

38

**STANDING COMMITTEE ON
URBAN DEVELOPMENT
(2008-2009)**

FOURTEENTH LOK SABHA

MINISTRY OF URBAN DEVELOPMENT

SOLID WASTE MANAGEMENT

THIRTY-EIGHTH REPORT



सत्यमेव जयते

**LOK SABHA SECRETARIAT
NEW DELHI**

THIRTY-EIGHTH REPORT
STANDING COMMITTEE ON
URBAN DEVELOPMENT
(2008-2009)

(FOURTEENTH LOK SABHA)

MINISTRY OF URBAN DEVELOPMENT

SOLID WASTE MANAGEMENT

Presented to Lok Sabha on 18.12.2008

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LOK SABHA SECRETARIAT
NEW DELHI

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COMPOSITION OF THE STANDING COMMITTEE ON
URBAN DEVELOPMENT (2008-2009)

Mohd. Salim—*Chairman*

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2. Shri T.K. Mukherjee — *Director*
3. Smt. Anita B. Panda — *Deputy Secretary*
4. Shri Arvind Sharma — *Under Secretary*

INTRODUCTION

I, the Chairman of the Standing Committee on Urban Development (2008-09), having been authorized by the Committee to submit the Report on their behalf, present the Thirty-Eighth Report on the subject 'Solid Waste Management' relating to the Ministry of Urban Development.

2. The Committee took evidence of the representatives of the Ministry of Urban Development and the Ministry of Environment and Forests on 24th January and 15th July, 2008 respectively.

3. The Committee considered and adopted the Report at their sitting held on 17th December, 2008.

4. The Committee wish to express their thanks to the officials of the Ministry of Urban Development and the Ministry of Environment and Forests for placing before them the requisite material and their considered views in connection with the examination of the subject.

5. They would also like to place on record their deep sense of appreciation for the invaluable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

NEW DELHI;
17 December, 2008

26 Agrahayana, 1930 (Saka)

MOHD. SALIM,
Chairman,
Standing Committee on
Urban Development.

REPORT

PART I

A. Introductory

Municipal solid waste* consists of household waste, market waste construction and demolition debris, sanitation residue, and waste from streets. This waste is generated mainly from residential and commercial complexes. With rising urbanization and change in lifestyle and food habits, not only the amount of municipal solid waste has been increasing rapidly but its composition is also changing. There are different types of solid waste generated in the cities depending on their sources which can be further classified as household waste or municipal waste, industrial waste or hazardous waste, biomedical waste or hospital waste and electronic waste.

1.2 Cities, being centres of industrial activity, generate large amount of hazardous waste. These comprise toxic chemicals, radioactive materials, and bio-medical or infectious wastes. These materials threaten sanitation workers through occupational exposure and the general public in their homes, communities, and general environment. Exposure to these materials can occur near the site of generation, along the path of its transportation, and near their ultimate disposal sites. Most hazardous waste results from industrial processes that yield unwanted byproducts, defective products, and spilled material. The generation and disposal of hazardous wastes is controlled through a variety of international and national regulations.

1.3 Cities also have a sizeable number of hospital and health-care institutions which produce the biomedical wastes, that is, solid, liquid and sharps, evolved from such health-care (medical) activities like diagnosis, monitoring, treatment, prevention of disease or alleviation of handicap in humans or animals, including related biomedical research. Also, the number of patients suffering from life-style diseases e.g. diabetes, obesity, etc., are constantly on the rise in cities and towns, which has increased the use of disposable syringes, medications and equipments at homes. This activity has resulted in adding bio-medical hazardous waste in the household garbage of cities. The bio-medical waste is different from the biological waste in the sense that the former

*Abbreviated and used as 'MSW' in the Report.

is generated from a man-made way whereas the latter from a natural ecological cycle. Proper handling of biomedical waste is crucial to the public health and needs to be convened with standard operating procedures.

1.4 The Ministry of Urban Development informed the Committee in a written note as under:

“Rapid urbanization has led to over-stressing of urban infrastructure services including Municipal Solid Waste Management because of poor resources and inadequacies of the existing systems. Therefore, augmenting, operating & maintaining solid waste management system* in a sustainable manner by urban local bodies would require huge capital investment, introduction of latest technologies which are cost effective, Public-Private-Partnership (PPP) in waste management and introduction of appropriate waste management practices in order to prevent waste from causing environmental pollution and health hazards. Over the last few years, the consumer market has grown rapidly leading to products being packed in cans, aluminium foils, plastics, and other such non-biodegradable items that cause incalculable harm to the environment. In India, some municipal areas have banned the use of plastics and they seem to have achieved success. Problems of urban waste management is notable not only because of large quantities involved, but also its spatial spread across 5161 cities and towns and enormity and variety of problems involved in setting up and managing systems for collection, transportation and disposal of waste”.

1.5 India’s population as per 2001 Census was 1027 million with 285.35 million people residing in 5161 cities/towns. In Post Independence era, while the population of India had grown three times, urban population grew five times. The urban population has grown from 17.3% of total population in the year 1951 to 27.87% in 2001 and it is likely that 33% of the total population of the country would be living in urban areas by 2021 A.D. As per the information available on the website of TERI**, in 1947, cities and towns in India had generated an estimated 6 million tonnes of solid waste, whereas in 1997 it was about 42 million tonnes. More than 25% of the municipal solid waste was still not being collected at all and; 70% of the Indian cities lacked adequate capacity to transport it. Also there were no sanitary landfills for waste disposal.

*Abbreviated and used as ‘SWM’ in the Report.

**The Energy & Resources Institute, Delhi, India

1.6 When asked to explain the steps taken by the Ministry of Urban Development regarding waste disposal, the Committee were informed as under:

“Sanitation is a State subject and it is the responsibility of the State Government to plan, design, implement, operate and maintain solid waste management schemes. The Government of India, Ministry of Urban Development is, however, facilitating the State Governments and ULBs in implementing solid waste management schemes in their cities and towns by way of the guidelines indicated in the Manual on Municipal Solid Waste Management published by the Ministry. The Ministry of Environment and Forests has notified Municipal Solid Waste (Management & Handling Rules, 2000, which has specific directives to the Local Bodies, District Administrations and the Urban Development Departments of the State Governments for proper and scientific management of municipal solid waste. (These rules are being amended by the Ministry of Environment & Forests)”.

1.7 When asked by the Committee, the Ministry of Urban Development identified the following major issues in SWM, which in a nutshell, were responsible for the present grim scenario:

- “(i) Absence of segregation of waste at source.
- (ii) Absence of funds and capacity with ULBs.
- (iii) Lack of planning, technical expertise and appropriate institutional arrangements.
- (iv) Unwillingness of ULBs to introduce segregation at source, proper collection, transportation and treatment/disposal.
- (v) Indifference of citizens and lack of community participation towards waste management due to lack of awareness.”

1.8 An effective management of solid waste, according to the Ministry of Urban Development, involved a multi-material, multi-source, environmentally sustainable management approach, with following activities associated with it:

- “(i) Waste generation
- (ii) Waste handling and sorting, storage and processing at source
- (iii) Collection
- (iv) Sorting, processing and transformation

- (v) Transfer and transport
- (vi) Treatment and Disposal”.

1.9 It was further informed that the waste management options included the hierarchy of:

- “(i) Waste minimization
- (ii) Recycling
- (iii) Waste processing
- (iv) Waste transformation
- (v) Disposal on land.”

1.10 The Committee examined these and various other issues concerning the magnitude of the problem of municipal solid waste and its management in urban India, along with role of different stake holders in mitigating the problem, which is reproduced in the subsequent sections of the Report:

B. Municipal Solid Waste (Handling & Management) Rules, 2000

2.1 While examining the subject, the Committee observed that the Government undertook the framing of the Manual on MSW (2000), notifying of MSW (Handling & Management), Rule (2000) and setting up of the Technical Advisory Group (TAG) on SWM (1999), etc., following a PIL No. 888/1996 and a Writ Petition (2004) filed in the Supreme Court of India. This PIL sought appropriate measures for scientific methods to treat and process MSW in all class I cities of the country. The Committee sought information from the Ministry of Urban Development on the matter. From the details furnished by the Ministry, the Committee noted that several measures were taken by the Ministry of Urban Development, Ministry of Environment and Forests and the Ministry of New and Renewable Energy, on matters related to SWM projects in the country following the orders of the Supreme Court on above-stated PIL and Writ Petition, which boosted the Government’s efforts in this direction.

2.2 The Committee were apprised by the Ministry of Urban Development that the Government of India, Ministry of Environment & Forests notified the MSW (Handling & Management) Rule, 2000 under Environment Protection Act. The Municipal and Solid Waste (MSW) Rules, Schedule V indicated the following roles and responsibilities of different stakeholders:

- (a) Every municipal authority within the territorial area of the municipality is responsible for implementation of the provisions of these rules, and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid waste.
- (b) The Secretary-in-Charge of the Department of Urban Development of the concerned State or the Union Territory, as the case may be has the overall responsibility for the enforcement of the provisions of these rules in the metropolitan cities.
- (c) The District Magistrate or the Deputy Commissioner of the concerned district has the overall responsibility for the enforcement of the provisions of these rules within the territorial limits of their jurisdiction.
- (d) The State Pollution Control Board (SPCB) or the State Level Committee which has to monitor the compliance of the standards regarding groundwater, ambient air, leachate quality and the compost quality including incineration standards as specified in the Schedule of the rules and grant authorization for setting up waste processing and disposal facility including landfills, shall examine the proposal taking into consideration the views of other agencies like the State Urban Development Department, the Town and Country Planning Department, Airport or Air Base Authority, the Ground Water Board or any such other agency prior to issuing the authorization.
- (e) The Central Pollution Control Board (CPCB) coordinates with the State Boards and the State Level Committees with regard to implementation and review of standards and guidelines and compilation of monitoring data.

2.3 The Ministry of Urban Development had also brought out a Manual on Municipal Solid Waste Management, in May, 2000 to facilitate the ULBs to address the SWM issues. Emphasizing upon the role of State Governments and ULBs in this connection, the Ministry submitted to the Committee as under:

“Since the Ministry has already disseminated the Manual of Municipal Solid Waste Management regarding disposal of garbage, disposal of non-combustible, non-decomposable wastes and disposal of industrial wastes such as chemicals, paints, sand, etc., the State

Governments/ULBs have to follow the guidelines indicated in the said Manual to address the aforesaid issues on disposal of solid waste.”

2.4 As regards the query of the Committee on the policy to handle the municipal waste, a representative of the Ministry of Urban Development during the briefing meeting held on 24th January, 2008 stated as under:

“The Environment and Forest Ministry’s Municipal Solid Waste Management and Handling Rules, 2000, is the policy on how to handle the municipal waste”.

2.5 On their specific query about any National Waste Policy, the Committee were informed by the Ministry of Urban Development that there was no National Waste Policy (Solid Waste Management).

2.6 The witness further added:

“...most of the State Governments, city administrations, and municipal bodies have attempted to achieve this. The fact remains that these Waste Management and Handling Rules are not being fully complied with by the municipal bodies. They were supposed to adhere to these conditions by 2003. Since they were not able to fully comply with the conditions, the time limit for fully complying with them has been extended up to December, 2008.”

2.7 The Committee desired to know the reasons for the inability of the ULBs to implement the MSW, 2000 and steps taken by the Ministry to sensitize the ULBs in the matter. The Ministry of Urban Development in a written reply informed the Committee inter alia as under:

“...In order to implement the provisions of the MSW Rules, 2000 huge capital investment is necessary to implement solid waste management projects and operate & maintain these facilities. Due to budgetary constraints, lack of planning, inadequate house-to-house collection, transportation, treatment and disposal of municipal solid waste, most of the ULBs could not achieve the desired goals”.

2.8 When asked by the Committee whether there had been any demand to simplify the guidelines available for solid waste management to formulate Detailed Project Reports by ULBs and the initiatives taken on this front, the Ministry of Urban Development in a written reply informed the Committee as under:

“The Manual on Municipal Solid Waste Management, published by the Ministry of Urban Development, has brought out very exhaustively, guidelines in respect of planning and formulation of

solid waste management schemes with a view to guide ULBs for the management of municipal solid waste. The Ministry is of the opinion that further simplification of the guidelines is not required. No demand has been received in the Ministry from the State Governments/ULBs requesting simplification of the guidelines on solid waste management for formulation of DPRs by ULBs.

For preparation of quality DPRs, the Ministry had organised a number of Regional Workshops in the year 2006-07 at Coimbatore (covering various cities in the Southern Region), Nagpur (covering the Western Region), Chandigarh (covering Northern Region), Orissa (covering Eastern Region), Guwahati (covering North-Eastern Region) and Lucknow (covering Uttar Pradesh & Bihar), where all the State representatives were present and got trained in the preparation of DPR as per the Manuals and JNNURM guidelines. In addition, the JNNURM Division has already identified a few institutes for imparting rapid training to the ULBs for preparation of DPRs, which is a continuous process.

Moreover, the Ministry had published a report of Technology Advisory Group on solid waste management in May, 2005 which includes various treatment and technological options, advantages, limitations, etc. The report has been forwarded to all the State Governments. It is also available on the Ministry's website."

C. National Urban Sanitation Policy

3.1 Lack of urban sanitation adds to the difficulties faced by the city managers in handling MSW. The Committee were informed by the Ministry of Urban Development about the steps taken for the formulation of National Sanitation Policy as follows:

"The National Urban Sanitation Policy has been approved by the Cabinet on 3rd October 2008. Urban Sanitation Policy is brought out with a view to formulate policy guidelines, strategies for implementation of sewerage and sanitation facilities in the urban areas, with a specific focus to eliminate open defecation in the cities and towns".

3.2 About the goals of the National Urban Sanitation Policy, the Ministry of Urban Development furnished the following information to the Committee:

“(i) Awareness Generation and Behavioural Change

- a. Generating awareness about sanitation and its linkages with public and environmental health amongst communities and institutions;

- b. Promoting mechanisms to bring about and sustain behavioural changes aimed at adoption of healthy sanitation practices;

(ii) Open Defecation Free Cities

The ultimate objective is that all urban dwellers will have access to and be able to use safe and hygienic sanitation facilities and arrangements so that no one defecates in the open. In order to achieve the goal, the following activities shall undertaken:

- a. Promoting access to households with safe sanitation facilities (including proper disposal arrangements);
- b. Promoting community-planned and managed toilets wherever necessary, for groups of households who have constraints of space, tenure or economic constraints in gaining access to individual facilities;
- c. Adequate availability and 100% upkeep and management of Public Sanitation facilities in all Urban Areas, to rid them of open defecation and environmental hazards;

(iii) Integrated City Wide Sanitation

Re-orienting Institutions and mainstreaming Sanitation by

- (a) Mainstreaming thinking, planning and implementing measures related to sanitation in all sectors and departmental domains as a cross-cutting issue, especially in all urban management endeavours;
- (b) Strengthening national, state, city and local institutions (public private and community) to accord priority to sanitation provision, including planning, implementation and Operation & Maintenance (O&M) management;
- (c) Extending access to proper sanitation facilities for poor communities and other un-served settlements;

(iv) Sanitary and Safe Disposal

100% of human excreta and liquid wastes from all sanitation facilities including toilets must be disposed of safely. In order to achieve this goal, the following activities shall be undertaken:

- (a) Promoting proper functioning of network-based sewerage systems and ensuring connections of households to them wherever possible,

- (b) Promoting proper disposal and treatment of sludge from on-site installations (septic tanks, pit latrines, etc);
- (c) Ensuring that all the human wastes are collected safely confined and disposed of after treatment so as not to cause any hazard to public health or the environment;

(v) Proper Operation and Maintenance of all Sanitary Installations

- (a) Promoting proper usage, regular upkeep and maintenance of household, community and public sanitation facilities;
- (b) Strengthening Urban Local Bodies (ULBs) to provide or cause to provide, sustainable sanitation services delivery”.

