

# **CHAPTER-IV**

## **URBAN DEVELOPMENT AND URBAN HOUSING DEPARTMENT**

### **PERFORMANCE AUDIT**



## CHAPTER - IV

This Chapter contains findings of two Performance Audits on “Management of Municipal Solid Waste in Nagarpalikas” and “Implementation of Water Supply Projects under Urban Infrastructure Development Scheme for Small and Medium Towns”.

### PERFORMANCE AUDIT

#### URBAN DEVELOPMENT AND URBAN HOUSING DEPARTMENT AND FOREST AND ENVIRONMENT DEPARTMENT

#### 4.1 Management of Municipal Solid Waste in Nagarpalikas

##### Executive Summary

*Over the years, there has been a continuous increase in the proportion of population residing in urban areas and this uncontrolled growth in urban areas has left Indian cities deficient in infrastructural services such as water supply, sewerage and solid waste management. The collection and disposal of municipal solid waste is one of the pressing problems of city life. To streamline the process of collection, handling, transportation, processing and disposal of Municipal Solid Waste (MSW), GoI framed MSW (Management and Handling) Rules, 2000. The performance audit of “Management of Municipal Solid Wastes in Nagarpalikas” was conducted for the period 2008-13 during January 2013 and August 2013 and the following deficiencies were noticed -*

- Proper assessment of quantum of solid waste generated in the NPs had not been carried out. Instances of mixing of bio-medical, horticultural and construction waste with MSW were noticed. Organised segregation of various types of waste at the point of generation and Vermicompost plants were not carried out in test checked NPs. Instances of overflowing of storage containers were found which led to accumulation of waste and creation of unhygienic conditions. Transportation of MSW in open instead of covered vehicles were noticed in test checked NPs.*
- Vermicompost Plants (VCPs) were either not being utilised at all or were not being utilised optimally, and seven Sanitary Landfill Facilities (SLFs) though completed by January 2013 had not been put to use till date (August 2013). Six other SLFs constructed (November 2006) at a cost of ₹ 2.29 crore under Gujarat Earthquake Rehabilitation and Reconstruction Programme were not operationalised due to defective designs prepared by the consultants.*
- Out of 159 NPs in the State, 66 NPs were not having VCPs and 123 NPs had no SLFs. The absence of VCPs and SLFs led to open dumping of waste by NPs in violation of MSW Rules.*
- Twelfth Finance Commission (TwFC) funds were utilised for inadmissible works and ₹ 61.35 crore were utilised after the award period without approval of GoI, and incorrect utilisation certificate was submitted to the GoI. Due to non-procurement of Litter Bins, ₹ 2.41 crore were refunded. Operation and Maintenance contract of VCPs were awarded by Gujarat Urban Development Company Limited (GUDC) without invitation of tenders.*
- NPs were operating VCPs without authorisation from Gujarat Pollution Control Board (GPCB). Risks to environment and human health were not addressed due to lack of monitoring by GPCB. Carbon credit benefits of ₹ 7.42 crore could not be availed by GUDC.*

#### 4.1.1 Introduction

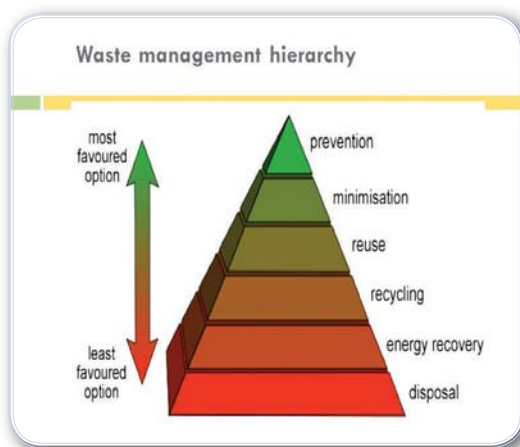
Over the years, there has been a continuous increase in the proportion of population residing in urban areas which has led to uncontrolled growth in these areas resulting in weak delivery of basic infrastructural services of water supply, sewerage and waste management.

The collection and disposal of municipal solid waste (MSW) is one of the pressing problems of city life and has assumed great importance today. With the growing urbanisation as a result of planned economic growth and industrialisation, problems are becoming acute and calls for immediate and concerted action. The proper disposal of urban waste is not only absolutely necessary for the preservation and improvement of public health, but has immense potential for resource recovery.

To streamline the process of handling, collection, transportation and disposal of MSW and to avoid any adverse impact on human health, Government of India (GoI) framed Municipal Solid Waste (Management and Handling) Rules, 2000 (MSW Rules). The objective of the rules is to make every municipal authority responsible for the implementation of the provisions of the Rules within the territorial area of the municipality.

Manual of MSW Management<sup>1</sup> states that Waste Management involves “collection, transportation, recovery of recyclable materials and disposal of waste, including the supervision of such operations and after care of disposal sites”.

It also provides that priority should be given to extract the maximum practical benefits from the waste, promote waste prevention and waste minimisations by adopting the strategies of “Three Rs” (reduce, reuse and recycle). The most widely accepted waste management hierarchy is depicted below –



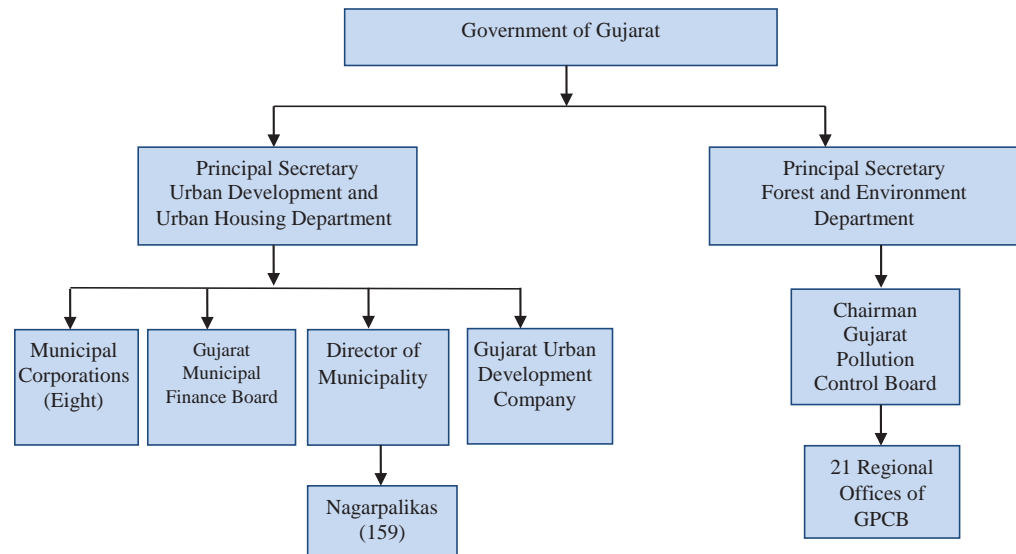
<sup>1</sup> Issued by Ministry of Urban Development, GOI in May 2000

Internationally, the strategies such as eco audit<sup>2</sup>, life-cycle analysis<sup>3</sup>, extended producer responsibility<sup>4</sup>, product stewardship<sup>5</sup>, deposit fund schemes<sup>6</sup>, promoting the use of refill packs, *etc.* are initiated to reduce the quantum of MSW.

In Gujarat, there are 187 Urban Local Bodies i.e. eight Municipal Corporations (MCs), 159 Nagarpalikas (NPs) and 20 Notified Areas (NAs) as of March 2013.

#### 4.1.2 Organisational set-up

The organisational set-up for implementation of MSW in the State is as depicted below -



Principal Secretary, Urban Development and Urban Housing Department (UD&UHD) is responsible for overall enforcement of the provisions of MSW Rules in the State. The State Government appointed (September 2005) Gujarat Urban Development Company Limited (GUDC) as nodal agency for development of infrastructure for collection, segregation, transportation, processing and disposal of MSW. The Principal Secretary, Forest and Environment Department is responsible for monitoring the compliance of the standards<sup>7</sup> as prescribed under MSW Rules. He is assisted by Gujarat Pollution Control Board (GPCB) having 21 Regional Offices<sup>8</sup> in the State.

#### 4.1.3 Audit Objectives

The broad objectives of the performance audit were to ascertain (through a sample of 41 NPs and eight Regional Offices of GPCB in seven Districts, UD&UHD, GUDC and GPCB) whether -

- 2 Environmental management tool employed by businesses to facilitate better management of their environmental performance and to assess the financial benefits and disadvantages to be derived from adopting environmentally sound policy
- 3 To compare the environmental performance of products and services, to be able to choose the least burdensome one
- 4 EPR is a strategy designed to promote the integration of environmental costs associated with products throughout their life-cycles into the market price of the products. This means that firms, which manufacture, import and/or sell products, are required to be financially or physically responsible for such products after their useful life
- 5 Is a concept whereby environmental protection centres on the product itself, and everyone involved in the lifespan of the product is called upon to take up responsibility to reduce its environmental impact
- 6 Offer customers a financial incentive to return packaging for reuse
- 7 Ground water, ambient air, leachate quality and the compost quality including incineration standards as specified under Schedules II, III and IV of MSW (Management & Handling) Rules, 2000 (MSW Rules).
- 8 Ahmedabad, Anand, Ankleshwar, Bhavnagar, Bharuch, Bhuj, Gandhinagar, Godhra, Himmatnagar, Jamnagar, Junagadh, Mehsana, Nadiad, Navsari, Palanpur, Porbandar, Rajkot, Surat, Surendranagar, Vadodara and Vapi

- the quantum of waste being generated was accurately assessed; risks to environment and health were identified and adequate infrastructure was created for implementation of MSW Rules;
- adequate funding and manpower for implementation of MSW Rules were available and funds/infrastructure was used economically, efficiently and effectively; and
- the monitoring and enforcement mechanisms were effectively functioning so as to achieve the desired objectives of solid waste management system.

#### ***4.1.4 Audit criteria***

In order to achieve the audit objectives, the following audit criteria were adopted-

- Municipal Solid Waste (Management and Handling) Rules 2000;
- Manual on Municipal Solid Waste Management;
- Instructions and guidelines issued by Central Pollution Control Board (CPCB)/Gujarat Pollution Control Board (GPCB) from time to time; and
- Rules, policies and directions issued by the Government on solid waste management from time to time.

#### ***4.1.5 Audit Coverage and methodology***

The Twelfth Finance Commissions (TwFC) provided funds for the activities relating to development of processing and disposal site and purchase of tools and equipment. The remaining activities such as collection of waste, street sweeping, transportation to the landfill site were to be funded by the ULBs from their own revenue. In the State, GUDC is the nodal agency responsible for creation of infrastructural facilities in the Nagarpalikas for implementation of MSW Rules from the TwFC grants. Municipal Corporations were responsible for creation of infrastructural facilities and implementation of MSW Rules from their own revenue in the corporation areas.

