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Bruhat Bangalore Mahanagara Palike

Recommendations of the Bruhat Bangalore Mahanagara Palike Expert Committee on Municipal Waste Management 24th May 2013

A FUTURE WITH

NO LANDFILLS

o/c.

Recommendations of The Expert Committee on
Municipal Waste Management by Bruhat Bengaluru Mahanagara Palike

A Future with No Landfills

A Report defining Guiding Principles to handle the SWM Crisis in Bangalore drafted by the Expert Committee, attaching all the Annexures and recommendations made to BBMP with reference to policy and programs from the inception of the Committee.

Background

Government of Karnataka, Urban Development Department, constituted an Expert Committee (XC) on 14.9.2012 (Annexure A), with the BBMP Commissioner as Chairman and seven subject-expert members who were informed of this in late October. The XC first met on 17 November 2012.

The Expert Committee wishes to submit to the Honorable High Court of Karnataka a short note defining its vision of Zero Waste to landfills, designed to eliminate the practice of sending unlimited trash to landfills and incinerators. The crisis in Bangalore in August 2012, wherein the KSPCB ordered the mavalipura Landfil to temporarily stop accepting waste to enable site cleanup. This brought the deep rooted issues of waste handling to the fore and we believe this has been an opportunity to suggest systemic corrections. The crisis was caused due to indiscriminate dumping of mixed waste to the compost plants for a tipping fee, with no processing, nor any treatment of the leachate to prevent ground water contamination and pollution. Further, the projects based on burn technologies to convert Waste to Energy have not been successful anywhere in the Country.

Effective Solid Waste Management (SWM) requires setting the priorities by analyzing the reasons for present problems of waste management. An analysis of problems and problem areas (Table) reveal that the present SWM situation is a sub-standard, inefficient and dysfunctional system hampered by serious organizational and technical issues.

Table: Causes for Inefficient management of MSW

Problem Area	Problems
1. Policy & Legislative	Lack of framework and vision Incomplete legislation Lack of monitoring & enforcement
2. Institutional/Organizational	Lack of SWM division in BBMP Roles & responsibilities not defined Dual responsibility of SWM staff Lack of use of economic instruments Inappropriate conditions for private sector participation
3. Technical/operational	Improper organization /coverage for waste collection and transfer from primary to secondary transport vehicles Lack of standards for MSW collection, treatment & disposal Lack of pre-treatment & treatment facilities Lack of segregation of wastes at source Inefficient operation of processing units and landfills Lack of separate collection system for special wastes like debris, garden waste Lack of organized market for recyclables
4. Financial Issues	Low municipal cost recovery Lack of sufficient funds for SWM infrastructure Lack of economic instruments to bring change Lack of standards for involvement of private sector Lack of incentives for market development
5. Human Resources	Lack of dedicated team responsible for SWM Lack of trained staff Weak monitoring / enforcement capability Lack of standards to assess quality of service Lack of responsibility & accountability Lack of well defined command chain
6. Public Awareness/Stakeholders	Lack of public awareness strategy with the general public Lack of communication at all levels with the stake holders Lack of capacity building and framework for training and skill enhancement

The XC recommends moving towards zero waste systems designed not as personal choices, but as organized systems that work at multiple levels including the community, municipality, State and finally the Nation. Zero waste systems include guidelines on processing either through composting or bio-gas (*not incineration*), recycling, reuse of recyclables, and education on how to separate materials into categories that can then be managed as per the Laws and Procedures governing the specific category.

GUIDING PRINCIPLES FOR POLICY FRAMEWORK

The Guiding principle for an improved Solid Waste Management (SWM) system is the concept of Integrated Sustainable Waste Management (ISWM) where Sustainable means a system that is:

- appropriate to the local conditions in which it operates, from a technical, social, economic, financial, institutional, and environmental perspective, and
- able to maintain itself over time without reducing the resources it needs

and Integrated refers to a system that:

- uses a range of inter-related collection and treatment options, at different habitat scales (household, neighborhood, city)
- involves all stakeholders, be they governmental or non-governmental, formal or informal, profit- or non-profit oriented
- takes into account interactions between the waste management system and other urban systems.

In the light of current MSW crisis of Bengaluru and the directions of the Karnataka High Court and Lok Adalat in several court cases, BBMP should take the lead in making SWM move towards a more sustainably managed system. Efficient delivery of SWM requires proper strategies and action plans with targets. The key principles that BBMP needs to adopt for a proper SWM plan include:

- Incorporate principles of sustainable development
- Define and implement waste hierarchy (reduction, reuse, recycling, recovery & disposal)

- Define producer responsibility and require accountability
- Incorporate polluter pay principles
- Use best practicable environmental options
- Define roles & responsibilities for stake holders

This demands involvement of all stakeholders - governments, elected representatives, citizens and other groups for making it work.

To define the policy framework, the Expert Committee has listed below guiding principles that need to be adopted to impact all aspects governing the management of SWM – Source segregation – Collection – Transportation – Treatment – Disposal - Resource recovery (recyclables, compost, gas, etc.).

RECOMMENDATIONS:

A number of meetings were held among the expert committee members as well as with the BBMP officers. The proceedings reflect the discussions, recommendations and action points. The major recommendations needing immediate attention and implementation are as follows:

1. Policy & Legislative

1. The BBMP notification dated14.9.2012 (Annexure B) correctly spells out the waste handling procedures and destinations for six different streams and should be implemented on a time-bound basis.

2. The same BBMP Notification dt 15.9.2012 mandating segregation at source for all generators, needs to be implemented through the Request For Proposal (RFP) conditions in the tender document.

3. The Government, specially Department of Ecology & Environment / KSPCB may mandate a State Policy on Extended Producer Responsibility (EPR)

4. The Expert Committee would like to point to the SAARC Dhaka Protocol, signed by India (Annexure C) and ensure that benchmarks are set to define frameworks for techno-

economic viability in local and decentralized solutions for different processes and solutions

5. A Draft Plan of Action for SWM to be drafted jointly and reviewed by the Expert Committee, as a Road map for Short-term and Long-term action plans. This plan should be made public and may include provisions for citizen consultation and feedback.

6. This SWM Action Plan after approval by city, State and citizens should remain in force unchanged for a full five years, and serve as guidance for 10 years so as to ensure continuity of focus and efforts and sustain a long-term vision of SWM in the City.

7. The XC would like to recommend that provision for managing SWM on-site be a pre-requisite for any building permissions from August 1, 2103.

8. BBMP policy of adopting 'Polluter Pays' principles to Bulk generators be implemented, as per their Notification dated 1.10.2012 (Annexure D)

9. Decentralized management and handling of waste, and moving away from centralized infrastructure

10. Maximize processing and recycling of dry waste through appropriate technologies for different waste streams, eg plastics, composites etc. Appropriate technologies like polymer fuel from laminates, shredding of plastic for roads to be encouraged through Extended Producers Responsibility.

11. BBMP should make it mandatory that their engineering wing will ensure use of Plastics in Bitumen for all road work within BBMP limits, following CPCB Guidelines PROBES/101/2005-06.

2. Institutional/Organizational

1. BBMP should have a separate MSW department/ Unit with staff dedicated solely to SWM

related work only. The organizational structure and the command chain evolved in a workshop of BBMP officers and Expert Committee members on 26.10.2012 (Annexure E) should be implemented forthwith.

2. The staff in the SWM unit should have no dual responsibility and be wholly dedicated to work relating to SWM only.

3. Steps be initiated to recruit and fill all vacant posts of 4000 PouraKarmikas (PKs) etc.

3. Technical/operational

1. To ensure segregation that is effective, BBMP must stipulate collection of special categories of waste in a phased manner with timelines committed and mandated by the Hon'ble High Court.

2. BBMP should unload daily wet waste and mixed waste separately as per MSW Rules Sec II (5). Night unloading must be phased out at the earliest, else evening collection resorted to, so that wastes do not rot within the vehicles and become hard to compost suitably after unloading. All waste must be unloaded in windrows and systems for stabilizing organic waste must be adopted with immediate effect and monitored

3. BBMP may identify one or more parks in each ward where fallen leaves from street sweepings and garden waste can be composted and used onsite. Shredders may be installed experimentally in a few parks to aid the process of mulching the leaves and branches to reduce the time taken for composting.

4. BBMP must define a policy for Construction and Demolition (C&D) waste, and also encourage the recycling of construction and demolition C&D waste as sub grade for minor roads and for brickmaking. Abandoned quarries may be suitable for setting up PPP recycling yards for C&D waste. Public notices to ensure citizens are regularly made aware of these locations.

5. BBMP to identify suitable ward wise unloading-cum-pickup points for household sanitary / biomedical waste. Both Government, Municipal and private hospitals may need to be involved as transit pickup points for such waste at the initial stages. The Expert Committee recommends that KSPCB play a key role in approving the final methodology for disposal as per the Bio-medical Rules and approve and authorize the installed facilities to process and treat the same.

6. BBMP may identify suitable systems for ward-wise collection, transit and dispatch of e-waste and household hazardous waste at least once in three months. KSPCB should play a key role in approving the final methodology

7. The Expert Committee has made recommendations to the approach of the tender moving from a transport tender to a collect, transport and process tender. The directives of the Hon'ble High Court dated xxxxxx defining the Contractor terms of reference for BBMP, for PK's managed wards, and for no benaami Contractors are to be implemented. No contractor should service more than 5-6 wards and should not service the same area for more than one tender period.

8. A recommendation of 28 Constituency wise decentralized processing facilities has been proposed. Expert Committee recommends that 2 pilots should be set up where appropriate land is available, and the concept pilot-tested, before all others are taken up. KSPCB has been requested to set out criteria for such decentralized Yards, e.g. criteria for land per ton of waste, criteria for leachate treatment and regular ground water assessment etc.

9. The Expert Committee recommends that BBMP directly service at least 40% of the City through Pourakarmikas already in their employment. These wards should be identified separately, and labor must not be mixed, so that comparative performance can be assessed.

10. Since the City is in transition between contractors and systems, the Contract must retain the flexibility to make destination and process modifications on a time to time basis.

11. The Expert Committee strongly recommends the setting up of a third party monitoring mechanism to link performance with visual cleanliness and Contractor payment.

12. BBMP should urgently proceed to enlist scrap dealers/waste buyers/kabadiwalas who agree to accept ALL dry waste brought to them for sorting and sale in their normal course of business. In return for accepting all waste without being selective, the BBMP may provide them weekly pickup facilities for baled wastes unwanted by them. Such unwanteds can be used for "plastic roads' or polymer-to-fuel (P2F) or Alternate Fuel Resources (AFR) in cement kilns.

13. To keep citizen responsibilities at the local level strong, all domestic waste generated from each ward needs to be processed and managed within the boundaries of the ward

14. BBMP may incorporate suggestions made to the proposed MOU for a first shared services agreement to handle large organic waste from one category of generator.

4. Financial Issues

1. All new categories of waste require a pilot to study the quantification and be studied and vetted by the Expert Committee before calling tenders. To cover costs of collection a service fee model may be considered for special categories of waste. (e-waste, hazardous waste, etc)

2. The release of the Ward-wise grants to developmental work should be linked to the management status of MSW. Funds to the wards for other developmental work can be released only if MSW is properly managed as per norms.

3. The Expert Committee feels the entire Contract system should encourage segregation and processing and recycling, and move away from the tipping fee and transport system. The new system must mandate segregation at source with stringent penal action for non-

compliance. Separate destinations for organic processing, inerts to landfill, dry waste to Dry waste Collection Centers, domestic sanitary and bio-medical to authorized collection agents, green and leaf to Parks and debris to quarries. Delivering to specific local destinations with proof and weighment, will require 3rd party reporting built in, and citizen roles clearly outlined.