D. Magnitude of Municipal Solid Waste in Urban India

4.1 The Committee were apprised that one of the major reasons for inadequate solid waste management in major cities and the smaller cities was unregulated growth of these urban areas and increase in their population leading to staggering magnitude of MSW generated there.

4.2 According to a written note submitted by the Ministry of Urban Development, the magnitude of MSW in urban India was assessed as under:

“The per capita waste generation varies between 0.2 kg to 0.6 kg per day in cities with population ranging from 1.0 lakh to 50 lakh. An assessment has been made that because of increase in per capita waste generation of about 1.3% per year, the growth of urban waste in the cities is about 5%. Waste collection efficiency ranges from 50% to 90%. ULBs spend between Rs. 500/- to Rs. 1500/- per MT on solid waste management of which 60% to 70% is spent on collection alone, 20% to 30% on transportation and less than 5% on treatment and disposal which is very essential to prevent environmental pollution. Crude dumping is normally resorted to by ULBs without adopting scientific and hygienic approach of sanitary landing”.

4.3 About the quantity of Indian municipal waste, the Committee were apprised by the Ministry of Urban Development as follows:—

“Urban India produces about 42 million tonnes of municipal solid waste annually i.e. 1.15 lakh metric tonnes per day (TPD), out of which 83,378 TPD is generated in 423 class I cities works out to

72.5% of the total waste generated as given in the table below. This needs to be tackled on priority.

	Qty. (TPD)	% of total garbage
Waste generated in 6 mega cities	21,000	18.35%
Waste generated in metro cities (Population 10 lakhs+	19,643	17.08%
Waste generated in other Class I towns (1.0 lakh plus population)	42,635.28	37.07%
	83,378.28	72.50%

4.4 In this context, a representative of the Ministry of Urban Development during the briefing meeting held on 24th January, 2008 informed the Committee as under:—

“As per our assessment, the per capita waste generation varies between 200 grams to 600 grams per day per person... The problem of municipal solid waste management is acute. It is because of the following reasons. First, a large amount of waste is generated. Secondly, we have a large number of cities, approximately 5161 cities and towns, where the issue is serious. Then, there are the issues involved in collection, transportation and scientific way of disposing it. In urban India, these 5161 cities and towns produce 42 million tonnes of solid waste annually and 72.5 per cent of that is produced by 423 class I cities. So, the moment the problem is addressed in these class I cities, about 72.5 per cent of the problem is addressed”.

4.5 As regards various technologies for treatment of disposal of municipal solid waste, the Ministry of Urban Development informed the Committee in a written note as under:

“Various technological options for treatment and disposal of municipal solid waste have been given in the TAG Report and the manual on Municipal Solid Waste Management. Some of them are as under:

- (a) Composting including vermi composting
- (b) Anaerobic digestion/biomethanation
- (c) Incineration

- (d) Gasification/Pyrolysis including Plasma Pyrolysis
- (e) Production of Refuse Derived Fuel (RDF)/Pelletisation
- (f) Sanitary Landfilling/Landfill Gas Recovery

However, appropriate and cost effective technology will have to be chosen by the ULB based on the quantum of waste, its quality and characteristics, field conditions, etc. The Ministry help the ULBs to select suitable technology according to these parameters in respect of projects proposed under JNNURM.”

E. Financing and Implementation of Solid Waste Management Projects under JNNURM, UIDSSMT, Pilot-Project of SWM in 10 Airfield Towns and other initiatives

5.1 As part of a major initiative, the Ministry had launched two programmes in the year 2005 *viz.* the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) to cover 63 selected towns and the Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT) to cover 5098 urban towns for providing infrastructure facilities including solid waste management in all urban areas in a seven year Mission period. In addition, a Centrally-Sponsored Scheme for providing Solid Waste Management & Drainage facilities in 10 selected India Air Force Airfield towns was launched in the year, 2003 which was targeted to be completed by the end of March, 2008.

5.2 SWM generally is not a matter of top priority for the State Governments/ULBs. The Ministry of Urban Development informed the Committee that the State Governments/ULBs had prioritized the various components in their respective City Development Plans for possible financial assistance under JNNURM. As per the priority, the DPRs were being formulated and approved under JNNURM. Since certain cities had prioritized other sectors over solid waste management, many SWM projects were not posed under JNNURM for possible financial assistance. As per the information received on 21st November, 2008 from the Ministry, it was stated that so far around 8.83% of the total projects (351 in number) sanctioned under Sub-Mission I of JNNURM had been for SWM. Elaborating further, it was informed that 31 SWM projects costing around Rs. 158215.36 lakh were sanctioned with funds amounting to Rs. 22207.24 lakh released till date under the Mission.

5.3 Further, under UIDSSMT, it was informed that 40 projects for SWM, costing Rs. 281.90 crore, had been approved, for which Rs. 116.71 crore were released till date. These projects were assessed by the Ministry as only 3% of the total 691 projects sanctioned under the scheme.

5.4 The 12th Finance Commission had made a provision of Rs. 2500 crore in June, 2005 for ULBs exclusively for setting up Solid Waste Management systems in 423 class I cities during 2005-2010. The Ministry of Urban Development suggested that as SWM was a State subject, it would be appropriate to appoint an Independent Evaluation and Monitoring Agency at State level to monitor the working of these systems. On being enquired about the present status of implementation status of solid waste management system in these 423 cities, the Ministry submitted that these grants, sanctioned under 12th Finance Commission, were being released to the State Governments by the Ministry of Finance. Since the fund was being managed by the Ministry of Finance, the Ministry of Urban Development had no information regarding the progress. The Ministry informed the Committee that the details were being asked for from the Ministry of Finance and would be forwarded on receipt.

5.5 As regards the details of the SWM projects taken up by National Building Construction Corporation (NBCC-the company under the administrative control of the Ministry of Urban Development) in Jammu & Kashmir and Andaman & Nicobar Islands and the major challenges faced by NBCC to execute SWM projects in Hilly areas and islands, as compared to plains & landlocked areas, the Ministry of Urban Development informed the Committee in a written reply as under:

“NBCC has reported that they have taken up the following SWM projects in Jammu & Kashmir:

- (a) Dods
- (b) Bhaderwah
- (c) Akhnoor
- (d) Poonch
- (e) Samba
- (f) Kathua
- (g) Sunderbani

The capacity of each project is about 10 TPD except Kathua which is about 20 TPD. The construction work is in progress.

The main challenge to develop an SWM scheme in Hilly regions is the non-availability of suitable land for the processing plant. Most of the land are in inaccessible locations, in river valleys, mountain sides, etc., which require huge amount of expenditure on basic site development like roads excavation, earth-filling, etc. Secondly, protection against heavy rains, snow, etc., are also required. Provision of electrical & water services also require huge costs as off take points are not available nearby and water table is very low.

The Operation and Maintenance of these schemes are also a problem as the quantity of waste and thereby product recovery is very low. The biodegradable waste is seldom disposed off by people in leading to poor economics of O&M cost *vis-a-vis* revenues from sale of products. The recovery of compost is likely to be very low and not adequate to offset the expenditure on O & M. The plants shall need to be operated by the State Government at own cost.

The cost of waste collection in hilly regions is also very high due to scattered houses & lack of collection points. Moreover, the municipal bodies of these towns are economically very weak & not able to meet the cost of waste collection & transportation of waste to the processing sites. In J&K, the landed costs of materials and equipments when sent from other States is also abnormally high due to Entry Tax on Goods of the order of 12.5% and High Toll tax @ Rs. 400/- per tonne. Even the costs of Registration for sales tax is very high as Bank Guarantee @ 10% of contract value is required to be provided to J&K authorities.

NBCC has entered into an agreement with Central Pollution Control Board (CPCB) to develop solid waste management schemes in Hilly regions which shall be used to develop standard designs for future use. A scheme in Mandi, HP has been taken up at present and is in design stage.

NBCC has not yet started execution of solid waste management scheme in Andaman & Nicobar Islands as the work is yet to be entrusted to NBCC by A&N Administration. However, on preliminary survey of the situation in the islands, the problem of MSW and specially littering with plastic is a major environmental hazard which needs to be tackled."

5.6 According to the Annual Report of the Ministry of Urban Development (2007-08) NBCC was also associated with SWM schemes at Faridabad, Karnal, Rohatak, Yamuna Nagar and Jagaadari in Haryana.

5.7 The Committee were further informed that in a meeting held on December, 2007, the Ministry of Urban Development decided to approach the Ministry of Finance to get funds to the extent of Rs. 900 crores as capital investments, transport and subsidy for the Solid Waste Management. The Non-Plan Committee under the Ministry of Finance was to consider this proposal. Asked about the present status of the proposal, the Committee were informed by the Ministry of Urban Development in a post evidence reply as under:

“Ministry of Finance was approached for implementation of recommendations made in the Task Force report *vide* letter dated 19/12/07 and dated 16.1.2008 and subsequently reminded to expedite the same *vide* D.O. letter dated 03.03.08 and 23.4.08. However, during the review meeting held under the Chairmanship of the Secretary, Ministry of Urban Development on the implementation of the recommendations made in the said report on 19th August, 2008, the Ministry of Finance requested this Ministry to formulate a proposal in this regard and forward the same to the Ministry of Finance for initiating necessary action. The Ministry is in the process of formulating the proposal and the same will be forwarded to the Ministry of Finance”.

5.8 Asked about the budgetary support provided to the Ministry of Urban Development with regard to solid waste management, during the last five years, the Committee have been informed in a written note as under:—

“As per the recommendations of the Inter-Ministerial Joint Sub-Committee constituted in February, 1999, the Centrally-sponsored Scheme for Solid Waste Management & Drainage in 10 selected Indian Air Force Airfield towns* had been launched and is being implemented at an estimated cost of Rs. 99.34 crore since 2002-2003 with the approval of Departmental Expenditure Finance Committee and approval of the Full Planning Commission in October, 2003.

The schemes for 8 towns *viz.* Gwalior, Ambala, Jodhpur, Tezpur, Dindigul, Sirsa, Adampur and Pune are being implemented by the National Building Construction Corporation (NBCC) and the schemes for the other two towns *viz.* Hindon and Bareilly are being implemented by the UP Jal Nigam.

*The Committee had earlier examined and commented on the scheme in their 33rd Report on ‘Demands for Grants (2008-2009)’ of the Ministry of Urban Development.

The originally approved cost of the scheme was Rs. 99.34 crore at 2001-02 price level. Subsequently, there has been an increase in the cost of the scheme due to time and cost overruns, change in the scope of the airfield projects and agency charges. Due to this, the project cost has been revised and the revised estimated cost, works out to Rs. 130.68 crore, which has been approved by the Department Expenditure Finance Committee of the Ministry of Urban Development on 15.1.2008. The expenditure incurred under this scheme for the 10 airfield towns is as under:

(Rs. in lakh)

Plan Year	BE	RE	Actual Expenditure
2003-04	5000	-	99.01
2004-05	4000	4000	4008.48
2005-06	5500	5500	5896.79
2006-07	3500	1500	600.00
2007-08	2000	-	-

No budget estimate is proposed for 2008-09 as the programme will be coming to an end by March, 2008".

5.9 Reporting the progress of the scheme, the Ministry of Urban Development, in their action Taken reply to the recommendations contained in 33rd Report of the Committee on Demands for Grants, had informed that out of 10 selected Airfield Towns, projects in six towns, namely, Sirsa, Jodhpur, Adampur, Dundigal, Gwalior and Ambala have been completed. The Ministry of Urban Development had also informed the Committee that though the scheme was supposed to be finished by March, 2008, yet it had been delayed badly in Pune, Tejpur and Hindon. Only 45 per cent 10 per cent and 45 per cent of work was stated to be completed in Pune, Tejpur and Hindon respectively as on 30.06.08. As regards the project in Bareilly, completion of 82% of the work was reported.

5.10 The Committee were also informed in October, 2008 that out of 6 completed projects, 5 projects namely at Sirsa, Ambala, Gwalior, Jodhpur and Adampur had been commissioned and were being operated and maintained by private firms engaged by NBCC. These firms were stated to be operating the scheme without any financial burden on ULBs and the O&M cost were being met through sale of compost made from garbage.

Solid Waste Management Scheme in Hindon Airfield, Ghaziabad, U.P.

5.11 During the oral evidence, the Committee had expressed their dismay over the tardy progress in the SWM in Ghaziabad town and desired to be apprised about the matter in detail. Accordingly, the Ministry were asked to furnish a written note on the same. In their post evidence reply the Ministry of Urban Development had informed the Committee that the Detailed Project Report for Solid Waste Management & Drainage Scheme for Ghaziabad town (Hindon Airfield) at an estimated cost of Rs. 13.52 crore was approved by the Ministry vide letter No. Q-15014/94-CPHEEO dated 23.8.2005. The project was commenced on 1.1.2006. As against the total release of Rs. 12.76 crore, the expenditure incurred on the project so far was Rs. 6.05 crore.

5.12 The component-wise physical & financial progress reported by UP Jal Nigam in respect of Hindon Airfield, as submitted by the Ministry of Urban Development to the Committee, is as under:—

Components	Physical Progress	Financial Progress (in lakh)
Solid Waste Collection	100%	169.58
Solid Waste Transportation & Handling	100%	48.40
Sanitary Landfill Unit	10%	36.80
Compost Plant (100 TPD)	7%	18.89
Infrastructure Facilities at Solid Waste Disposal Facility (SWDF)	20%	87.08
Vermi-Compost Unit (20TPD)	—	0.00
Sewerage/Drainage Facility near Sensitive Zone	98%	220.00
Creating Public Awareness & Public Participation of Citizens through NGOs. Electronic media, Benefit Monitoring & Evaluation in Solid Waste Management Schemes, Training of Implementation Agency staff of urban local body in other municipal corporations for HRD & Capacity Building	—	25.00
Total		605.75

The progress in respect of sanitary landfill & compost plant is 10% and 7% respectively. These components could not be completed due to dispute in the land measuring 43 acres, which was originally identified by the Ghaziabad Nagar Nigam at Dooda Hera, Chippiyana Bujurg in Ghaziabad (situated about 5-6 km away from Ghaziabad-Delhi by pass)".

