finally we reached our expectation.

SUSTAINABILITY:

Daily monitoring to be held by the Chief Officer from 7.00am to 10 .00 am. If there is no segregation of wet and dry waste, such waste is rejected by the pourakarmikas.

Dry waste collection from Commercial complexes


Wet waste collectiom


Door to Door Collection

TRANSFERABILITY:

The villages which are around the city, they are taking help from the Chief Officer and his team regarding segregation. Chief Officer conducted Presentations in some panchayaths like Miyyar, Kukundoor, etc. Colleges like-Nitte Engineering College, Moodbidri Alvas College.

RECOGNITION /AWARDS:

Got "Sadhana Sindhu" award by Rotary Club, Karkala by making Karkala as"Clean City".

During the Mahamastakabhisheka of Bahubali which was held in the month of January 2015,the city was maintained very cleanly and neatly. So the TMC was appreciated by shri Veerendra Hegde and deputy Commissioner of Udupi Shri Dr|| Vishal by providing applauds.

“Sadhana Sindu” award by Rotary CLub

Shri Veerendra Hegde and deputy Commissioner of Udupi Shri Dr. Vishal by providing applauds.

COMPUTERISATION OF MUNICIPAL RECORD ROOM

By Channarayapatna TMC

Year of Implementation : 2010-11 (01-10-2010)
Year of Completion : 2010-11 (31-12-2010)

BRIEF ABOUT THE CITY:

Channarayapatnna is major town in Hassan District, and identified as commercial hub. Agriculture is one of the main commercial activitiy, coconut being most popular commercial crop grown. The town lies on Banglore-Manglore National High Way (N.H.48). It is at a distance of 146 kms from Banglore and 37 kms from the District head quarter Hassan.

Channarayapatna town is a terminal junction for pilgrims visiting of Lord Bhaghavan Bahubali of Shravanabelagola which is at a distance of 13 kms.

There are many temples in the town, the most popular one Chandramouleshwara temple and Channakeshava temple. Both temples are constructed by Hoysala dynasty. Gadderameshwara, and Olegeramma. Temples are also historical temples which attract the devotees. Hemavathi River & Amanikere tank are two prime attractions of the town.

ORGANIZATIONAL DETAILS:

Sri H.S Nagaraju (KMAS-2)
Chiefofficer, TMC Channarayapatna,
Tel : 08176-255411, 9448816667, Email : itstaff_ulb_channarayapatna@yahoo.co.in

CITY PROFILE:

Population : 40,417
Area in Sq kms : 6.53 Sq. Km
Density of Population : 4,470
Number of wards/zones : 23
Number of Properties :12,850

SITUATION BEFORE THE INITIATIVE:

Earlier TMC employees used to spend lot of time to trace and provide the necessary information to the citizens. Due to this municipality is defaulting in giving information to the citizen in the stipulated time and disturbing other municipal staff working in the municipalities. This activity affect the day to day activities of administration.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

After understanding the problem with respect to data tracing and provide the information to the citizens, Municipality involved the staff and civil society to draw a plan to fully computerize the municipal data in a record room.

As per the plan all the files and registers sorted based on the subject, year and old files, followed by numbering of every page (both correspondence and note sheets). The relevant details entered in the checklist and same entries again validated by caseworker and Manager. After validation the data fed into the software. During this process an average of 500-600 checklists prepared and entered in the software. The software developed by NIC Hassan.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- All the files and registers (167337 pages of 15929 files) are computerized and displayed on the municipal website. The information compliant with provisions of section 4-1(A) of RTI act 2005
- The required data can be traced in a stipulated time
- The durability of records has gone up because of this initiative
- Transparency and accountability in record management is in realistic

PARTNERS' INFORMATION:

NIC Hassan (Software Development)

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

Each and every file/register provided with Serial No, Bundle No, Rack No, and Kept in Boxes separately.

- This System is more scientific way of managing the records and files.
- Easy tracking of file movement.
- Date of destructing the files can be generated
- Searching of any files /registers can be done through using various criteria including subject, ward number, year of creation of file, Dist wise disposal type, applicant name etc.

PROBLEMS FACED:

Staff faced respiratory problems during process of sorting and numbering of the files.

SUSTAINABILITY:

The entire process is very simple, staff/citizen friendly, besides being technically and financially feasible and viable thus sustainability is truly achievable

TRANSFERABILITY:

- One can learn about scientific way of managing the record room.
- Team work can make the difference
- One has to be technology friend to achieve the spirit of good governance
- Highly motivated staff can really make citizens life simple and beautiful.

Administrative Training Institute (ATI), SIUD, Mysore has included this citizen centric initiative as a part of their training module. Officials from different departments from various parts of the state have been visited to Channarayapatna TMC as a part of learning experience. CMC Hassan replicated this module.

RECOGNITION /AWARDS:

- Appreciation letter From Directorate of Municipal Administration, (DMA)
- This Computerized Record Room was inaugurated by then District in charge Minister -Shri Somanna, Shri C.S Puttegowda, M.L.A, Shri Naveen Raj Singh, IAS, Deputy Commissioner Hassan. Sri B.N Varaprasad Reddy K.A.S, Tahashildhar, Sri B N Chandrashekar KMAS , Project Director & Smt Anusuya prakash President TMC and H. S Chandrashekar Chief officer on 07-05-2011.

CLEAN-BEAUTIFUL ANKOLA - OUR DREAM

By Ankola TP

Year of implementation : Oct 2014
Year of Completion : Ongoing

BRIEF ABOUT THE CITY:

Ankola is small picturesque town surrounded by temples, schools, paddy fields and mango groves. Located on the coast of the Arabian Sea, and has natural beaches. Ankola is famous for its native breed of mango called Ishaad as wells as its bountiful cashews. Ankola's population includes diverse communities. The languages spoken are Kannada and Konkani. Kannada is the predominant language in Ankola Town while Konkani is spoken by minority of the population. An annual mela called 'Bandihabba' is celebrated on Buddha Poornima in the month of May. This is a famous festival celebrated for nine days. On the ninth day of the mela devotees gathered at Shantadurga temple and celebrate the festival.