4. The Expert Committee Recommends that the in-situ + shared services quantum to be reduced from the total quantum of waste being processed by BBMP. This is essential to ensure there is no double counting and BBMP is not paying processing/tipping fee for waste being handled outside the BBMP mainstream. (Organisations will be encouraged if this transparency is brought)

5 . *In all new tenders and agreements, the tipping-fee concept must be replaced by a Support Price to the compost (or processed end-product), similar to the KCDC model.*

5. The market for waste management technologies for organic and recyclable waste processing is a nascent market in India and needs to be nurtured for capacity to be built. Expert Committee recommends that social enterprise and entrepreneurs be encouraged and incentivized to develop the market with support for subsidies and arrangements for "buy back" of compost etc for resource recovery and re-vitalization of soil nutrients.

6. It is the recommendation of the Expert Committee that the BBMP sets out an empanelment process and open up the criterion for specific collection and processing and set out conditions that encourage social enterprise, entrepreneurs and environmental companies to participate in collection, transfer, storage and recycling and processing using principles of decentralization. All non-performing vendors to be black-listed.

7. Volumetric weighing of segregated quantities, and GPS tracking for all transport to ensure weighment of all categories appropriately to be linked to payment.

Human Resources

1. Establish SWM Department within BBMP. The organization, command chain and responsibilities be as evolved during the workshop with the BBMP officials.

2. Ensuring adequate technical expertise in BBMP SWM cell, aided by a permanent set of subject matter Experts

3. Establish Third Party monitoring system.

6. Public Awareness/Stakeholders

1. A Communication Plan to educate and make citizens aware at all levels: about waste, their role and the programs of the BBMP, is appended in Annexure

2. A Training Plan to reach out to the Field Staff and Contract employees and the Officers of the BBMP on attitude and behavior change, re-skilling and process and systems of the New BBMP system .

3. A public awareness program to educate citizens about BBMP's SWM program, and enforcement to ensure compliance.

Expert Committee:

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Member

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Member

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Mr Basaviah (BASAVAIAH. C)
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Prof. Radhakrishna
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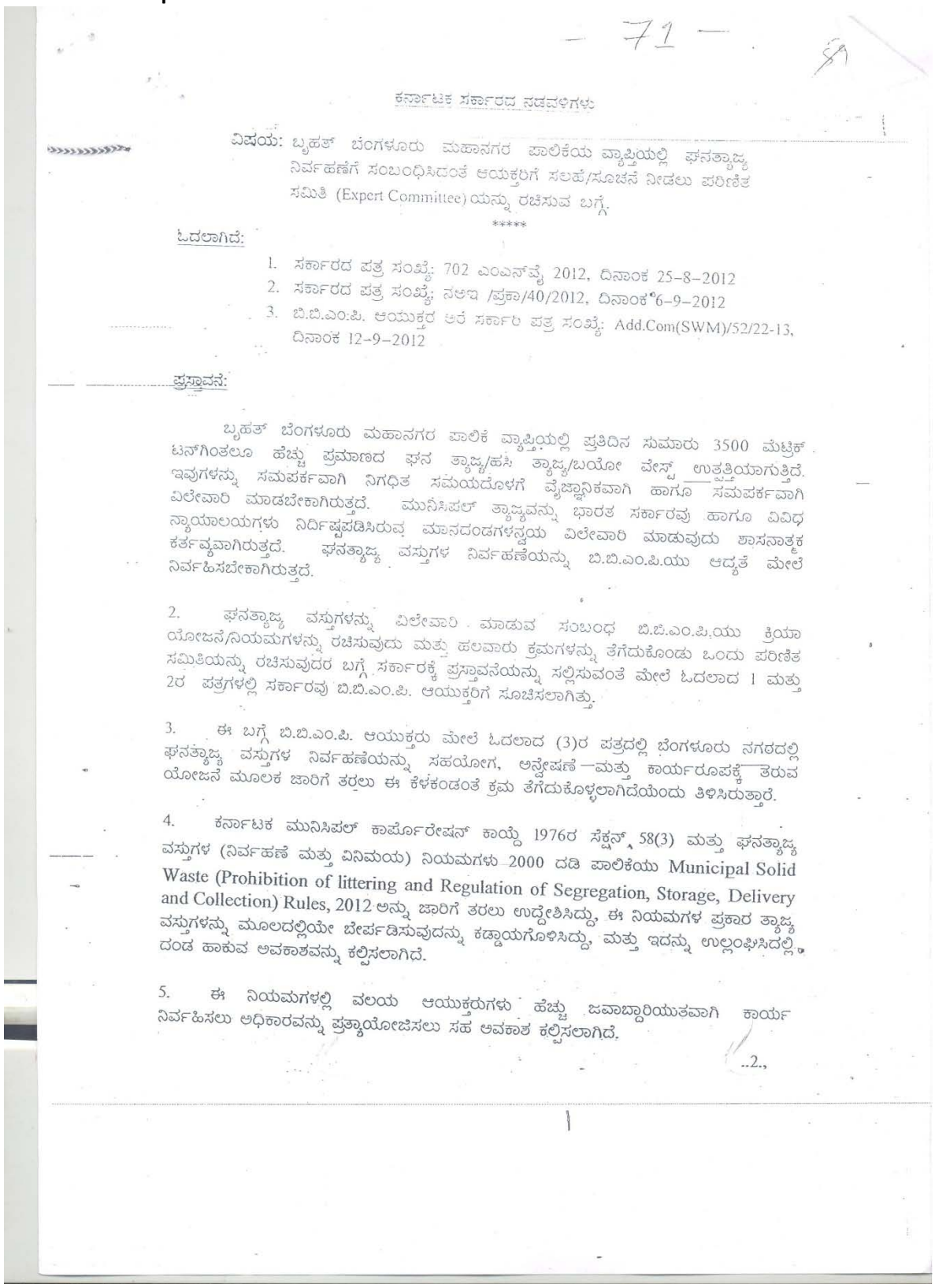
Mr Venkatesh Shekar
Member

Mr. Siddiah
(Chairman)

ANNEXURES

ANNEXURE A: Expert Committee



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ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ನಡವಳಿಗಳು

ವಿಷಯ: ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆಯ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಘನತ್ಯಾಜ್ಯ ನಿರ್ವಹಣೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಆಯುಕ್ತರಿಗೆ ಸಲಹೆ/ಸೂಚನೆ ನೀಡಲು ಪರಿಣಿತ ಸಮಿತಿ (Expert Committee) ಯನ್ನು ರಚಿಸುವ ಬಗ್ಗೆ.

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ಓದಲಾಗಿದೆ:

1. ಸರ್ಕಾರದ ಪತ್ರ ಸಂಖ್ಯೆ: 702 ಎಂಎನ್‌ವೈ 2012, ದಿನಾಂಕ 25-8-2012
2. ಸರ್ಕಾರದ ಪತ್ರ ಸಂಖ್ಯೆ: ನಅಇ /ಪ್ರಕಾ/40/2012, ದಿನಾಂಕ 6-9-2012
3. ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಆಯುಕ್ತರ ಆರ್ ಸರ್ಕಾರಿ ಪತ್ರ ಸಂಖ್ಯೆ: Add.Com(SWM)/52/22-13, ದಿನಾಂಕ 12-9-2012

ಪ್ರಸ್ತಾವನೆ:

ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಪ್ರತಿದಿನ ಸುಮಾರು 3500 ಮೆಟ್ರಿಕ್ ಟನ್‌ಗಿಂತಲೂ ಹೆಚ್ಚು ಪ್ರಮಾಣದ ಘನ ತ್ಯಾಜ್ಯ/ಹಸಿ ತ್ಯಾಜ್ಯ/ಬಯೋ ವೇಸ್ಟ್ ಉತ್ಪತ್ತಿಯಾಗುತ್ತಿದೆ. ಇವುಗಳನ್ನು ಸಮಪರ್ಕವಾಗಿ ನಿಗಧಿತ ಸಮಯದೊಳಗೆ ವೈಜ್ಞಾನಿಕವಾಗಿ ಹಾಗೂ ಸಮಪರ್ಕವಾಗಿ ವಿಲೇವಾರಿ ಮಾಡಬೇಕಾಗಿರುತ್ತದೆ. ಮುನಿಸಿಪಲ್ ತ್ಯಾಜ್ಯವನ್ನು ಭಾರತ ಸರ್ಕಾರವು ಹಾಗೂ ವಿವಿಧ ನ್ಯಾಯಾಲಯಗಳು ನಿರ್ದಿಷ್ಟಪಡಿಸಿರುವ ಮಾನದಂಡಗಳನ್ವಯ ವಿಲೇವಾರಿ ಮಾಡುವುದು ಶಾಸನಾತ್ಮಕ ಕರ್ತವ್ಯವಾಗಿರುತ್ತದೆ. ಘನತ್ಯಾಜ್ಯ ವಸ್ತುಗಳ ನಿರ್ವಹಣೆಯನ್ನು ಬಿ.ಬಿ.ಎಂ.ಪಿ.ಯು ಆದ್ಯತೆ ಮೇಲೆ ನಿರ್ವಹಿಸಬೇಕಾಗಿರುತ್ತದೆ.

2. ಘನತ್ಯಾಜ್ಯ ವಸ್ತುಗಳನ್ನು ವಿಲೇವಾರಿ ಮಾಡುವ ಸಂಬಂಧ ಬಿ.ಬಿ.ಎಂ.ಪಿ.ಯು ಕ್ರಿಯಾ ಯೋಜನೆ/ನಿಯಮಗಳನ್ನು ರಚಿಸುವುದು ಮತ್ತು ಹಲವಾರು ಕ್ರಮಗಳನ್ನು ತೆಗೆದುಕೊಂಡು ಒಂದು ಪರಿಣಿತ ಸಮಿತಿಯನ್ನು ರಚಿಸುವುದರ ಬಗ್ಗೆ ಸರ್ಕಾರಕ್ಕೆ ಪ್ರಸ್ತಾವನೆಯನ್ನು ಸಲ್ಲಿಸುವಂತೆ ಮೇಲೆ ಓದಲಾದ 1 ಮತ್ತು 2ರ ಪತ್ರಗಳಲ್ಲಿ ಸರ್ಕಾರವು ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಆಯುಕ್ತರಿಗೆ ಸೂಚಿಸಲಾಗಿತ್ತು.

3. ಈ ಬಗ್ಗೆ ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಆಯುಕ್ತರು ಮೇಲೆ ಓದಲಾದ (3)ರ ಪತ್ರದಲ್ಲಿ ಬೆಂಗಳೂರು ನಗರದಲ್ಲಿ ಘನತ್ಯಾಜ್ಯ ವಸ್ತುಗಳ ನಿರ್ವಹಣೆಯನ್ನು ಸಹಯೋಗ, ಅನ್ವೇಷಣೆ ಮತ್ತು ಕಾರ್ಯರೂಪಕ್ಕೆ ತರುವ ಯೋಜನೆ ಮೂಲಕ ಜಾರಿಗೆ ತರಲು ಈ ಕೆಳಕಂಡಂತೆ ಕ್ರಮ ತೆಗೆದುಕೊಳ್ಳಲಾಗಿದೆಯೆಂದು ತಿಳಿಸಿರುತ್ತಾರೆ.

4. ಕರ್ನಾಟಕ ಮುನಿಸಿಪಲ್ ಕಾರ್ಪೊರೇಷನ್ ಕಾಯ್ದೆ 1976ರ ಸೆಕ್ಷನ್ 58(3) ಮತ್ತು ಘನತ್ಯಾಜ್ಯ ವಸ್ತುಗಳ (ನಿರ್ವಹಣೆ ಮತ್ತು ವಿನಿಮಯ) ನಿಯಮಗಳು 2000 ದಡಿ ಪಾಲಿಕೆಯು Municipal Solid Waste (Prohibition of littering and Regulation of Segregation, Storage, Delivery and Collection) Rules, 2012 ಅನ್ನು ಜಾರಿಗೆ ತರಲು ಉದ್ದೇಶಿಸಿದ್ದು, ಈ ನಿಯಮಗಳ ಪ್ರಕಾರ ತ್ಯಾಜ್ಯ ವಸ್ತುಗಳನ್ನು ಮೂಲದಲ್ಲಿಯೇ ಬೇರ್ಪಡಿಸುವುದನ್ನು ಕಡ್ಡಾಯಗೊಳಿಸಿದ್ದು, ಮತ್ತು ಇದನ್ನು ಉಲ್ಲಂಘಿಸಿದಲ್ಲಿ ದಂಡ ಹಾಕುವ ಅವಕಾಶವನ್ನು ಕಲ್ಪಿಸಲಾಗಿದೆ.