5.13 As regards the reasons for not completing the aforesaid two components of sanitary landfill and compost plant, the Ministry of Urban Development informed the Committee as under:—

"Out of 43 acres of land identified by the Ghaziabad Nagar Nigam at the aforesaid locations, 14 acres of land at Dooda Hera had been landed over by Ghaziabad Nagar Nigam to U.P. Jal Nigam on 20.10.2004. The U.P. Jal Nigam has constructed compound wall and earth work excavation for sanitary landfill at Dooda Hera. In the meantime, a writ petition (No. 12496 of 2006) was filed by Shri Anil Kumar Tyagi, resident of Ghaziabad in the Hon'ble High Court, Allahabad stating that the aforesaid site is falling under the residential zone as per the Ghaziabad Master Plan 2021 which was approved by the State Government *vide* its GO No. 2891/08.03.05-14/2005 dated 14.7.2005. On hearing the Hon'ble High Court directed the Vice-Chairman, Ghaziabad Development Authority (GDA) on 1.3.2006 that all the concerned parties should be listened and to take appropriate decision. The Ghaziabad Nagar Nigam has taken efforts to take possession of the remaining and of 29 acres from the Gram Sabha Chippiyana Bujurg. In this regard, a meeting was held on 4.5.2006 under the Chairmanship of Secretary, Nagar Vikas in Lucknow and as per his directions revised proposal Chippiyana Bujurg was sent by the District Magistrate of Gautam Budh Nagar on 24.5.2006 to Principal Secretary (Revenue). Another meeting was held again on 22.8.2006 under the Chairmanship of Shri A.K. Verma, Principal Secretary, Nagar Vikas in Lucknow for Chippiyana Bujurg land, District Gautam Budh Nagar. Secretary (Revenue) informed in the meeting that the required approval on revised proposal will be accorded very shortly and there was no problem now. Again on 9.10.2006 and 11.1.2007, the Hon'ble Minister for Nagar Vikas Khand has given instructions to Principal Secretary (Revenue) for speedy transfer of land to Ghaziabad Nagar Nigam/U.P. Jal Nigam so that the work can be completed in time. Again Shri Anil Kumar Tyagi filed a writ petition (No. 57172 of 2006) in the Hon'ble High Court and on hearing the Court *vide* its order dated 1.11.2006 had restrained the Nagar Nigam Ghaziabad/UP Jal Nigam to proceed further any

kind of construction activities regarding solid waste disposal on Dooda Hera site and directed the Vice-Chairman, Ghaziabad Development Authority (GDA) to hear the concerned parties and dispose the case with a detailed speaking order. Due to this, the work was held up at Dooda Hera.”

5.14 The Ministry of Urban Development informed the Committee about further development in this connection as under:—

“In a meeting held on 17th December, 2007 in the Ministry to review the progress of airfield projects in respect of Hindon & Bareilly towns, the Principal Secretary, Department of Housing & Urban Planning, Government of UP has indicated that the GDA has already initiated action for acquiring 43 acres of land at Dasna in Ghaziabad, which is about 9 km away from the ongoing site and is feasible for construction of solid waste disposal facilities. Also, UP Jal Nigam *vide* their letter dated 14th July, 2008 has reported that on 1st July, 2008 a High Level meeting was held in Lucknow in which Hon’ble Minister for Housing and Hon’ble Minister for Urban Development and the respective Principal Secretaries and other concerned departments participated. It was decided that in order to take final decision regarding the site for landfill at Dasna, the consent of Hindon airfield should be taken”.

5.15 In this regard, the Committee were apprised by the Ministry of Urban Development on 27th October, 2008 that the Principal Secretary (Housing), Government of UP had inspected the site at Dasna on 14.7.2008 and directed the following:—

- “(i) GDA will apply in formal format for the NOC of Hindon Air Field and UP Pollution Control Board.
- (ii) Air Force officers should give their final inspection report/ NOC to GDA for Dasna site.
- (iii) UP Pollution Control Board to give their NOC to GDA for Dasna site
- (iv) District Magistrate, Ghaziabad will speed up the land acquisition process of Dasna site”.

5.16 Accordingly, the Ministry informed the Committee as under:—

“Once the land is made available by the GDA to Ghaziabad Nagar Nigam/UP Jal Nigam, the work in respect of sanitary landfill and compost plant will be completed and the scheme will be commissioned”.

F. Existing mechanism for dumping garbage in and around Delhi

6.1 During oral evidence, the Committee expressed serious concern over no proper allocation of proper dumping yard/landfill areas in and around cities including NCR, particularly Guragaon and Ghaziabad. On a specific subsequent query about the absence of a proper dumping yard in Gurgaon, that had resulted in Gurgaon-Faridabad road becoming the most preferred spot for dumping garbage, the Ministry, in a written note, submitted on 5.8.2008 the following information as received by them from HUDA Circle, Gurgaon:

“Gurgaon has seen unprecedented growth in population over the last few years and is today one of the fastest growing cities in India. Although, the 2001 Census indicates that population of Gurgaon city was 3.42 lakh, the estimated present population is more than 10 lakh. This growth had led to a situation where most of the urban infrastructural facilities including SWM & Sanitation have become stretched. The old dumping ground on Basai road has been filled to the brim and has since been closed. A Committee was formed by the State Government and city administration to look at alternate sites for disposal of solid waste. The Committee having wide representation from the major stakeholders, after evaluating several sites, short listed a 30 acre plot in Bandhwari village on Gurgaon-Faridabad road. The city administration has decided to develop this site as an integrated MSW proceeding and sanitary land filling site. The consultants were appointed after the bidding process to prepare the Detailed Project Report (DPR) for municipal solid management in Gurgaon city in compliance with the Municipal Solid Waste (Management & Handling) Rules, 2000. The requisite environmental clearance from the Ministry of Environment & Forest, Government of India based on the Environmental Impact Assessment (EIA)/Environmental Management Plan (EMP) prepared by the consultants has been received. A few remaining clearances for implementing the project are in the pipeline. It is proposed to develop the integrated SWM proceeding and SLF plant at Bandhwari, on Build-OWN-Operate-Transfer (BOOT) basis through a Public Private Partnership (PPP) model and the necessary documentation for the same has been prepared and submitted for formal approval from the State Government. As part of an integrated municipal solid waste management action plan, it is proposed to follow scientific method at each operation including door to door collection, segregation, secondary collection and transportation apart from the proposed plant at Bandhwari to process MSW based on Refused Derived

Fuel (RDF) technology with a small capacity power plant and a sanitary land filling plant. The door to door collection, segregation centres, transfer stations as well as transportation of MSW are also proposed to be developed on a PPP mode and the requisite action plan with the technical inputs submitted to the State Government for final clearance. The RDF and SLF plants would take time (about 16-18 months) for implementation and commissioning. However, all other activities, especially the door to door collection and segregation would be initiated in the next 3-4 months. In the interim period, the city administration has come down heavily on the polluters of the environs who are dumping the waste on the Gurgaon-Faridabad highway. Haryana Urban Development Authority (HUDA) has also contracted an agency to undertake regular spraying of Effective Microorganism (EM) spray on the MSW being illegally dumped in the area to weed out odour problems as well as to keep rodents, insects other animals at bay. With the focus on door to door collection as well as segregation of recyclables, it is proposed to reduce the quantum of the waste to be disposed off”.

6.2 The Committee were further apprised in October, 2008 that according to HUDA, Gurgaon, the Project at Bandhwari village on Gurgaon-Faridabad road was likely to take one and a half years for completion from the date of release of funds to the implementing agency.

6.3 In contrast, on being pointed out by the Committee about the efficient management of waste in Surat and Rajkot districts of Gujarat by a private company where municipal authorities are not paying anything to the company, a representative of the Ministry of Urban Development informed the Committee as under:—

“In Gujarat, cities like Surat, Vadodara, etc. have proposed private sector participation in handling this organic waste, that is, biodegradable waste into compost and also apart from the biodegradable waste, even the other combustible waste like paper, plastic, etc., is being separated and that will be treated with RDF. That facility is being put up. The inert matter is taken out and they are making bricks out of that. So, the waste generated has been brought down even up to zero level and only a little portion is going to the landfill site. That way, Gujarat is, of course, very forward looking State”.

6.4 When enquired as to why such things were not being implemented in cities like Delhi, the Committee were apprised by a

representative of the Ministry during the briefing meeting as under:—

“As per the Delhi Municipal Corporation Act, about 95 per cent of Delhi is covered under MCD, it is the responsibility of the individual house owner to take the municipal waste to the dhalao, which means ‘a huge concrete bin for dumping garbage’. The number of dhalaos is not as much as required for the waste generated. Therefore, at many places, the waste is piled on to the roadside. Cows and dogs surround that area to take away and eat what they can. Wherever an attempt has been made to put iron gates, those iron gates were damaged by cows and other animals. Therefore, the fact remains that in cities like Delhi, we must move from roadside dumping to direct house collection in two schemes— one is biodegradable waste and the other is recyclable. Ideally speaking, the recyclable should go to a recycling plant, and biodegradable waste must go to the vermi compost or other compost site or whatever it may be. Under the situation, almost 60-70 per cent is inert material, and much of it does not come from inside the house, but that comes from construction places, sites, etc., and that can go to the landfill sites.”

6.5 As regards the compliance of MSW, Rules 2000 in Delhi, the Ministry of Urban Development has furnished the following information:—

“As per the compliance report of MSW rules furnished by CPCB, door-to-door collection is being carried out in some zones of Delhi. The MCD has already implemented transportation of the MSW in six zones of MCD, through private concessionaires. Now, the MCD is likely to implement the door-to-door collection of waste in various parts of Delhi in phased manner. In first phase Expression of Interest (EoI) are likely be called for Civil Line Zone and Rohni Zone, Dwarka, Vasant Vihar, Ward No. 164, 165 of South Zone. Thus the city shall be free from dust bins/dhalaos”.

6.6 During the oral evidence, the Committee enquired if the Government of India could treat at least one city as a model city with no garbage and allot enough money for that purpose. In this regard the Committee were later informed that Namakkal Municipality, Tamil Nadu had implemented Green Productivity Demonstration Project (GPDP) sponsored by the Asian Productivity Organization, Tokyo during 2004-05, 2005-06 and executed by the National Productivity Council, India (NPC) to move towards making the Namakkal town a model “Eco-city” through Green Productivity approach.

G. Monitoring of Solid Waste Management Projects

7.1 The Ministry of Urban Development informed the Committee that since SWM was a State subject, they act only as a facilitator for the State Governments/ULBs by providing technical guidelines and funds under various Central programmes and from external funding agencies. Since the monitoring of solid waste management was not directly undertaken by the Ministry of Urban Development, the Committee desired to know as to how the implementing agencies of various SWM projects ensured that the assigned tasks was completed in a satisfactory manner. In this regard, the Ministry of Urban Development informed the Committee in a written reply that they monitor implementation of approved solid waste management projects through various mechanisms such as the Quarterly Progress Reports, field visits, etc. As regards the monitoring mechanism of Ministry of Urban Development to sensitize, stimulate and make the ULBs active, the Ministry had informed as follows:

“At Government of India level, the Ministry of Urban Development is responsible for formulation of broad policies, various programmes and prepare guidelines for urban water supply and sanitation sector including solid waste management. Central Public Health and Environmental Engineering Organization (CPHEEO) is the technical wing of the Ministry, which assists the Ministry in all technical matters relating to water supply and sanitation sector. It is a small organization having a sanctioned strength of 9 officers. Out of this 50% of the posts are lying vacant. CPHEEO does not have adequate manpower for monitoring of the water supply and sanitation scheme including solid waste management implemented by the State Governments. In case, the water supply, sewerage & solid waste management schemes implemented by the State Governments/ULBs are monitored at Central level, the CPHEEO needs to be strengthened beyond its sanctioned strength. A proposal for creation of 11posts (one Joint Adviser (PHE), 3 Deputy Advisers (PHE), 6 Assistant Advisers (PHE) and one Scientific Officer) has been forwarded to the Ministry of Finance for approval.”

7.2 Explaining the monitoring mechanism of SWM projects sanctioned under JNNURM, the Ministry informed the Committee as follows:

“For monitoring and management of sanctioned projects of various sectors including SWM under JNNURM, the Project Implementation Unit (PIU) at ULB level and Project Monitoring Unit (PMU) at State Level Nodal Agency (SLNA) level are being set up. Besides

this, an Independent Review and Monitoring Agency (IRMA) for 3rd party inspection of the projects is also being set up. So far 4 IRMAs, 12 PMUs and 30 PIUs have been established”.

7.3 On being asked about any provision of feedback or time-bound furnishing of information by the Pollution Control Boards with reference to solid waste management to the Central Ministry *via* their respective State Governments, so that the information could be used for planning and necessary amendments in the MSW Rules, 2000, the Committee were apprised in a written note as under:

“The CPCB convenes meetings of Chairman & Member Secretaries of various SPCBs every year and seek information in respect of initiatives taken by ULBs for improving collection, segregation, storage and transportation of waste, setting up landfill facility and compost plants, etc. and review the information furnished by the various SPCBs”.

7.4 As regards the initiative taken to create National level compilation of monitoring data of SWM through JNNURM programme, the Ministry of Urban Development have informed the Committee that the CPCB was compiling data as per the MSW Rules, 2000 for various cities and towns. The Ministry had also compiled Quarterly Progress Report furnished by the various JNNURM cities where SWM schemes were approved. Further, as JNNURM does not cater to all the ULBs, a national compilation under JNNURM was reportedly not envisaged at the moment.

7.5 Asked about the steps taken to build capacity of various ULBs to implement SWM, the Ministry informed the Committee that they organized workshops and Rapid Training Programmes to impart training to the ULB engineers and officers to get quality DPRs prepared in all respects as per JNNURM norms. Vijaywada city of Andhra Pradesh and Mysore city of Karnataka were stated to have submitted their DPRs on Solid Waste Management, scrutinized by CPHEEO, the technical appraisal agency of Ministry of Urban Development, who guided them to modify their DPRs as per the norms of JNNURM.

7.6 In this context, the Ministry of Urban Development further informed the Committee that according to a study on “Solid Waste management and its disposal” conducted by the Associated Chambers of Commerce and Industry of India (ASSOCHAM), Kerala had created a special purpose vehicle (SPV) to dispose-off its solid waste for power generation by closely integrating its 60 municipalities with three

intermediate depots, to collect its garbage and waste to dispose it off in large containers. Further, the Ministry, the Ministry of Urban Development informed that Ahmedabad and Bangalore had also created SPVs for managing their municipal solid waste.

7.7 Asked about any waste tariff imposed for solid waste management, the Ministry of Urban Development informed the Committee in a written note as under:

“As per JNNURM & UIDSSMT guidelines, the SWM schemes are being sanctioned with certain mandatory and obligatory reforms to be carried out by the cities and towns. One of the mandatory reforms is levy of reasonable user charges by the ULBs/State parastatals with the objective that the full cost of operation and maintenance (O&M) or recurring cost is collected to make the schemes sustainable. However, cities and towns in North-East and other special category States may recover at least 50% of the O&M charges initially. These cities and towns should graduate to full O&M recovery in a Phased manner. And one of the obligatory reform is to encourage PPP as well in these schemes to increase efficiency and to reduce financial burden of the ULBs in capital and recurring expenditure”.

7.8 Further, in a similar context when enquired as to whether tax-free municipal bond could be raised for SWM by ULBs, the Ministry responded as follows:

“There is no specific tariff for solid waste management. Hence, it is difficult to generate tax free bonds for solid waste management and hence, ULBs are not formulating any proposal for raising funds through tax free bonds for municipal solid waste management”.