Ankola has many temples such as famous Honna Raka Temple, beautiful Mahamaya, architectural Venkataramana Temple, and traditional Shantadurga(Famously known as Bhumidevathe), Eeshwar devastan. Also migrated Konkani Saraswats brought with them their Kuladevtas. Considering this to be their safe haven, they established the Kuladevta temple in Ankola. Some of the migrated Goan Deities were Lakshmi Narayan Mahamaya(Nagve Mahmamaya) from the Nagve village in Salcette Goa, Kundodari Mahamaya (Kudteri Mahamaya) from Curtorim in Salcette Goa, and the Aryadurga temple from the Anjediva (Aryadweep) island of Goa. The Shantadurga temple assumed to be the gram devta of the village is still a question of debate, since many saraswat families do consider it to be their Kuladevta

ORGANIZATIONAL DETAILS:

Chief Officer, TMC Ankola,
Tel : 08388-230268, Email : itstaff_ulb_ankola@yahoo.com

CITY PROFILE:

Population : 22249
Area in Sq kms : 7.42 Sq Km
Density of Population : 2076
Number of wards/zones : 14
Number of Properties : 5522

SITUATION BEFORE THE INITIATIVE:

Earlier people used to dump the waste near public places, market, samaja mandir and government office premises.etc.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

- **Meeting with public** : on Ghandhi Jayanthi day Municipality conducted meeting with public and created awareness among public and conveyed the city strategy towards clean Ankola
- CMC started Swachh Sundar Ankola Program on regular basis from morning 7:45 AM to 8:45 AM.
- On 50th day of cleaning program: CMC along with public conducted swachha cleaning program at KSRTC bus stand and other places.

- 100 day celebration: Special Swachha Campaign organized by the CMC to bring consciousness among people also conducted swachha campaign for school premises. Institutions.
- 15oth day celebration : CMC organized swachha program near Kanakaneshwar temple
- 201 day celebration : conducted awareness program on waste management

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- KSRTC staff started cleaning the bus stand everyday
- Public joined hands with CMC to make clean Ankola.
- Bus stands, roads, public places and temples are clean better than earlier

PARTNERS' INFORMATION:

President of TMC, Taluka panchayat President, Thasildhar Ankola, BEO Ankola, All Govt Office employees & Officers actively participated in swachha Ankola program

- All Govt Office Employees actively participated in Swachha program
- Government officials donated the cleaning equipments
- All School & Collage Students, Teachers, Press reporters, lawyers, Doctors, Principals, Swashakti Group involved in this swachha program

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE

"Work Better than talk"

PROBLEMS FACED:

People were hesitant to take part in the swachha initiative.

SUSTAINABILITY:

Municipality used single vehicle for awareness among public to keep city clean.

TRANSFERABILITY:

Keep City & surrounding Places Clean. Initiative has been adopted in Uttar kannada.

RECOGNITION /AWARDS:

Coverage in News Dailies

SOLID WASTE MANAGEMENT

By Mulki TP

Year of implementation : July 2012
Year of Completion : Feb 2015

BRIEF ABOUT THE CITY:

Mulky Town Panchayath Which consists of 17 Wards spread Out on Total 11.00 Sq.K.M. came into existence in the year 1973 Feb 2nd. A famous pilgrimage Spot which has the famous Bappanadu Temple is just between Mangalore & Udupi is so called Tulunadu. It is also just 10 K.M. away from a busy business Junction known as Surathkal. Mulki is counted very lucky, rich & Furtile with the nature's boon as the river Shambhavi flows in North & Nandini in the South. The name Mulki arrived to this famous place as the history says it was very famous for all types of ayurvedic plants and medicines and this name arrived from Kannada word 'Moolike' Which means Medicinal Plants. It is also learnt that once upon a time Mulki had a famous Port and vouch for that the Custom Building still exists. This small place has famous Bappanadu Shri Durgaparameshwari Temple, Shimanthoor Shri Adi Janardhana Temple, Kalikamba Temple, Shri Venkataramana Temple and Vishnumoorthy Temple which are very famous. Bappanadu temple festival is very famous for which the piligrims from all parts of the world make it to attend with fervor and devotion. It also has Jain Basadi at Kotekeri Road.

The famous National banks called Canara Bank and Vijaya Bank were founded by two genius personalities who were the residents of Mulki. Mulki also has Narayanaguru Mandir which belongs to the Billawa Community. It also has a Registrar Office, a famous Govt. Junior College and Vijaya College.

ORGANIZATIONAL DETAILS:

Smt. Vani V. Alva,
Chief Officer, Mulki Town Panchayath
Tel : 0824-2290561 , Email: co.mulki@gmail.com

CITY PROFILE:

Population	: 17,288
Area in Sq kms	: 11.00 Sq. Mtr.
Density of Population	: 1571.63 Sq. K. Mtr.
Number of wards/zones	: 17
Number of Properties	: 5708

SITUATION BEFORE THE INITIATIVE:

Mulki Town Panchayath which had 28 Public dustbins where the residents of that locality made use of those dustbins by dumping their garbage which the Town Panchayath lifted twice a week and further dumped it at MCC dumping yard, Vamanjoor which is 20Km from away from the city.

Another innovation was implemented by the Town Panchayath by collecting the garbage at the residents door step and removed all public dustbins and made Mulki town Panchayath garbage free and also erected awareness sign towards.


ತ್ಯಾಜ್ಯ ವಿಲೇವಾರಿ ಸಮಸ್ಯೆ ಇನ್ನಷ್ಟು ಜಟಿಲ?


ರಸ್ತೆ ಬದಿ ಕಸ ಬಿಸಾಡುವವರ ವಿರುದ್ಧ ಕ್ರಮ

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

Organising awareness like camps to Self-help Groups and programmes talks, debates, drawing, Essays, Evocation competitions every year for various schools and Colleges and also distributed handbills and telecasted awareness through advertisements in local T.V. Channels. Swacha Bharath Abhiyan Programme implemented in 17 wards of TP Mulki. Appointment of ward wise committee with the help of ward councilors & appointed ULB officials as ward doothas in different wards and also conducted so many programmes like hoardings, rallys, street plays, pamphlets, awareness camps, cleaning of public toilets and other places within TP Limit. Co-ordination of swacha bharath abhiyan programme along with NGO's like Rotary, Lions, JCI and Auto Rickshaw association helped to implement the initiative.






- All 17 wards have covered under door to door collection.
- 2 Mini Tippers + 1 Tractor + 1 Tempo (407) have been introduced for collection of Door to Door Waste.
- Separate arrangement for collection of waste has been made for inaccessible areas.
- Bulk Waste is being collected separately using tipper vehicles.
- Non-Vegetarian Waste is also collected separately.
- Segregation of waste (Wet, Dry & Sanitary Waste separately) have been started in 7 wards.
- Mulki TP official's team was formed to create awareness among residences.
- Firstly, training was given to the official's teams and also to the waste collection workers at TP Mulki.
- WET waste is collected 6 days in a week while dry waste is collected only on Wednesday.