5. ಈ ನಿಯಮಗಳಲ್ಲಿ ವಲಯ ಆಯುಕ್ತರುಗಳು ಹೆಚ್ಚು ಜವಾಬ್ದಾರಿಯುತವಾಗಿ ಕಾರ್ಯ ನಿರ್ವಹಿಸಲು ಅಧಿಕಾರವನ್ನು ಪ್ರತ್ಯಾಯೋಜಿಸಲು ಸಹ ಅವಕಾಶ ಕಲ್ಪಿಸಲಾಗಿದೆ.

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6. ಬೆಂಗಳೂರು ನಗರದಲ್ಲಿನ ಮನೆಗಳು, ಅಪಾರ್ಟ್‌ಮೆಂಟ್ ಸಂಕೀರ್ಣಗಳು, ಶಾಲೆಗಳು ಮತ್ತು ಸಾರ್ವಜನಿಕ ಕಚೇರಿಗಳಲ್ಲಿ ಉತ್ಪತ್ತಿಯಾಗುವ ಘನತ್ಯಾಜ್ಯ ವಸ್ತುಗಳ ನಿರ್ವಹಣೆ ಬಗ್ಗೆ ಅರಿವು ಮೂಡಿಸುವ ಮತ್ತು ಉತ್ತಮ ಪದ್ಧತಿಗಳನ್ನು ಅಳವಡಿಸಿಕೊಳ್ಳುವ ಕುರಿತು ಕಾರ್ಯನಿರ್ವಹಿಸುತ್ತಿರುವ Solid Waste Management Round Table ಸಂಸ್ಥೆಯ ಸಹಯೋಗದೊಂದಿಗೆ ಬಿ.ಬಿ.ಎಂ.ಪಿ.ಯು ಕಾರ್ಯನಿರ್ವಹಿಸುತ್ತಿದ್ದು, ಇನ್ನೂ ಹೆಚ್ಚು ಪರಿಣಾಮಕಾರಿಯಾಗಿ ಘನತ್ಯಾಜ್ಯ ವಸ್ತುಗಳ ನಿರ್ವಹಣೆಯ ಸಂಬಂಧ (ತ್ಯಾಜ್ಯ ವಸ್ತುಗಳನ್ನು ಮೂಲದಲ್ಲಿಯೇ ಬೇರ್ಪಡಿಸುವಿಕೆ, ಸಾಗಾಣಿಕೆ, ವಿಲೇವಾರಿ, ಲ್ಯಾಂಡ್‌ಫಿಲ್ ನಿವೇಶನಗಳ ನಿರ್ವಹಣೆ ಇತ್ಯಾದಿಗಳು) ಪರಿಹಾರವನ್ನು ಕಂಡುಕೊಳ್ಳುವ ಸಲುವಾಗಿ ಸಲಹೆ/ಸೂಚನೆಗಳನ್ನು ಆಯುಕ್ತರಿಗೆ ನೀಡಲು ಒಂದು ಪರಿಣಿತ ಸಮಿತಿಯನ್ನು ರಚಿಸುವಂತೆ ಪ್ರಸ್ತಾಪಿಸಿರುತ್ತಾರೆ.

7. ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಆಯುಕ್ತರ ಪ್ರಸ್ತಾವನೆಯನ್ನು ಸರ್ಕಾರವು ಕೂಲಂಕಷವಾಗಿ ಪರಿಶೀಲಿಸಿ, ಈ ಕೆಳಕಂಡಂತೆ ಆದೇಶಿಸಿದೆ.

ಸರ್ಕಾರದ ಆದೇಶ ಸಂಖ್ಯೆ: ನಅಇ 702 ಎಂಎನ್‌ವೈ 2012,
ಬೆಂಗಳೂರು, ದಿನಾಂಕ 14-9-2012

ಪ್ರಸ್ತಾವನೆಯಲ್ಲಿ ವಿವರಿಸಿರುವ ಅಂಶಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಬಿ.ಬಿ.ಎಂ.ಪಿ. ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಘನತ್ಯಾಜ್ಯ ನಿರ್ವಹಣೆಯಲ್ಲಿ ಉಂಟಾಗುತ್ತಿರುವ ಸಮಸ್ಯೆಗಳನ್ನು ನಿವಾರಿಸಲು, ತ್ಯಾಜ್ಯವನ್ನು ಮೂಲದಲ್ಲಿಯೇ ಬೇರ್ಪಡಿಸುವುದು, ವಿಲೇವಾರಿ ಮಾಡುವುದು ಹಾಗೂ ಲ್ಯಾಂಡ್ ಫಿಲ್ ಪ್ರದೇಶಗಳ ನಿರ್ವಹಣೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಆಯುಕ್ತರಿಗೆ ಪರಿಹಾರವನ್ನು ಕಂಡುಕೊಳ್ಳುವ ಸಲುವಾಗಿ ಸೂಕ್ತ ಸಲಹೆ/ಸೂಚನೆ ನೀಡಲು ಈ ಕೆಳಕಂಡ ಸದಸ್ಯರನ್ನೊಳಗೊಂಡ ಪರಿಣಿತ ಸಮಿತಿಯನ್ನು ಈ ತಕ್ಷಣದಿಂದ ಜಾರಿಗೆ ಬರುವಂತೆ ರಚಿಸಲಾಗಿದೆ.

ಕ್ರ.ಸಂ.	ಹೆಸರು ಮತ್ತು ಪದನಾಮ	ಪದನಾಮ
1.	ಆಯುಕ್ತರು, ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ, ಬೆಂಗಳೂರು	ಅಧ್ಯಕ್ಷರು
2.	ಶ್ರೀಮತಿ ಅಲ್‌ಮಿತ್ರ ಹೆಚ್. ಪಟೇಲ್, ಸರ್ವೋಚ್ಚ ನ್ಯಾಯಾಲಯದ ಘನತ್ಯಾಜ್ಯ ನಿರ್ವಹಣಾ ಸಮಿತಿಯ ಸದಸ್ಯರು.	ಸದಸ್ಯರು
3..	ಶ್ರೀ ಬಸವಯ್ಯ, ಹಿಂದಿನ ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕರು, ಕೆ.ಸಿ.ಡಿ.ಸಿ.	ಸದಸ್ಯರು
4.	ಶ್ರೀಮತಿ ಕಲ್ಪನಾಕಾರ್	ಸದಸ್ಯರು
5.	ಶ್ರೀ ರಮಾಕಾಂತ್/ ಡಾ. ಮೀನಾಕ್ಷಿ ಭರತ್, ಸದಸ್ಯರು, ಸಾಲಿಡ್ ವೇಸ್ಟ್ ಮ್ಯಾನೇಜ್‌ಮೆಂಟ್ ರೌಂಡ್ ಟೇಬಲ್	ಸದಸ್ಯರು
6.	ಪ್ರೊ. ರಾಧಾಕೃಷ್ಣ, ಕೃಷಿ ವಿಶ್ವವಿದ್ಯಾಲಯ (ಶಾಶ್ವತ ಆಹ್ವಾನಿತರು).	ಸದಸ್ಯರು

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7.	ಶ್ರೀ ಶರತ್‌ಚಂದ್ರ. ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿಯ ಹಿಂದಿನ ಅಧ್ಯಕ್ಷರು	ಸದಸ್ಯರು
8.	ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿಯಿಂದ ನಾಮನಿರ್ದೇಶಿತ ಪ್ರತಿನಿಧಿ.	ಸದಸ್ಯರು
9.	ವಿಶೇಷ ಆಯುಕ್ತರು (ಯೋಜನೆ), ಬಿ.ಬಿ.ಎಂ.ಪಿ.	ಪದನಿಮಿತ್ತ ಸದಸ್ಯ ಕಾರ್ಯದರ್ಶಿ
10.	ಅಪರ ಆಯುಕ್ತರು (ಘನತ್ಯಾಜ್ಯ)	ಪದನಿಮಿತ್ತ ಸಂಚಾಲಕರು

ಈ ಸಮಿತಿಯು ಕೆಳಕಂಡ ಪ್ರಕಾರ್ಯಗಳನ್ನು ನಿರ್ವಹಿಸತಕ್ಕದ್ದು.

1. ಮುನಿಸಿಪಲ್ ತ್ಯಾಜ್ಯವನ್ನು ಮೂಲದಲ್ಲಿಯೇ ಬೇರ್ಪಡಿಸುವಿಕೆ, ಸಂಗ್ರಹಣೆ, ವಿಲೇವಾರಿ, ಲ್ಯಾಂಡ್‌ಫಿಲ್ ಸೈಟ್‌ಗಳ ನಿರ್ವಹಣೆ ಮುಂತಾದವುಗಳ ಸಮಸ್ಯೆಗಳಿಗೆ ಪರಿಹಾರ ಕಂಡುಹಿಡಿಯಲು ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಆಯುಕ್ತರಿಗೆ ಸಲಹೆ ನೀಡುವುದು.
2. ಮುನಿಸಿಪಲ್ ತ್ಯಾಜ್ಯವನ್ನು ವಿಲೇವಾರಿ ಮಾಡುವ ಕ್ಷೇತ್ರದಲ್ಲಿ ಅನುಸರಿಸಬೇಕಾದ ವಿವಿಧ ತಾಂತ್ರಿಕ ಉಪಾಯಗಳು, ಮಾಸ್ಟರ್ ಪ್ಲಾನಿಂಗ್ ಮಾಡುವುದು ಹಾಗೂ ಸಾರ್ವಜನಿಕರ ಸಹಭಾಗಿತ್ವದೊಂದಿಗೆ ಮುನಿಸಿಪಲ್ ತ್ಯಾಜ್ಯವನ್ನು ವಿಲೇವಾರಿ ಮಾಡುವ ಬಗ್ಗೆ Information, Education and Communication ಮೂಲಕ ಪರಿಹಾರೋಪಾಯವನ್ನು ಕಂಡುಹಿಡಿಯುವುದು.
3. ಮುನಿಸಿಪಲ್ ತ್ಯಾಜ್ಯಗಳ ವಿಷಯಗಳ ಬಗ್ಗೆ ಒಳಗೊಂಡಿರುವ ವಿವಿಧ ಸ್ಟೇಕ್‌ಹೋಲ್ಡರ್ಸ್ ಮತ್ತು ಸಾರ್ವಜನಿಕರಿಗೆ ತಿಳುವಳಿಕೆ ಮೂಡಿಸಲು ತರಬೇತಿ, ಸೆಮಿನಾರ್ ಮತ್ತು ಕಾರ್ಯಗಾರಗಳನ್ನು ನಡೆಸಲು ಸಹಕರಿಸುವುದು.
4. ಮುನಿಸಿಪಲ್ ತ್ಯಾಜ್ಯ ಕೋಶದ ಕಾರ್ಯನಿರ್ವಹಣೆ ಬಗ್ಗೆ ನಗರಾಭಿವೃದ್ಧಿ ಇಲಾಖೆಗೆ ವರದಿ ಮಾಡುವುದು.
5. ಘನತ್ಯಾಜ್ಯ ವಿಲೇವಾರಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಉದ್ಭವಿಸಬಹುದಾದ ಯಾವುದೇ ಸಮಸ್ಯೆಯನ್ನು ಪರಿಹರಿಸಲು ಕ್ರಮ ತೆಗೆದುಕೊಳ್ಳುವುದು ಇತ್ಯಾದಿ.,

ಕರ್ನಾಟಕ ರಾಜ್ಯಪಾಲರ ಆಜ್ಞಾನುಸಾರ
ಮತ್ತು ಅವರ ಹೆಸರಿನಲ್ಲಿ,

(ಎನ್. ಗೋಪಾಲಯ್ಯ)
ಸರ್ಕಾರದ ಅಧೀನ ಕಾರ್ಯದರ್ಶಿ,
ನಗರಾಭಿವೃದ್ಧಿ ಇಲಾಖೆ (ಬಿ.ಬಿ.ಎಂ.ಪಿ).