Performance Audit covered a review of records for the period 2008-13 pertaining to management of MSW in Nagarpalikas only. Since no funds were provided to the Municipal Corporations (MCs), these were not selected for review. Seven out of 26 Districts of the State were selected using Simple Random Sampling without replacement method. Records of 41 Nagarpalikas at selected Districts (**Appendix-XIX**), GPCB and its eight Regional Offices<sup>9</sup>, GUDC and UD&UHD were test checked (between January 2013 and August 2013) to assess enforcement status of MSW Rules.

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<sup>9</sup> Regional Offices of GPCB Ahmedabad, Bhavnagar, Gandhinagar, Navsari, Palanpur, Surat, Surendranagar and Vadodara

An entry conference was held (3 July 2013) with Deputy Secretary of UD&UHD along with representatives of other line departments/authorities to discuss the audit objectives and methodology. Audit methodology mainly consisted of document analysis, joint field visits with officials of GPCB and Nagarpalikas (NPs), examination of reports and records (for the period 2008-13) at various levels. After the conclusion of field audit, the draft audit findings were discussed (10 October 2013) with Deputy Secretary, UD&UHD during exit conference. The views of the State Government emanating from the exit conference have been duly incorporated in the Report.

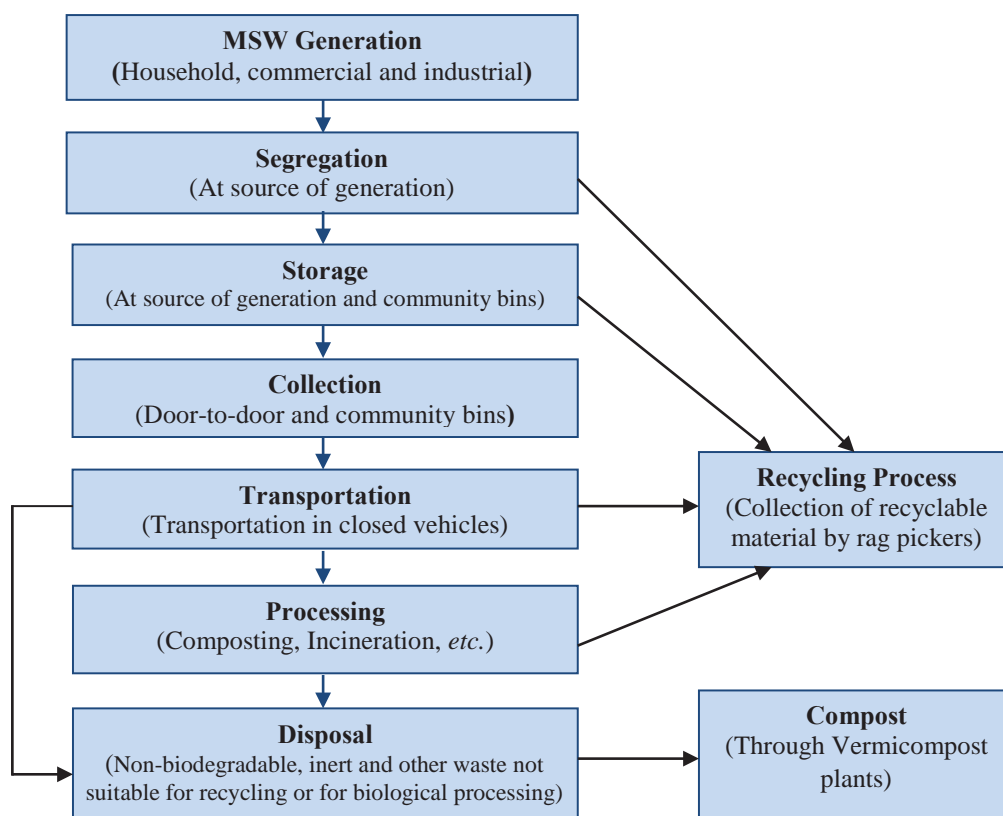
### ***Acknowledgement***

Audit acknowledges the co-operation and assistance extended by the GUDC, GPCB, NPs and their officials at various stages during conduct of the performance audit.

## **Audit Findings**

### ***4.1.6 Implementation of Municipal Solid Waste Rules***

Schedule II of the MSW Rules provide for segregation, storage, collection, transportation, processing and disposal of municipal solid waste for proper management of MSW. The life-cycle for management of MSW is as shown below:



#### ***4.1.6.1 Assessment of waste***

Every municipal authority shall, within the territorial area of the municipality, be responsible for the implementation of the provisions of MSW Rules, and for any

infrastructure development for collection, storage, segregation, transportation, processing and disposal of MSW. For implementation of these activities, every municipal authority shall have to identify the types of waste and an assessment of waste being generated in its territorial area.

- ***Incorrect reporting of generation of MSW***

The MSW Rules prescribe that every municipal authority<sup>10</sup> shall furnish its Annual Report (AR) to the GPCB on or before the 30 June every year and GPCB, in turn, shall prepare and submit its AR to the Central Pollution Control Board (CPCB) with regard to the implementation of the MSW Rules by 15 September every year. Status of submission of ARs by NPs to GPCB is as shown in **Table 1** below –

**Table 1: Status of submission of ARs**

Year	Total number of NPs	Quantum of waste shown as generated in the AR of GPCB for 159 NPs (in lakh Metric Tons)	Number of NPs who submitted ARs	Number of NPs who had not submitted ARs	Percentage of non-submission of ARs by NPs
2008-09	159	7.60	60	99	62
2009-10	159	7.87	37	122	77
2010-11	159	7.88	49	110	69
2011-12	159	8.13	30	129	81
2012-13	159	8.56	51	108	68

(Source: Information provided by GPCB)

The above table indicates that the percentage of non-submission of ARs by NPs ranged from 62 to 81 during the period 2008-13. Audit observed that GPCB submitted the ARs for the State as a whole to CPCB, by considering the information of previous year in respect of NPs which had not submitted their ARs in time. Thus, the ARs submitted by GPCB to CPCB reflected incorrect picture of implementation of MSW in the State.

The Government stated (December 2013) that the survey was under progress for estimating the quantity of MSW generated and reporting pattern.

- ***Quantum of Solid waste exhibited without weighing***

The MSW Rules envisage the facility of weighing scale at disposal sites in each NPs for accurate assessment of solid waste generated and its reporting in the ARs. However, during joint field visit of all 41 test checked NPs, it was noticed that the NPs were not having the facility of weighing the waste generated and the quantum of waste generated in these NPs (except Songadh NP) was determined without weighing. Thus, the figures reported in the ARs regarding quantity of MSW generated would not be correct, with consequent impact on the estimated quantity of waste to be disposed of (being bio-degradable) or the quantity to be converted as compost through biological processing.

<sup>10</sup> Municipal Councils in the State are known as Nagarpalikas



Government stated (December 2013) that survey for requirement of weighing devices was under process and the same would be provided to the NPs by GUDC on their demand.

The review has been organised into the following sections :

#### **4.1.6.2 Segregation of MSW**

The compliance criteria under Schedule-II of MSW Rules for segregation of MSW provides that the municipal authority shall organise awareness programmes, meetings with local resident welfare associations and NGOs to encourage the citizens and community participation for segregation of various types of waste, and for promoting recycling or reuse of segregated materials. Segregation of the MSW is required for separating the recyclable material, organic waste for processing and residual inert material for disposal.

- **Non-segregation of MSW**

Audit observed that awareness programme and encouragement for segregation of waste at the point of generation was not done in any of the test checked NPs. Further, it was observed that segregation of waste at the Vermicompost plant was also not carried out in 37 out of 41 test checked NPs<sup>11</sup> (90 per cent). Thus, an organised and scientifically planned source segregation system was not developed in the test checked NPs.

The Government stated (December 2013) that best attempt was being made to follow the Rules and all NPs would be directed to carry out segregation of MSW as per Rule.

#### **4.1.6.3 Collection of MSW**

Compliance criteria under Schedule-II of MSW Rules for collection of MSW prohibit littering of MSW in cities, towns and in urban areas notified by the State Government. To prohibit littering and facilitate compliance, the municipal authority shall take steps namely (i) house to house collection of MSW through community bin collection, collection on regular pre-informed timings and schedule; (ii) devising collection of waste from slums and squatter areas or localities including hotels, restaurants, office complexes and commercial areas; (iii) wastes from slaughter houses, meat and fish markets, fruits and vegetable markets, which are biodegradable in nature, shall be managed to make use of such wastes; (iv) Bio-medical wastes and industrial wastes shall not be mixed with MSW and such wastes shall follow the rules separately specified for the purpose; (v) collected waste from residential and other areas shall be transferred to community bin by hand-driven containerised cart or other small vehicles; (vi) Horticultural and construction or demolition wastes or debris shall be separately collected and disposed of; (vii) waste (garbage, dry leaves) shall not be burnt; and (viii) stray animals shall not be allowed to move around waste storage facilities or at any other place in the city or town.

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<sup>11</sup> Except Bagsara, Bardoli, Lathi and Tharad



The observations of audit in the test checked NPs in relation to MSW are discussed as follows -

- ***Non-maintenance of waste collection records***

Schedule-II of the MSW Rules specified steps for collection of waste generated in the Municipal area such as organised house to house collection, collection from slums and squatter areas or localities including hotels, restaurants, office complexes and commercial areas, *etc.* As none of the NPs test checked had maintained proper log books in respect of vehicles engaged for MSW collection or other records regarding collection of waste, audit could not verify whether the specified organised system was implemented in the NPs for collection of waste on regular basis.

The Government stated (December 2013) that the Director of Municipalities (DOM) has verified and found that the log books are being maintained by the ULBs for the vehicles engaged in MSW collection. The reply was not acceptable as during the meeting (23 July 2013) with Deputy Director of Municipalities and representatives of 41 test checked NPs, the fact of incomplete maintenance of log books for vehicles engaged for MSW collection was accepted by the Deputy Directors and all NPs were directed to strictly abide by the MSW Rules.

- ***Mixing of Bio-medical waste with MSW***

Bio-medical wastes (BMW) are required to be disposed/handled in accordance with BMW Rules 1998. Schedule-II of MSW Rules provides that BMW shall not be mixed with MSW and such wastes shall be disposed of following the Rules separately specified for the purpose. However, Audit observed during joint field visit that BMW were mixed with MSW in 24 out of 41 test checked NPs (59 per cent), which could prove harmful to the environment (**Picture 1**). Further, it was observed that BMW was found mixed with MSW in container outside the RMS Hospital, Dhandhuka (**Picture 2**) which is a hazard for patients, their family, hospital staff and visitors of the hospital.



Picture 1  
BMW mixed with MSW at Chalala NP dumping site,  
Amreli District (05.06.2013)



Picture 2  
BMW mixed in MSW container at Dhandhuka NP, Ahmedabad  
District (31.05.2013)

The Forest and Environment Department accepted (November 2013) the fact and stated that GPCB would take stern action against violators of BMW Rules and if any Health Care Unit (HCU) is found disposing BMW in MSW bins, closure order of HCU would be issued.