Providing plastic buckets to every household for their collection of garbage gave us 100% result. From collected garbage bi-furcated plastic bottles were sold and the remaining waste was utilized for vermi compost by appointing few workers.












BENEFITS DERIVED FROM IMPLEMENTING THE INTIATIVE.

The wet waste collected is vermin composted and the manure is sold to the local farmers. However dry waste is sent to the local plastic companies. With this, a small amount of revenue is generated from waste recovery.



PARTNERS' INFORMATION:

Created awareness to the people in waste segregation with the help of Self Help Groups, School Students, Lions Clubs and other social organizations.

PROBLEMS FACED:

People refused to accept the waste coming to the dump yard and approached the Court against TP. Explanation given to the Court regarding Scientific method of processing of solid waste and also protecting the environment by raising the compound and taking proper precautions.

SUSTAINABILITY:

Encouraging and motivating the residence as well as the staff by regular visits and supervision at waste management unit at door to door waste collection.

TRANSFERABILITY:

After implementing the system of waste collection and management, the people of Town Panchayath are aware and have followed the correct ways of waste disposal and contributed a lot to the environment.

Under solid waste management in Town Panchayath followed our own unique way and installed the machinery with proper infrastructure which costed Rs.11.80 lakhs. This created an impact for mass publicity, so that people would take active role and follow the procedure of segregating solid waste management.

RECOGNITION /AWARDS:

Recognized and felicitated by the District Administration in association with Karnataka State Pollution Control Board and Mangalore City Corporation on District Level World Environment - 2014 dated on 21-06-2014 at Mangalore Town Hall, Dakshina Kannada presented by Honorable Minister for Forest to Ecology & District In Charge Shri Ramanatha Rai.


'ಕಸದಿಂದ ಕಾಸು-ಪಂಚಾಯತ್‌ಗೆ ಲಾಭ'

BULK WASTE MANAGEMENT BY INVOLVING PRIVATE PARTY IN HUNSUR

By Hunsur CMC

Year of implementation : Jan 2013
Year of Completion : Ongoing

BRIEF ABOUT THE CITY:

Hunsur is a very old town with history dating back to 250 years. In the olden days the place was called as 'Gadi Palya' because it was famous for making bullock carts. Later on the place came to be known as Hunsur. The town is on the either banks of the Lakshmanteertha, a tributary of the Cauvery. Town panchayat system was established in Hunsur on 9-9-1919. Town panchayat was converted into municipality from 13-1-1925. And then upgraded as CMC on 15-05-2015, Hunsur city is located on a strategically important place on the Mysore-Mangalore state highway. Hunsur is the sub-divisional headquarter for four surrounding taluks of K.R.Nagar, H.D Kote, Periyapatna and Hunsur. Nagarahole National Park which is recently renamed as Rajiv Gandhi National Park is located just 48 Kms. Hunsur is very famous for different kinds of wood, like Teak, Rose Honne, Mathi etc., about 50 saw mills are located here to cut the wood. Many people in and around Hunsur are agriculturists by profession. They grow Paddy, Ragi, Maize, and commercial crops like Tobacco, Cotton etc,. Tobacco & Cotton are highly profitable commercial crops and are grown in large areas. The central Government has located its Tobacco Research Station in Hunsur which is very helpful to the farmers. Sericulture is also being developed in Hunsur. Since Hunsur is a sub-divisional headquarter, many head-offices of government department's taluk is cosmopolitan in nature. The average floating population of Hunsur is around 5000.The current population of the town is around 55,000.The main source of water for drinking and agriculture purpose is the river Lakshman Theertha which is a tributary of river Cauvery and which flows through the heart of the town.

ORGANIZATIONAL DETAILS:

Sri Ramesh.A
Commissioner, Hunsur CMC, Mysore Dist,
Tel : 9483306166,08222-252250,
Email : itstaff_ulb_hunsur@yahoo.co.in, ravi_kopur@yahoo.com

CITY PROFILE:

Population	: 50859
Area in Sq kms	: 10.36 SqKm
Density of Population	: 4909/Sqkm
Number of wards/zones	: 27
Number of Properties	: 16453

SITUATION BEFORE THE INITIATIVE:

Earlier to 2007, the town doesn't have door step waste collection. The waste generators were dumped the waste in drains, open spaces and on roads which had lead to unhygienic conditions. The collected waste from these spots was dumped in a scattered manner at the outskirts of the town. After notification

of state policy on Integrated Solid Waste Management by the state government a landfill site was purchased using the government grants and then the collected waste was transported to this site and buried in pit using controlled tipping methods also known as engineered landfills. As the town was from agricultural base, majority of the organic waste was not recovered using pit method, which was shortening the landfill site's life. An immediate need for scientific and effective waste management system was felt. The citizens with their declined confidence level on municipality were affecting other revenue generation services.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

The Chief Officer with the support of elected members and health staff focused to avoid the bulk waste collection which was affecting regular waste collection. The vehicles were not sufficient to collect the waste regularly. Officials convinced the bulk waste generators to undertake a pilot study in the year 2012. Officials attended Training Programme on Public and private partnership module conducted by SIUD Mysore. This Training helped them in bringing together private and public participation in managing municipal solid waste. Later on, the bulk waste generators were made aware and regular meetings were conducted on SWM to store their own waste generated till the next morning without dumping anywhere else. The serious notice was issued to the bulk generators to not throw the waste. A sanitary worker is in charged for collection of user fee and regular monitoring.

The awareness programmes were conducted to bulk waste generators and the elected representatives were trained by the Directorate of Municipal Administration through SIUD, which was very helpful to make them understand the process. The bulk waste collection was established with private party named as Krishna where in a monthly amount of Rs. 25,000-00 to 30,000/month is collected. This amount is sufficient for the Private party to maintain the system including salary, O&M for maintaining a vehicle. All the bulk waste is collected directly by the Vehicle which was owned by him through containers. These containers are taken and cleared in landfill site. A total of 4 ton of waste is transported to the landfill site on a routine basis.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- Minimized work load to municipality by involving private party
- The system is cost effective
- 90% door step bulk waste collection
- Improved bulk waste collection efficiency
- Waste recovery is high through this initiative.
- Increased landfill site life
- Clean and hygienic surroundings has improved the citizen's quality of life
- Reduced operation and maintenance cost under waste management met by the municipality
- Empowering BPL private party by providing employment

PARTNERS' INFORMATION:

Ganesha S/o Nachimuthu, who was working earlier as outsourced employee in cleaning works, he was motivated and supported by ULB to involve in the project.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

- The municipality believes that any best practice when considered as a learning process can be implemented thoroughly.