ಇವರಿಗೆ,

1. ಮಾನ್ಯ ಮುಖ್ಯಮಂತ್ರಿಯವರ ಪ್ರಧಾನ ಕಾರ್ಯದರ್ಶಿ, ವಿಧಾನಸೌಧ, ಬೆಂಗಳೂರು.
2. ಸರ್ಕಾರದ ಪ್ರಧಾನ ಕಾರ್ಯದರ್ಶಿ, ಕೃಷಿ ಇಲಾಖೆ, ಬಹುಮಹಡಿಗಳ ಕಟ್ಟಡ, ಬೆಂಗಳೂರು.
3. ಸರ್ಕಾರದ ಕಾರ್ಯದರ್ಶಿ (ಪರಿಸರ ಮತ್ತು ಜೀವಿಶಾಸ್ತ್ರ), ಅರಣ್ಯ, ಪರಿಸರ ಮತ್ತು ಜೀವಿಶಾಸ್ತ್ರ ಇಲಾಖೆ, ಬಹುಮಹಡಿಗಳ ಕಟ್ಟಡ, ಬೆಂಗಳೂರು.

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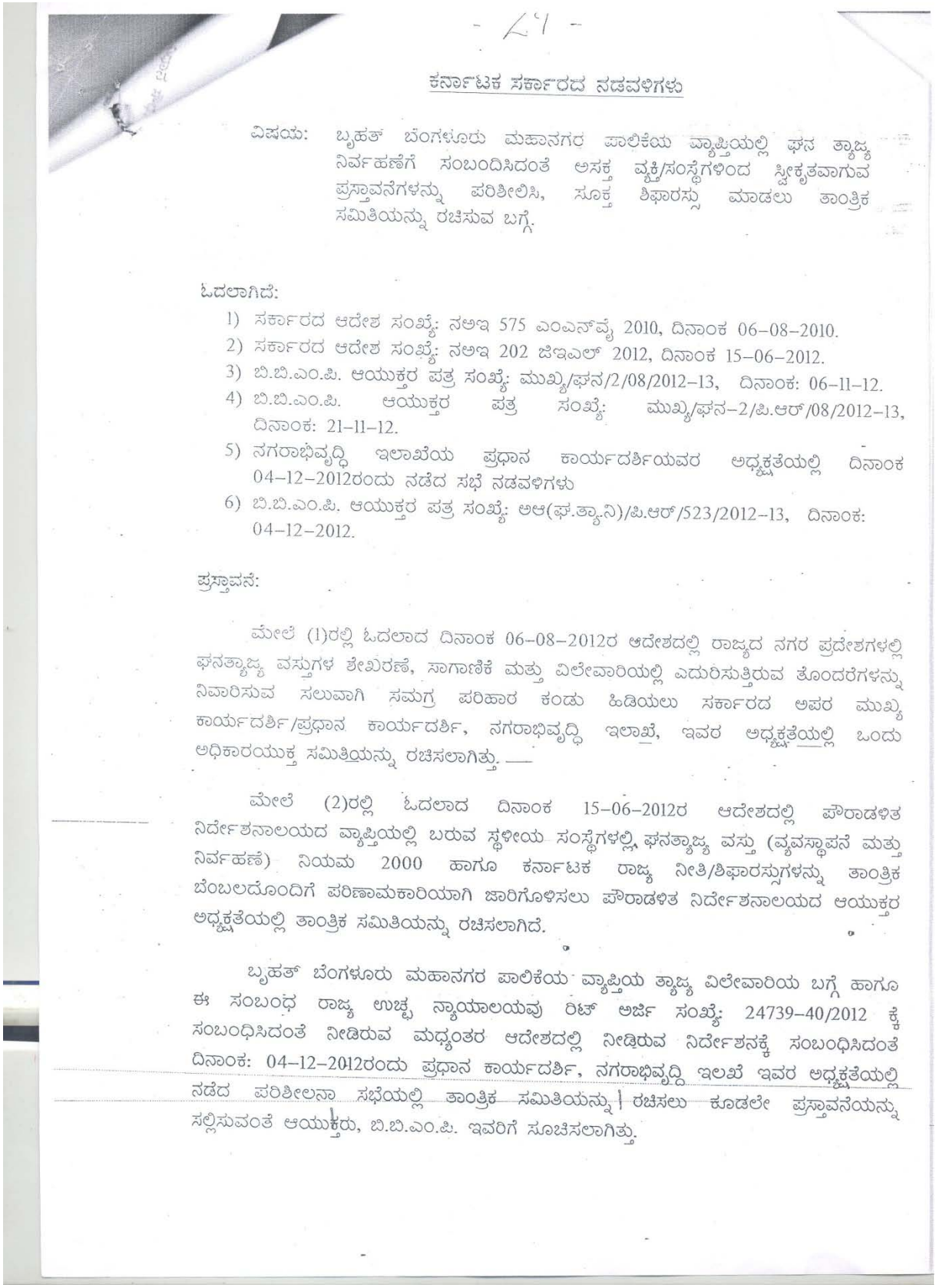
ANNEXURE B: BBMP Notification dt 15.9.2012: Segregation at Source



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ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ನಡವಳಿಗಳು

ವಿಷಯ: ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆಯ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಘನ ತ್ಯಾಜ್ಯ ನಿರ್ವಹಣೆಗೆ ಸಂಬಂದಿಸಿದಂತೆ ಅಸಕ್ತ ವ್ಯಕ್ತಿ/ಸಂಸ್ಥೆಗಳಿಂದ ಸ್ವೀಕೃತವಾಗುವ ಪ್ರಸ್ತಾವನೆಗಳನ್ನು ಪರಿಶೀಲಿಸಿ, ಸೂಕ್ತ ಶಿಫಾರಸ್ಸು ಮಾಡಲು ತಾಂತ್ರಿಕ ಸಮಿತಿಯನ್ನು ರಚಿಸುವ ಬಗ್ಗೆ.

ಓದಲಾಗಿದೆ:

1) ಸರ್ಕಾರದ ಆದೇಶ ಸಂಖ್ಯೆ: ನಅಇ 575 ಎಂಎನ್‌ವೈ 2010, ದಿನಾಂಕ 06-08-2010.
2) ಸರ್ಕಾರದ ಆದೇಶ ಸಂಖ್ಯೆ: ನಅಇ 202 ಜಿಇಎಲ್ 2012, ದಿನಾಂಕ 15-06-2012.
3) ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಆಯುಕ್ತರ ಪತ್ರ ಸಂಖ್ಯೆ: ಮುಖ್ಯ/ಘನ/2/08/2012-13, ದಿನಾಂಕ: 06-11-12.
4) ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಆಯುಕ್ತರ ಪತ್ರ ಸಂಖ್ಯೆ: ಮುಖ್ಯ/ಘನ-2/ಪಿ.ಆರ್/08/2012-13, ದಿನಾಂಕ: 21-11-12.
5) ನಗರಾಭಿವೃದ್ಧಿ ಇಲಾಖೆಯ ಪ್ರಧಾನ ಕಾರ್ಯದರ್ಶಿಯವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ದಿನಾಂಕ 04-12-2012ರಂದು ನಡೆದ ಸಭೆ ನಡವಳಿಗಳು
6) ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಆಯುಕ್ತರ ಪತ್ರ ಸಂಖ್ಯೆ: ಅಆ(ಘ.ತ್ಯಾ.ನಿ)/ಪಿ.ಆರ್/523/2012-13, ದಿನಾಂಕ: 04-12-2012.

ಪ್ರಸ್ತಾವನೆ:

ಮೇಲೆ (1)ರಲ್ಲಿ ಓದಲಾದ ದಿನಾಂಕ 06-08-2012ರ ಆದೇಶದಲ್ಲಿ ರಾಜ್ಯದ ನಗರ ಪ್ರದೇಶಗಳಲ್ಲಿ ಘನತ್ಯಾಜ್ಯ ವಸ್ತುಗಳ ಶೇಖರಣೆ, ಸಾಗಾಣಿಕೆ ಮತ್ತು ವಿಲೇವಾರಿಯಲ್ಲಿ ಎದುರಿಸುತ್ತಿರುವ ತೊಂದರೆಗಳನ್ನು ನಿವಾರಿಸುವ ಸಲುವಾಗಿ ಸಮಗ್ರ ಪರಿಹಾರ ಕಂಡು ಹಿಡಿಯಲು ಸರ್ಕಾರದ ಅಪರ ಮುಖ್ಯ ಕಾರ್ಯದರ್ಶಿ/ಪ್ರಧಾನ ಕಾರ್ಯದರ್ಶಿ, ನಗರಾಭಿವೃದ್ಧಿ ಇಲಾಖೆ, ಇವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ಒಂದು ಅಧಿಕಾರಯುಕ್ತ ಸಮಿತಿಯನ್ನು ರಚಿಸಲಾಗಿತ್ತು.

ಮೇಲೆ (2)ರಲ್ಲಿ ಓದಲಾದ ದಿನಾಂಕ 15-06-2012ರ ಆದೇಶದಲ್ಲಿ ಪೌರಾಡಳಿತ ನಿರ್ದೇಶನಾಲಯದ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಬರುವ ಸ್ಥಳೀಯ ಸಂಸ್ಥೆಗಳಲ್ಲಿ, ಘನತ್ಯಾಜ್ಯ ವಸ್ತು (ವ್ಯವಸ್ಥಾಪನೆ ಮತ್ತು ನಿರ್ವಹಣೆ) ನಿಯಮ 2000 ಹಾಗೂ ಕರ್ನಾಟಕ ರಾಜ್ಯ ನೀತಿ/ಶಿಫಾರಸ್ಸುಗಳನ್ನು ತಾಂತ್ರಿಕ ಬೆಂಬಲದೊಂದಿಗೆ ಪರಿಣಾಮಕಾರಿಯಾಗಿ ಜಾರಿಗೊಳಿಸಲು ಪೌರಾಡಳಿತ ನಿರ್ದೇಶನಾಲಯದ ಆಯುಕ್ತರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ತಾಂತ್ರಿಕ ಸಮಿತಿಯನ್ನು ರಚಿಸಲಾಗಿದೆ.

ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆಯ ವ್ಯಾಪ್ತಿಯ ತ್ಯಾಜ್ಯ ವಿಲೇವಾರಿಯ ಬಗ್ಗೆ ಹಾಗೂ ಈ ಸಂಬಂಧ ರಾಜ್ಯ ಉಚ್ಚ ನ್ಯಾಯಾಲಯವು ರಿಟ್ ಅರ್ಜಿ ಸಂಖ್ಯೆ: 24739-40/2012 ಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ನೀಡಿರುವ ಮಧ್ಯಂತರ ಆದೇಶದಲ್ಲಿ ನೀಡಿರುವ ನಿರ್ದೇಶನಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ದಿನಾಂಕ: 04-12-2012ರಂದು ಪ್ರಧಾನ ಕಾರ್ಯದರ್ಶಿ, ನಗರಾಭಿವೃದ್ಧಿ ಇಲಖೆ ಇವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ನಡೆದ ಪರಿಶೀಲನಾ ಸಭೆಯಲ್ಲಿ ತಾಂತ್ರಿಕ ಸಮಿತಿಯನ್ನು ರಚಿಸಲು ಕೂಡಲೇ ಪ್ರಸ್ತಾವನೆಯನ್ನು ಸಲ್ಲಿಸುವಂತೆ ಆಯುಕ್ತರು, ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಇವರಿಗೆ ಸೂಚಿಸಲಾಗಿತ್ತು.