H. Task Force on Integrated Plant Nutrient Management Using City Compost

8.1 In response to a query posed by the Committee, the Ministry informed that consequent to the orders of the Hon'ble Supreme Court of India dated 14.1.2003 in Writ Petition (Civil) No. 888/96 on Solid Waste Management and subsequent directions of the cabinet Secretariat in its meeting held on 18.2.2003, an 'Inter-Ministerial Task Force on Integrated Plant Nutrient Management using 'City Compost' was constituted by Ministry of Urban Development on 26.8.2003. The Task Force was set up to prepare policy/strategy on action plans for promoting "Integrated Plant Nutrient Management". The Task Force filed their report in the Hon'ble Supreme Court on 6.5.2005, wherein

they recommended an integrated plant nutrient management, using city compost so that it can be supplied within 50 km radius of all ULBs and their compost plants. About the followup of this recommendation, in a written note, the Ministry had informed the Committee that they had forwarded the said report to all the State Governments and concerned Ministries for implementation of its recommendations. The report was also said to be uploaded in the Ministry's website for wide publicity. The Ministry also requested the concerned Ministries to implement the recommendations, *vide* letter No.Q-11021/1/97-PHE.II (Vol.XI) dated 12th November 2007.

8.2 In this context, the Secretary, Ministry of Urban Development during oral evidence further informed the Committee as under:

“As a follow up of this recommendation of the task force, we had taken an inter-ministerial meeting in which the Agriculture, Fertilizer and the Finance Ministries' representatives participated. That is where we mooted the idea of working out a method by which compost so-produced can be made available to the farmers for which, as I mentioned in my statement, we also suggested that idea; this alone cannot be transported because it may not be a viable proposition. But when fertilizers get transported, we could consider the point about adding this also to that transportation so that this also becomes available to the farmers. We also follow up on that. We had this dialogue. But we have to carry this forward”.

8.3 The Committee were further informed that as a follow up action, the Ministry convened three meetings. The last meeting was held on 19.8.08 under the Chairmanship of Secretary, Ministry of Urban Development wherein members from all the concerned Ministries including Agriculture, Environment & Forest, Chemicals & Fertilizers participated. In the meeting, the representative from Ministry of Environment & Forests informed that their Ministry had already advised the Department of Forests to utilize the compost produced from municipal waste for afforestation activities. Similarly, representatives from the Ministries of Railways and Surface Transport informed that their Ministries have already asked all the railway divisions across the country to use compost for development of plantation/afforestation activities as well as to all the National Highways Departments to make use of compost for development of greeneries, embankments, etc. The Ministry of Agriculture was reported to be providing subsidies for setting up of compost plant under the Centrally sponsored “Balanced and Integrated Use of Fertilizers” with a view to produce composting for agricultural use.

8.4 In this context, the Committee noted that the JNNURM Programme also envisaged the following use of the SWM efforts by ULBs as mentioned in the Mission document:

- (i) Solid waste generated by the cities can be used in a vermi-composting plant for generation of manure.
- (ii) The Corporation's revenues would rise as manure generated from SWM will become an income stream.

8.5 Asked about the efforts that have been taken by the Government of India for promoting composting including providing subsidies to entrepreneurs to promote production of compost from municipal waste under various programmes, the following written information based on the information from the Ministry of Agriculture Cooperation was furnished by the Ministry of Urban Development:

- “(i) Providing financial assistance for setting up/strengthening of soil testing laboratories in the country during VIII & IX Plan under the Centrally Sponsored Scheme “National Project on Balanced and Integrated Use of Fertilizers”. This has resulted in expansion of soil testing laboratories in the country, whose number is now 533 with annual analyzing capacity of 8 million samples. This includes 59 laboratories with fertilizer industry.
- (ii) Funds to the extent of Rs. 9.00 crore have also been provided for setting up of 30 mechanical compost plants in different states for conversion of biodegradable organic city waste into compost. However, most of these plants are either not working to their optimum capacity or not functioning at all.
- (iii) Financial assistance for setting up of Bio fertilizer units @ Rs. 20 lakh per unit has been provided under the National Project on Development and use of Bio-fertilizers during VII to IX Plan and Rs. 11.07 crore were released as grant for setting up of 77 units. This has substantially enhanced the production capacity to the extent of 18500 metric tonnes per annum though the actual production is about 16,000 tonnes per annum”.

8.6 On the issues concerning standardization of city compost, the Secretary, Ministry of Urban Development informed that the Fertilizer Control Order, 2006 for compost has been published wherein standards were laid down for compost.

8.7 In this regard, when asked about the standardization and marketing of compost so that it could further attract farmers, a representative of the Ministry of Urban Development informed the Committee during evidence as under:

“Actually the compost itself is not a full-fledged fertilizer, it is only a soil conditioner because the carbon-nitrogen ratio is in the range of 1:20; where as the chemical fertilizer contains the requisite quantum of phosphorus, nitrogen and other nutrients. Though the chemical fertilizers are applied to the field, gradually it will remove the benefit of the soil. Therefore, compost is being added to enrich the soil.

As far as the recommendations of the Task Force, various measures have been recommended, that is, in all the outlets of chemical fertilizers, at least, one bag of compost for every 3 bags of chemical fertilizer should be marketed in order to promote marketing of the municipal compost. We had a meeting last year also and we requested the Ministry of Chemicals & Fertilizers and also Ministry of Agriculture to look into these aspects as to how best the composts can be integrated with chemical fertilizers so that farmers can be benefited. Still we have not got response from these Ministries.”

8.8 The Ministry of Urban Development had further informed the Committee that as per the report of Technical Advisory Group (TAG) on Solid Waste Management published in May 2005, the Ministry of Environment & Forests had initiated a scheme to provide financial subsidy to the tune of 50% of the capital cost to set up pilot/demonstration project on MSW composting.

8.9 In this connection, a representative of the Ministry of the Ministry of Environment and Forests informed the Committee during evidence on 15.7.2008:

“Realizing the problems, we have sanctioned about 12 demonstration projects. These 12 demonstration projects are scattered throughout the country. They are covering collection, transportation, treatment and disposal of municipal solid waste. Out of 12, three projects have already been completed. This gives us the idea as to what is required to be done, what is the success of a particular technology, whether it can be implemented immediately in the field. That kind of experience we are gaining out of these demonstration projects. Then, these are shared with the local municipalities for its implementation.

Actually, this has been funded by the Ministry of Environment and Forests by giving 50 per cent grant and 50 per cent is shared by the State Government concerned. In case of North-Eastern States, we are sharing 90 per cent and 10 per cent is shared by the respective States. This programme has been very successful and we would be duplicating it”.

I. Different Stakeholders and their Roles in Sustainable Solid Waste Management

9.1 A concerted effort of the citizens, the State, the city managers and the civil society is required for a city to be clean with well-managed garbage handling practices. The role of different Stakeholders in sustainable solid waste management is given in the following sub-paras:

(a) Central Government

9.2 According to the Ministry, the role of Central Government in SWM was as under:

“Through sanitation is a State subject, the Central Government has laid down the standards on waste processing and disposal technologies including approval of technologies. Also, the Central Government is providing funding for pan-India schemes on Solid Waste Management. In addition to this, the Central Government at its level has the duty of compilation of monitoring data, on all India basis. The Ministry has also compiled Quarterly Progress Report (QPR) furnished by the various JNNURM cities where solid waste management schemes have been approved”.

9.3 Also the Ministry of Urban Development furnished to the Committee possible future role of several Central Ministries in implementing the recommendations of the Task Force on Integrated Plant Nutrient Management using city compost, which is appended to the Report.*

(b) The Central Public Health and Environmental Engineering Organization (CPHEEO)

9.4 The Committee were also informed that the Central Public Health and Environmental Engineering Organization (CPHEEO), the technical wing of the Ministry of Urban Development, Government of India, dealt with matters related to Urban Water Supply and Sanitation,

*Annexure I.

including Solid Waste Management, in the Country. The website of CPHEEO explained its role as under:

“The policies, strategies and guidelines are being provided by CPHEEO to the States and UTs Governments including Municipal Corporations/Committees. The CPHEEO plays a vital role in processing the schemes posed for external funding agencies including World Bank/JBIC/ADB and Bilateral and Multilateral funding agencies and institutional financing such as LIC. It acts as an Advisory body at Central level to advise the concerned State agencies and ULBs in implementation, operation and maintenance or urban water supply, sanitation and solid waste management projects and helps to adopt latest technologies in these sub-sectors. Besides, the CPHEEO also implemented the Centrally sponsored Accelerated Urban Water Supply Programme (AUWSP) for small towns (scrutinizing/approving the schemes received from State Departments from techno-economic angle), Solid Waste Management in 10 airfield towns, sponsors research studies, organizes training courses for the in-service engineers working in the water supply and sanitation sector.”

(c) Central Pollution Control Board (CPCB)

9.5 The CPCB convenes meeting of Chairman and Member Secretaries of various States Pollution Control Boards (SPCBs) every year to review the information furnished by the various SPCBs. The CPCB was stated to be also compiling data as per the MSW Rules, 2000 for various cities and towns.

(d) State Governments and Urban Local Bodies

9.6 The Committee were informed that the Secretary-in-Charge of the Department of Urban Development of the concerned State or the Union Territory, as the case may be, had the overall responsibility for the enforcement of the provisions of these rules in the metropolitan cities. Also, the District Magistrate or the Deputy Commissioner of the concerned district had the overall responsibility for the enforcement of the provisions of these rules within the territorial limits of their jurisdiction.

9.7 In response to a query raised by the Committee, the Ministry of Urban Development informed in writing that every municipal authority within the territorial area of the municipality was responsible for implementation of the provisions of these rules, and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid waste.

9.8 Explaining the role of ULBs in SWM, it was stated as under:

“The ULBs keeping SWM in priority can provide or facilitate infrastructural inputs and services as well as seek authorization from SPCB for setting up waste processing and disposal facilities. The ULBs need to have a definite organizational set up with trained staff. The ULBs need to adopt segregation at source and 3 R principle, *i.e.* Reduce, Reuse and Recycle so as to ensure that minimum inert and non-biodegradable waste only shall reach the sanitary landfill site.”

9.9 When enquired by the Committee, the Ministry of Urban Development furnished details on States/UTs where ULBs had taken initiatives for improving collection, segregation, storage and transportation of waste. Some of these States/UTs were Chandigarh, Gujarat, West Bengal, Andhra Pradesh, Madhya Pradesh, Maharashtra and Kerala. The Committee gathered that in States/UTs like Bihar, Orissa, Daman & Diu, etc., same was yet to be started.

(e) State Pollution Control Board (SPCB)

9.10 Explaining the role of SPCBs, the Ministry submitted as under:

“It is the responsibility of the SPCB to issue an authorization to the municipal authority or an operator of a facility stipulating compliance criteria and standards. It is the responsibility of SPCB to monitor the compliance of the standards regarding waste processing, ground water, ambient air/leachate quality and the compost quality including incineration standards as specified in the schedule of the rules. SPCB is supposed to examine the proposals of SWM taking into consideration the views of other agencies like the State Urban Development Department, the Town and Country Planning Department, Airport or Air Base Authority, the Ground Water Board or any such other agency prior to issuing the authorization.”

(f) Non-Governmental Organizations (NGOs)/Social Workers

9.11 Highlighting the role NGOs can play in SWM, the Ministry stated as follows:

“NGOs and social workers will have to take lead in forming Ward Committees and community participation. Networking of similar minded organizations in the area and integrated efforts may be done by them to avoid duplication of the jobs. The NGOs can use

existing contacts with the Municipality and other influential bodies to ensure maximum support. These organizations can involve unemployed youth in the area for various jobs such as managing collection of garbage, helping the organizers in conducting road-shows, etc. They can also organize/sponsor Clean City campaigns."

(g) Public (including school children and housewives)

9.12 The Ministry of Urban Development informed the Committee that public, by practicing sustainable consumption, could help in reduction and segregation of waste at source.

9.13 During briefing, when the Committee asked if there was any specific fund provided to promote to create awareness among the public, a representative of the Ministry of Urban Development submitted as under:

"We have a programme called Community Participation Fund. Under that, the community can conceive a project and submit it through the municipality to the Union Government. Then, we can give funds up to Rs. 9.5 lakh. The Community will contribute five or ten per cent of the project. In the case of slums, it is five per cent and for other it is ten per cent. Fifty-one per cent of voters living there will sign a document saying that they need this kind of project. The Urban Local Bodies will then forward it to the Central Government. But we have not been receiving too many projects. We are trying to do whatever we can. We have a complete team sitting for this. I think it is very well conceived scheme. We have received three schemes from Madurai."

(h) Rag Pickers

9.14 Rag pickers contribute a great deal to waste management as they scavenge the recyclable matter thereby saving the municipality of the cost and time of collecting, segregating and transporting garbage to the dumps.

9.15 The Ministry of Urban Development had informed the Committee that in India, 60 per cent of plastic waste was recycled as compared to average of 15-20 per cent of plastic waste being recycled in the world, due to rag pickers.

9.16 When asked about how much of this collection of recycled plastic waste was in the organized or unorganized sector (through rag

pickers), the Committee were apprised by a representative of the Ministry of Environment and Forests as under:

“There are 1.3 lakh rag pickers. They are picking up all available matters—plastic and paper. There are some 2300 recycling units for plastics. So, it is giving employment to quite a few people. The problem of occupational health is associated with that and the answer to that is that let them be provided with personal protective equipment like gloves and spectacles and things like that so that they do not contract diseases. As far as recycling of plastic is concerned, working practices would have to be inculcated amongst rag pickers....”

J. Waste Characterisation and Feasibility Studies

10.1 As regards the quality of municipal solid waste, a representative of the Ministry of Urban Development has informed that:

“...an analysis of the kind of municipal solid waste that is generated—30 to 35 per cent is biodegradable; 40 to 55 per cent is inert; and 5 to 15 per cent is recyclable. The biodegradable waste being 30 to 35 per cent, the moment successful vermi-composting is done, it can be addressed to that extent. Since, 40 to 55 per cent is inert matter, it can straightway go to sanitary landfill sites without any adverse conditions on the environment. Since 5 to 15 per cent is recyclable matter, like paper, glass metals, a recyclable system can be thought of which can be made functional.”

10.2 In response to the query raised by the Committee with regard to the steps taken for waste characterization, the Ministry of Urban Development informed the Committee in a written note that the characteristics of the MSW had been invariably furnished in all the DPRs which were analyzed and approved under JNNURM. Based on the waste characteristics, various treatment and disposal facilities proposed by ULBs were appraised by CPHEEO and approved by Central Sanctioning and Monitoring Committee (CSMC) under JNNURM. Further it was informed by the Ministry that in the absence of information on waste characterization, the projects were not being considered under JNNURM. Necessary guidelines for sampling and waste characteristics had been included in the Manual on Municipal Solid Waste Management published by the Ministry.

10.3 The Committee were further informed that the Ministry of Urban Development extended limited financial assistance for waste

characterization and feasibility studies. The scheme was introduced in 1992 and the Ministry had sanctioned the following three projects:

- (i) The municipal solid waste management project, Nagar Nigam, Ghaziabad at a cost of Rs. 55 lakh.
- (ii) Pilot project for solid waste management for Hyderabad City, Municipal Corporation, Hyderabad at a cost of Rs. 53.3 lakh.
- (iii) Pilot project for solid waste management in Shimla at a total cost of Rs. 25 lakh.