- The learning's gained from other municipality's experience helps in developing better system.
- Formative decision, support from council and head of the organization is very important for success of this initiative
- Regular IEC program needs to be conducted for better acceptability and improved efficiency of user charge collection.
- The collection of user charges is to a low percentage however, the municipality has to support the SHGs for initial years until it stabilizes.
- 22.75% fund subsidy is allocated for SHGs, who are doing door to door waste collection.

PROBLEMS FACED:

- During commencement of the project, convincing the council and involving private party was a challenging task.
- There was no public and private party coming forward to invest for vehicles
- Convincing Bulk waste generators to pay user charges was a big task.
- The private party demanded to sign an agreement for maintaining the entire project for 5 years which was not possible as per KTPP Act.

SUSTAINABILITY:

This initiative is sustainable due to private party involving for reduce operative and maintenance cost by CMC and involvement of local stakeholders.

TRANSFERABILITY:

TMC K R Nagar Replicated the initiative with certain changes for managing their municipal solid waste.

ACCURATE MATCHING OF MANUAL DCBS WITH DCB AVAILABLE IN E-GOV SOFTWARE-KMF-76

By Gokak CMC

Year of implementation : 2013-14
Year of Completion : Ongoing

BRIEF ABOUT THE CITY:

Gokak City is situated at latitude 16°-10° North and Longitude 74° -50° East and altitude of nearly 625 meters above sea level in the northern slope of the basin of water course called the Ghataprabha and Markandaya rivers. Gokak is a taluka head Quarter situated in on Naragund-Sankeshwar state highway. The Gokak City is at the distance of 65 kms from Belgaum City, 350 kms from Pune, 507 kms from Bangalore, 201 kms from Panaji and 126 kms from Hubli. The Belgaum Airport is 55 kms from Gokak City. The Hidakal Dam, Godachinamalaki, Gokak Falls are the nearest site seeing places.

ORGANIZATIONAL DETAILS:

Mr. V C Chinnappagowdar,
Municipal Commissioner, City Municipal Council, Sangolli Rayanna Circle, Gokak-591307
Tel : 08332-225003, Fax-227336 ; E-mail: itstaff_ulb_gokak@yahoo.com

CITY PROFILE:

Population	: 79121
Area in Sq kms	: 32.05
Density of Population	: 2468 Sq kms
Number of wards/zones	: 31
Number of Properties	: 22348
Number of KMF 24 registers	: 168
Number of KMF 25 registers	: 11

SITUATION BEFORE THE INITIATIVE:

- SAS and Water tax DCB with Random figures were given to accounts section while preparing Annual Performance Report.
- No proper records with respect to change in monthly demand on account of demolition of existing building, newly constructed building and new water tap connections.
- Wrong concept in respect of new building new water tap connection-. Bill collectors had wrong understanding that demand in respect of newly constructed building and new water tap connection was to be taken from subsequent year.
- Reports of such properties or such connections were maintained in informal books for which specific records like KMF 13.13A, KMF 27 are available in KMABR 2006
- Difference in the DCB report given by revenue section

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

- **Compulsory maintenance of KMF 24:**
  According to KMABR 2006 rule 53(1)(a) property register should be maintained in KMF 24 which itself is Form III Register from 2006-07. But most of the properties were recorded in old Form III Register as per rule 20 of old accounting rules. So all the properties recorded in old Form III register were re-recorded in KMF 24 from 2007-08. The same were re-written as per PID numbers from the year 2013-14 for a period of 5 years.

- **Training to Revenue staff :**
  The bill collectors, Tax Consultants and Revenue Inspectors were trained on continuous bases by Experts, Account Superintendent, Senior Programmer, Revenue officers, Office Manager about the KMABR 2006 rule 52 to 71, SAS form filling procedure, Tax Calculation procedure, making of CAL, procedure of issuing notice, procedure of revising tax rate as per section 94,102-A of KM ACT 1964, writing of KMF16.16A,13, 13A,27,24,25 of KMABR 2006

- **Monthly review on change in demand of SAS and water**
  Review meeting is conducted by the Commissioner to verify the change in Demand of SAS and Water charges. KMF 27 written by Revenue Inspector is verified to examine whether the newly constructed building or Demolition of old Building or New Water tap connection is updated in their respective property registers. Based on KMF 27, KMF 13A is prepared and submitted to accounts section to update revised change in SAS and Water Tax Demand in the E-Gov Financials.

- **Updation of DCBs by Staff and Consultants :**
  To Record 16236 numbers of Authorized properties, 6112 Number of Un-Authorized properties, 9220 Number of Water tap connections 168 number of KMF 24, 11 Number of KMF 25 are utilized. These properties are updated to post SAS tax collected from banks, to record the change in properties based on KMF 27 on Monthly basis. Revenue staff and Tax Consultants updated these registers to facilitate the public to get their updated Form III.

- **Co -ordination in revenue and accounts section**
  With the implementation of Fund Based accounting system it is obligatory on the part of Revenue and Account section to have perfect co-ordination between them. Revenue staff works on the advice of account staff so that all Records of Revenue Section be at par with KMABR 2006. One to one meeting is held every week to see if bank challans are collected and recorded in collection registers.

- **Daily collection -bifurcation year wise, ward wise of bank challans and recording in KMF 16a**
  ULB has 7 SAS collecting banks from which bank challans are collected daily by revenue staff. These challans are bifurcated year wise and recorded in bank wise KMF 16A register. The summary of this is recorded in KMF 20 and handed over to account section upon which accounts section pass receipt voucher in corresponding bank book.

- **Monthly bank reconciliation of SAS bank accounts by accounts section**
  Large amount of SAS challans are collected and recorded as above by revenue staff. At the end of each month bank pass sheet is collected from bank to reconcile balance as per our book and balance with bank. Each entry is verified from KMF 16A and bank pass book if there is a difference. During reconciliation mistakes done by revenue staff or wrong entry passed by banker is ascertained and such mistakes are immediately got corrected by account staff.