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ಮೇಲೆ (3), (4) ಮತ್ತು (6)ರಲ್ಲಿ ಓದಲಾದ ಪತ್ರಗಳಲ್ಲಿ ಆಯುಕ್ತರು, ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ ಇವರು ಪಾಲಿಕೆಯಿಂದ ಒಂದು ಲಕ್ಷದಿಂದ ಹತ್ತು ಲಕ್ಷ ಮೆಟ್ರಿಕ್ ಟನ್ ಸಂಸ್ಕರಿಸುವ ಪೌರ ಘನ ತ್ಯಾಜ್ಯ ವಿಲೇವಾರಿಗೆ ಸೂಕ್ತ ತಂತ್ರಜ್ಞಾನಗಳನ್ನು ಪ್ರಸ್ತಾಪಿಸಲು ಆಸಕ್ತ ವ್ಯಕ್ತಿಗಳಿಂದ ಸಲಹೆಗಳನ್ನು ಆಹ್ವಾನಿಸಲಾಗಿ ಈ ಕುರಿತು 37 ಸಂಸ್ಥೆಗಳು ಅರ್ಜಿಗಳನ್ನು ಸಲ್ಲಿಸಿದ್ದು, ಇವರುಗಳ ತಂತ್ರಜ್ಞಾನವನ್ನು ಕೂಲಂಕಷವಾಗಿ ಪರಿಶೀಲಿಸಿ, ಪಾಲಿಕೆಯ ಘನತ್ಯಾಜ್ಯ ನಿರ್ವಹಣೆಯನ್ನು ಪೂರ್ಣ ಪ್ರಮಾಣದಲ್ಲಿ ಮಾಡಲು ಸೂಕ್ತ ತಂತ್ರಜ್ಞಾನವನ್ನು ಅಳವಡಿಸಬೇಕಾಗಿರುವುದರಿಂದ ಈ ಉದ್ದೇಶಕ್ಕಾಗಿ ಘನತ್ಯಾಜ್ಯ ನಿರ್ವಹಣಾ ತಾಂತ್ರಿಕ ಸಮಿತಿಯನ್ನು ರಚಿಸುವಂತೆ ಸರ್ಕಾರವನ್ನು ಕೋರಿ ಪ್ರಸ್ತಾವನೆಯನ್ನು ಸಲ್ಲಿಸಿರುತ್ತಾರೆ.

ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆಯ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಉತ್ಪತ್ತಿಯಾಗುವ ಘನತ್ಯಾಜ್ಯ ವಸ್ತುಗಳನ್ನು ನಿಯಮಾನುಸಾರ ಹಾಗೂ ವೈಜ್ಞಾನಿಕವಾಗಿ ವಿಲೇವಾರಿ ಮಾಡಲು ಸೂಕ್ತ ತಂತ್ರಜ್ಞಾನಗಳನ್ನು ಅಳವಡಿಸಿಕೊಳ್ಳುವ ಬಗ್ಗೆ ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆಯಲ್ಲಿ ಆಸಕ್ತ ವ್ಯಕ್ತಿ/ಸಂಸ್ಥೆಗಳಿಂದ ಸ್ವೀಕೃತವಾಗುವ ಪ್ರಸ್ತಾವನೆಗಳನ್ನು ಪರಿಶೀಲಿಸಿ, ಸೂಕ್ತ ಶಿಫಾರಸ್ಸುಗಳನ್ನು ನೀಡಲು ಘನತ್ಯಾಜ್ಯ ವಿಲೇವಾರಿಯಲ್ಲಿ ಪರಿಣಿತರಾದ ಅಧಿಕಾರಿ ಹಾಗೂ ತಜ್ಞರನ್ನೊಳಗೊಂಡ ಒಂದು ತಾಂತ್ರಿಕ ಸಮಿತಿಯನ್ನು ರಚಿಸಲು ಸರ್ಕಾರವು ನಿರ್ಧರಿಸಿ, ಈ ಕೆಳಕಂಡಂತೆ ಆದೇಶಿಸಿದೆ.

ಸರ್ಕಾರದ ಆದೇಶ ಸಂಖ್ಯೆ: ನಅಇ 791 ಎಂಎನ್‌ಪೈ 2012,
ಬೆಂಗಳೂರು, ದಿನಾಂಕ 07-12-2012

ಪ್ರಸ್ತಾವನೆಯಲ್ಲಿ ವಿವರಿಸಿರುವ ಅಂಶಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ, ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆಯಿಂದ ಒಂದು ಲಕ್ಷದಿಂದ ಹತ್ತು ಲಕ್ಷ ಮೆಟ್ರಿಕ್ ಟನ್ ಸಂಸ್ಕರಿಸುವ ಪೌರ ಘನ ತ್ಯಾಜ್ಯ ವಿಲೇವಾರಿಗೆ ಸೂಕ್ತ ತಂತ್ರಜ್ಞಾನಗಳನ್ನು ಪ್ರಸ್ತಾಪಿಸಲು ಆಸಕ್ತ ವ್ಯಕ್ತಿ/ಸಂಸ್ಥೆಗಳಿಂದ ಸ್ವೀಕೃತವಾದ ಪ್ರಸ್ತಾವನೆಗಳನ್ನು ಪರಿಶೀಲಿಸಿ, ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆಗೆ ಸೂಕ್ತ ಶಿಫಾರಸ್ಸುಗಳನ್ನು ಮಾಡಲು ಅನುವಾಗುವಂತೆ ಈ ಕೆಳಕಂಡ ಅಧಿಕಾರಿ ಹಾಗೂ ತಜ್ಞರನ್ನೊಳಗೊಂಡ ತಾಂತ್ರಿಕ ಸಮಿತಿಯನ್ನು ರಚಿಸಲಾಗಿದೆ.

ಕ್ರ.ಸಂ	ಹೆಸರು ಮತ್ತು ಪದನಾಮ	ಪದನಾಮ
1	ಶ್ರೀ ಎಂ.ಆರ್.ವೆಂಕಟೇಶ್. ಮುಖ್ಯ ಅಭಿಯಂತರರು,ಬಿಬಿಎಂಪಿ	ಅಧ್ಯಕ್ಷರು
2	ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು (ಘನತ್ಯಾಜ್ಯ ನಿರ್ವಹಣೆ) ಪೌರಾಡಳಿತ ನಿರ್ದೇಶನಾಲಯ, ಬೆಂಗಳೂರು.	ಸದಸ್ಯರು
3	ಶ್ರೀ ಅಶೋಕ ಜೈನ್, ಪ್ರಧಾನ ವ್ಯವಸ್ಥಾಪಕರು, (ಯು.ಎ) ಕರ್ನಾಟಕ ನಗರ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳ ಅಭಿವೃದ್ಧಿ ಹಣಕಾಸು ನಿಗಮ, ಬೆಂಗಳೂರು.	ಸದಸ್ಯರು
4	ಅಧ್ಯಕ್ಷರು, ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ ಇವರಿಂದ ನಾಮ ನಿರ್ದೇಶನಗೊಂಡ ಪ್ರತಿನಿಧಿ	ಸದಸ್ಯರು
5	ಶ್ರೀ. ಪರಮೇಶ್ವರಯ್ಯ ಆರ್.ಎಲ್. ಡೆಪ್ಯೂಟಿ ಚೀಫ್ (ಯೋಜನೆ) ಡಿಜಿಎಂ ಹುಡ್ಕೊ ಬೆಂಗಳೂರು	ಸದಸ್ಯರು
6	ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು (SWM-II) ಬಿಬಿಎಂಪಿ.	ಸಂಚಾಲಕರು

ಮೇಲ್ಕಂಡ ತಾಂತ್ರಿಕ ಸಮಿತಿಯ ಕರ್ತವ್ಯ ಮತ್ತು ಪ್ರಕಾರ್ಯಗಳು ಈ ಕೆಳಕಂಡಂತಿರುತ್ತದೆ.

1) **Technology proposed for the project**
   (a) Suitability of the waste treatment technologies for treating the municipal solid waste generally encountered in India.
   (b) Land requirements for the technology
   (c) Plan for monetizing the by-products from waste
   (d) Strategy for managing the Technology for Waste Management
   - Details on R&D, Patenting, and Licensing of technology etc.
   - Equipment manufacturing/sourcing
   (e) Any other issue related to use of technology

2) **O&M Plan for the project**
   (a) Manpower staffing for the project including details of manpower requirements (skilled and unskilled and plans for sourcing such manpower locally for the project.

3) **Assessment of the key risks perceived by the private entity on the project:-**
   (a) Possible risk mitigation mechanisms
   (b) Expectations of the private entity from BBMP

4) Cost Criteria, Environmental Capability, Time bound execution, History, Strength, Experience in India & Abroad, Financial Capability etc.

   The private entities may at their discretion provide any supporting documents which enhances the clarity of the project and technology management strategy.

5) ಘನತ್ಯಾಜ್ಯ ನಿರ್ವಹಣೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ತಂತ್ರಜ್ಞಾನವನ್ನು ಅಳವಡಿಸಲು ಆಸಕ್ತ ಅರ್ಜಿದಾರರು/ಸಂಸ್ಥೆಗಳಿಂದ (E.O.I) ಸ್ವೀಕೃತವಾದ ಪ್ರಸ್ತಾವನೆಗಳನ್ನು ಕೂಲಂಕಷವಾಗಿ ಪರಿಶೀಲಿಸಿ, ಸೂಕ್ತ ಸಲಹೆ/ಶಿಫಾರಸ್ಸುಗಳನ್ನು ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆಯ ಆಯುಕ್ತರಿಗೆ ಸಲ್ಲಿಸುವುದು.

6) ಮುನ್ಸಿಪಲ್ ಘನತ್ಯಾಜ್ಯ ನಿರ್ವಹಣೆಯ ಕ್ಷೇತ್ರದಲ್ಲಿ ಹೊಸ ತಾಂತ್ರಿಕತೆಯ ಬಗ್ಗೆ ಪರಿಶೀಲನೆ ನಡೆಸಿ, ಅದನ್ನು ಆಳವಡಿಸುವ ಬಗ್ಗೆ ಬಿಬಿಎಂಪಿ ಆಯುಕ್ತರಿಗೆ ಸೂಕ್ತ ಶಿಫಾರಸ್ಸು/ ಅನುಮೋದನೆ ನೀಡುವುದು.

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7) ಮುನ್ಸಿಪಲ್ ಘನತ್ಯಾಜ್ಯ ನಿರ್ವಹಣೆಯ ಕ್ಷೇತ್ರದಲ್ಲಿ ಹೊಸ ಪರಿಕಲ್ಪನೆಯ ಬಗ್ಗೆ ಆಯುಕ್ತರಿಗೆ ಶಿಫಾರಸ್ಸು ಮಾಡುವುದು.

8) ಮುನ್ಸಿಪಲ್ ಘನತ್ಯಾಜ್ಯ ವಸ್ತು ಸಂಸ್ಕರಣೆ ಮತ್ತು ವಿಲೇವಾರಿಯ ಸಂಬಂಧ ಪ್ರಚಲಿತವಿರುವ ಸಾಂಪ್ರದಾಯಿಕ/ಆಧುನಿಕ ತಂತ್ರಜ್ಞಾನದ ಬಗ್ಗೆ ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಆಯುಕ್ತರಿಗೆ ಕಾಲ ಕಾಲಕ್ಕೆ ಸೂಕ್ತ ಮಾಹಿತಿ ಹಾಗೂ ಮಾರ್ಗದರ್ಶನ ನೀಡುವುದು.