However, it was informed that none of the above projects were established or commissioned.

K. Management of Different kinds of Municipal Solid Waste

11.1 The Ministry of Urban Development informed the Committee that the composition of waste varies with the size of the city, season and income group. Bio-degradable component of waste could be profitably converted into useful products and recyclables could be utilized, leaving inerts to go to landfills.

11.2 The Ministry of Urban Development also informed that the bio-degradable matters could be converted into products like compost (organic manure), methane gas (used for cooking, heating, lighting, production of energy) etc., through the following processes:

I. Wealth from Waste

(a) Waste to compost

- (i) Aerobic
- (ii) Vermi composting

(b) Waste to Energy

- (i) Refuse derived fuel (RDF)/Pelletization
- (ii) Bio-methanation
- (iii) Incineration
- (iv) Pyrolysis/Plasma gasification

II. Recycling of Waste

11.3 The Committee were further informed that materials like paper, cardboards, plastics, polythene bags, pieces of metals, construction and demolition wastes, and glass could be recycled.

(a) Construction and Demolition Waste

11.4 As regards the management of 'demolition wastes' due to the non-stop construction activities in cities, the Committee were informed that in the Manual on Municipal Solid Waste Management published by the Ministry of Urban Development, a Chapter on "Construction and Demolition Waste" had been devoted to the issues pertaining to 'demolition wastes'

11.5 When the Committee enquired that whether there was any proposal of using processed construction waste for major reconstruction purpose, as was done by Australia during 2000 Sydney Olympics, the Ministry of Urban Development informed the Committee as under:

"While appraising the project, the ULBs are being advised by this Ministry to segregate their construction and demolition wastes and dispose of them in low lying areas and reuse it for preparation of bricks which can be utilised for pavement. For instance, Surat is adopting this method".

11.6 In this regard, the comments of the Building Materials and Technology Promotion Council forwarded to the Committee by the Ministry of Urban Development are as under:

"The Council has initiated research and development projects with YUVA (Youth for Unity and Voluntary Action), Mumbai. The main objective of the proposal is to develop a technology for recycling of construction and demolition wastes. In the proposed methodology, construction and demolition waste will be recycled to produce fine and coarse aggregates. The recycling material will be utilized for production of bricks, blocks, pavers and light-weight blocks. The proposed study will help in utilising construction and demolition wastes generated in metropolitan cities. The use of recycled materials will also help in reducing the use of natural resource materials for production of building materials."

11.7 According to BMTPC, the project initiated in the current financial year 2008-09, is expected to be completed by march 2010.

(b) Plastic Waste

11.8 In recent times, plastic, particularly, carry bags made from it, constitute a major part of municipal solid waste. As per the Ministry

of Urban Development, the Department of Chemicals and Petrochemicals, the Ministry of Chemicals and Fertilizers, was the nodal Ministry for plastics. The following information was procured by them from the Ministry of Chemicals and Fertilizers and forwarded to the Committee:

“Plastics, in general, are chemically inert substances. Most of the plastics are reprocessible and recyclable in nature. They are ‘*per se*’ not harmful to the environment and health. It is the indiscriminate littering of plastic materials and the absence of organized segregation/cleaning of plastic waste in urban centres, which is the main problem. Even among plastic, the major problem relates only to the littering of plastic carry bags.

Notification No. SO 908 (E) dated 25.9.2000 for Municipal Solid Wastes (Management and Handling) Rules, 2000 has been notified by the Ministry of Environment and Forests. The rules are applicable to every municipal authority responsible for collection, segregation, storage, transportation, processing and disposal of municipal solid waste.”

11.9 The Committee were also apprised that the Building Materials and Technology Promotion Council (BMTPC), Ministry of Housing and Urban Poverty Alleviation had initiated and sponsored a project in Central Building Research Institute (CBRI), Roorkee to develop plastics building products from recycled plastics the main emphasis on wastes generated from the building industry.

11.10 The Committee were further informed that the project had already been completed by CBRI, Roorkee. Developed building products had been tested as per Indian Standards to verify its suitability for application. The basic raw material developed using plastic waste may also be utilized for development of building products for special application in disaster resistant construction technologies. It however, did not specifically cover the test to verify the health and environment friendliness of the technology.

11.11 On the issue of encouraging the use of biodegradable plastics, the Ministry of Urban Development had stated that the high cost problems, associated with mixing with normal plastic and limited technical characteristics, were the main reasons for limited use of biodegradable plastics.

11.12 During the course of oral evidence, when the Committee desired to know the initiatives taken by the Government for plastic waste management, a representative of the Ministry of Environment and Forests stated as under:

“In fact, in India we are recycling 60 per cent of plastic wastes which is the highest in the world. If you see the figures in abroad, hardly 15 to 20 per cent of plastic waste is re-cycled as against our 60 per cent re-cycling. Our track is very good as far as recycling and use of plastic waste is concerned.”

11.13 In response to the query raised by the Committee about the coordination with other Ministries for management of plastic waste, the Ministry of Urban Development had informed the Committee that the Ministry had been coordinating with the Ministry of Environment and Forests on the environmental issues including the banning of plastics by way of attending meeting held in the Ministry of Environment and Forests regularly.

11.14 When the Ministry of Urban Development was asked about the steps taken to avoid littering and segregation of plastic waste at source, the Committee were informed about the following provisions in the 'Plastics Manufacturing and Usage (A) Rules, 2003':

- Small and thin size plastic carry bags (8x12 inches and 20 micron or less) should not be manufactured and sold.
- The usage of recycled plastic carry bags for storing, carrying, dispensing or packaging of foodstuff is banned in India.
- Usage of plastic carry bags is banned in pilgrimage and tourists spots.

(c) Bio-medical Waste and Electronic Waste

11.15 As regards the steps taken by the Ministry of Urban Development for bio-medical waste management, the Committee were informed in a written reply that bio-medical waste management came under the purview of the Ministry of Health and Family Welfare.

11.16 However, during evidence, a representative of the Ministry of Environment and Forests submitted to the Committee as under:

"As far as bio-medical wastes are concerned, we have already brought out medical rules under the Bio-Medical Waste (Management and Handling) Rules, 1998. Every nursing home and hospital is required to provide necessary facilities for segregation of bio-degradable and non bio-degradable wastes. They have to have proper facilities. In the rules, the standards and procedures and the methods have been prescribed properly. Things are improving than what it used to be earlier that everything used to get mixed with the municipal solid wastes."

11.17 The Committee had enquired from the Ministry of urban Development about the efforts of penalizing the errant hospitals by the Ministry of Health and Family Welfare. In this regard, the Ministry

of Health and Family Welfare had informed in a written note that based upon the Bio-Medical Waste (Management & Handling) Rules, 1998, a 'National Guideline on Hospital Waste Management' was prepared by the Ministry of Health & Family Welfare and circulated to States and Union Territories for information and compliance. These guidelines were prepared to enable each hospital to implement the said Rules, by developing comprehensive plan for hospital waste management, in terms of segregation, collection, treatment, transportation and disposal of the hospital waste. The example of Central Government Hospitals in Delhi namely Safdarjung Hospital, Dr. RML Hospital, Lady Harding Medical College & Smt. S.K. Hospital, as well as All India Institute of Medical Sciences, were cited where strict adherence to the Bio-Medical Waste (Management & Handling) Rules, 1998 was reported.

11.18 The Committee had also discussed the issue of electronic waste (e-waste) management during the briefing meeting. In this regard, the Ministry had informed that Central Pollution Control Board (CPCB) had brought out draft guidelines on e-waste management.

L. Concept of Segregation of Waste

12.1 While observing that the most important issue with regard to solid waste management was the segregation of waste, the Committee desired to be apprised about the various steps taken by the Ministry in this direction. In response, the Ministry of Urban Development had informed the Committee that they had sent an Advisory Note to all the State Governments in October, 2007 urging them to advise their urban local bodies to follow segregation of waste at source. While appraising and approving the projects posed under JNNURM, the activity of segregation at source had been emphasized by way of two bag system at household level, one for biodegradable and the other for non-biodegradable waste.

12.2 In view of the provision regarding using separate bins for non-organic waste and organic waste, the Committee enquired about the steps taken for spreading public awareness. In this regard, the Ministry of Urban Development, in their written reply had informed the Committee as under:

"They are aware that the key element for making the Solid Waste Management successful is door-to-door collection of segregated waste. In order to achieve this, funds are provided under JNNURM for procurement of two buckets at household level to ensure collection of bio-degradable and non-biodegradable wastes. Primary

collection and transportation ensure that the biodegradable waste is sent to treatment plant with appropriate waste treatment facilities and non-biodegradable waste is transported to the sanitary landfills. JNNURM provide funds for Information, Education and Communication (IEC) in order to educate all stakeholders including waste collectors for efficient Solid Waste Management System”.

12.3 Emphasizing the need for segregating Municipal Solid Waste, the Ministry had further informed the Committee as under:

“The Central Sanctioning and Monitoring Committee (CSMC), while sanctioning projects of Solid Waste Management suggests ULBs to implement 100% segregation of garbage/waste at source through NGOs, Private operators or themselves. They are also encouraged to sensitize officials and people involved in door to door collection to understand the significance of segregated municipal waste and to have seminars/workshops. Moreover, the Information, Education and Communication (IEC) Programme is also being incorporated in the JNNURM and UIDSSMT programmes so that awareness is created in the public to practice sustainable consumption, source reduction and source segregation.

12.4 While observing that the people have a habit to litter aluminium foils, plastic bags, soft drink bottles, etc., at public places, railway stations and tourist spots, the Committee had desired to know about awareness campaigns initiated by the Government to educate people. In this regard, a representative of the Ministry of Environment and Forest apprised the Committee during evidence:

“On the awareness part, in fact, we have a programme even at the school level. Children are made aware about environmental issues through eco plants. It is also a part of their curriculum up to the 12th level. We provide funds to schools and they are being exposed about the various environmental hazards and also about the various measures that are needed to be taken for protecting the environment. These programmes are going on. We are not organizing any campaign exclusively on medical wastes at the school level. But for bio-medical wastes courses are organized by the Central Pollution Control Board with the help of the State Pollution Control Board and that all the stake holders are really exposed to the kind of rules and regulations and standards that they are required to adhere to. I do agree with you that it has not really percolated down to the people at large and there is need to take up more such programmes”.

12.5 About the mechanism for collecting the solid waste and plastic wastes separately, he added as under:

“It is provided in the Municipal Solid Waste Management rules, segregation has to be done and it has to be done at the local level. The municipalities are required to do it at the local level and it should be done at the house level also. But as has been mentioned by one of the Hon’ble Members that it is the question of habit. We do not have the habit. We mix everything and send it. Unless there is inculcation of habits of segregating and sending disposal, things may not improve. Even now we are not doing separately.”

12.6 The Committee were further informed that while approving the Solid Waste Management projects under JNNURM, the concerned ULBs were being advised to amend their bye-laws incorporating the provision of penalties to the defaulters, who were littering in open spaces/public places with garbage including plastic waste.

M. Public-Private Partnership in Solid Waste Management

13.1 As regards the steps taken by the Ministry of Urban Development for Public-Private Partnership (PPP) in Solid Waste Management, the Committee were informed that under JNNURM guidelines, ULBs had to implement obligatory reforms in which the Ministry advocated to encourage PPP as one of the optional reforms. Accordingly, while appraising the SWM projects, the Ministry advised the ULBs to formulate proposals for PPP for various activities such as treatment of the waste through composting facilities door-to-door collection, transportation, sanitary land filling etc. In this regard, the Ministry had reportedly approved PPP models, for (i) Indore city for treatment and disposal of solid waste; (ii) Coimbatore & Madurai cities for contribution of ULB share through PPP model for waste treatment & disposal; (iii) Surat for waste treatment and disposal, and (iv) Mumbai for waste treatment facilities.

13.2 With regard to Public-Private a Partnership (PPP) in Solid Waste Management, a representative of the Ministry of Urban Development further explained during the briefing as under:

“Public-Private Partnership has been attempted in some cities. Delhi is typical example. Delhi has around 12 to 13 municipal zones and at least in six zones the entire collection, transportation has been given to private parties. So, Public-Private Partnership has been attempted in some cities. There is a need to improve the capabilities of municipal local bodies to handle waste. This capacity building

of local bodies can be definitely addressed under the Jawaharlal Nehru National Renewal Mission. Many of the landfill sites are just crude dumping grounds. Instead of that, today technology is available to make engineered landfill sites so that the damage to environment is minimized. In Delhi, presently we have three dumping grounds, Bawana, Okhla and Gazipur, and none of the three grounds are engineered landfill sites. All of them are overflowing with these things. Soon they have to be closed. A new one is being built in Jaitpur that is towards Badarpur side. This will be an engineered landfill site whose impact on environment will be considerably less compared to traditional dumping sites. More dumping sites are required in cities like Delhi and attempts are being made in that direction.”

13.3 In this regard, the Committee had been further informed that the Secretary, Ministry of Urban Development *vide* D.O. letter dated 11th October 2007 had also sent an advisory to all the State Governments wherein it had been advised that the ULBs should explore the possibility of including PPP in the following components of Solid Waste Management and also involve NGOs/CBOs/RWAs in planning, implementation and Operation and Maintenance of Solid Waste Management services:

- Door-to-door collection
- Transportation
- Treatment facilities.

N. Setting up of landfill facilities for Waste Disposal

14.1 During the examination of the subject, the Committee observed that the existing landfill sites in most of the large and medium cities were filled to the brim and there was a serious shortage of landfills. Accordingly, when asked so, the Ministry of Urban Development submitted a statement* to the Committee which showed that out of 34 States/UTs, only 14 had taken initiatives to construct new landfills/ identify sites for landfills. These States include Andhra Pradesh, Gujarat, Himachal Pradesh, Haryana, Karnataka, Maharashtra, Rajasthan, Tamil Nadu and Manipur.

14.2 Further the Committee, while referring to certain States like Gujarat, where a few ULBs were coming together for setting up a

*Annexure II.

common landfill site, desired to be apprised of the essential pre-requisites for such sites. The Ministry responded as under:

“The pre-requisites for identification of regional/common landfill site for all the neighbouring ULBs are as under:

- (i) Acceptance by all the ULBs to utilize it.
- (ii) Identification of site which should be easily accessible and close to all the participating Urban Local Bodies as far as possible.
- (iii) Memorandum of Understanding has to be signed among the ULBs for sharing the cost of infrastructure to be developed as well as O&M cost.
- (iv) Consensus should be arrived at so as to implement and operate & maintain by one urban local body, for which, the urban local body will be designated in consultation with other ULBs.
- (v) Under JNNURM, SWM project has been approved with a common landfill-site for Tambaram, Pallavaram and Alandur Municipalities in which the nodal Municipality has been designated as Pallavaram Municipality by the Municipal Administration Directorate”.