- **Year end reconciliation of DCB**

  At the end of each year, the SAS and water DCBs i.e. KMF 24 and KMF 25 are manually counted page wise and book wise, and finally bill collector wise count is obtained. The grand total of all bill collectors is compared with figures shown in Trial balance KMF 75 and consolidated DCB KMF 76. If there is a difference in them, staff of both revenue and accounts section sit together to rectify the mistakes if any. Finally accurate DCB fingers are obtained which are incorporated in reports like annual performance report. Audit reports. Administrative reports.etc.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- **Updated DCB and issuing Form III with updated data:**

  The most important property record issued to public is form III. Due to this best practice we are now able to issue this record in updated form. Monthly change in demand is also made available, the figures in DCBs are also gets changed

- **Updated record of KMF 27 for change in monthly SAS and water demand**

  Recording of KMF 27 is made compulsory to revenue section. So that accurate data is made available for monthly reports. From this record data completion certificates issued. Tax collected on account of completion of buildings, number of buildings constructed, no. of vacant properties reduced, no of vacant properties added due to new layouts, no of new water taps connections given, amount collected as connection charges during one month is accurately available.

- **Accurate DCB figures in manual DCB and DCB in KMF 76 in e-gov software**

  Due to availability of KMF 27, day to day postings of tax collected in DCBs are possible. It is possible to have accurate figures of outstanding balance of receivable of tax amount given by revenue section from KMF 25 and KMF 24 which tallies with figures available in KMF 75 and KMF 76.

2014–15 ನೇ ಸಾಲಿನ ನೀರಿನ ಕರದ ಕ್ರೂಢೀಕೃತ ಬೇಡಿಕೆ ಪಟ್ಟಿ (ಕೆ.ಎಂ.ಎಫ್. 25)

		01–04–2014 ರ ಆರಂಭದ ಬಾಕಿ					ವಸೂಲಾತಿ					31–03–2015 ಕ್ಕೆ ಬಾಕಿ				
ಅ. ನಂ.	ವಸೂಲಿ ಸಹಾಯಕರ ಹೆಸರು	2011–12	2012–13	2013–14	ಒಟ್ಟು ಆರಂಭದ ಬಾಕಿ	**2014–15 ರ ಬೇಡಿಕೆ**	2011–12	2012–13	2013–14	2014–15	**ಒಟ್ಟು ವಸೂಲಿ**	2011–12	2012–13	2013–14	2014–15	ಒಟ್ಟು ಬಾಕಿ
1	ಎಂ.ಎ.ಗಂಗನ್ನವರ	469577	345832	652480	1467889	2366415	65599	94531	283360	1766245	2209735	403978	251301	369120	600170	1624569
2	ಎಸ್.ವಾಯ್. ಬಬಲಿ–1	46647	42097	174810	263554	1364280	456	8140	79170	1161480	1249246	46191	33957	95640	202800	378588
3	ಎಸ್.ವಾಯ್. ಬಬಲಿ–2	144905	42480	116000	303385	1563623	9360	9360	56400	1272600	1347720	135545	33120	59600	291023	519288
4	ಜೆ.ಡಿ.ಗೋಶೇದ	55584	148972	392663	597219	2555796	26064	85612	269337	2309364	2690377	29520	63360	123326	246432	462638
5	ಎಸ್.ಎಂ.ಚಂದರಗಿ	28296	54416	640620	723332	3335206	16710	41096	532180	2958960	3548946	11586	13320	108440	376246	509592
6	ವಾಯ್.ಎಚ್. ಶಿಪ್ರಿ	74294	85197	140330	299821	1641720	5880	10960	47910	1428190	1492940	68414	74237	92420	213530	448601
7	ವಾಯ್.ಎಚ್. ಶಿಪ್ರಿ (ಎ.ಎ.ಎಚ್.)	30150	47880	282245	360275	1570080	6570	19080	166100	1177520	1369270	23580	28800	116145	392560	561085
		849453	**766874**	**2399148**	**4015475**	**14397120**	**130639**	**268779**	**1434457**	**12074359**	**13908234**	**718814**	**498095**	**964691**	**2322761**	**4504361**

CONSOLIDATED PROPERTY TAX DCB 2014-15-KMF 24

Name of the Bill Collector	OB			Demand			Collection			Adjustment			CB		
	Tax	Cess	TOTAL	Tax	Cess	TOTAL	Tax	Cess	TOTAL	Tax	Cess	TOTAL	Tax	Cess	TOTAL
S M Chandaragi	3482026	872726	4354752	4183787	1087287	5271074	5758487	1495432	7253919	226403	58865	285268	1680923	405716	2086639
S Y Babali-1	1714392	429839	2144231	1251022	325288	1576310	1597046	413710	2010756	-437716	-113219	-550935	1806084	454636	2260720
S Y Babali-2	1524888	363049	1887937	693933	180444	874377	695254	180499	875753	-43155	-10915	-54070	1566722	373909	1940631
J D Gothed	1867771	458604	2326375	2111019	548624	2659643	2166028	563119	2729147	0	0	0	1812762	444109	2256871
M A Gangannavar	2858033	666548	3524581	7776608	2021722	9798330	7657068	1988009	9645077	-586029	-151885	-737914	3563602	852146	4415748
Y H Shipri-1	1626424	414882	2041306	1255102	326413	1581515	1137709	295805	1433514	0	0	0	1743817	445490	2189307
Y H Shipri-2 (AAH)	596042	154851	750893	439156	114189	553345	367283	94980	462263	0	0	0	667915	174060	841975
Total	**13669576**	**3360499**	**17030075**	**17710627**	**4603967**	**22314594**	**19378875**	**5031554**	**24410429**	**-840497**	**-217154**	**-1057651**	**12841825**	**3150066**	**15991891**

CONSOLIDATED DCB GENERATED IN E-GOV SOFTWARE

KMF NO 76
(Rule 124(2))

Consolidated statement of Demand, Collection and Balance from 01/04/2014 to 31/03/2015

Type of Revenue Item	Year-wise Particulars	Opening Balance for the month	Increase in demand during the month	Decrease in demand during the month	Collections during the month	Closing balance for the month
Property Tax	2009-10	2730954.00	0.00	0.00	567400.00	2163554.00
	2010-11	3045818.00	0.00	0.00	244651.00	2801167.00
	2011-12	2316901.00	0.00	0.00	447324.00	1869577.00
	2012-13	3319543.00	0.00	0.00	833542.00	2486001.00
	2013-14	5616859.00	0.00	0.00	2669652.00	2947207.00
	2014-15	0.00	23372245.00	0.00	19647860.00	3724385.00
	Total	**17030075.00**	**23372245.00**	**0.00**	**24410429.00**	**15991891.00**
Water Charges	2011-12	849453.00	0.00	15865.00	114774.00	718814.00
	2012-13	766874.00	0.00	58550.00	210229.00	498095.00
	2013-14	2399148.00	47685.00	1440.00	1480702.00	964691.00
	2014-15	0.00	14422410.00	1440.00	12098209.00	2322761.00
	Total	**4015475.00**	**14470095.00**	**77295.00**	**13903914.00**	**4504361.00**

- **Verification of figures from kmf 14.16,16a.27.13 .24.25 become easier**

  All the bill collectors and tax consultants are well versed with the recording of registers like KMF 16,16A,27,24,25 and receipt passed on KMF 24 or amount collected through banks can easily be verified as DCB page no are recorded on both receipts and collection registers.