- *Mixing of Horticultural and Construction waste along with MSW*

Schedule-II of MSW Rules specifies that horticultural and construction/ demolition waste or debris are required to be separately collected and disposed of following proper norms. However, Audit observed during joint field visit that in 39 out of 41 test checked NPs (95 per cent) (except Songadh and Vyara), these wastes were not collected separately, thereby violating the provisions of the Rules (**Picture 3 and 4**).



Picture 3  
Construction and Demolition waste dumped along with MSW at Padra NP, Vadodara District (07.05.2013)



Picture 4  
Construction and Demolition waste dumped along with MSW at Bhabhar NP, Banaskantha District (17.06.2013)

Government stated (December 2013) that it has been decided to take stringent action against the builders violating the provision of the Rule.

#### 4.1.6.4 Storage of Municipal Solid Waste

Schedule II of MSW Rules stipulate that municipal authorities shall establish and maintain storage facilities for MSW in such a manner that unhygienic and insanitary conditions were not created. Further, the storage facility was to be established by taking into account quantities of waste generation in a given area and the population densities; placed in an area that is accessible to users; and bins for storage of bio-degradable wastes shall be painted green, white for storage of recyclable wastes and black for storage of other wastes.

- *Inadequate storage facilities*

Audit observed that GUDC supplied only Green and Black containers to the NPs. Further, during joint field visit of 41 NPs, it was observed that none of the NPs placed the different coloured containers at one particular place. Further, it was seen that in 12 NPs<sup>12</sup> the containers were overflowing with MSW (**Picture 5 and 6**).

<sup>12</sup> Amreli, Babra, Barvala, Deesa, Dhandhuka, Dhanera, Dholka, Dhrangadhra, Kankpur-kansad, Karjan, Palanpur and Tharad



Picture 5  
Container overflowing with MSW at Dholka NP,  
Ahmedabad District (10.04.2013)



Picture 6  
Container overflowing at Dhanera NP, Banaskantha  
District (18.06.2013)

This indicated that the containers were not lifted regularly. Overflowing of wastes could lead to unhygienic condition, contamination of the environment and cause health problems for the nearby residents.

The Government stated (December 2013) that a survey for assessing the requirements in the NPs was under progress and the white containers would be provided to the NPs by GUDC after completion of the survey.

#### 4.1.6.5 Transportation of MSW

According to MSW Rules, wastes transported by vehicles shall be covered, should not be visible to public or exposed to open environment to prevent their scattering.

- *Transportation of MSW in open vehicle*

Audit observed that all test checked NPs were having only open vehicles and using these for transportation of waste (**Picture 7 and 8**). This could result in littering of the wastes and the very purpose of hygienic transfer of MSW from one place to prevent foul odour, littering and unsightly conditions was defeated.



Picture 7  
Uncovered vehicle used for transportation of solid waste at  
Surendranagar NP, Surendranagar District (22.05.2013)



Picture 8  
Uncovered vehicle used for transportation of solid waste  
and stray animal grazing the waste at Bagasara NP, Amreli  
District (05.06.2013)

The Government stated (December 2013) that tractors were provided by GUDC for transportation of MSW. It was further stated that the Tarpaulin Sheets would be provided to all NPs by GUDC.



#### 4.1.6.6 Processing of Municipal Solid Waste

Schedule II of the MSW Rules provide that municipal authorities shall adopt suitable technology or combination of such technologies to make use of wastes so as to minimise burden on landfill. In this connection, the biodegradable wastes shall be processed by composting, vermicomposting, anaerobic digestion or any other appropriate processing for stabilisation of wastes and shall ensure that compost or any other end product shall comply with standards as specified in Schedule-IV. For mixed waste containing recoverable resources, the route of recycling, incineration with or without energy recovery including pelletisation was to be followed and the municipal authority or the operator of the facility shall approach the State Pollution Control Board to get the standards laid down before applying for grant of authorisation. Further, Schedule-I of the MSW Rules provided the time schedule of December 2003 or earlier for setting up of processing and disposal facilities.

The State Government adopted the technology of vermicomposting in the NPs. The deficiencies in planning for establishment of Vermicompost Plants<sup>13</sup> (VCPs) and its functioning noticed in 41 test checked NPs is as discussed below -

- *Non-adherence to implementation schedule*

Schedule I of MSW Rules<sup>14</sup> provided the time schedule of December 2003 or earlier for setting up of processing and disposal facilities. Though 159 VCPs (one for each NPs) were required in the State, the GUDC planned for only 93 VCPs in first phase (December 2006 to April 2009) and 36 VCPs in the second phase (July 2009 to December 2010) for processing of solid waste generated in all the NPs in the State. Audit observed that GUDC had completed (upto August 2013) only 93 VCPs (First phase – 70 VCPs and Second phase – 23 VCPs). The work for the remaining 36 VCPs were not taken up (**Appendix-XX**) due to non-availability of land (11 VCPs) and unsuitable land allotted for VCP (25 VCPs). Remaining 30 VCPs have not been planned by GUDC till date (August 2013).

The Government stated (December 2013) that construction work for VCPs in 93 NPs were completed and remaining were under progress and therefore, it was not an issue of non-adherence to implementation schedule. The reply was not acceptable as, though the prescribed time schedule (December 2003 or earlier) has elapsed and 66 NPs were still not having the facility of VCPs for processing and disposal of waste.

- *Non-utilisation of Vermicompost Plants*

During joint field visit of the test checked NPs, it was observed that 12 NPs<sup>15</sup> out of 18 NPs<sup>16</sup> having the facility of Vermicompost plants (VCPs) were not utilising these facilities for the intended purpose of compost production. Most of these facilities were being used as dumping sites and were found surrounded with haphazardly thrown MSW. Further, the MSW were not covered, which resulted in littering of the waste (**Picture 9, 10 and 11**).

<sup>13</sup> Process of using earthworms for conversion of biodegradable waste in to compost

<sup>14</sup> Notified in 25 September 2000

<sup>15</sup> Bavala, Dhandhuka and Virangam (Ahmedabad District); Chalala and Savarkundla (Amreli District); Deesa (Banaskantha District); Dhrangadhra, Surendranagar and Wadhwan (Surendranagar District); Dabhoi, Karjan and, Padra (Vadodara District)

<sup>16</sup> Bavala, Dhandhuka and Virangam (Ahmedabad District), Bagsara, Chalala, Lathi and Savarkundla (Amreli District); Deesa and Tharad (Banaskantha District), Bardoli (Surat District), Dhrangadhra, Limbdi, Surendranagar, Thangadh and Wadhwan (Surendranagar District), Dabhoi, Karjan and Padra (Vadodara District)



Picture 9 : VCP not being utilised and encircled with unsegregated solid waste at Surendranagar NP, Surendranagar District (22.05.2013)



Picture 10  
Idle VCP at Savarkundla NP, Amreli District (04.06.2013)

Picture 11  
Idle VCP at Padra NP, Vadodara District (07.05.2013)

The Government stated (December 2013) that GUDC has appointed an agency<sup>17</sup> to carry out survey of all individual NPs to assess the requirement of prescribed equipment and attempt would be made to make VCPs self sufficient.

- *Under-utilisation of VCPs*

During joint field visit at four NPs<sup>18</sup> it was observed that VCPs were being partially utilised, as only some of the pits constructed for processing of organic component of solid waste were being utilised for processing purpose as shown in **Table 2** below –

**Table 2 : Under utilisation of VCPs**

Sr. No.	NPs	Date of joint field visit	Number of pits constructed	Number of pits utilised	Percentage of utilisation
1.	Bagasara	05.06.2013	22	04	18
2.	Limbdi	23.05.2013	22	06	27
3.	Thangadh	24.05.2013	22	08	36
4.	Tharad	17.06.2013	14	04	29

The above table shows that the utilisation of pits in four test checked NPs ranged from 18 to 36 *per cent*. This indicated that the infrastructure created was not being fully utilised for the purpose for which it was created (**Picture 12 and 13**).

<sup>17</sup> All India Institute of Local Self Governance an Non-Government Organisation (NGO)

<sup>18</sup> Bagsara (Amreli District); Tharad (Banaskantha District); Limbdi and Thangadh (Surendranagar District)



Picture 12  
VCP at Bagsara NP, Amreli District  
(05.06.2013)



Picture 13  
VCP at Thangadh, Surendranagar District  
(24.05.2013)

The Government accepted (December 2013) the facts and stated that instructions would be issued to the NPs for best possible utilisation of the VCPs.

- *Dilapidated/Incomplete VCPs*

During joint field visit at three NPs<sup>19</sup> it was observed that the construction of VCP started by GUDC at Jafrabad NP (July 2009) and Dholka NP (July 2009) were abandoned and remained incomplete (July 2013) after erection of platform and skeleton respectively (**Picture 14 and 15**). The VCP at Jafrabad NP was abandoned due to opposition by local public and the VCP at Dholka NP was not found suitable due to water logging as it was constructed in a low lying land adjacent to the dumping site. Though the construction of VCP at Songadh NP was completed (April 2009), it was observed that the same was not being utilised (July 2013) for the last 21 months as six out of the seven sheds erected over the pits were destroyed due to rains and no action was taken to re-erect the sheds for utilisation of the pits (**Picture 16**). GUDC could not provide the records relating to cost of construction of these VCPs.



Picture 14  
Incomplete VCP at Jafrabad NP, Amreli District  
(04.06.2013)



Picture 15  
Incomplete VCP at Dholka NP, Ahmedabad District  
(10.04.2013)

19 Dholka (Ahmedabad), Jafrabad (Amreli) and Songadh (Tapi)





Picture 16

The sheds of pits were absent and the VCP was lying idle at Songadh NP, Tapi District (04.07.2013)

GUDC stated (August 2013 and January 2014) that no payment had been made for VCPs at Jafrabad and Dholka NPs. The Government stated (December 2013) that tender would be floated for maintenance and repairs of existing VCPs.

- *VCP constructed at low lying area*

MSW Manual provides that the site for VCPs should be flat, not prone to flooding, readily approachable but slightly away from a main road, with sufficiently wide approach road. It further provides that areas for supply of compost should be near and easily accessible and a site for disposal of non-compostables should be available near the compost plant site.

Audit observed (May 2013) that the VCP at Limbdi NP was constructed in a low lying area near Bhogavo river which resulted in non-utilisation of VCP during rainy season due to water logging. This indicated that the site was incorrectly selected. The NP resorted to unscientific dumping of MSW in open areas near VCP during the rainy season which could lead to contamination of river water.

The Government stated (December 2013) that efforts would be made to shift the VCPs to appropriate location to avoid future problem.