9) ಒಮ್ಮೆ ಆಯುಕ್ತರು ಯೋಜನೆಗಳ ತಾಂತ್ರಿಕ ಕಾರ್ಯಸಾಧ್ಯತೆ ಬಗ್ಗೆ ಅನುಮೋದನೆ ನೀಡಿದ ನಂತರ ಕಾಮಗಾರಿಯನ್ನು ಪ್ರಾರಂಭಿಸಲು ಪ್ರಸ್ತುತ ಜಾರಿಯಲ್ಲಿರುವ ನಿಯಮಗಳನ್ವಯ ಇತರೆ ಪ್ರಕ್ರಿಯೆಗಳನ್ನು ಜರುಗಿಸತಕ್ಕದ್ದು.

10) ಈ ತಾಂತ್ರಿಕ ಸಮಿತಿಯು ಘನ ತ್ಯಾಜ್ಯ ನಿರ್ವಹಣೆಯ ಸಂಸ್ಕರಣಾ ಘಟಕ/ ಕೇಂದ್ರಗಳ ಬಗ್ಗೆ ಆಗಿಂದಾಗ್ಗೆ ಸ್ವೀಕರಿಸಲಾಗುವ ಇತರೆ ಎಲ್ಲಾ ಪ್ರಸ್ತಾವನೆಗಳ ತಾಂತ್ರಿಕ ಕಾರ್ಯಸಾಧ್ಯತೆಯ ಬಗ್ಗೆ ಪರಿಶೀಲಿಸುವುದು

ಕರ್ನಾಟಕ ರಾಜ್ಯಪಾಲರ ಆಜ್ಞಾನುಸಾರ
ಮತ್ತು ಅವರ ಹೆಸರಿನಲ್ಲಿ,

(ಎಸ್.ಚಂದ್ರಪ್ಪ)
ಸರ್ಕಾರದ ಅಧೀನ ಕಾರ್ಯದರ್ಶಿ
ನಗರಾಭಿವೃದ್ಧಿ ಇಲಾಖೆ

ಇವರಿಗೆ:

1. ಮಹಾಲೇಖಪಾಲರು, ಕರ್ನಾಟಕ, ಬೆಂಗಳೂರು.
2. ಮಾನ್ಯ ಮುಖ್ಯಮಂತ್ರಿಯವರ ಪ್ರಧಾನ ಕಾರ್ಯದರ್ಶಿ, ವಿಧಾನಸೌಧ, ಬೆಂಗಳೂರು.
3. ಆಯುಕ್ತರು, ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ, ಬೆಂಗಳೂರು.
4. ಆಯುಕ್ತರು, ಪೌರಾಡಳಿತ ನಿರ್ದೇಶನಾಲಯ, ವಿ.ವಿ.ಗೋಪುರ, ಬೆಂಗಳೂರು.
5. ಅಧ್ಯಕ್ಷರು ಹಾಗೂ ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕರು, ಹುಡ್ಕೋ, ಹುಡ್ಕೋ ಭವನ, ಇಂಡಿಯಾ ಹ್ಯಾಬಿಟೇಟ್ ಸೆಂಟರ್, ಲೋದಿ ರೋಡ್, ನವದೆಹಲಿ-110003
6. ಎಲ್ಲಾ ಸದಸ್ಯರುಗಳಿಗೆ – ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಆಯುಕ್ತರ ಮುಖಾಂತರ.
7. ವಿಶೇಷ ಆಯುಕ್ತರು (ಯೋಜನೆ), ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು.
8. ಅಧ್ಯಕ್ಷರು, ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ, ಪರಿಸರ ಭವನ, ಚರ್ಚ್ ಸ್ಟ್ರೀಟ್, ಬೆಂಗಳೂರು.
9. ಅಧ್ಯಕ್ಷರು/ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕರು, ಕರ್ನಾಟಕ ನಗರ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳ ಅಭಿವೃದ್ಧಿ ಹಣಕಾಸು ನಿಗಮ, ಬೆಂಗಳೂರು.
10. ಸರ್ಕಾರದ ಪ್ರಧಾನ ಕಾರ್ಯದರ್ಶಿಗಳ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿ ಹಾಗೂ ಜಂಟಿ ಕಾರ್ಯದರ್ಶಿಗಳ ಆಪ್ತ ಸಹಾಯಕರು, ನಗರಾಭಿವೃದ್ಧಿ ಇಲಾಖೆ, ವಿಕಾಸಸೌಧ, ಬೆಂಗಳೂರು.
11. ಶಾಖಾ/ಹೆಚ್ಚುವರಿ ಪ್ರತಿ/ಇಲಾಖೆಯ ಅಂತರಜಾಲ ತಾಣ.

Dhaka Declaration 2004 on Waste Management

- Ministry of Environment and Forest, Government of the People's Republic of Bangladesh organized a three day SAARC workshop during 10 – 12 October 2004 at BRAC Center Inn, Dhaka. The workshop was sponsored by the Ministry of Foreign Affairs and the SAARC Secretariat. About 35 participants from home and abroad including delegates from the SAARC countries India, Pakistan, Nepal, Bhutan and Bangladesh participated. The workshop had 5 technical sessions that included a Keynote Presentation followed by Country Paper Presentations, Institutional, Legal and Technical Issues, and Best Practices in Solid Waste Management.

- The recommendations presented here are based on discussions in each technical sessions as well as group meetings among SAARC delegates and unanimous consensus among the participating countries. It was confirmed by the participating countries that the recommendations be considered as "DHAKA DECLARATION ON WASTE MANAGEMENT 2004", the key features of which are as follows:

1. We should promote an effective, efficient, affordable, safe and sustainable waste management system of all the urban/ rural settlement of SAARC countries with special attention to addressing the needs of the poor.

2. SAARC countries agree to establish a SAARC network on waste management with the objectives of sharing information and technology transfer on municipal solid waste and hazardous waste management among SAARC countries. The network will consist of representatives from relevant government organizations, non-government organizations, university and research institutions, and urban local government authorities from each country. The aforesaid network shall undertake the following activities:

    - Establishing information exchange mechanism
    - Forming a Technology Advisory Group for resolving technological issues
    - Developing training programs for regulatory/ implementation bodies.
    - Demonstration of technologies in the SAARC countries (SAARC fund/ donor fund)
    - Develop a database on entrepreneurs/ suppliers of equipments/ technology providers
    - Developing materials for awareness campaign
    - Developing institutional cooperation mechanism
    - Arranging annual meetings on a rotational basis
    - Organizing exchange visits amongst SAARC countries to share experiences of best practices
    - Facilitating development of legislative frameworks and guidelines
    - Undertaking joint research on legal, institutional and technical aspects of waste management
    - Developing newsletters on success stories and a dialogue website

Dhaka Declaration 2004 on Waste Management

3. SAARC countries agree that open dumping should be stopped immediately and these open dumping should be replaced with new safe disposal options (controlled landfill sites)
4. SAARC countries agree that incineration as well as unproven technologies such as Plasma, should not be considered as an option for the treatment of their municipal solid wastes for low calorific value and environmental pollution potential. However, in absence of an appropriate no-burn technology, it may considered for the treatment of infectious/ hazardous bio-medical wastes.
5. SAARC countries agree that present informal waste picking practice be improved as a safe and eco-friendly practice by improving the working conditions of the waste pickers and thereby reducing the occupational health hazard.
6. SAARC countries agree to encourage NGOs and private companies to establish community based segregation at source, separate collection and resource recovery from wastes with particular focus on composting.
7. SAARC countries agree that hospital waste may be treated as a special waste and managed separately.
8. SAARC countries agree that in order to make the system financially viable the cost of solid waste management should be rationalized with the view to increase revenue.
9. SAARC countries agree that waste collection disposal and treatment may be privatized to allow greater mobilization of capital. To attract foreign investment in waste management projects financing opportunities under the CDM may be harnessed.

ANNEXURE D: Polluter Pays Notification for Bulk Generators.

BRUHAT BANGALORE MAHANAGARA PALIKE

PUBLIC NOTICE

In exercise of powers conferred by Section 256, 257 and 260 of the Karnataka Municipal Corporations Act, 1976 (Karnataka Act 14 of 1977) and in continuation of the Public Notice dated 15/09/2012, the following Public Notice is hereby issued regarding delivery and disposal of Municipal Solid Waste from **Bulk generators** within the BBMP area, with effect from October 1st 2012.

(1) Unless the context otherwise requires, the following shall be understood as definitions under this Notice.

Definitions:

a) **Bulk generators** means any hotel/restaurant, choultry, mall, shopping complex, marriage hall, convention hall, temple, residential apartments (10 units and above), institutions, public offices, railway stations, bus stands or any other residential, commercial or a public entity which generates 100 kg and more wet waste per day and any other such entity that is specifically identified and notified by the Commissioner as bulk generator;

b) **Shopkeeper** is broadly defined as a person who offers goods or services for sale to the public having a permanent / semi-permanent built up structure;

c) **Street vendor/hawker** is broadly defined as a person who offers goods or services for sale to the public without having a permanent built up structure but without a temporary static structure or mobile stall or headload;

d) **Composting** means a controlled process involving microbial decomposition of organic matter; for conversion of bio-degradable waste into compost.

(2) Bulk Generators shall not mix Wet Waste with any other types of waste. Wet waste and garden waste generated shall be composted at source or processed using bio methanisation technique. Where it is not possible to compost wet waste at site, due to space constraint, alternate arrangements shall be made by the generator to hand over wet waste to private composters or BBMP wet waste collectors, on payment, as specified by concerned Zonal Commissioners.

(3) Bulk Generators shall retain Dry Waste within their premises to be handed over directly to the nearest authorized Dry Waste Collection Centers.

(4) Bulk Generators shall cause the Sanitary Wastes to be separately collected by in-house staff and deposited at the nearest Bio-Medical Waste Collection Centre to be specified by the BBMP or arranged by mutual consent.

(5) BBMP will collect rejects / inerts from the bulk generators once a week on payment basis.

(6) All shopkeepers/vendors/hawkers shall keep their wet and other waste unmixed in containers/bins at the site of vending for the collection of any waste generated by that vending activity. It will be their responsibility to deliver this waste duly segregated to the authorized waste collectors of BBMP. Failure to do so will attract fines.

(7) No wastes of any kind shall be deposited at any time by Bulk generators and street shopkeepers/vendors/hawkers on the streets, public spaces or vacant sites and violations will attract fines.

DATE: 20-9-2012

(Rajneesh Goel)
Commissioner
Bruhath Bangalore Mahanagara Palike

ANNEXURE E: Institutional Frame Work for MSW in BBMP

A workshop of Officers of BBMP covering Additional Commissioner (MSW), Joint Commissioner, Chief engineers (MSW), Executive Engineers, Zonal Chief Engineers and other ward/zonal officers together with the Expert Committee members was held on 26th October 2012. Gist of Discussion and recommendations are as follows:

Issues:

1.There are several officers involved in MSW management in BBMP. Currently at BBMP Head Quarters there are Three Chief engineers dealing with MSW and are assisted by EE & AEs. However there are no clear-cut job responsibilities. Further they have no functional/financial responsibility.

2. At the ward level also there are too many people at different level involved in MSW related activities. At this level also there are no specific job responsibilities.

3. Many officers involved in MSW are also involved in other BBMP work like infrastructure development, road repair etc. Because of duel responsibility there are difficulties in apportioning their time for MSW related activities.

4. At the field level there are officers with different designations doing similar work. This together with duel responsibility & accountability is adding to the confusion.

5. There is no clear data available on the quantity of MSW produced in the BBMP areas. Further there is also no clear data available on the number of trucks and quantity of MSW carried out.

6. At the lower level, the staff has no clear instructions/guidelines as to the Landfill to which they should carry the MSW. As a result the waste is dumped in a haphazard manner.