PART II

OBSERVATIONS/RECOMMENDATIONS OF THE COMMITTEE

SOLID WASTE MANAGEMENT—NEED FOR ALL STAKEHOLDERS TO BE PROACTIVE

1. Solid Waste Management (SWM) is a State subject. As it is essentially a municipal function, all the municipal authorities in India deal with collection, transportation and disposal of the city garbage so as to reduce its impact on public health, environment and aesthetics. Management of commercial/industrial waste like bio-medical waste/e-waste is usually the responsibility of the generator. The Committee note that though there had been phenomenal growth in Municipal Solid Waste generation in India since Independence, there was hardly any progress towards improving the overall Solid Waste Management system in cities so as to match this growth, as Municipal Solid Waste Management was typically assigned a lower priority than water supply and sanitation. It was only at the intervention of the Supreme Court in the late Nineties, that some attempts were made for ensuring proper and scientific management of Municipal Solid Waste through the MSW (Management & Handling) Rules and related Manual prepared by the Central Ministries of Environment and Forests and Urban Development respectively. A clean city is not an accident but a concerted effort of the citizens, the State, the city managers and the civil society. The Committee are of the view that in order to achieve the objectives of a well-designed and scientific SWM system, all the stakeholders need to be pro-active. They feel that particularly the State Governments should not be found wanting in this respect. The Committee's observations and recommendations arising out of the examination of these and other related issues are set out in the following paragraphs.

IMPLEMENTATION OF MUNICIPAL SOLID WASTE (MANAGEMENT AND HANDLING) RULES, 2000

2. The Committee note that the Ministry of Environment and Forests, Government of India, have notified the 'Municipal Solid Waste (Management and Handling) Rules, 2000 through which specific directives have been issued to the urban local bodies, District Administrations and Departments of Urban Development of the State Governments to ensure proper and scientific management of

municipal solid waste. The Ministry of Urban Development have not yet formulated any National Waste Policy for Solid Waste Management as according to them the MSW (M&H) Rules, 2000 act as the policy to handle MSW. However, the Ministry of Urban Development brought out a Manual on Municipal Solid Waste Management in May, 2000 to facilitate the ULBs to address issues relating to the Solid Waste Management. In this connection, the Committee are distressed to note that the deadline of December, 2003 for implementation of MSW (M & H) Rules, 2000 could not be achieved due to huge capital investment required to implement, operate and maintain solid waste management projects. Several other impediments like lack of planning, absence of segregation of waste at source, inadequate house-to-house collection, transportation, treatment and disposal of municipal solid waste, etc., have been identified by the Government in implementation of the MSW Rules, 2000. Consequently, the Committee note that the deadline for State Departments of Urban Development and Urban Local Bodies for implementation of these rules has been extended upto December 2008. The Committee are sure that even this deadline would not be met since most of the ULBs and State Governments still lack requisite investment and infrastructure facilities for the same. The Committee, therefore, desire that the Ministry should impress upon the States that they should take all steps necessary to ensure that MSW (M&H) Rules, 2000 are strictly implemented by all concerned as early as possible. At the same time, the Committee also recommend that while sanctioning the Solid Waste Management Projects submitted by the States under the Centrally Sponsored Schemes like Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and Urban Infrastructure Development Scheme in Small and Medium Towns (UIDSSMT), the Government should ensure the implementation of MSW (M&H) Rules, 2000 as a pre-condition.

NATIONAL URBAN SANITATION POLICY

3. Open defecation, particularly, near urban slums and railway tracks is still prevalent in most of the cities and urban areas. It acts as a major hindrance in achieving 'clean city' status. The Committee are happy to note that the long awaited National Urban Sanitation Policy has been approved by the Cabinet on 3rd October, 2008 during the International Year of Sanitation, with a view to formulate policy guidelines, strategies for implementation of sewerage and sanitation facilities in the urban areas, so as to eliminate open defecation in the cities and towns. To achieve the goals of National Urban Sanitation Policy, the Government is reportedly contemplating steps

like awareness generation and behavioural change, integrated city-wide sanitation system, sanitary and safe disposal, proper maintenance and management of all sanitary installation, etc. in due course. The Committee feel that for effective implementation of the National Urban Sanitation Policy, a time-bound action plan with specified targets focussing on the prevailing conditions in a State needs to be framed by the Government, with adequate financial support so that ULBs could be strengthened to provide substantial sanitation services. The Committee hope that the Central Government and the States will take necessary steps to achieve this goal.

MAGNITUDE OF THE MUNICIPAL SOLID WASTE (MSW)

4. From the information furnished by the Ministry, the Committee note that at present urban India produces about 42 million tonnes of municipal solid waste annually which would mean 1.15 lakh metric tonnes per day (TPD). Out of this, 83,378 TPD is generated in 423 class-I cities. They concur with the view of the Ministry that as soon as the problem in these class-I cities is addressed, 72.5% of the total urban waste generated could be managed. The Committee have also been informed that although Urban Local Bodies spend between Rs. 500 to Rs. 1500 MT on Solid Waste Management, less than 5% of this amount is used for treatment and disposal of waste after spending 60% to 70% on collection and 20% to 30% on transportation. The Committee, therefore, are convinced that more financial resources are required for treatment and disposal of waste generated. At present there is no tax/tariff on waste management services. The Committee are of the view that the possibility of levying direct tax for waste management services need to be explored since it is a common public utility like water and electricity. They, therefore recommend that the Ministry of Urban Development may initiate steps on the same at the earliest.

SPECIAL PURPOSE VEHICLE (SPV) FOR MUNICIPAL SOLID WASTE

5. Lack of funds with Urban Local Bodies has been identified as a major hindrance in proper solid waste management. In this context, the Committee have been informed that Kerala State Government has created a Special Purpose Vehicle (SPV) for power generation by integrating its 60 municipalities with three intermediate depots to collect garbage and waste to dispose it off in large containers. Ahmedabad and Bangalore cities have also reportedly created SPV for management of municipal solid waste. The Committee, therefore, recommend that Government should closely monitor these initiatives

and if found suitable, encourage other States, cities and ULBs to create such SPVs to address the shortage of funds. The Committee also recommend that the Government should examine the feasibility of developing, with adequate financial support, model clean cities in each State which demonstrate innovative MSW Management system.

TECHNOLOGICAL OPTIONS AVAILABLE FOR DISPOSAL OF MUNICIPAL SOLID WASTE

6. The Committee observe that various technological options like composting including vermi composting, anaerobic digestion/ biomethanation, production of refuse derived fuel/pelletisation, etc. are available for treatment and disposal of municipal solid waste. The Committee further note that these technological options find mention in the Technical Advisory Group (TAG) Report and in the Manual on Municipal Solid Waste Management. However, these options are yet to gain wide acceptance. While deploring the crude dumping of waste by the Urban Local Bodies (ULBs) in most of the cities, the Committee recommend that the Government should take the desired steps to encourage the State Governments/ULBs to adopt the available and proven technologies for safe disposal of Municipal Solid Waste. At the same time the Committee desire that the Government must also ensure that only environment-friendly technological options are adopted so as to prevent further worsening of an already polluted urban environment.

SOLID WASTE MANAGEMENT PROJECTS IN HILLY REGION

7. In Hilly regions, difficult terrain, lack of adequate land huge cost of basic site developments and weak financial positions of the municipal bodies make SWM a daunting task. The Committee note that 7 Solid Waste management Projects viz. Doda, Bhaderwah, Akhnoor, Poonch, Samba, Kathua and Sunderbani in Jammu & Kashmir have been entrusted to the National Building Construction Corporations (NBCC), Ministry of Urban Development. The Committee appreciate that NBCC has entered into an agreement with the Central Pollution Control Board (CPCB) to develop solid waste management schemes in hilly regions, which shall be used to develop standard designs for future use. A scheme in Mandi, Himachal Pradesh has been taken up at present and is reported to be at design stage. The Committee are, however, concerned to observe several constraints being faced by NBCC in implementation of the projects in Jammu & Kashmir owing to the non-availability of

suitable land for the processing plant, poor economics of Operation & Maintenance cost vis-a-vis revenue from sale of products, high landed cost of material and equipment due to high entry and toll taxes and high cost of registration for sales tax. They, therefore, recommend that Ministry of Urban Development should take up these issues with the concerned authorities so that the sanctioned Solid Waste Management projects in Jammu & Kashmir are well-supported financially and completed in time. At the same time, the Committee recommend that the Government should work out the cost of Solid Waste Management projects in the hilly and difficult regions and accordingly raise the limit with respect to the project costs being sanctioned for such regions.

MUNICIPAL SOLID WASTE PROJECTS UNDER JAWAHARLAL NEHRU NATIONAL URBAN RENEWAL MISSION, UIDSSMT, ETC.

8. The Committee have been convinced that the Government is increasingly committed to improved MSW management through JNNURM, UIDSSMT, the pilot project of SWM in 10 Airfield towns and so on. The number of SWM projects sanctioned under JNNURM and UIDSSMT are 31 and 40 respectively. The Committee further note that the 12th Finance Commission had also made a provision of Rs. 2500 crore in June, 2005 exclusively for Urban Local Bodies for setting up Solid Waste Management systems in 423 class-I cities during the period, 2005-2010. The Committee are, however, concerned to note that only 26 schemes have been sanctioned so far at an approved cost of Rs. 1458 crore and feel that the number of projects undertaken so far is very low in comparison to the magnitude of the problem. The Committee feel that though an overall momentum has been established, yet the need of the hour is to expand and improve the coverage of SWM schemes, which requires both upgraded institutional and financial structures with suitable investments as well as the willingness of the municipal bodies to develop and implement clear-cut SWM projects for upgrading their facilities at a sustainable pace.

PILOT PROJECT ON SOLID WASTE MANAGEMENT IN 10 AIRFIELD TOWNS

9. The Committee are distressed to note that though the Scheme of Solid Waste Management in 10 Airfield towns was scheduled to be completed by March, 2008, it has been delayed badly in Pune, Tejpur and Hindon. Only 45 per cent, 10 per cent and 45 per cent of work has been completed respectively in the three towns as on 30.6.2008. The progress of work in respect of project at Bareilly has

also remained incomplete as per the information furnished to the Committee. They are perturbed to note that despite their recommendation in 31st Report on Demands for Grants (2008-09), (14th Lok Sabha) of the Ministry of Urban Development urging the Ministry to take necessary action in the matter for urgently completing the schemes in the remaining 4 towns, substantial amount of work is still left, particularly in Tejpur. While urging for completion of these schemes without further delay, the Committee would like to be apprised of the present status of implementation of these projects, alongwith the steps taken by the Ministry in 2008 to remove the impediments in the projects pending till date. They hope that the Ministry would take up the matter concerning Tejpur with appropriate authorities urgently lest the very objective of the scheme would stand defeated.

SOLID WASTE MANAGEMENT AND SANITATION SCHEME FOR GHAZIABAD TOWN (HINDON AIRFIELD), U.P.

10. The Committee observe that the Ministry of Urban Development had approved a Solid Waste Management and Sanitation scheme for Ghaziabad town (Hindon Airfield) at an estimated cost of Rs. 13.52 crore. The project, which had commenced on 1.1.2006 is till incomplete. As against a total release of funds of Rs. 12.76 crore, the expenditure incurred on the project so far is reported to be Rs. 6.05 crore. As regards the progress of work on the project, the Committee note that in respect of sanitary landfill and compost plant, only 10% and 7% of the total work has been completed so far. These components could not be completed due to dispute in acquisition of 43 acres of land which was originally identified by the Ghaziabad Nagar Nigam at Dooda hera, Chhipiyana Bujurg in Ghaziabad. The project has been further delayed due to a Writ Petition filed in 2006 for shifting of the site. The Committee have been further informed that on the direction of the Hon'ble High Court, a new site has been identified at Dasna in Ghaziabad which is about 9 Kms away from the present site. However, No Objection Certificates were required from Hindon Airfield and Uttar Pradesh Pollution Control Board by the Ghaziabad Development Authority before the start of land acquisition process at Dasna site, which is yet to be done. The Committee are dissatisfied to note that the funds allocated and released for the scheme could not be utilized fully due to several above-stated impediments and that the project is still languishing due to non-acquisition of land. The Committee hope that learning from the past experiences, the Government vigorously pursue the matter with the Uttar Pradesh

State Government so that the scheme could be expedited. The Committee also recommend that the Ministry should impress upon the State Governments to take prudent measures for advance and realistic planning so that all and acquisition of land for a Solid Waste Management project are taken care of, before that start of the project on ground. Further, the Committee desire that for such projects the Government should take recourse to the Compulsory Acquisition of Land Act in public interests.

LACK OF LANDFILL SITE IN GURGAON, HARYANA

11. The Committee note with concern that in the National Capital Region, particularly, in Gurgaon, where the present population is more than 10 lakh against the 3.42 lakh as per 2001 Census, the problem of unmanaged municipal solid waste has created an uproar. They have been given to understand that now an integrated site to be developed on Build-Own-Operate-Transfer (BOOT) basis has been identified at Bandhwari village on Gurgaon-Faridabad Road on a Public-Private-Partnership model. The Committee note that although all necessary clearances for the project has been obtained, the project is likely to take one and a half years for completion after approval of the budget. The Committee hope that keeping in view the problem the project would be sanctioned and undertaken urgently and desire that it should be completed without any delay.

MONITORING OF SOLID WASTE MANAGEMENT (SWM) PROJECTS

12. The Committee find that although monitoring of Solid Waste Management is primarily not the responsibility of the Ministry of Urban Development, the Ministry, however, monitor the implementation of approved Solid Waste Management projects under the Centrally-sponsored scheme through various mechanisms such as quarterly Project Reports field visits, etc. The Committee have been further apprised that for monitoring and management of sanctioned projects of various sectors including SWM under JNNURM, the Project Implementation Units (PIU) at ULB level and Project Monitoring Unit (PMU) at State level are being set up. The Committee are, however, constrained to note that in spite of the aforesaid efforts taken by the Central Government, only 30 Project Implementation Units (PIU), 12 Project Monitoring Units (PMU) and 4 Independent Review and Monitoring Agencies (IRMA) have been set up so far to monitor and manage the sanctioned projects. The Committee feel that it is grossly inadequate in view of the fact that

the issue of managing Municipal Solid Waste (MSW) concerns 5161 cities and towns. The Committee, therefore, recommend that to give a major fillip to this programme, the Government should meet frequently and make constant dialogue with the State Governments so that more project implementation and monitoring units could be set up at the ULB/State levels. Further the performance of PIUs, PMUs and IRMAs also needs to be assessed in order to ensure that no loopholes are left in the execution of SWM projects.

STRENGTHENING OF CENTRAL PUBLIC HEALTH AND ENVIRONMENTAL ENGINEERING ORGANIZATION (CPHEEO)

13. As regards the monitoring mechanism of Solid Waste Management system in 423 class-I cities available with the Ministry of Urban Development, the Committee observe that at present CPHEEO—the technical wing of the Ministry assists the Ministry in all technical matters relating to water supply and sanitation sector. It is stated to be a small organization having a sanctioned strength of only 9 officers. The Committee are further concerned to note that out of these 9 officers, 50% posts are reported to be lying vacant. The Committee have been further informed that a proposal for creation of 11 posts have been forwarded to Ministry of Finance for approval so that water supply, sewerage and solid waste management schemes implemented by the State Governments/ULBs could be monitored at Central level by CPHEEO. Taking note of the grossly inadequate manpower with CPHEEO for monitoring the water supply and sanitation services including solid waste management, the Committee, while recommending the Government to take appropriate action to fill up the existing vacancies at the earliest. The Committee would also like to know the present status of proposal of the Ministry to strengthen the organization by creation of 11 additional posts. The Committee would also like to be apprised as to how, with the increased strength of 20 officers, water supply and sanitation services including solid waste management in 5161 cities and towns in the country would be monitored by CPHEEO.