- *Non-delivery of MSW by the NPs*

The NPs in the State were categorised as 'A' to 'D' based on the population of the NP. As per the State Government decision (January 2009), the operation and maintenance (O&M) of VCPs of 'C' and 'D' categories would be handled by GUDC by engaging NGOs whereas the O&M of VCPs of 'A' and 'B' categories would be handled by the respective NPs. The constructions of VCP in three NPs (under 'C' and 'D' categories) were completed at a cost of ₹ 1.00 crore and the contract of O&M was awarded to NGOs<sup>20</sup> by GUDC for processing of MSW. However, Audit observed (June 2013) that the NPs had not delivered their wastes since the completion of the VCPs resulting in non-utilisation of the VCPs till date and unfruitful expenditure on O&M incurred towards pay and allowance on watchman claimed by the NGO as shown in **Table 3** as follows—

20 Dakor NP – Deep Ganga Gramodhyog Sewa Sangh, Dhandhuka NP – Unnati Foundation for Social Development and Padra NP – Shri Ishvar Gram Vikas Trust

Table 3 : Non-delivery of MSW

Sr. No.	Name of the NPs and their category	Quantum of MSW generated per day (in metric ton)	Date of completion of the work of VCP	Cost of the VCP (₹ in crore)	O&M expenses (₹ in lakh)
1.	Dakor ('D' category)	6.40	31.03.2008	0.34	1.68
2.	Dhandhuka ('C' category)	17.00	31.05.2008	0.26	1.68
3.	Padra ('C' category)	7.50	30.04.2009	0.40	0.96
<b>Total</b>		<b>30.90</b>		<b>1.00</b>	<b>4.32</b>

(Source : Information furnished by GUDC)

GUDC agreed (August 2013) with the audit observation and stated that the matter would be taken up with UD&UHD to ensure the utilisation of the facilities by the NPs. The Government stated (December 2013) that NPs have been instructed to strictly follow the mandated Rules to keep the surrounding environment tidy.

- *Non-handing over of completed VCPs*

Out of 93 VCPs completed by GUDC, Audit observed that six VCPs constructed at a cost of ₹ 8.00 crore had not been handed over to the respective NPs (July 2013) which resulted in non-utilisation of VCPs and non-processing of 208.30 metric tonne (MT) MSW generated *per day* since their completion as shown in Table 4 below –

Table 4: Non-handing over of VCPs

Sr. No.	Name of the NPs and their category	Quantum of MSW generated per day (in MT)	Date of completion of the work of VCP	Cost of construction of the VCPs (₹ in crore)
1.	Godhra ('A' Category)	46.70	31.03.2009	2.13
2.	Patan ('A' Category)	40.00	31.12.2010	1.12
3.	Khambhat ('B' Category)	24.30	30.04.2009	0.80
4.	Porbandar ('A' Category)	45.00	31.07.2010	2.45
5.	Mahuwa ('B' Category)	26.00	31.12.2011	0.75 <sup>21</sup>
6.	Ankleshwar ('B' Category)	26.30	30.04.2009	0.75
<b>Total</b>		<b>208.30</b>		<b>8.00</b>

(Source : Information furnished by GUDC)

The Government stated (December 2013) that completed VCPs would be handed over to NPs.

#### 4.1.6.7 Disposal of Municipal Solid Waste

Schedule II of the MSW Rules provide that land filling shall be restricted tonon-biodegradable, inert and other wastes that are not suitable either for recycling

<sup>21</sup> Approximate cost

or for biological processing. Land filling shall also be carried out for residues of waste processing facilities (i.e. VCPs) as well as pre-processing rejects from waste processing facilities. It also provides that land filling of mixed waste shall be avoided unless the same is found unsuitable for waste processing and the landfill sites shall meet the specifications as given in Schedule-III of MSW Rules.

The deficiencies in planning for establishment of Sanitary Landfill Sites<sup>22</sup> (SLFs) and their functioning are discussed below-

- ***Non-adherence to implementation schedule and non-operationalisation of SLFs***

Schedule-I of the MSW Rules provided the time schedule of December 2001 or earlier for improvement of existing SLFs and December 2002 or earlier for identification of landfill sites for future use and making site(s) ready for operation.

For disposal of solid waste, the State Government planned 36 SLF clusters to cover seven Municipal Corporations (MCs) and 159 NPs by January 2013. Seven SLF clusters were to be identified and operationalised by seven MCs covering 42 nearby NPs and its municipal area. The remaining 29 SLF clusters covering 117 NPs were to be taken up by GUDC. Audit observed that against the target of completion by December 2002, GUDC had completed (January 2013) only seven SLF clusters out of 29 SLF clusters covering 36 NPs. The works in the remaining 22 SLF clusters to cover 81 NPs were not taken up due to non-availability of land and non-viability of cluster on account of low volume of inert waste and transportation cost/distance from the NPs. Further, none of these seven SLFs had been put to use (December 2013) due to non-finalisation of tenders for engaging agencies for O&M of SLFs. This resulted in unscientific disposal of MSW by the NPs and non-implementation of the provisions of MSW Rules despite passage of more than 13 years since inception of MSW Rules.

Audit also observed that as the NPs were resorting to open dumping, stray animals were having easy access to these sites (**Picture 17 and 18**).



**Picture 17**  
Stray animals at the open dumping site of Songadh NP, Tapi District (08.07.2013)



**Picture 18**  
Stray animals at the open dumping site of Chotila NP, Surendranagar District (24.05.2013)

<sup>22</sup> Disposal of non-biodegradable, inert and other waste that are not suitable either for recycling or for biological processing



Open dumping not only violated the provisions of the MSW Rules but added to the filthiness in the surroundings of the NPs coupled with health hazards.

The Government stated (December 2013) that construction works for seven SLFs were completed and remaining were under progress and therefore, it was not an issue of non-adherence to implementation schedule. The Government further stated that the tender process for allotment of O&M activities of the constructed SLFs was under progress. The reply was not acceptable as, though the prescribed time schedule (December 2002 or earlier) had elapsed, the SLFs were not put to use and work in respect of 22 SLFs was yet to begin.

- ***Unfruitful expenditure under Gujarat Earthquake Rehabilitation and Reconstruction Programme (GERRP)***

GUDC awarded (July 2005) the work for construction of six SLFs<sup>23</sup> to an agency<sup>24</sup> at a tendered cost of ₹ 3.14 crore under GERRP as per the design, drawing and contract documents prepared by the consultant<sup>25</sup>. The work was treated as completed (November 2006) after the agency executed the work to the tune of ₹ 2.29 crore as per the scope of work awarded and the payment of ₹ 2.29 crore was made to the agency. However, the GPCB issued (November 2009) notice for non-compliance of MSW Rules as high density polyethylene (HDPE) liner, fencing, plantation, weighbridge, Safety devices, facility for leachate collection, *etc.* had not been provided at any of these SLFs. Thus, the designs prepared by the consultant for construction of the SLFs were not as per the criteria of MSW Rules. It was also observed that these SLFs were not put to use since completion of the work by the agency due to faulty design. This resulted in unfruitful expenditure of ₹ 2.29 crore besides dumping of MSW in open areas by NPs in absence of any scientific disposal facility. **Pictures 19 and 20** below shows that the SLFs were incomplete and lying unutilised.



Picture 19  
Incomplete SLF developed by GUDC, under GERRP at  
Bhachau, Kutch District (10.07.2013)



Picture 20  
Incomplete SLF developed by GUDC under GERRP at  
Wankaner, Rajkot District (21.06.2013)

The Government stated (December 2013) that necessary modifications would be carried out after obtaining suggestions from another consultant<sup>26</sup> appointed

23 Anjar, Bhachau, Gandhidham, Halwad, Morbi and Wankaner

24 Backbone Enterprise Limited

25 Tata Consulting Engineers Limited

26 Eco-Design

for the same. The GUDC stated (April 2014) that the final payment to the consultant has been withheld due to preparation of faulty design. The fact remains that though more than three years have elapsed from the date of issue of notice by GPCB, the deficiencies have not been rectified and SLFs have not been put to use.

- ***Burning of MSW***

Schedule II of MSW Rules provide that waste (garbage, dry leaves) shall not be burnt. However, Audit observed during joint field visit that MSW were being disposed by burning in the open at various places<sup>27</sup> (**Pictures 21 and 22**) in 40 out of 41 test checked NPs (98 *per cent*) (except Rajula NP). This reflected the indifferent attitude of the concerned authorities in managing the waste. Burning of MSW was not only a violation of MSW Rules but was also fraught with severe environmental and health risks.



Picture 21  
Solid Waste being burnt at Dumping site in Dholka NP,  
Ahmedabad District (10.04.2013)



Picture 22  
Solid Waste being burnt at Vermicompost plant of Wadhvan  
NP, Surendranagar District (21.05.2013)

The Government stated (December 2013) that efforts to adhere to MSW Rules would be followed and notice would be issued to individual NPs.

- ***Non-declaration of Buffer zone***

Schedule III of MSW Rules specifies that a buffer zone of no-development shall be maintained around landfill site and shall be incorporated in the Town Planning Department's land-use plans. However, despite developing 13 SLFs (six under GERRP and seven under the ongoing MSW Management Project) it was observed that neither any notifications were issued by the State Government nor any records were available regarding declaration of the adjoining areas of these SLFs as Buffer Zone of no-development (August 2013).

The Government stated (December 2013) that the Chief Town Planner was making best efforts to make adjoining areas of SLFs as Buffer Zone.

#### ***4.1.6.8 Non-synchronisation of processing and disposal facilities***

To minimise burden on landfill sites, MSW Rules provide that biodegradable wastes shall be processed by composting, vermicomposting, anaerobic digestion

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<sup>27</sup> Dumping sites, processing sites, inside and adjacent to containers, etc.

or any other appropriate biological processing for stabilisation of wastes. Non-biodegradable, inert and other waste that are not suitable either for recycling or for biological processing shall be disposed in landfill sites. Thus, the non-biodegradable, inert and other waste of VCPs are required to be disposed finally in SLFs.

As discussed in Paragraph 4.1.6.6 and 4.1.6.7, out of 159 VCPs and 36 cluster SLFs planned, only 93 VCPs and seven SLFs covering 36 NPs had been completed. Audit observed that out of 36 NPs linked with seven SLFs, only 28 NPs were having the facility of VCP. The eight NPs, which were not having VCPs will increase the burden on the seven created SLFs due to dumping of biodegradable wastes alongwith non-biodegradable, inert and other waste.

Thus, the fact remains that out of 159 NPs in the State, 123 NPs were not having any scientific disposal facility such as SLFs and 66 NPs were not having any processing facility such as VCPs even after expiry of a period of more than eleven years of the time allowed under MSW Rules. In the absence of disposal and processing facilities, NPs resorted to unscientific methods of disposal which could lead to contamination of ground water by the leachate generated from the waste dump, contamination of surface water, air pollution, generation of inflammable gas (*e.g.* methane) within the waste dump, bird menace above the waste dump, *etc.* The compliance status of mandatory activities assigned under MSW Rules in the test checked NPs are given in **Appendix-XXI**.