- **Increase in SAS and water demand.**
  Before implementation of FBAS demand for SAS and Water demand remained same over many years or previous year demand was given as current year demand. But due the adoption of this practice demand of property and water tax changed accordingly.

Rs. in lakhs

WATER TAX	2010-11	2011-12	2012-13	2013-14	2014-15
OB	14.83	14.93	15.01	23.22	40.15
DEMAND	77.26	80.04	134.02	136.34	143.97
TOTAL	92.09	94.97	149.03	159.56	184.12
COLLECTION	77.16	79.96	125.81	119.41	139.08
CB	14.93	15.01	23.22	40.15	45.04
SAS	2010-11	2011-12	2012-13	2013-14	2014-15
OB	161.44	192.00	140.49	203.55	170.36
DEMAND	183.74	181.82	195.28	204.73	223.14
TOTAL	388.74	373.81	335.77	408.28	393.50
COLLECTION	196.74	233.32	132.22	237.98	233.59
CB	192.00	140.49	203.55	170.30	159.91

- **Publication of property tax register-**
  Property tax register in KMF 24 and water tax register in KMF 25 is updated on day to day basis and public notices are being given for inspection of such registers in the revenue section during 4 pm to 6 pm on every Saturday. Revenue Inspector has been assigned this duty to show such register to public. The changes if any are immediately carried out immediately on submission of proper records by the property holder.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

- Team work of Revenue staff, Consultants, Accounts staff.
- Property tax registers are public documents. They are kept for public inspection on every Saturday. This makes pubic to inspect such registers so this can be treated as PPP module register.
- Auditing staff appointed by GOK and Statutory auditors have expressed satisfaction with the proper maintenance of record.
- Reconciliation of SAS bank accounts is very hard and Hercules task but this initiative makes reconciliation of SAS bank accounts very easier and bankers do take care of the entries in our accounts.

PROBLEMS FACED:

- **Resistance from staff**
  Most of the staff is of the opinion that SAS is the tax paid by the tax payer and they are nothing to do with this system. Some also argue that there is no SAS demand as its self assessment tax system.

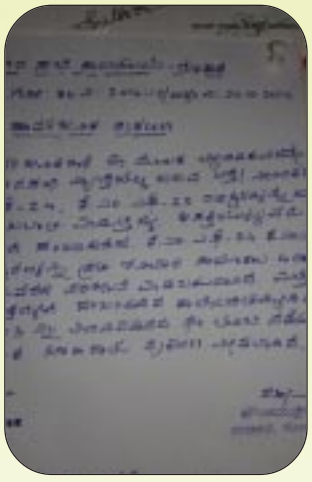
- **Partial co-operation from bankers**
  Many banks were not ready to give tax challans on daily basis. Some banks were entering total

collection for the day in the pass book instead of individual entry. Meetings were conducted to banks to convinced & co-operate. Surplus funds were given as Deposits to encourage such bankers.

- **Lack of knowledge of rules and procedure**
  Most staff was unaware about the rules, Acts, Principles and procedures in respect of Property tax, Water charges, Transfer of ownership titles etc. So they are given extensive training from expert staff.

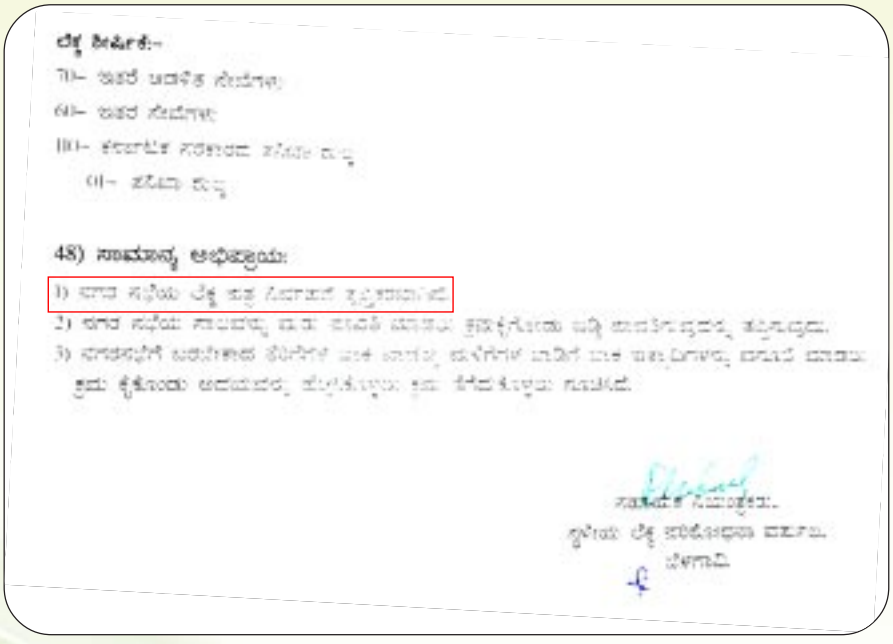
SUSTAINABILITY:

This initiative is sustainable as all staff are well versed with all the registers, Rules, Circulars etc. And one to one meeting is held every month by the commissioner to have continuous updation of all registers and forms as per KMABR 2006. All the ULBs are adopting the system.