7. The model that is being currently adopted at Mahadevapura zone is functioning well and this model with some modifications could be adopted in all wards for MSW related work.

Recommendations:

8. After a detailed discussion the officers recommended the following institutional mechanism for managing MSW in Bangalore.

- The Expert Committee should have overall responsibility for helping BBMP achieve better solid waste management in Bangalore and guide MSW cell. This should be an empowered committee assisting BBMP make all decisions covering administrative, financial and technical issues relating to MSW.

- There should be a separate MSW cell in BBMP with responsibility of managing MSW at all levels. The staff in the cell should be dedicated to only MSW related activities and should not have dual responsibility. The Joint Commissioner (MSW) should head the Cell with clear responsibility and authority and should have functional autonomy.

- At the Head Office (HO) there should two Chief Engineers (CE) for MSW related work. One CE (MSW-Corporate cell) assisted by two EEs will be responsible for Planning, Training, Budgeting including disbursement related work. They should be responsible for identifying new sites required for MSW related activities. The other CE (MSW) assisted by three EEs be responsible for all other aspects of MSW from Collection to processing & disposal. BBMP can take an officer from KSPCB who has over 20 years of experience with a M.E degree in Public Health Engineering on deputation to be responsible for this activity. The CEs & EEs should be given functional authority including financial responsibility as applicable to similar grade officers in PWD.

- At the field level, the following staff structure was considered necessary:
    a. One Junior Health Inspector for every ward
    b. One Environmental Engineer for every two wards

c. One AEO/DEO per every division
d. One SE per zone

- The above officers will have defined job chart as well as functional & financial responsibility required for efficient discharge of their responsibility. They shall have no duel responsibility except in case of emergency.

- Accordingly BBMP should structure the staff and need to fill the gap in existing and recommended staff structure

- There should be a minimum fixed tenure of Three-years for the staff specially the staff at the senior level.

9. CE/JC of the Zone should have overall responsibility of MSW along with their other responsibility.

10. Indicative Job description for the Environmental Engineer: ward level inspection, monitoring and reporting, issue of notices for non-compliance of contract conditions, fine imposing, debris management, enforcing segregation & promoting composting, public awareness related activities.

11. Training of officers in MSW cell is required. The training should be well structured as per pedagogy principles.

12. ICT materials for public awareness related activities also need to be developed.

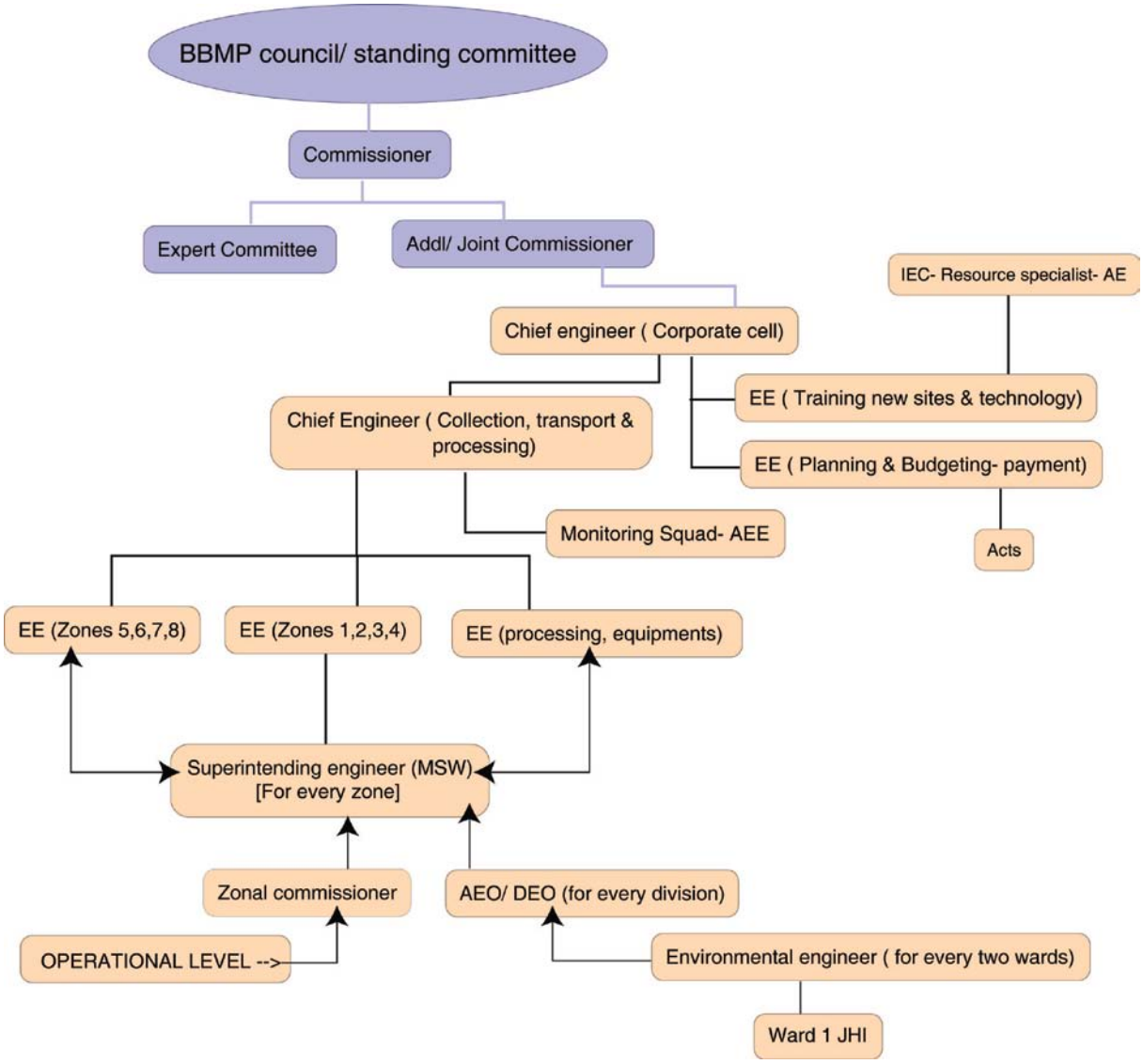
13. A clear job description for various level officers and a SOP for MSW need to be developed so as to bring in uniformity of operations.

Signed by Expert Committee Members

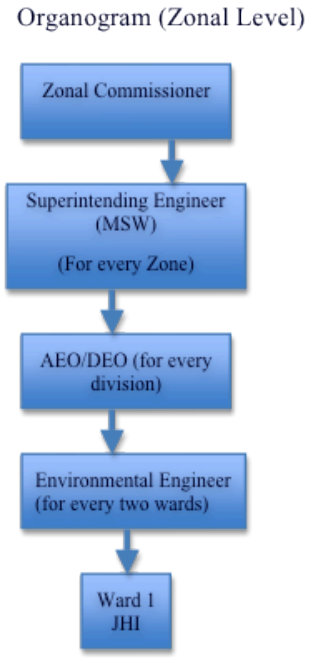
Dr H C Sharatchandra Ms Almitra Patel Ms Kalpana Kar

Mr Basaviah Venkatesh Shekhar Mr Ramakanth

Dr Radhakrishna H Siddaiah
Chairman


BBMP council/ standing committee
Commissioner
Expert Committee
Addl/ Joint Commissioner
IEC- Resource specialist- AE
Chief engineer (Corporate cell)
EE (Training new sites & technology)
Chief Engineer (Collection, transport & processing)
EE (Planning & Budgeting- payment)
Monitoring Squad- AEE
Acts
EE (Zones 5,6,7,8)
EE (Zones 1,2,3,4)
EE (processing, equipments)
Superintending engineer (MSW) [For every zone]
Zonal commissioner
AEO/ DEO (for every division)
OPERATIONAL LEVEL -->
Environmental engineer (for every two wards)
Ward 1 JHI

Operational Zonal Level organization structure :



City Communication Plan

Wake Up Clean Up Bengaluru

4/17/2013
Bangalore
BBMP

1 INTRODUCTION

1.1 Purpose

The purpose of the Communication Plan is to capture how communications will be managed to ensure that every Bangalorean knows what segregation means, what he has to do, through the life cycle of moving the needle from the present situation of mixed waste dumping to landfill to the new system of 100 % segregation at source, recycling of dry waste, and processing of wet organic waste, either in-situ or through professionally managed large shared services.

Project – Wake Up Clean Up for Bengaluru

Goal - To inform the citizens about segregation at source, the different programs of the BBMP and the compliance required from each generator of waste

This Communication Plan describes the planned and periodic communications occurring between WUCU BENGALURU, the citizens, those transiting, and all the project stakeholders. This plan also covers scheduled written and oral communications, responses to unsolicited requests for information, the frequency of the scheduled communications, and the responsible person(s) for providing the information in order to achieve the goal. The Communication Plan is an integral part of the overall Project Management Plan and will be used to provide guidance to the WUCU BENGALURU project.

1.2 Scope

This Communication Plan identifies the activities, processes, and procedures used to manage this Communication Plan. It will help identify the procedures used to manage communication for the WUCU. The plan focuses on formal communication elements. Other communication channels exist on informal level. This plan is not intended to limit, but to enhance communication practices. This plan acknowledges that open, ongoing communication between stakeholders is critical to the success of the WUCU Bengaluru Project

1.3 Documentation

A copy of all project management plans, ongoing documentation, status and reports are saved with the Project Management Office (PMO).

1.4 Stakeholders Identification

We are targeting multiple audiences for the communication of our core message. The audience profile includes the Youth, Working Professional, Homemaker, Government Official, Service Provider, and Labourer/Contract Workers. They are broadly classified with respect to Waste Management as below:

1) Waste Generators
• Individuals
• Households
• Apartment Complexes
2) Waste Processors
• BBMP Staff
• Contractors & PKs
• Service Providers - Facility Managers and
• NGOs
• Technology & Solution Providers
3) Experts & Advocacy

2 COMMUNICATION PROCESS

2.1 Informal

Informal communications consist of e-mail, conversations, or phone calls and serve to supplement and enhance formal communications. Due to the varied types and ad-hoc nature of informal communications, they are not discussed in this plan.

2.2 Formal

The WUCU BENGALURU Project will engage in various types of formal communication. The general types and their purpose are described below.

2.2.1 *Status Meetings*

There are five basic types of status meetings for the WUCU BENGALURU Project:

1. Status meetings internal to the WUCU BENGALURU business team to discuss assignments, activities, and to share information.
2. Status meetings and reports between the WUCU BENGALURU business team, and the technical project team.
3. Status meetings and reports between the WUCU BENGALURU project sponsors and the steering committee.
4. Committee meetings with the project sponsor, project stakeholders, and project manager to review progress, risks, and issues.
5. Status meetings and reports to stakeholders.

2.2.2 *Status Reports*

A variety of status reports will be produced during the project. The status reports will be produced on regular intervals to provide stakeholders project information on the status and progress of the WUCU BENGALURU project. At a minimum the reports will contain:

- Project status on major activities
- Project schedule
- Budget and cost tracking

- Status of issues and risks
- Status of action items, if applicable.
- Future or planned activities

The intent of the status reports is to inform stakeholders of the project's progress and keep them actively involved in the project. The information provided will contain enough detail to allow stakeholders to make informed decisions and maintain oversight of the project.

2.3 External Communication

The premise of this communication plan is simple – reducing garbage requires new behaviours which must be communicated in a manner that is relevant, simple to understand and compelling from a personal perspective. It also requires continual repetition till we begin to see the new behaviours in action.

Core Message	Segregate at Source
Nature of Message	Simple, direct, informative, engaging, repetitive, youthful, inspirational & impactful
Language	Bi-lingual - English & Kannada. Urdu,Hindi and Tamil for some parts

3 COMMUNICATION MANAGEMENT

3.1 Communication Message & Distribution

We aim to communicate messages will at two levels - City/Country Level & Ward Level, through appropriate medium.