The Government stated (December 2013) that survey is under process by the Consultant and provision of design package of VCPs is being made to support the NPs.

#### ***4.1.7 Efforts for minimisation and utilisation of MSW***

##### ***4.1.7.1 Absence of efforts for waste minimisation***

Manual of MSW Management states that priority should be given to extract the maximum practical benefits from the waste and prevent and minimise the waste by adopting the strategies of “Three Rs” (reduce, reuse and recycle). Internationally, the strategies such as eco audit, life-cycle analysis, extended producer responsibility, product stewardship, deposit fund schemes, promoting the use of refill packs, *etc.* are initiated to reduce the quantum of MSW. However, Audit observed that except construction of VCPs and SLFs for processing and disposal of waste, State Government had not initiated any strategies in the State for prevention of waste, minimising the quantum of waste, reuse of waste and recycling of waste (February 2013).

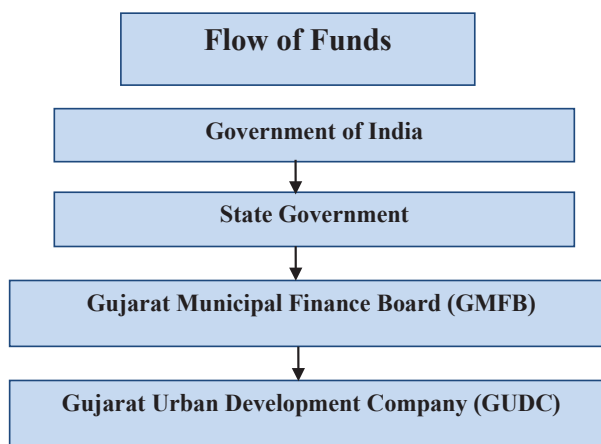
The Government accepted (December 2013) the facts and stated that the NPs are responsible for minimisation of waste and instructions in this regard would be issued to all NPs.



#### 4.1.8 Financial Management

##### 4.1.8.1 Flow of funds

The State Government appointed (September 2005) GUDC as nodal agency for development of infrastructure and implementation of MSW Rules in the NPs. The funds for creation of infrastructure and its O&M were provided by GoI under TwFC grant and subsequently from State Government budget to the Gujarat Municipal Finance Board (GMFB) and the GMFB in turn released grant to the GUDC. The chart depicting the flow of funds is as follows –



##### 4.1.8.2 Funds received and expenditure incurred

Year-wise funds received and expenditure incurred by GUDC for activities related to MSW in the State is as shown in **Table 5**. The details of budget provision and expenditure incurred for management of MSW in test checked NPs are shown in **Appendix-XXII**.

**Table 5: Funds received and expenditure incurred**

(₹ in crore)

Year	Opening Balance	Funds received by GUDC from GMFB				Total available fund	Expenditure			Closing Balance	Percentage of expenditure
		GoI under TwFC	State Government <sup>28</sup>	Interest earned during the year	Total		From TwFC grant (O&M)	Expenditure on Infrastructure from TwFC	Total		
2005-06	0	25.00	10.60	0.12	35.72	35.72	0	0.03	0.03	35.69	0
2006-07	35.69	57.90	16.00	4.68	78.58	114.27	0	4.10	4.10	110.17	4
2007-08	110.17	40.02	0.40	8.28	48.70	158.87	0	30.33	30.33	128.54	19
2008-09	128.54	52.50	1.21	11.79	65.50	194.04	1.46	33.03	34.49	159.55	18
2009-10	159.55	35.00	0.00	12.09	47.09	206.64	3.12	57.69	60.81	145.83	29
2010-11	145.83	0	2.41	8.26	10.67	156.50	2.74	35.40	38.14	118.36	24
2011-12	118.36	0	0	9.08	9.08	127.44	3.25	11.88	15.13	112.31	12
2012-13	112.31	0	0	9.39	9.39	121.70	2.99	19.53	22.52	99.18	19
<b>Total</b>		<b>210.42</b>	<b>30.62</b>	<b>63.69</b>	<b>304.73</b>		<b>13.56</b>	<b>191.99</b>	<b>205.55</b>		

(Source: Information furnished by GUDC)

The above table showed that the percentage of expenditure ranged from zero *per cent* (2005-06) to 29 *per cent* (2009-10) against the total available fund during the years 2005-06 to 2012-13 due to non-completion of construction of Vermicompost Plants (VCPs) and Sanitary Landfill Sites (SLFs). Audit observed that GUDC and the State Government had not provided any funds to the NPs for implementation of MSW Rules during the period covered in Audit and no funds were provided for implementation of MSW Rules in the NP under the Thirteenth Finance Commission (ThFC) Grant. Further, Audit could not vouchsafe the year-wise budget provisions made and expenditure incurred by the NPs in the State due to non-availability of records or information with the UD&UHD. This indicated that there was no proper monitoring system at State level to ascertain the implementation of MSW Rules in the NPs though UD&UHD was responsible for overall enforcement of the provisions of MSW Rules in the State.

- ***Submission of Utilisation Certificate without actual utilisation of funds***

The GMFB released (2005-10) TwFC grant of ₹ 210.42 crore to GUDC for implementation of MSW works in the State besides, State Government funds of ₹ 28.21 crore and interest earned thereon. GUDC could utilise only ₹ 129.76 crore (upto March 2010). However, Audit observed that State Government submitted (July 2010) Utilisation Certificate (UC) for ₹ 195.00 crore to GoI, though only ₹ 129.76 crore was actually spent by GUDC. Thus, incorrect reporting was made by the State Government to GoI in respect of utilisation of TwFC grant.

The Government stated (December 2013) that correct and timely UCs were submitted for utilisation of TwFC grant. The reply was not acceptable as the records furnished to Audit stated otherwise.

- ***Utilisation of TwFC funds without approval***

GoI issued (April 2009) instructions that necessary steps be taken to speed up effective utilisation of TwFC grants by 31 March 2010, failing which the grant would lapse. However, Audit observed that GUDC utilised TwFC grant of ₹ 61.35 crore after March 2010 without obtaining approval of GoI for MSW works (**Table 6**), which was in contravention of GoI instructions –

**Table 6 : Utilisation of TwFC grant after March 2010**

(₹ in crore)

Sr. No.	Name of the items	Total expenditure up to December 2012	Expenditure upto March 2010	Expenditure incurred after March 2010	Percentage of expenditure after scheduled time limit
1	SLF	43.01	10.55	32.46	75
2	VCP	55.96	42.01	13.95	25
3	Equipment	83.51	68.57	14.94	18
	<b>Total</b>	<b>182.48</b>	<b>121.13</b>	<b>61.35</b>	<b>34</b>

(Source: Information furnished by GUDC)

The Government accepted (December 2013) that approval was not obtained from GoI for utilisation of ₹ 61.35 crore after March 2010, but it was claimed that most of the expenses of ₹ 61.35 crore were for the work that had started before March 2010.

- **Utilisation of TwFC funds for inadmissible work**

As discussed in paragraph 4.1.6.6, the O&M of VCPs of NPs of 'C' and 'D' category would be handled by GUDC by engaging NGOs whereas the O&M of VCPs of 'A' and 'B' category would be handled by the respective NPs. Further, as per the approved action plan for utilisation of TwFC grants, the grants released under TwFC shall be utilised only for capital expenditure including the cost of construction of SLFs and VCPs. However, Audit observed that GUDC had incurred expenditure of ₹ 13.56 crore (up to March 2013) towards O&M of VCPs in violation of provisions of TwFC.

The Government admitted (December 2013) that the TwFC grants were utilised for O&M in violation of TwFC provisions though it was to be used for capital purpose and further stated that it is assured that funds were solely used for MSW management. It is recommended that the said expenditure be recouped from the State fund instead of debiting to TwFC account and utilise towards capital expenditure for implementation of MSW.

#### 4.1.9 Other points of interest

##### 4.1.9.1 Award of Operation and Maintenance work of VCPs without inviting tenders and defective system of payment

GUDC awarded (from 2008) the O&M contract of VCPs managed by GUDC to NGOs based on the production capacity of the VCPs. As per the agreement, the agency shall carry out at least 20 per cent vermicomposting of the total waste received at VCP, sell 75 per cent of the compost produced and credit ₹ 2.00 per kilogram of compost sold to GUDC. In turn GUDC would reimburse ₹ 1.00 per kilogram of compost sold to the agency towards marketing cost. The details of expenditure incurred (2008-13) on O&M of VCPs and marketing cost for sale of compost is as shown in **Table 7** below –

**Table 7: Expenditure incurred on O&M**

(₹ in crore)

Year	Number of VCPs for which O&M was awarded by GUDC	Expenditure incurred on	
		O&M	Marketing cost
2008-09	70	1.46	0.22
2009-10	61	3.12	0.97
2010-11	62	2.74	0.92
2011-12	66	3.25	1.12
2012-13	66 <sup>29</sup>	2.99	1.02
<b>Total</b>		<b>13.56</b>	<b>4.25</b>

(Source: Information furnished by GUDC)

29 During 2012-13 out of 93 VCPs, 66 VCPs of 'C' and 'D' category NPs were being maintained by GUDC (62 through NGOs and four were run by Nagarpalika through financial help from GUDC) and the remaining 27 VCPs belonged to 'A' and 'B' category NPs which were to be managed by respective NPs



Audit observed that the contracts were awarded to the NGOs without inviting tender. Further, GUDC reimbursed the marketing cost to the agencies without ascertaining the actual sale by the agencies and actual composting done based on the expected production as per the capacity of the VCP. It was also seen that the marketing cost was reimbursed from the O&M charges payable instead of collecting the sale income from the agencies and then reimbursing the marketing cost based on the sale. Audit could not vouchsafe any excess payment made to the agencies due to non-collection of details by GUDC of actual sale by the VCPs. During joint field visit of 41 NPs test checked, it was observed that important records such as MSW received and processed, compost produced and details of its sale, *etc.* were not being maintained. Further, GUDC was making payment of marketing cost in respect of 18 VCPs<sup>30</sup> managed by GUDC though they were not functioning. Thus, the payments were made without ascertaining the actual sale as stated above.

#### 4.1.9.2 Non-utilisation of funds meant for procurement of Litter Bins

The State Government declared the year 2007 as Nirmal Gujarat Year and continued the same for the succeeding years. The objectives of the Nirmal Gujarat Abhiyan involved maintenance of public cleanliness in entire urban areas, solid waste management and public health, supply of safe drinking water, sewerage treatment facility, keeping Government building clean, on road traffic and transportation control, *etc.*

The GMFB released (December 2010) ₹ 2.41 crore to GUDC for procurement of Litter Bins for NPs under the scheme for management of MSW. GUDC invited tenders for 4,920 bins (33 litres) and 5,720 bins (55 litres) with estimated cost per unit of ₹ 2,028.20 and ₹ 2,905.00 respectively. An agency<sup>31</sup> which stood lowest quoted ₹ 1,970.00 per unit for bins of 33 litres capacity and ₹ 2,675.00 per unit for bins of 55 litres capacity. Audit observed that these rates were obtained after two rounds of negotiations with the lowest bidder (August 2011 and October 2011). However, the tender was finally cancelled (March 2012) by GUDC as the agency did not agree to any further reduction. Finally, the funds were returned (March 2013) to GMFB and the NPs were deprived of the intended benefit under the scheme.