Public Notice For Dcb Inspection In 2014 And 2015

Public Inspectring Property Record
In Revenue Section



SATISFACTION ON REVENUE ACCOUNTING AND MAINTENANCE OF BOOKS BY ACLAC BELGAUM IN IS CONCLUSION PARA OF AUDIT REPORT 2013-14 AND 2014-15

TRAINING TO REVENU STAFF IN RESPECT OF UPDATION REGISTERS

Training To Revenu Staff And Tax Consultants In Respect Of Filling Of Sas Forms

Senior Programmer Guiding Sas Staff On Online Tax Application

Commissioner Reviewing Sas Forms

Day To Day Posting Of Tax Collected To Kmf 24/25

Upadation Of Dcb Register With The Help Of Tax Consulantants

Arrangement Of Ward Wise Dcb Registers By Revenue Staff

Ex President Inspectring His Property Record In Revenue Section

Reconcilation Of Sas Bank Accounts In Account Section With Revenue Staff

BEAUTIFICATION OF CITY - DEVELOPMENT OF PARKS

By Gokak CMC

Year of implementation : 2013-14
Year of Completion : 2014-15

BRIEF ABOUT THE CITY:

Gokak City is situated at latitude 16°-10° North and Longitude 74° -50° East and altitude of nearly 625 meters above mean sea level in the northern slope of the basin of water course called the Ghataprabha and Markandaya rivers. Gokak is a taluka head Quarter situated in on Naragund-Sankeshwar state highway. The Gokak City is at the distance of 65 kms from Belgaum City. The Hidakal Dam, Godachinamalaki, Gokak Falls are the nearest site seeing places. Gokak is famous for well known sweet Gokak Karadantu.

ORGANIZATIONAL DETAILS:

Sri V C Chinnappagowdar,
Municipal Commissioner, City Municipal Council, Sangolli Rayanna Circle, Gokak-591307,
Tel : 08332-225003 Fax-227336,Email : itstaff_ulb_gokak@yahoo.com

CITY PROFILE:

Population : 79121
Area in Sq kms : 32.05
Density of Population : 2468 Sq kms
Number of wards/zones : 31
Number of Properties : 22348

SITUATION BEFORE THE INITIATIVE:

There were no gardens in the city limit. The lands reserve for garden in the city was left unattended and there was no maintenance for long time. As a result all shrubs and thorny jungle trees were grown in the parks. The garbage was thrown by the public in these parks and attracted the stray dogs and pigs.

Development of Public Park in Dixit Colony R.S.No.204/1 at W.No.15 under TPBG, Municipal Fund and SFC Untied Fund 2013-14 (Rs.44.00 lakhs)

BEFORE

AFTER

Development of Public Park in Basav Nagar R.S.No.189 at W.No.14 under CMSMTDP Fund 2009-10 (Rs.8.00 lakhs)

BEFORE

AFTER

Development of Public Park in Aditya Nagar at W.No.13 under 13th Finance Grant and Municipal Fund 2010-11 (Rs.18.00 lakhs)

BEFORE

AFTER

Development of Public Park near LET College in Aditya Nagar at W.No.13 under 13th Finance Grant and Municipal Fund 2012-13 (Rs.10.69 lakhs)

BEFORE

AFTER

Development of Public Park in Vidya nagar R.S.No.182 at W.No.14 under 13th Finance Grant 2011-12 (Rs.10.68 lakhs)

BEFORE

AFTER

Development of Public Park in Vidya nagar State Bank Colony R.S.No.177/3B at W.No.14 under SFC Incentive 2011-12 and 13th Finance Grant 2012-13 & 2013-14 (Rs.26.56 lakhs)

BEFORE

AFTER

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

CMC Official took interest to cleanup this unattended land. The aim was to convert it to beautiful Garden. For this activity, detailed survey of the area was carried out Gokak CMC and called for tender. The work was awarded it to the contractor. The contractor worked as per the plans and instructions from the ULB Engineer. The project was funded by partially by Town Planning Authority Gokak and the remaining amount was utilized under SFC Grant, 13th Finance and Municipal Fund of the Gokak CMC.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- The parks are the essential need for the public and the parks developed are satisfying the needs of public especially children and senior citizen recreational activities
- It is an important asset for ULB
- It enhanced the beauty and environment of the city
- The value of the assets/rent of houses drastically increased after the development of parks

PARTNERS' INFORMATION:

Development Planning Authority supported CMC in funding this initiative.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE:

Naturally available slope of the area was used for the development of parks / garden. Locally available materials are used for beautification of the garden. There is a open theatre available at the garden for conducting small gatherings and events.

PROBLEMS FACED :

Inadequate records management of park sites. The park places were misused by public. The Municipal authorities, the president and in consultation with members and public took a decision to develop the parks.

SUSTAINABILITY:

Revenue generation by collecting fees for using open theatre in the parks.

TRANSFERABILITY:

Other ULBs replicate this initiative as it enhances the beauty of the city and also generates revenue for the ULB. ULBs Bailhongal, Nippani, Ramadurg and Haveri ULBs have visited the parks and want to replicate the same in their ULBs.

DRY WASTE TO ENERGY (RDF)

By Bagalkot CMC

Year of implementation : 2014-15
Year of Completion : 2015-March

BRIEF ABOUT THE CITY:

Bagalkot city partially submerged under upper Krishna project of Almatti reservoir . The city is divided into old Bagalkot (18 wards) Navnagar (9 wards) Vidayagiri (3 wards) & Haveli (1 ward) of 4 wards under Bagalkot CMC having Total 31 wards out of which Bagalkot town development authority (BTDA) developed Navanagar step by step and handed over to CMC .

ORGANIZATIONAL DETAILS:

Sri. S.N. Rudresh
Commissioner CMC Bagalkot
Tel: 08354-235011, Mob: 9243244748, Email : itstaff_ulb_bagalkote@yahoo.co.in.

CITY PROFILE:

Population : 1, 20, 000
Area in Sq kms : 61.10
Number of wards/zones : 31 Wards
Number of Properties : 39000

SITUATION BEFORE THE INITIATIVE:

House to house waste collection practice.

Dumper placers were used to collect waste.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

- In Bagalkot nearly 20 MSW vehicles have adopted GPS tracking System
- Distribution of two colored bins Green & Yellow for separate wet and dry collection
- Waste Segregating machine is installed in the SWM process site
- Waste is picked up using lifters in the SWM site
- MSW disposal is managed systematically
- Biomedical waste is collected and disposed as per the regulations.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE.

- The wet waste generated is sufficient enough to generate organic manure. Since July 2015 about one ton of organic manure was generated from wet waste. The manure is sold to farmers Rs.1000 per ton.
- 20 Ton per day (TPD) capacity sorting and processing machine is deployed to segregate dry and wet waste. Shredder is used to shred the plastics and bailed with the help of bailing machine to convert them into square blocks of compact RDF material, which is sent to JK Cement Factory at Lokapur. About two tons of plastic waste is sold at Rs.5000/month to this factory.

PROBLEMS FACED :

Bagalkot Cement Factory which is located nearby was contacted to pick up the RDF Material but, as there was no response from them, JK Cement Factory was contacted to send the dry waste collected from the municipality.