Various methods will be used to distribute project information and communicate with project stakeholders. The primary method to distribute information will be at Ward Level

3.1.1 Ward Level

3.1.1.1 Message

At this level we aim to communicate the following:

Sl. No.	Function	Message
1	Educate	• Segregation and need for it • Solutions available for in-situ waste management • Stakeholders on waste management process, their role in it and what it entails
2	Advertise	• Benefits of segregation (Reduction of waste sent to landfill) • Savings of cost • New policies, directives, penalties for non-compliance
3	Recognize & Acknowledge	• Compliance and any efforts made towards managing waste in-situ.

3.1.1.2 Medium

Ward Training Kit

Sl. No.	Contents	Message
1	Notices	On addressing the problem and requesting for change
2	Flyer	Info on activities being carried out, when, where and how
3	Posters	On what, why and how to segregate and recycle
4	Pickets	Calling out for action to stop an irresponsible activity or start a

		good one
5	Banners	Acknowledging a ward's efforts towards 100% compliance, or on a big event on waste management happening
6	Handbook	Contains details on all products/solution available for in-situ processing of waste.
7	Street plays	To engage youth and kids and spread awareness to and through them
8	Educative films	

Pourakarmika Training Kit

Sl. No.	**Contents**	**Message**
1	Handbook	Basic and effective waste management principles like segregation and recycling
2	Practical training	Waste sensitizing, understanding the process and tools to use
3	Personalized aprons & push cart signs	To encourage ownership and feel pride

(The ward kit and PK kit will be presented personally to all ward heads so that they can carry out all modes of communication in their respective wards.)

Other Stakeholder Engagement Activities

1. Zonal Level Meetings
2. Panel Discussions
3. Workshops
4. Round Table Conferences
5. Weekend Events - Black Spot Elimination, Awareness Marches, Cleanliness Drives

Integrate different audiences and monitor progress.

3.1.2 *City Level*

The secondary method to distribute information will be at city/national level

3.1.2.1 Message

At this level we aim to communicate the following:

Sl. No.	Function	Message
1	Branding	• Build a brand for a Clean Bengaluru
2	Change	• Change perception about waste and segregation
3	Restore	• The city's lost glory, clean up its image, portray that the city has acknowledged its problem and is doing something about it
4	Advocate	• 3Rs of waste management and use of alternate energy

3.1.2.2 Medium

Sl. No.	Contents	Message
1	National TVC's	Will showcase scope of this movement, need for it
2	Print Ads	Will contain behaviour altering content
3	Hoardings	Will display slogans/statement that encourage new behaviour
4	Bus Stand Panels	Will recognize and encourage progress made

3.1.3 Common Communication Media for Ward & City Levels

Sl. No.	Media	Function
1	Website	Provide full time access to most documentation, new updates and visuals
2	Facebook & Twitter	Socially engage stakeholders in various online promotional and eductaional activities that everyone can access on-the-go
4	Blog	A personal account of this whole project and its trajectory
5	PR Activities	Promotional
6	Radio	Promotional
7	YouTube Channel	For waste management related videos, videos on Mascot (Hunja) activities - IPL plan, BAKRA, videos on recycling, segregation tips, videos of all event recorded by WUCU team.

Wide scale engagement of citizens in an informal, virtual space

3.2 Communication Tools

1) Technical Helpline

To provide specific info, to answer queries and clear doubts instantly. A live person will attend to all calls.

2) WUCU Mascot - HUNJA

- The WUCU mascot is a rooster (a rooster is a creature that sounds the early morning wakeup call; similarly WUCU is a wakeup call to the city of Bengaluru. ***Hunja*** is the Kannada name for the rooster).
- A costume and jingle accompany the mascot.

- The mascot was designed to create brand visibility and increase brand recall power.
- The IPL plan - The plan is to introduce the mascot during the last IPL match to be held in Bangalore. The idea is to get the rooster to spot and target any person/persons littering the stadium, go after him/her and confront him/her. The IPL match and the stadium would prove to be an excellent platform and venue for the introduction of the mascot and its philosophy, given the national coverage of the program. The concept is to make people wonder and enquire about what the rooster is all about and what WUCU is all about.
- The BAKRA plan - We plan to conduct surprise inspections at hotels, schools, apartments, and institutions to check if in-situ segregation is being carried out. The Hunja will be responsible for conducting these inspections and non-complying institutions/organization will have their processes captured on video instantly uploaded onto our YouTube channel. Same holds good for complying organizations

The two tools will help us in communicating our 4 basic messages - Branding, Restoring, Altering Perceptions and Advocating New Philosophies and Behaviours.

3.3 Communication Tracking

The communications team will constantly track and monitor how the messages are being received by the stakeholders. The communication method includes adopting the best technology practices. A large part of communication will be in real time (tweets, mobile uploading of images as and when they occur, on FB; live blog updates) to ensure deployment of actuals and to ensure

- Procedures/plans are administered effectively
- Commitments are fulfilled (monitoring)

3.4 Communication Received - Recognition, Awards, Rewards & Incentives

Recognition, awards, rewards and incentives are known to behave as change makers for perception. If one sees another being recognized, appreciated and awarded for his/her

effort towards compliance in waste management, he/she may also be persuaded to follow suit. We aim to instill the concept of "IF YOU CAN, SO CAN I" in the minds of the citizens.

Thus, we plan to initiate the following to create excitement and visibility and engagement as a strategy intra ward, intra zone and city wide:

- Conduct competitions and determine winners
- Hand out awards to people/groups that comply and/or help spread awareness
- City tickers and hoarding for "Hall of Fame" (compliance) and "Hall of Shame" (non-compliance) concept.

Expert Committee Member Profiles and Experience

Dr H C Sharatchandra has about 40 years of experience in ecological and environmental sector as a researcher, university faculty, administrator and a consultant. He has extensive knowledge about environmental planning, policy planning for environmental impact studies and environmental appraisal for a variety of developmental projects including activities from Indian Administrative system and other research activities. Actively involved in carrying out a number of environmental assessment activities including close cooperation with NGOs. He was Chairperson of Karnataka State Pollution Control Board during 2006-2009. Other former positions held includes- Member, Karnataka State Planning Board; Additional Secretary, Departments of Science & Technology and Ecology & Environment, GOK, Visiting Fellow, Mangalore University; Member, Task Force of National Planning Commission on Problems of Ecologically Fragile Ecosystem; Resource Person & Coordinator for GTZ-Hazardous Waste Management Project (pre-feasibility study); Resource Person for GTZ-preparation of country status paper on prioritizing areas for assistance in environment sector and Adviser to Indo-German project in eco-profiling of areas for environmentally compatible siting of industries. Currently involved with Quality Council of India assessing environmental consultants for EIA accreditation process.

He has several publications in the field of wildlife ecology & behaviour, conservation & management, EIA studies, Municipal & hazardous waste management, Social Forestry, Biodiversity & Conservation, Natural resources management etc. He is the recipient of several awards including Rajyotsava (State) Award 2012 for his contribution to environment sector.

Mrs. Almitra H Patel fondly referred as 'Solid waste lady' because; it is her PIL in Supreme Court that resulted in the country's first Municipal Waste Management Rules in 2000. She is an engineer by training from MIT and was head of a refractory firm for over 30 years. Since 1991, she is a self-taught 'garbologist' having visited 160 Indian cities to date during and after two 'Clean India Campaigns' by road with the late Capt J S Velu after the Surat plague. She is a member of the Supreme Court appointed Committee for Solid Waste Management (SWM) that produced a comprehensive blueprint for reform, including source-separation of dry and wet waste and daily doorstep collection of wet waste for composting and dry waste for recycling.

She was appointed by the Mumbai High Court to two Expert Committees for solid waste disposal issues in Thane (as Convener) and Pune (as member). She was SWM consultant to Ganga ICDP Project at Kanpur in 2001 and to Clean Jharkhand Project at Ranchi 2002. She was Honorary Gir Lion Project Officer, Executive Committee Member of World Wildlife Fund-Southern Region and INTACH Convener for Bangalore in 1995-97. Her awards include Economic Times Environmentalist of the year (1994) and two Kempegowda Awards (1998 and 2004).

Mrs. Kalpana Kar is leading social activist of Bangalore and was one of the driving forces behind the Bangalore Agenda Task Force, a Task Force set up the then Chief Minister of Karnataka as an experiment in public-private partnership. With her drive and initiative the BATF has proved to be a unique and successful experiment and she was conferred the prestigious Karnataka Rajyotsava Award by the Government of Karnataka for her contribution to the state.

An Inlaks scholar, Kalpana has completed her Masters degree in International Relations from the Jawaharlal Nehru University, New Delhi followed by a Masters Degree of Philosophy in International Relations from the Oxford University, UK.

She joined Tata Administrative Services (TAS) in 1984 and served in various capacities till 1993. She was responsible for launching Microsoft products in India. She as product Development Manager and later as Project Manager was responsible for diversification of Titan into the Jewelry industry. She left Titan Watches in 1993 to spend time with Microland Limited where she as a Director focused on special projects. Her interests include art, music, theatre, and travelling, reading and social development.

Sri S. Venkatesh Shaker is a civil engineer with a Masters degree in Environmental Planning. He has over 25 years of work experience and is currently Environmental Officer in Karnataka State Pollution Control Board, responsible for monitoring local bodies, BBMP & hospitals. He is member of an expert committee constituted by MOEF to revise the Manual on SWM to be in line with the amended MSW Rules 2011.

Sri N.S. Ramakanth is an engineer by training with extensive work experience in engineering companies abroad. He took voluntary retirement as Chief Engineer of a German Company in 1989 to return to India. Since then he has devoted his time for community work specially in Resident Welfare Associations spreading the spirit of community participation in civic governance and trying to make Bengaluru a garbage free city. He is the recipient of several civic awards for his community work. He was awarded the Best Speaker Award in the 9th International Conference on 'Good Governance for safe, healthy, green and smart city '. The other major awards include Lifetime Achievement award 2011-12 by Kensri Academy of Excellence, Social Worker of the year 2007 by BMP ward 77, Best Community Service for the year 2009 by Sheshadripuram Education Trust.

Dr. D. Radhakrishna has 35 years of experience as a scientist and faculty in the University of Agricultural Sciences, Bangalore, with specialization in Agricultural Microbiology. He has carried out extensive research for over 20 years on Microbial Decomposition and recycling of Farm and City wastes. He has guided 12 students for M. Sc and 8 students for PhD programme mainly related to Organic matter decomposition and recycling. He has carried out several research projects funded by ICAR and Government of Karnataka and was Head of the Department of Agricultural Microbiology for three years 2006 to 2009. He was extensively involved in extension activities of the University in providing awareness, training and demonstration to the farmers in production, enrichment and application of organic manures and bio-fertilizers for crop production. He has several publications in the field of organic matter decomposition and enriched organic manures. Other activities include Resource Person in Organic farming in Training programmes organized by State Departments of Agriculture and Horticulture, advisor in organic manures and biofertilizer production and Director on the Board of Directors, Karnataka Compost Development Corporation, Bangalore for over a period of 12 Years as UAS nominee.

Sri Basaviah is the former MD of Karnataka Compost Development Corporation, the first of its kind in the country. He is an agricultural graduate with over 30 years of experience in the Government in various capacities. He has also been adviser to several states and neighbouring countries for establishing compost making plants from municipal waste. He was member of the Technology Group constituted by GoI, for identifying technologies for scientific processing of Municipal waste as well as member of the Task Force of GOI for improving process of treatment of MSW. He is associated with 'Nirmal Nagar' programme of GoK for implementing MSW rules for ULBs. He was responsible for making operational 94 vermi-composting plants in Gujarat. He brings with him the practical knowledge of composting and the challenges of running a processing facility.