Government stated (December 2013) that at the time of inviting tenders the rates of steel were high but thereafter the rates declined by 10 to 15 *per cent.* Therefore, GUDC requested the agency to reduce the rates quoted, but as the agency had not agreed to reduce the rates, the tenders were cancelled. The reply was not acceptable as thereafter GUDC had not initiated any efforts for inviting fresh tenders resulting in non-utilisation of the funds besides depriving the NPs of the intended benefit under the scheme of having adequate storage bins for better management of waste.

30 Bavala, Dhandhuka and Viramgam (Ahmedabad District), Bagsara, Chalala, Lathi and Savarkundla (Amreli District), Deesa and Tharad (Banaskantha District), Bardoli (Surat District), Dhrangadhra, Limbdi, Surendranagar, Thangadh and Wadhwan (Surendranagar District), Dabhoi, Karjan and Padra (Vadodara District)

31 Parmar Metals Private Limited

#### 4.1.9.3 Deficient services of Consultants

GUDC engaged (January 2007) two consultants<sup>32</sup> to administer, prepare the designs, supervise and monitor the construction of SLF in the State. Based on the designs submitted by the consultants, GUDC awarded (January 2009 to November 2009) the work of construction of seven SLFs as per details given in **Appendix-XXIII** and made payment of ₹ 0.49 crore<sup>33</sup> to the consultants.

The irregularities noticed in the construction of these SLFs are as follows -

- **Execution of excess quantities and extra/new items**

The designs prepared by the consultants specified the mixing of only three *per cent* bentonite in the native soil to achieve the desired permeability<sup>34</sup> at the SLF site. The contractors engaged for construction of seven SLFs executed the work by mixing three *per cent* bentonite. However, the soil test reports of SLFs (May 2009 to February 2010) indicated that the required permeability was not achieved. Further, as the designs were not prepared as per site condition, subsequently the landfill area was increased and cell-bottom<sup>35</sup> of landfill was raised. The consultants were blacklisted by the GUDC for preparation of defective designs and a new consultant<sup>36</sup> was appointed (November 2011).

Preparation of design without assessing the site condition and soil permeability led to execution of extra items such as providing and laying of PVC pipes, compound wall with barbed wire fencing, providing TMT Bars, *etc.* and excess quantities of items as against quantities put to tender such as bentonite, earthwork for embankment, providing and laying cement concrete work in foundation and plinth, cement concrete road, *etc.* in six SLFs<sup>37</sup>. This resulted in excess expenditure of ₹ 9.03 crore (**Appendix-XXIII**) and unfruitful expenditure towards consultancy charges (₹ 0.49 crore).

The Government stated (December 2013) that the consultants have been blacklisted and legal advice is being sought to take further action.

- **Delay in completion of SLFs**

Defective designs prepared by the consultants and delay in appointment of new consultant resulted in delays ranging between 19 months and 39 months for completion of construction of these SLFs (**Appendix-XXIII**) which compelled the NPs to resort to unscientific methods of disposal.

- **Benefits of 'tendered rate' not received**

Contract conditions provided that agencies would be paid at the tendered cost (TC) for excess quantities executed upto 130 *per cent* of the tendered quantity and at the current SOR<sup>38</sup> for quantities executed in excess of 130 *per cent*.

32 Mahindra Acres Consulting Engineers Limited and Senes Consultants

33 Mahindra Acres Consulting Engineers Limited - ₹ 0.20 crore and Senes Consultants - ₹ 0.29 crore

34  $1 \times 10^{-7}$  centimetre/second. i.e. a compacted clay barrier or amended soil barrier of 1 m thickness having permeability (K) of less than  $10^{-7}$  centimetre/second.

35 Landfills are made up of a series of cells. To build a new cell, the base of the quarry is levelled with soil to create a platform

36 Urban Management Consultant

37 Except SLF at Dhandhuka

38 Schedule of Rates for the year during which execution is done

The agency engaged for the work of SLF at Palanpur and Patan, got the soil samples tested from the Government approved laboratory as per contract conditions. The soil testing report recommended (December 2009 and February 2010) mixing of 15 *per cent* and 16 *per cent* bentonite at Palanpur and Patan SLF sites respectively as against three *per cent* specified in the designs prepared by the consultants. However, Audit observed that excess quantity of bentonite at Palanpur (34 *per cent*) and Patan (28 *per cent*) were used against the three *per cent* specified in the tender and well above the percentage recommended in the soil testing report. Thus, defective designing by consultants resulted in use of excess bentonite (beyond 130 *per cent*) that entailed an avoidable expenditure of ₹ 1.59 crore at current SOR rates (**Appendix–XXIV**).

#### 4.1.10 Monitoring

##### 4.1.10.1 Facilities running without authorisation

MSW Rules provide that the municipal authority or an operator of a processing or disposal facility shall make an application, for grant of authorisation for setting up waste processing and disposal facility including landfills from the State Pollution Control Board (GPCB in this case) in order to comply with the implementation programme laid down in Schedule I. The authorisations to NPs were issued by GPCB for a period of five years. The year-wise (2008-13) details of NPs having authorisation is as shown in **Table 8** below –

**Table 8 : Details of NPs having authorisation**

Sr. No.	Year	Number of NPs in the State	Number of NPs having authorisation	Percentage of NPs having authorisation
1	2008-09	159	82	52
2	2009-10	159	34	21
3	2010-11	159	50	31
4	2011-12	159	65	41
5	2012-13	159	72	45

(Source: Information furnished by GPCB)

Above table shows that percentage of number of NPs having authorisation ranged from 21 *per cent* to 52 *per cent* during the period 2008-13. Further, only 11 NPs<sup>39</sup> out of 41 NPs test checked were having authorisation and the remaining 30 NPs were functioning without authorisation in violation of provisions of MSW Rules.

The Forest and Environment Department accepted (November 2013) the fact and stated that only 91 NPs have obtained authorisation as of October 2013 and GPCB would issue notice of directions shortly to such defaulting NPs.

##### 4.1.10.2 Non-identification of risk to environment and human health

MSW Rules provide for identification of risk to environment and human health. GPCB stated that they had identified the risk. However, Audit observed (August 2013) that the required tests and periodical monitoring were not carried out by GPCB and NPs as discussed below –

39 Bardoli, Deesa, Dhanera, Dhrangdhra, Halvad, Karjan, Padra, Palanpur, Tharad, Savarkundla and Viramgam



- **Ground water, Ambient air and Leachate quality**

MSW Rules provide that GPCB shall monitor periodically the compliance of the standards regarding ground water, ambient air and leachate<sup>40</sup> quality in and around the MSW processing and disposal sites. Audit observed that neither tests for verifying the quality of ground water, leachate, air, *etc.* nor periodical monitoring were carried out by GPCB to verify whether these standards were followed or not. In absence of monitoring, the possibility of contamination of ground water, air pollution, *etc.* could not be ruled out.

The Forest and Environment Department stated (November 2013) that GPCB has planned for sampling and analysis of ground water, ambient air, leachate samples for quality assessment from all SLFs as soon as they are commissioned. It was further stated that the GUDC and all NPs have been instructed to submit baseline data before commissioning of the SLFs for comparison and assessment of adverse effects on the environment. The reply was not acceptable as GPCB had neither carried out tests nor periodical monitoring of VCPs though they were commissioned and operationalised.

- **Compost quality**

MSW Rules provide that to ensure safe application of compost, following specifications for compost quality shall be met, namely -

Parameters	Concentration not to exceed (mg./kg dry basis , except pH value and C/N ratio)
Arsenic	10.00
Cadmium	5.00
Chromium	50.00
Copper	300.00
Lead	100.00
Mercury	0.15
Nickel	50.00
Zinc	1,000.00
C/N Ratio	20-40
PH	5.5-8.5

Audit observed in six<sup>41</sup> out of 18 NPs test checked having VCP facility, the compost produced by them was sold without examining the concentration of the above parameters. Further, Audit could not verify the quantity of compost sold for growing of food crops or otherwise at the VCPs, as no records of sale in this respect were being maintained. The compost with higher concentration of above mentioned parameters would pose potential risk to the crop when applied. Therefore, checking for the quality of the compost is of paramount importance before sending it out for sale. Further, audit observed that health check-ups of waste handlers were not being done by the NPs.

40 "leachate" means liquid that seeps through solid wastes or other medium and has extracts of dissolved or suspended material from it

41 Bagasara, Bardoli, Lathi, Limbdi, Thangad and Tharad

The Forest and Environment Department stated (November 2013) that GPCB has instructed GUDC and NPs to submit Analysis Reports for the compost quality on monthly basis and also to carry out batch-wise sampling and analysis of the compost so as to ensure the compost quality criteria. The reply was not acceptable as audit observed that no analysis reports were found to have been submitted by the GUDC and NPs, and GPCB had made no efforts to obtain the same.

#### 4.1.10.3 Non-imposition of Penalty

MSW Rules provide that the GPCB is responsible to monitor the compliance of standards set out in Schedules II, III and IV of the MSW Rules prescribing (1) Collection (2) Segregation (3) Storage (4) Transportation (5) Processing (6) Disposal (7) Authorisation of processing plants and disposal sites and (8) Submission of Annual Reports.

GPCB issued Show Cause Notices (SCNs) and Notice of Direction (NoD) to NPs for non-implementation of door to door collection, segregation and open transportation, non-submission of Annual Report by the NPs, VCPs not being operationalised and operating without authorisation, non-development of SLF, etc. Year-wise (2008-13) details of Show Cause Notices (SCNs) and Notice of Direction (NoD) issued by GPCB to NPs for violation of MSW Rules is shown in **Table 9** below –

**Table 9: Details of SCNs and NoDs issued**

Year	Number of SCNs (issued by unit head)	Number of NoDs (issued by Member Secretary or chairman)
2008-09	29	106
2009-10	29	03
2010-11	16	00
2011-12	15	99
2012-13	17	166
<b>Total</b>	<b>106</b>	<b>374</b>

(Source: Information furnished by GPCB)

Audit observed that no penalties have been imposed by GPCB for violation of MSW Rules and the above SCNs are yet to be adjudicated. This indicated the laxity on the part of GPCB in enforcement of MSW Rules in the State.

The Forest and Environment Department stated (November 2013) that as NPs are public bodies, the GPCB is persuading them for necessary compliance by educating them through seminars, workshops and various meetings at regional level. However, no specific remarks were given for non-imposition of penalties and non-adjudication of SCNs.