TASK FORCE ON INTEGRATED PLANT NUTRIENT MANAGEMENT (IPNM)

14. The Committee note that subsequent to a Writ Petition filed in the Hon'ble Supreme Court on solid waste management, an Inter-Ministerial Task Force on Integrated Plant Nutrient Management (IPNM) using city compost was created in August, 2003. In its Report submitted to the Supreme Court on 6.5.2005, the Task Force had recommended an integrated plant nutrient management using city

compost so that it can be supplied within 50 km radius of all ULBs and their compost plants. The Committee find that as a follow up action, the Ministry of Urban Development had advised all the State Governments and concerned Ministries to implement the said recommendation including use of compost for development of plantation/afforestation and balanced integrated use of fertilizers. The Committee are concerned to note that although assistance of Rs. 20 lakh per unit were released from VIIth to IXth Plan, no financial assistance for setting up/strengthening of soil testing laboratories and for setting up bio-fertilizer units were provided during 10th Plan period. The Committee are further dismayed to note that although funds of Rs. 9.00 crore were provided for setting up of 30 mechanical compost plants in different States for conversion of biodegradable organic city waste into compost, most of these plants are either not working to their optimum capacity or are not functioning at all. While recommending the Government to take appropriate steps to ensure an optimum utilization of installed capacity of these compost plants, the Committee would like to be apprised of the reasons for their non-functioning as well as absence of financial assistance/subsidy for setting up of more compost plants during the 10th and 11th Plans.

The Committee are further disappointed to note that despite the efforts made by the Ministry of Urban Development to involve the Central Ministries of Chemicals & Fertilizers and Agriculture to know as to how best the city composts can be integrated with chemical fertilizers for the benefit of farmers, these Ministries have not shown any enthusiasm for the same. They feel that as SWM concerns several stakeholders including these Ministries, such an attitude is uncalled for. The Committee desire that the Ministry of Urban Development should again approach these Ministries to bring them on board.

COMMUNITY PARTICIPATION FUND

15. The Committee are happy to note that the Ministry of Urban Development have created a Community Participation Fund (CPF) under which a community can conceive a project on municipal solid waste and submit it through the local Municipality to the Union Government. Funds to the tune of Rs. 9.5 lakh can be granted with community contributing 5% in case of slums and 10% in case of others. However, the Committee are dismayed to note that the response to the scheme has not been very encouraging as only three schemes from Madurai city have been received by the Government so far. The Committee, therefore, recommend that the Government

should analyse the reasons for CPF not being attractive enough and obviate the same. They should also create an awareness campaign among the public through Urban Local Bodies (ULBs)/Non-Governmental Organizations (NGOs) so that more and more community participation projects could be taken up for municipal solid waste management. The Committee also feel that communities availing CPF should also undertake efforts to convince citizens to reduce waste and encourage exchange/gift of unwanted usable items instead of throwing them away.

PROTECTIVE EQUIPMENT TO MUNICIPAL STAFF AND RAG PICKERS

16. The Committee observe that as per guidelines given in the Manual on Municipal Solid Waste Management, 2000, the local body should provide adequate protective equipment including clothing and health check up from time to time to the staff to ensure that their health is not adversely affected on account of their handling of solid waste. Further, free medical services should be made available to those whose health is affected on account of handling of solid waste. The Committee are, however, convinced that very few ULBs have implemented these rules. They are also dismayed to note that the Ministry of Urban Development could not obtain any information from the State Governments/ULBs about the staff engaged in garbage disposal, who are not properly provided with the protective equipment as required under the Manual on Solid Waste Management, 2000. The Committee would like to urge the authorities to ensure that not only the waste handling municipal staff but the rag-pickers in unorganized sector, who are reported to be about 1.3 lakh in number and play a special role in segregation of waste, should also be provided with the adequate protective equipment and health check up including other incentives like identity cards and use of public sanitation services. The Committee desire that the continuous monitoring of implementation of the guidelines in this regard should also be ensured at each level.

PROJECTS FOR WASTE CHARACTERIZATION AND FEASIBILITY STUDIES

17. The Committee note that a scheme for financial assistance for waste characterization and feasibility studies was introduced in 1992 under which the Ministry had sanctioned 3 projects viz. (i) the municipal solid waste management project, Nagar Nigam, Ghaziabad at a cost of Rs. 55 lakh, (ii) Pilot project for solid waste management for Hyderabad City, Municipal Corporation, Hyderabad at a cost of Rs. 53.3 lakh, and (iii) Pilot project for solid waste management in

Shimla at a total cost of Rs. 25 lakh. However, none of these projects have been reported to be commissioned. The Committee would like to be apprised of the date of sanction of these projects, the reasons for their non-commissioning and the actual progress alongwith expenditure incurred, if any, on these projects. The Committee strongly urge the Government to fix responsibility for the failure of commissioning these projects.

RE-CYCLING OF CONSTRUCTION AND DEMOLITION WASTE, PLASTIC ETC.

18. The Committee note that ULBs have been advised by the Ministry of Urban Development to segregate their construction and demolition waste and dispose them off in low lying areas. The Committee have also been apprised that Building and Material Technology Promotion Council (BMTPC) initiated a research and development project with Youth for Unity and Voluntary Action, Mumbai, for recycling of construction and demolition wastes as the use of recycled materials will help in reducing the use of natural resource materials for production of building materials. The Committee further observe that in Surat, Gujarat, the construction and demolition waste is reused for preparation of bricks for laying pavements. While appreciating the Research and Development project by BMTPC for recycling of construction and demolition waste, the Committee recommend that more such projects should be undertaken and implemented in other parts of the country. The Committee have also been informed that BMTPC has initiated and sponsored a project in the Central Building Research Institute (CBR), Roorkee to develop plastics building products from recycled plastics with emphasis on wastes generated from the building industry. The Committee also learn that CBRI, Roorkee has developed building products using plastic waste, for special application in disaster resistant construction, though it has not been verified on the grounds of health and environment friendliness. While strongly recommending to promote the use of recycled plastic building products, the Committee feel that the impact of these products on health and environment needs to be tested and verified before putting it up for large-scale use. The Committee also feel that there is an urgent need to frame laws to encourage recycling by specifying mandatory deposit and return requirements to shift the burden of waste disposal and recovery of materials back to the manufacture of products by ensuring that retailers and wholesalers take back materials which is no longer required. The Committee, therefore, recommend the Ministry to gather expert opinion on this matter and approach the appropriate authority to initiate such a move.

IMPLEMENTATION OF BIO-MEDICAL WASTE (MANAGEMENT AND HANDLING) RULES, 1998

19. The Committee note that based upon the Bio-medical Waste (Management and Handling) Rules, 1998, the Ministry of Health and Family welfare had prepared National Guidelines on Hospital Waste Management and circulated it to States and Union Territories for information and compliance. The hospitals are required to implement these Rules by developing a comprehensive plan for hospital waste management in terms of segregation, collection, treatment, transportation and disposal of the wastes. Although the Committee have been informed that the Central Government hospitals are strictly adhering to the Bio-medical waste (Management and Handling) Rules, 1998 and implementation of these Rules by other Nursing homes and hospitals has also improved, the Committee would like to know the monitoring mechanism available with the Ministry of Health and Family Welfare to check any violation of rules and guidelines issued in this regard. At the same time, the Committee would like to know the steps taken by the Ministry of Urban Development to ensure that these wastes are not dumped with the other Municipal wastes.

AWARENESS CAMPAIGN FOR SEGREGATION OF WASTE AT SOURCE

20. The Committee note that 30 to 55 per cent of municipal solid waste comprises bio-degradable matter, 40 to 55 per cent is inert and 5 to 15 per cent is recyclable. The Committee are concerned to note that door-to-door collection of waste is not carried out in most parts of the country and it is still the responsibility of individual house owner to take the municipal waste to the dhalaos. The Committee cannot but deplore the way in which most of the Urban Local Bodies are ignoring the provision using separate bins for non-organic and organic waste in spite of the Advisory Note sent in October, 2007 by the Ministry of Urban Development to all State Governments. In this context, the Committee observe that in Gujarat, cities like Surat and Vadodara have proposed private sector participation in handling this organic waste and converting it into compost. Even other combustible wastes like paper, plastic, etc., are being separated and treated with Refuse Derived Fuel. Similarly, Municipal Corporation of Delhi is reported to have implemented the door-to-door collection of waste in various parts of Delhi in a phased manner. Notwithstanding these few instances, the Committee still feel that the most important aspect in Solid Waste Management, *i.e.* reduction of waste and the segregation of waste at source, is the most neglected one. In view of the Committee, it is probably because of indifference of citizens towards inculcating the habit of segregating wastes as

well as lack of community participation towards waste management. The Committee feel that the task of creating facilities to treat the wastes either for producing energy or for composting or recycling and bringing awareness about reduction and segregation of waste at source by involving citizens rests with the Ministry of Urban Development and the State Governments. The Committee, therefore, recommend that the Government should boost up measures for Information, Education and Communication (IEC) of the public on the matter through print and electronic media, NGOs, student community, women, institutions, etc., at all available opportunities.

IMPLEMENTATION OF PLASTICS MANUFACTURING AND USAGE (A) RULES, 2003

21. The Committee note that to avoid littering and segregation of plastic waste at source, 'Plastics Manufacturing and Usage (A) Rules, 2003 has come into force. Besides stipulating not to manufacture and sell thin plastic carry bags, the rules also prohibit the usage of recycled plastic carry bags for storing, carrying, dispensing or packaging of foodstuffs in India. Further, usage of plastics carry bags is banned in pilgrimage and tourists spots. In this regard, the Committee are of the opinion that although in some States use of plastic carry bags has been totally banned, these provisions are not strictly followed by all the States/Urban Local Bodies. The Committee, therefore, recommend the Government to pursue all the State Governments/Urban Local Bodies not only to incorporate a clause for penalty on the defaulters in their by-laws but their implementation should also be strictly adhered. The Committee would like to be informed of the action taken by the Government in this regard.

MONITORING OF PUBLIC PRIVATE PARTICIPATION (PPP) PROJECTS

22. The Committee note that under Jawaharala Nehru National Urban Renewal Mission guidelines, Urban Local Bodies shall have to implement obligatory reforms in which the Ministry of Urban Development has advocated for encouraging Public Private Participation (PPP). Further, the Ministry has approved PPP model for Indore, Coimbatore, Madurai, Surat and Mumbai. In six municipal zones in Delhi, the entire collection and transportation of waste has been given to private parties. The Committee have been also informed that the Ministry of Urban Development, in an advisory note sent to all State Governments in October, 2007, had advised them that the ULBs should explore possibility of including PPP and Non-Governmental Organizations/Resident Welfare Associations in door-to-door collection, transportation and treatment facility for municipal solid waste. The Committee, however, note that in some

of the cities, Public Private Participation mode has been implemented successfully, while in others the performance has been dismal. They feel that an issue in PPP mode, which requires attention, is strengthening the ULB's capacity to enter into contracts and the private sector's ability to deliver professionally against a contract. They, therefore, recommend the Ministry to address the matter carefully keeping in view these crucial issues and initiate measures to tackle the same.

ACUTE SCARCITY OF LANDFILLS

23. Disposing of inert municipal solid waste in a landfill requires properly designed and well-managed landfills. Such landfills can be a hygienic and relatively inexpensive method of disposing of waste materials. However, the Committee are seriously concerned to note that lack of appropriate land for landfills has resulted in mounds of MSW which has become severe eyesores alongside roads in most of the class I and medium cities in the country. The most recent instances noticed by the Committee in this connection are Gurgaon and Ghaziabad, where several public protests were witnessed on this account. In addition to it, old, poorly designed or poorly managed landfills in cities are creating several adverse environmental conditions, for instance, wind-blown litter, generation of liquid leachate, poisonous gases, bad odours, attraction of vermin and bacteria etc. In this connection, the Committee note that certain State Governments are in the process of setting up landfill facilities, for instance, Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, Karnataka, Maharashtra, Manipur, Rajasthan, West Bengal and Tamil Nadu. The Committee also note that 12 ULBs of AUDA (Ahmedabad Urban Development Authority), Gujarat have taken initiatives to construct a common landfill site. The Committee desire that the Ministry of Urban Development should assess the success of this common facility, once completed and counsel other State Governments to follow suit, wherever feasible, particularly in those States where severe land crunch is experienced. The Committee are also dismayed that in Delhi, Goa, Bihar, Uttarakhand, Punjab, Chhattisgarh, Mizoram and Lakshadweep, no initiatives were reported on the part of their ULBs towards setting up of landfill facilities for waste disposal. The Committee would urge expeditious steps to address this issue. They would like to be apprised of the latest progress on this account.

NEW DELHI;
17 December, 2008
26 Agra Hayana, 1930 (Saka)

MOHD. SALIM,
Chairman,
Standing Committee on
Urban Development.

ANNEXURE I

ACTIONS POINTS OF THE VARIOUS MINISTRIES INVOLVED
IN IMPLEMENTATION OF THE RECOMMENDATIONS
OF THE TASK FORCE

Ministries involved	Action to be initiated
1	2
<p>Ministry of Agriculture</p>	<p>Transport subsidy on sale of finished compost, massive awareness generation as extension activity, guidelines for effective and efficient use of city garbage based compost for agriculture and horticultural crops and formulation of specifications and regulatory mechanisms for ensuring quality of compost.</p> <p>The Department of Agriculture and Cooperation of the Ministry should promote the use of Integrated Nutrient Management through various projects and schemes being partly financed by the Government of India by using quality city compost. The quality control mechanism of fertilizer, in vogue, should be used for the verification and qualifying the city compost as per the standards laid down. The inoculum required by the compost plants should be made available by the Government of India laboratories/ICAR/Agricultural Universities located in the area for multiplication and use by the composts at a very reasonable cost.</p> <p>The ICAR should institute special projects as "Lab to Land", National Demonstration Experiment on Integrated Nutrient Management on various crops using quality city compost. "Seeing is believing," all these demonstrations should be on farmer's field and that too preferably on small and marginal farmer's field. It should be made mandatory for both</p>

	<p>Department of Agriculture & Cooperation and ICAR to extend all required financial support, scientific help and guidance (through extension agencies) to promote the use of quality city compost as Integrated Nutrient Management practice by the farmers. The involvement of State Agriculture Department(s) and State Agricultural Universities is a must in this programme for demonstrating the integrated nutrient management approach at farmer's field. If required, new projects and schemes should be introduced for this purpose on priority basis.</p>
Ministry of Environment & Forests	<p>Use of Compost for Rehabilitation of Degraded Land, Mining Spoil Dumps, Abandoned Mining areas should be undertaken while afforestation programme is being executed on a large scale. Integrated nutrient application approach for reclamation of degraded and denudated lands during afforestation process would be a rewarding mechanisms for better soil health and greening of these abandoned lands. Guidelines for the same should be promoted and be a part and parcel of various schemes.</p>
Ministry of Finance	<p>As the composting sector is directly related to waste management/ health of the citizens, soil fertility and food production/food security, the Ministry of Finance, Government of India, should provide following fiscal incentives to the composting sector; 8, Entrepreneurs setting up of compost plant in Joint Venture or private sector should be considered for tax holiday for 10 to 11 years and exemption of customs duty, excise duty, sales tax and other local taxes on equipment, machinery, processing plant etc. to promote private sector participation to promote production of compost from city garbage and provide India soils with much needed humus material/Carbon content and other soil nutrients for retaining soil fertility.</p>

The private composter/ULB (in case of joint venture) be allowed to raise loans from Commercial Banks, NABARD, HUDCO and others by jointly mortgaging the land if required.