SUSTAINABILITY:

- The GPS System installed in the MSW Collection Vehicles is helpful in tracking the vehicles and managing the transit accurately.
- The door to door segregation and collection of wet and dry waste helps in proper utility for making manure and RDF Material.
- Plastic bailing machine at SWM site helps in compacting the RDF Material and the waste loader is a compact machine which helps in effective loading without spillage.
- The revenue of RS.5000/month is generated by selling the RDF material to cement factory.

TRANSFERABILITY:

- Usage of dry waste as a RDF Material can be replicated in any City/Town where a cement / construction material factory or industry is located.
- Similar activity can be followed by all the 11 ULBs situated in Bagalkot District and can be linked to JK Cement for the supply of RDF Material on a regular basis.

ENERGY CONSERVATION AND EFFICIENCY BY LED LIGHTS

By BasavanaBagewadi TMC

Year of implementation : 2014-15
Year of Completion : 2015-16

BRIEF ABOUT THE CITY:

Basavana Bagewadi TMC was constituted in 1973. Basavana Bagewadi town is a historic place where spiritual guru Sri Basavna was born.

ORGANIZATIONAL DETAILS :

Sri B.A.Soudagar, C
Chief officer, Basavana Bagewadi TMC,
Tel: 9448392005,08358244243, Email : itstaff_ulb_basavanabagewadi@yahoo.com

CITY PROFILE:

Population	: 33,198
Area in sq kms	: 10.20 sq kms
Density of Population	:3254
Number of wards/zone	:23
Number of Properties	:7789

SITUATION BEFORE THE INITIATIVE :

In Basavana Bagewadi town totally 992 nos. of 40 watt tube light, 445 nos. of 250 watt high pressure sodium bulbs & 50 nos. of 400 watt high masts light was fixed. The monthly Energy consumption was about 2-3 lakhs.

DESCRIPTION OF THE INITIATIVE / IMPLEMENTATION STRATEGY:

75 watt & 150 watt LED LIGHTS :

ULB provided the existing details of street lights along with monthly energy consumption data of one year, town map & street details indicating the location of poles & high Masts to KREDL. KREDL Hubli through M/S. Servotech Power System pvt. Ltd Delhi purchased the required 505 Nos. of 75 watt LED Luminaries / Street Lights with standard fixing arms & 24 nos. of 150 watt LED Lights. The tube lights, sodium & high Masts lamps which were fixed on the main streets, wards were replaced with LED Luminaries / Street Lights with standard fixing arms. It was the big achievement of TMC **BASAVANABAGEWADI TMC as it was the first to fix the LED Lights in whole Karnataka.**

As a measure of Energy Efficiency & Energy Conservation, the Government of Karnataka with the support of Ministry Power, through Bureau Energy Efficiency (BEE) replaced the existing high pressure sodium vapour Lamps / Mercury Lamp Street lights, high masts by LED Luminaries / Street Lights with standard fixing arms with the help of state Nodal Agency-KREDL.

BENEFITS DERIVED FROM IMPLEMENTING THE INITIATIVE :

The benefit by implementing this initiative is Energy saving. The energy consumption has come down to 50-60 thousand rupees. It is very cost effective.

INNOVATIVE CHARACTERISTIC ABOUT THIS INITIATIVE :

LED Lights are very cost effective. The brightness and the structure is very good. The most important innovative characteristic thing is Energy Saving and low cost for maintenance & repair.

PROBLEMS FACED :

TMC limit has approximately 2000 nos street poles and about 785 poles fixed with 250 watt & 400 watt sodium lamps. Under the initiative only 505 nos of 75 watt LED & 24 nos of 150 watt Luminaries/Street Lights with standard fixing arms is fixed in the ULB.

There is a demand for more LED Lights from other wards of Council Members & people for more LED LIGHTS. Requisition to KREDL HUBLI has been given to provide another 800 nos (75 watt LED LIGHTS) to meet the demand of other wards.

TRANSFERABILITY:

- All the ULBs should give a thought on Energy Efficiency & Energy Conservation and replace the lamps/lights by LED LIGHTS for energy saving.
- Other than TMC BASAVANABAGEWADI, ANNIGERI TMC has also adopted the Initiative.




CMAK Invites all the Line Departments under Urban Development Department and Urban Local Bodies of Karnataka to participate actively in the Best Practice Program and share their intiatives.

ಸಿಟಿ ಮ್ಯಾನೇಜರ್ಸ್ ಅಸೋಸಿಯೇಷನ್, ಕರ್ನಾಟಕವು ಉತ್ತಮ ಪದ್ಧತಿ ದಾಖಲೀಕರಣ ಕಾರ್ಯಕ್ರಮಕ್ಕೆ ವಿವಿಧ ಕಾರ್ಯಕಾರಿ ಇಲಾಖೆಗಳ ಐ.ಎ.ಎಸ್. ಅಧಿಕಾರಿಗಳು ಹಾಗೂ ವಿವಿಧ ಹಿನ್ನೆಲೆಯುಳ್ಳ ವೈಯಕ್ತಿಕ ತಜ್ಞರನ್ನೊಳಗೊಂಡ ಒಂದು ಸಲಹಾಸಮಿತಿಯನ್ನು ರಚಿಸಿತು. ಈ ಸಮಿತಿಯು ದಾಖಲೀಕರಣ ಮತ್ತು ಪ್ರಶಸ್ತಿಯ ಪ್ರಕ್ರಿಯೆಯನ್ನು ಪರಿಶೀಲಿಸುತ್ತದೆ.

ABOUT CMAK

CMAK was registered in December 2002 under the Karnataka Societies Registration Act 1960 . CMAK is a membership based professional body of City Managers` and Urban Planners, which works to strengthen and enhance the capacities of ULBs, and Association members in Urban Planning, Management and Development. We believe in effectively utilizing and encouraging the existing expertise in urban development with a focus on innovative practices, trends and concepts.

OBJECTIVES

1. To strengthen the quality of Local Government through professional management
2. To provide knowledge and skills which are common to all city managers
3. To continue professional development for persons in urban management positions
4. To share information and experiences in city management practices
5. To assess international information on developing technologies and best management practices.

OUR MISSION

To provide a platform for City Managers and urban professionals to interact and bring forth best practices, disseminate information and act as a knowledge house for urban issues and provide opportunities for City Managers to acquire qualities and skills in order to act as leaders of change for better urban life for the whole community.

"SMALL ACTS, WHEN MULTIPLIED BY MILLIONS OF PEOPLE, CAN TRANSFORM THE WORLD"

City Managers' Association, Karnataka.(CMAK)

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