#### 4.1.10.4 Delayed submission of Annual Reports by GPCB

MSW Rules provide that GPCB shall submit Annual Report (AR) to Central Pollution Control Board (CPCB) regarding implementation of these Rules in

the State by 15 September every year. However, GPCB failed to submit these reports in prescribed timeline as shown in **Table 10** below –

**Table 10 : Delayed submission of ARs by GPCB**

Year	Actual date of Submission	Period of delay
2007-08	07.10.2008	22 Days
2008-09	02.02.2010	4 months and 18 days
2009-10	13.04.2011	6 months and 29 days
2010-11	25.10.2011	1 month and 10 days
2011-12	05.09.2012	Within time limit
2012-13	12.09.2013	Within time limit

(Source: Information furnished by GPCB)

The Forest and Environment Department accepted (November 2013) the facts and stated that now GPCB is submitting the AR in time as the AR for the year 2012-13 have been submitted before time.

#### **4.1.10.5 Non-availment of Carbon Credit**

To save the Earth from green house gases (GHG) a number of countries including India signed the ‘Kyoto Protocol’ (Protocol), which was adopted (December 1997) in the Third Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC). Article 3 of the Protocol targeted reduction of emission of GHG by five per cent in the developed countries. UNFCCC had set the ‘standard’ level of carbon emission allowed for a particular industry or activity. The extent to which an entity is emitting less carbon (as per standard fixed by UNFCCC), allows it to earn credit for the same. If the developed countries were unable to reduce their own carbon emissions, they could book the savings of GHG in developing countries in their account by paying some money to the concerned country. This whole system is named Clean Development Mechanism (CDM).

State Government nominated (May 2007) GUDC as Nodal agency and authorised GUDC to sign the letter of intent, negotiate and execute an Emission Reduction Purchase Agreement (ERPA) for availing carbon credit on behalf of the State for all projects run by organisations working in urban sector. The World Bank awarded (January 2007) a letter of intent (LOI) to GUDC for carbon credits. GUDC estimated (January 2007) that 130 ULBs of the State would generate 1.80 million metric tonnes (MMT) compost on processing of 5.47 MMT of MSW generated per annum. GUDC further estimated that it could earn carbon credit worth US\$ 16,50,000 (₹ 7,42,50,000) for 1.65 MMT per year if it would have entered into ERPA within the validity period of LOI (36 months).

From the information furnished by GUDC, Audit observed that GUDC had not submitted any proposal to World Bank for availing the carbon credit though more than six years have elapsed. It had also failed to negotiate and execute ERPA within 36 months from the date of issue of LOI which resulted in non-availment of estimated carbon credits worth ₹ 7.42 crore per year.

The Government stated (December 2013) that initially GUDC had made effort to avail Carbon Credits with the support of the consultant<sup>42</sup>, but, the same was

kept in abeyance based on the report of the consultant. The fact remained that GUDC failed to avail the carbon credits worth ₹ 7.42 crore.

#### **4.1.11 Conclusion**

Performance audit revealed that test checked NPs did not have complete data about the quantum of waste being generated as no records were found to have been maintained in respect of waste collected. Study of compliance to MSW Rules in test checked NPs revealed that organised segregation of various types of waste at the point of generation and Vermicompost plants were not carried out, instances of mixing of bio-medical, horticultural and construction waste with MSW and overflowing of waste containers were noticed, transportation was taking place mostly in uncovered vehicles resulting in scattering of collected and stored waste. Out of 159 NPs in the State, 66 NPs were not having Vermicompost plants and 123 NPs had no Sanitary Landfill Facility even after expiry of more than nine years of the timeline framed under MSW Rules. Absence of VCPs and SLFs resulted in open dumping of wastes by NPs which could consequently lead to contamination of ground water, air pollution, etc. Funds meant for management of MSW were not utilised in a time bound manner and incorrect reporting of utilisation of funds was done by the GUDC. Audit observed that the Operation and Maintenance charges of VCPs were made to the operators by GUDC without ascertaining the quantum and quality of waste processed and compost sold by the operator in violation of contract provision. Risks to environment and human health had not been adequately addressed. Non-implementation of scientific disposal of MSW led to a loss of ₹ 7.42 crore per annum to State Government due to non-availing of carbon credits. All these deficiencies need urgent attention of the State Government for remedial action.

#### **4.1.12 Recommendations**

- GPCB should periodically carry out a comprehensive assessment of the amounts of Municipal Solid Waste being generated and maintain a comprehensive database on waste generated for aiding policy-making, intervention and effective waste management programs;
- NPs should make greater efforts to collect regularly and aim for collection of 100 *per cent* of the Municipal Solid Waste generated and should maintain proper records of collection of waste to assess the implementation of organised system of waste collection;
- The State Government should draw up a time bound plan for providing storage facility, VCPs for processing of biodegradable waste and SLFs for disposal of non-biodegradable, inert waste and other waste for all NPs;
- VCPs already constructed should be operationlised immediately for production of compost and for generation of income to the State Government. Proper records of waste processed and sale of compost should be maintained at VCPs and with GUDC to ascertain the quantity of waste processed and income generated; and
- Non-implementation of scientific disposal of MSW entailed a loss of ₹ 7.42 crore per annum to State Government due to non-availment of carbon credits. Timely action should be taken to avoid such losses in future.



## 4.2 Implementation of Water Supply projects under Urban Infrastructure Development Scheme for Small and Medium Towns

### Executive Summary

*The Government of India launched (December 2005) the Jawaharlal Nehru Urban Renewal Mission with the objective of reforms driven fast track development of cities across the country, with focus on efficiency in urban infrastructure, service delivery mechanism, community participation and accountability of ULBs/Parastatal<sup>43</sup> agencies towards citizens. The Mission consisted of two sub-missions for mission cities and two components to cater to the remaining cities and towns. Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) is a component of the Mission. The performance audit on implementation of UIDSSMT was conducted during January 2013 to May 2013 by selecting 17 out of 52 water supply projects and the following deficiencies in the scheme implementation were noticed –*

- In 97 cases, Gujarat Urban Development Mission (GUDM) retained funds aggregating to ₹ 185.97 crore for periods ranging from one to 40 months and consequently earned interest thereon of ₹ 5.78 crore.*
- GUDM failed to claim additional assistance of five per cent of Central grant (maximum of ₹ 21.74 crore) for capacity building. GUDM failed to create a revolving fund which could have helped the NPs to leverage market funds for financing further investment in infrastructure projects.*
- Non-inclusion of essential components in the Detailed Project Reports (DPRs) resulted in loss of central assistance of ₹ 3.27 crore in three test checked projects.*
- Delay in finalisation of tender resulted in non-completion/delay in completion of projects and consequent cost overrun of ₹ 25.63 crore in 15 test checked projects. Injudicious rejection of tenders in four projects resulted in avoidable expenditure of ₹ 5.59 crore. Instances of projects remaining incomplete or delayed completion of projects were noticed due to non-obtaining of permission/clearance from other Government agencies, non-identification of land/space, non-identification of water source, non-availability of funds, etc.*
- In most of the test checked NPs, coverage and quantum of water supply as envisaged were not achieved. The efficiency of collection of water charges ranged from 18 to 85 per cent in the test checked NPs.*
- Jetpur and Keshod NPs procured excess material aggregating to ₹ 2.77 crore. Valsad NP resorted to open purchase of pipes and in excess of the required quantity resulting in excess expenditure of ₹ 0.36 crore.*
- The State Level Sanctioning Committee met only on six occasions against the minimum requirement of 21 meetings.*
- Project Implementation Units were not formed in any of the test checked NPs.*

43 Statutory agencies of State Government which are assigned the responsibility for delivering services e.g. water supply, sewerage, etc. In this context, the term has been used for urban agencies.

### 4.2.1 Introduction

Gujarat had a population of 5.07 crore (2001 census), of which approximately 1.89 crore (37 per cent) were living in urban centres. This has increased to 6.04 crore (2011) with an urban population of 2.57 crore (43 per cent) ranking Gujarat as sixth most urbanised State after Goa, Mizoram, Tamil Nadu, Kerala and Maharashtra.

The urban area was expected to contribute 65 per cent of Gross State Domestic Product (GSDP) by 2011 subject to availability of quality infrastructure (roads, water supply, mass transportation, power supply, telecommunication, etc.) coupled with civic services (sanitation, solid waste management, etc.). Growth of urban population resulted in increase of urban poor and slum dwellers with consequential requirements for infrastructure services.

The Government of India (GoI) launched (December 2005) Jawaharlal Nehru National Urban Renewal Mission (JNNURM) with the objective of reforms driven fast track development of cities across the country, with focus on efficiency in urban infrastructure, service delivery mechanism, community participation and accountability of ULBs/Parastatal agencies towards citizens. The Mission period was for seven years (2005-2012) which was extended up to March 2014. The Mission consisted of two sub-missions; (i) Urban Infrastructure and Governance (UIG) (Sub-mission I) and (ii) Basic Services to the Urban Poor (BSUP) (Sub-mission II) for mission cities<sup>44</sup>. To cater to the remaining cities and towns, *i.e.* other than mission cities (hereinafter called non-mission cities), the JNNURM envisaged two components namely 'Urban Infrastructure Development Scheme for Small and Medium Towns'<sup>45</sup> (UIDSSMT)' and Integrated Housing and Slum Development Programme (IHSDP)' with same broad objectives as envisaged in UIG and BSUP. The Urban Local Body (ULB) and State Level Nodal Agency/State Government were required to execute a tripartite agreement with GoI in the form of Memorandum of Agreement (MoA) for the purpose. UIDSSMT consisted of infrastructure projects relating to water supply, sanitation, sewerage, solid waste management, road network, urban transport and redevelopment of old city areas.