Funds to the extent of Rs. 800/- crore (which is hardly 5% of Rs. 16,000.0 crore annual subsidy to chemical fertilizer) should be provided by Ministry of Finance, Government of India for providing capital & interest subsidy of Rs. 700.0 crore for setting up of 1000 compost plants, Rs. 60.0 crore as transport subsidy and Rs. 40.0 crore as promotional subsidy.

(a) Capital Subsidy & Interest Subsidy

Entrepreneurs/Composters should be considered for back-ended capital subsidy of 50% of cost of plant (if ULB owns the plant) and 30% of cost of plant (if joint venture) and interest subsidy for the entire loan repayment period with discount rate of 12%. **Funds to the extent of Rs. 700.0 crore** should be considered by the Ministry of Finance, Government of India for setting up about 1000 compost plants in different cities of the country in order to produce compost from city garbage.

(b) Transport Subsidy of Rs. 60.0 crore

- (v) Transport subsidy of Rs. 100/- per Metric Ton should be considered for transporting compost (finished product) in bulk form within 50 km radius of compost plant by composters for direct selling to farmers to ensure marketing of compost.
- (vi) Transport subsidy of Rs. 150/- per Metric Ton should also be considered for fertilizer companies of their storage agents for transporting and storage of compost (finished product) within 100-150 km radius of the compost plant for marketing through "Basket Approach".

(c) Promotional Subsidy of Rs. 40.0 crore for popularizing the use of compost.

The total fund requirement would not exceed Rs. 900.0 crore per annum which includes Rs. 700.0 crore for capital subsidy and interest subsidy for 1000 compost plants, about Rs. 60.0 crore for transport subsidy, Rs. 40.0 crore as promotional subsidy and around Rs. 100.0 crore for extending subsidy to existing plants also. The capital grant/subsidy should be monitored by Ministry of Urban Development, Government of India.

Back-ended capital and interest subsidy may be provided through leading financial institutions like NABARD, HUDCO etc. The capitalization of interest subsidy could be worked out with an annual discount rate of 12% and shall be paid to Financial institutions on the basis of actual loan disbursed. Regarding subsidy on plant and machinery, the back-ended subsidy should be provided through NABARD/ HUDCO/NCDC and other authorized commercial bank(s).

The subsidy/capital grant should be monitored by the Ministry of Urban Development upto the production of compost and distribution level through back-ended subsidy through NABARD/ HUDCO. The Ministry should be empowered to use Rs. 700 crores each year as per the need and requirement of the cities based upon the evaluation report.

Commercial Banks, NABARD and other financing institutions be directed to grant loan at par to the farmers.

For all practical purposes, installation and running of compost plants should be granted the same status as is being availed by agro-industries located in the rural areas or in the suburbs of the cities.

Ministry of Chemicals & Fertilizers	Until and unless a concept of integrated nutrient management approach is adopted by us, it may not be possible to break the plateau of crop productivity achieved in various crops viz. Wheat and paddy. For better Soil and increasing the efficiency of added fertilizers, the use of compost/organic manure is vital. In Order to see that the farmers use organic manure/compost along with fertilizers, the treatment to this vital segment (compost) has to be par with that of chemical fertilizer. The subsidy as is being granted to chemical fertilizers has to be extended for promoting the use of organic manure/compost from city garbage. The mechanism of the grant to be executed need to be worked out by a high powered committee. Co-marketing of organic manure along with fertilizers should be the responsibility of this Ministry.
Ministry of Mines	Use of compost for rehabilitation of degraded land, mining spoil dumps, abandoned mining areas and for compensatory afforestation as per § 13 (qq) of the Mines & Minerals Act, 1987 and similar guidelines, particularly in such places which are located in nearby areas of the city.
Ministry of Railways	Use city compost for plantation/afforestation on minimum 1% of its lands annually within 50 km of a city or town should be effectively performed.
Ministry of Surface Transport	Use of city compost for all road dividers, embankment stabilization, roadside greening etc. should be mandatory. Other Ministries like Tourism, Civil Aviation and others should use city compost for greening of the area.

ANNEXURE II

SETTING UP OF LANDFILL FACILITIES
FOR WASTE DISPOSAL

Sl. No.	States/UTs	Landfill constructed	Initiatives taken	No. of sites identified
1	2	3	4	5
1.	Andaman & Nicobar	Nil	Port Blair	1
2.	Andhra Pradesh	Vizianagaram	Suryapet, Hyderabad, Vijaywada, Vizianagaram	61 (ULBs)
3.	Arunachal Pradesh	INR	INR	INR
4.	Bihar	Nil	Nil	Nil
5.	Chandigarh	Site under construction	-	-
6.	Chhattisgarh	Nil	Nil	66
7.	Daman & Diu	Nil	Daman & DNH	01 (Dadra)
8.	Delhi	Nil	Nil	Nil
9.	Goa	Nil	Nil	13
10.	Gujarat	Surat, Alang	Common site for 12 ULBs of AUDA	142
11.	Guwahati	Nil	Nil	1
12.	Haryana	Sirsa	Faridabad, Hissar, Ambala, Gurgaon	35
13.	Himachal Pradesh	None	Shimla, Chowari, Chamba, Nalagarh, Palampur	52
14.	Jharkhand	INR	INR	INR
15.	Jammu & Kashmir	INR	INR	INR

1	2	3	4	5
16.	Kerala	Nil	Kozhikode	53
17.	Karnatka	Bangalore, Mangalore Karwar, Puttur, Ankola	Sirsi, Dandeli, Bhatkal, Kundapur, Udupi and Chickmngalore	Remaining 213 local bodies have identified the sites
18.	Lakshadweep	Nil	Nil	Nil
19.	Madhya Pradesh	22	130	305
20.	Maharashtra	Nasik, Sonpeth Ambad	Jalna, Navapur, Pune, Meurd- Janjira, Pimpri Chinchawad	241
21.	Manipur	Nil	Imphal, Bishuper, Jin, Thoubal, Kakching, March	One each (6)
22.	Mizoram	Nil	Nil	Nil
23.	Meghalaya	Nil	Shillong	04
24.	Nagaland	Nil	Kohima	01
25.	Orissa	Nil	03	51
26.	Punjab	Nil	Nil	Nil
27.	Puducherry	Nil	Puducherry	1
28.	Rajasthan	Jodhpur	Proposed in 14 towns	152
29.	Sikkim	Nil	South-West District of Sikkim	1
30.	Tamil Nadu	Nil	Namakkal, Tiruppur, Udumalpet	104
31.	Tripura	Nil	Agartala	8
32.	Uttar Pradesh	INR	INR	INR
33.	Uttarakhand	Nil	Nil	Nil
34.	West Bengal	Under construction at ND&NB	30	30

ANNEXURE III

STANDING COMMITTEE ON URBAN DEVELOPMENT
(2007-08)

MINUTES OF THE EIGHTH SITTING OF THE COMMITTEE
HELD ON THURSDAY, 24TH JANUARY, 2008

The Committee sat from 1500 hrs. to 1630 hrs. in the Committee Room 'E', Parliament House Annexe, New Delhi.

PRESENT

Mohd. Salim — *Chairman*

MEMBERS

LOK SABHA

2. Smt. Botcha Jhansi Lakshmi
3. Shri Sharanjit Singh Dhillon
4. Shri Surendra Prakash Goyal
5. Shri Anant Gudhe
6. Shri Sajjan Kumar
7. Shri Shripad Yesso Naik
8. Shri D. Vittal Rao
9. Kunwar Sarv Raj Singh
10. Kunwar Devendra Singh Yadav

Rajya Sabha

11. Shri Nandi Yellaiah
12. Shri B.K. Hariprasad
13. Shri Surendra Moti Lal Patel
14. Shri Krishan Lal Balmiki
15. Shri Brij Bhushan Tiwari
16. Shri Penumalli Madhu
17. Shri Mukul Roy
18. Shri Varinder Singh Bajwa

SECRETARIAT

1. Shri S. Bal Sekar — *Joint Secretary*
2. Shri R.K. Saxena — *Director*
3. Smt. Anita B. Panda — *Deputy Secretary*
4. Shri Harchain — *Deputy Secretary-II*

**REPRESENTATIVES OF THE MINISTRY OF
URBAN DEVELOPMENT**

- (i) Dr. M.M. Kutty, Joint Secretary (D & L)
- (ii) Shri S. Sethuraman, Adviser
- (iii) Shri A.K. Mehta, Director
- (iv) Shri J.B. Kshirsagar, Chief Planner
- (v) Shri M. Sankarnarayanan, Deputy Adviser

2. At the outset, the Hon'ble Chairman welcomed the Members and the representatives of the Ministry of Urban Development to the sitting of the Committee. The Chairman then asked the Joint Secretary (D & L), Ministry of Urban Development to brief the Committee on the subject "Solid Waste Management ". He also drew the attention of the representatives to the provisions of Direction 55(1) of the Directions by the Speaker, Lok Sabha.

3. The Joint Secretary (D & L), Ministry of Urban Development briefly outlined various schemes pertaining to the subject "Solid Waste Management", such as Municipal Solid Waste (Management and Handling) Rules, 2000, Integrated Plant Nutrient Management, Technology Advisory Group on Solid Waste Management, Jawaharalal Nehru National Urban Renewal Mission (JNNURM), Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT), Public-Private partnerships, and issues such as recycling of waste, absence of segregation of waste at source, unwillingness of ULBs to introduce proper collection, segregation, transportation and treatment/disposal systems, indifferent attitude of citizens towards waste management due to lack of awareness, lack of community participation towards waste management and hygienic conditions etc., The representatives of the Ministry also clarified the queries raised by the Members pertaining to certain specific cities like Delhi, Ghaziabad, Surat(Gujarat), Suryapet (Andhra Pradesh) and Vijayawada (Andhra Pradesh) etc. on the subject and issues such as National Waste Policy, sustainable waste management, e-waste management, demolition waste management, plastic management etc.

4. The Hon'ble Chairman desired to have an oral evidence on the subject, before the drafting of the Report on the subject is taken up.

The Committee, then, adjourned.

ANNEXURE IV

STANDING COMMITTEE ON URBAN DEVELOPMENT (2007-08)

MINUTES OF THE SIXTEENTH SITTING OF THE COMMITTEE
HELD ON TUESDAY, 15TH JULY, 2008

The Committee sat from 1100 hrs. to 1250 hrs. in the Committee Room 'D' Parliament House Annexe, New Delhi.

PRESENT

Mohd. Salim — *Chairman*

MEMBERS

Lok Sabha

2. Smt. Botcha Jhansi Lakshmi
3. Shri Sharanjit Singh Dhillon
4. Shri Surendra Prakash Goyal
5. Shri Anant Gudhe
6. Shri Pushp Jain
7. Shri Sajjan Kumar
8. Shri A.K. Moorthy
9. Shri Shripad Yesso Naik
10. Shri Sudhangshu Seal
11. Kunwar Devendra Singh Yadav

Rajya Sabha

12. Smt. Syeda Anwara Taimpur
13. Shri B.K. Hariprasad
14. Shri Surendra Moti Lal Patel
15. Shri Krishan Lal Balmiki
16. Shri Brij Bhushan Tiwari
17. Shri Manohar Joshi

SECRETARIAT

1. Shri T.K. Mukherjee — *Director*
2. Smt. Anita B. Panda — *Deputy Secretary*
3. Shri Harchain — *Deputy Secretary-II*

**REPRESENTATIVES OF THE MINISTRY OF URBAN
DEVELOPMENT**

- (i) Dr. M. Ramachandran, Secretary, Urban Development
- (ii) Shri Arup Roy Choudhury, CMD, National Building Construction Corporation (NBCC)
- (iii) Shri A.K. Mehta, Joint Secretary
- (iv) Shri P.K. Shrivastav, Joint Secretary
- (v) Shri R. Sethuraman, Adviser
- (vi) Shri Yogesh Sharma, DGM, (NBCC)

**REPRESENTATIVES OF THE MINISTRY OF
ENVIRONMENT & FORESTS**

- (i) Shri G.K. Pandey, Adviser, Ministry of Environment and Forests
- (ii) Dr. A.B. Akolkar, Additional Director, Central Pollution Control Board (CPCB)

2. At the outset, the Hon'ble Chairman welcomed the Members and the representatives of the Ministries of Urban Development and Environment and Forests to the sitting of the Committee and drew the attention of the representatives of the Ministries to the provision of Direction 55(1) of the Directions by the Speaker, Lok Sabha.

3. The Secretary, Ministry of Urban Development then briefly outlined the issues regarding the subject 'Solid Waste Management'. He explained the initiatives taken by them to augment, operate and maintain the Solid Waste Management system in a sustainable manner, for instance, introduction of cost effective technologies, Public-Private Partnerships (PPP) mode, encouragement to adopt proper waste management practice by the Urban Local Bodies, standardization of compost generated from solid waste for its marketability, etc. Representatives of both the Ministries and the Central Pollution Control Board (CPCB) responded to the queries raised by the Members on the subject.

4. A verbatim record of the proceedings has been kept.

The Committee, then, adjourned

ANNEXURE V

STANDING COMMITTEE ON URBAN DEVELOPMENT
(2008-09)

MINUTES OF THE EIGHTH SITTING OF THE COMMITTEE
HELD ON WEDNESDAY, THE 17TH DECEMBER, 2008

The Committee sat from 1500 hrs. to 1600 hrs. in the Committee Room 'C' Parliament House Annexe, New Delhi.

PRESENT

Mohd. Salim — *Chairman*

MEMBERS

Lok Sabha

2. Smt. Botcha Jhansi Lakshmi
3. Shri Surendra Prakash Goyal
4. Shri Shripad Yesso Naik
5. Shri Sudhangshu Seal
6. Kunwar Devendra Singh Yadav

Rajya Sabha

7. Dr. Prabha Thakur
8. Shri B.K. Hariprasad
9. Shri Surendra Moti Lal Patel
10. Shri Penumalli Madhu
11. Shri Manohar Joshi

SECRETARIAT

1. Dr. Ravinder Kumar Chadha — *Joint Secretary*
2. Shri T.K. Mukherjee — *Director*
3. Smt. Anita B. Panda — *Deputy Secretary-I*
4. Shri Arvind Sharma — *Under Secretary*

2. At the outset, Hon'ble Chairman welcomed the Members to the sitting of the Committee. The Committee took up for consideration draft Report on the subject 'Solid Waste Management' of the Ministry of Urban Development. After some deliberations, the Committee adopted the draft Report with minor modifications.

3. The Committee then authorized the Chairman to finalize the Report in the light of the suggested modifications and consequential changes, if any, arising out of factual verification of the Report by the Ministry of Urban Development, and present it to the Parliament.

The Committee then adjourned.