### 4.2.2 Mission strategy

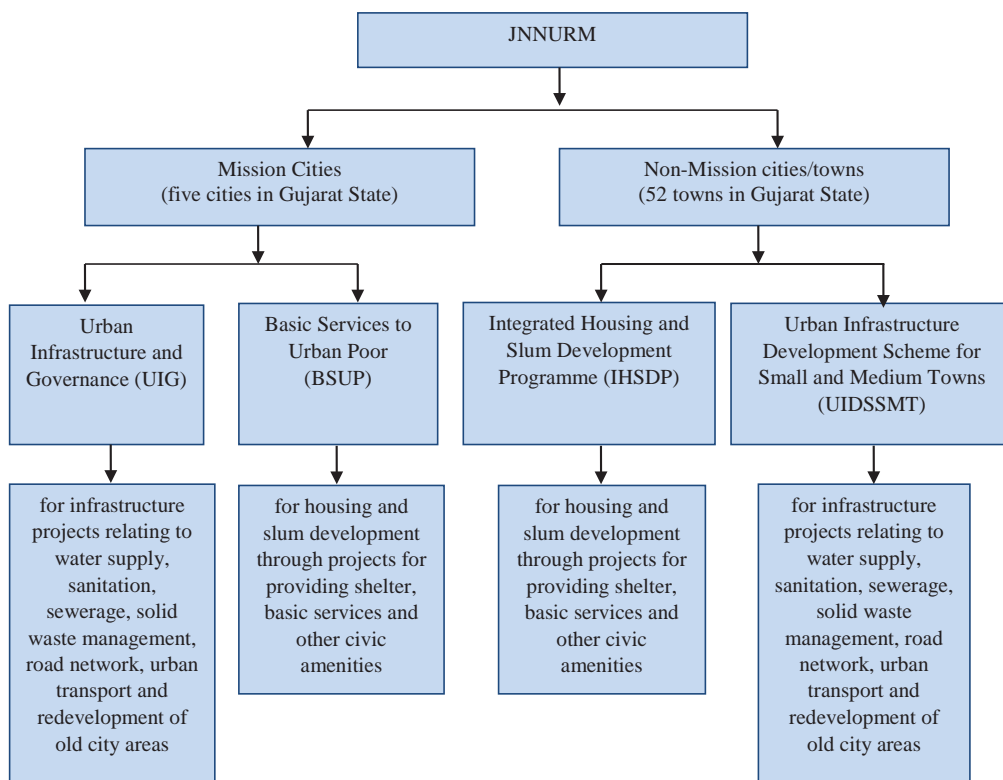
The identified cities were to prepare planned urban perspective framework for a period of 25 years (with five-yearly updates) indicating policies, programmes and strategies for meeting requirements of funds, which were to be followed by preparation of City Development Plans (CDP). Detailed Project Reports (DPRs) were to be prepared for undertaking projects in cities/towns/urban agglomerations/parastatals. The Central Sanctioning and Monitoring Committee (CSMC) was responsible for further appraising and sanctioning the proposals at the Union level.

<sup>44</sup> Five cities – Ahmedabad, Porbandar, Rajkot, Surat and Vadodara

<sup>45</sup> 52 Non-mission cities.

### 4.2.3 Scope of Missions/sub-Missions and components

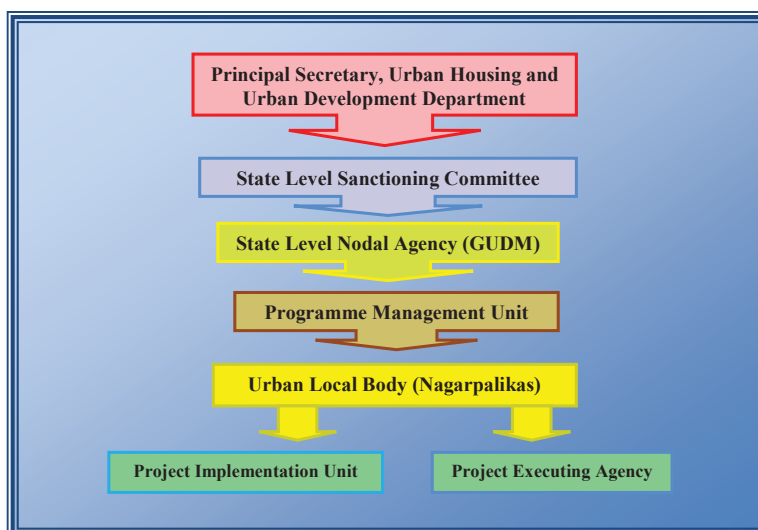
The JNNURM comprises of the following sub-Missions and components :



### 4.2.4 Organisational set-up

Principal Secretary, Urban Development and Urban Housing Department (UD&UHD) was in overall charge of implementation of UIDSSMT. The implementation was coordinated by State Level Sanctioning Committee (SLSC) headed by the Minister of Urban Development. The SLSC was also responsible to review and prioritise the proposals. The organisational chart in respect of implementation of UIDSSMT in Gujarat is given below :

#### Organisational Chart



The State Government constituted (January 2006) Gujarat Urban Development Mission (GUDM) to act as State Level Nodal Agency (SLNA). The GUDM was responsible to support SLSC in inviting project proposals, appraisal, management and monitoring. A Programme Management Unit (PMU) at the State level was formed to strengthen the capacity of the SLNA and to manage and implement the composite array of tasks associated with the Mission UIDSSMT.

Project Implementation Units (PIU) were to be created as operational units to supplement and enhance the skill mix of ULBs. Rather than a supervisory body, it was expected to work in tandem with the existing staff with focus on strengthening implementation of UIDSSMT and was to report the progress of implementation of projects to GUDM. The focus of PIU was to enhance the pace and quality of implementation of the Mission activities. ULBs which were technically not sound were allowed to get the work done through Project Executing Agency<sup>46</sup> (PEA) and the PEA was to report the progress of implementation of projects to the ULB.

#### **4.2.5 Audit objectives**

The objectives of the Performance Audit were to ascertain (through a sample study of 17 out of 52 Water Supply projects sanctioned under the scheme) whether –

- Financial management and controls were adequately exercised;
- Projects were executed efficiently and achieved their intended objectives;
- The reforms agenda under the programme had been achieved; and
- Adequate and effective mechanism for monitoring and evaluation existed.

#### **4.2.6 Audit criteria**

The findings were benchmarked against the following criteria –

- Guidelines issued by Ministry of Urban Development (MoUD) relating to implementation of UIDSSMT;
- Memorandums of Agreement and DPRs of selected projects; and
- Government orders and directions issued from time to time.

#### **4.2.7 Audit coverage and methodology**

Implementation of projects in Mission cities (Ahmedabad, Rajkot, Surat and Vadodara and non-Mission city of Jamnagar) was reviewed and audit remarks included in the Report of the Comptroller and Auditor General of India on Local Bodies for the year ended March 2012. After assessment of the existing situation of water supply in NPs and Municipal Corporations (MCs), the State Government decided (March 2006) to undertake only Water Supply (WS) projects under the UIDSSMT to improve the water distribution system. The present Audit was conducted to review implementation of the WS projects under UIDSSMT in non-mission towns.

<sup>46</sup> Gujarat Water Supply and Sewerage Board (GWSSB) and Gujarat Urban Development Company Limited (GUDC)



Under the UIDSSMT, the CSMC sanctioned 52 out of 62 WS projects proposed by the State Government to be located in 52 Nagarpalikas (NPs) at an aggregate project cost of ₹ 434.87 crore. Of the above, WS projects implemented in 17 NPs<sup>47</sup> were selected based on Simple Random Sampling Without Replacement method for detailed scrutiny covering the period from January 2006 to March 2013.

The records of the Principal Secretary, UD&UHD, GUDM and 17 selected NPs were test checked (January 2013 to May 2013) covering the period from January 2006 to March 2013 to ascertain the audit objectives enunciated above.

An Entry Conference was held (10 May 2013) with the Chief Executive Officer, GUDM to appraise the audit scope and objectives and an exit conference was held (10 September 2013) with the Additional Chief Executive Officer, GUDM after the conclusion of field audit to discuss the audit findings. The views of the State Government and GUDM have been duly incorporated in the Report.

### ***Acknowledgement***

Audit acknowledges the co-operation and assistance extended by the GUDM, NPs and their officials at various stages during conduct of the performance audit.

## **Audit findings**

### ***4.2.8 Financial Management***

#### ***4.2.8.1 Financial Assistance***

Assistance under UIDSSMT was in the form of Additional Central Assistance (ACA). The project cost was to be shared amongst the GoI, State Government and NPs in the ratio of 80:10:10. Excess expenditure, if any, over and above the approved project cost was to be borne by the NPs. The GoI releases ACA to the State Government and the State Government in turn releases the ACA alongwith matching State share to GUDM. GUDM then disburses the funds to NPs for execution of work.

GoI released the ACA of ₹ 327.70 crore (upto March 2013) to the State Government as against sanctioned amount of ₹ 347.89 crore being 80 per cent of the approved cost of ₹ 434.87 crore for 52 projects. The State Government released the ACA alongwith its matching share of ₹ 39.50 crore to GUDM and GUDM disbursed ₹ 356.12 crore to the NPs as grant-cum-loan<sup>48</sup>. As of March 2013, the NPs had spent ₹ 378.74 crore as shown in **Appendix-XXV**. Audit observed that GUDM had not released ₹ 11.08 crore to the NPs as against the ACA received from GoI.

#### ***4.2.8.2 Delayed release of funds to ULBs and retention of interest by GUDM***

The scheme guidelines did not provide for retaining the GoI funds with the SLNA (GUDM) and also there was no provision for treatment of interest earned by SLNA on Central Funds. The GoI directed (January 2013) to return the interest earned on Central Funds.

<sup>47</sup> Balasinor, Bardoli, Dakor, Dwarka, Gondal, Himatnagar, Jetpur, Keshod, Palitana, Petlad, Pethapur, Prantij, Radhanpur, Sutrapada., Songadh, Umreth and Valsad

<sup>48</sup> The Government, however, in August 2013 decided to treat the amount released as Grant.

On scrutiny (February 2013) of records at GUDM, it was observed that in 97 cases, there was delay upto 40 months for release of ₹ 185.97 crore to NPs after receipt of ACA from GoI as shown in **Appendix-XXVI**. Further, an interest of ₹ 5.78 crore (upto March 2013) earned at four *per cent per annum* on the scheme funds was not accounted as scheme funds but was accounted in the general funds of GUDM and the same had not been returned to GoI despite its direction to do so.

The Government stated (August 2013) that the funds were released to NPs based on the progress of the work and in view of the financial status of the NPs to ensure that they did not face financial crunch. The Additional Chief Executive Officer, GUDM in exit conference (September 2013) stated that action to refund the interest to GoI was in process. The reply was not acceptable as there was no provision in the guidelines for progressive release of funds to NPs on the basis of stage-wise completion of work.

#### **4.2.8.3 Non-creation of Revolving Fund**

The scheme guidelines envisage that funds received by SLNA (GUDM) were to be released to the NPs as soft loan or grant-*cum*-loan or grant. The guidelines further provide that 25 *per cent* of Central and State share put together was to be recovered from the funds released to the ULBs and ploughed into a Revolving Fund (RF) to leverage market funds for financing of further investment in infrastructure projects. However, the GUDM had not created the RF of ₹ 89.03 crore<sup>49</sup>. Thus, NPs would have to raise funds for future infrastructure projects through State Budget or from other sources after closure of UIDSSMT.

The Government stated (August 2013) that it was decided (October 2007) to treat the funds released by GUDM to NPs under the scheme as grant. However, GUDM while issuing Administrative Approval to projects, released the funds subject to creation of an RF.

During exit conference (10 September 2013) Additional Chief Executive Officer stated that Shreenidhi fund with Gujarat Municipal Finance Board (GMFB) was available for utilisation by NPs and maintenance contract for two years was included in the tender agreement. Thus, the purpose of revolving fund was served. The reply was not correct as the revolving fund was to be created for financing future infrastructure projects as envisaged in the scheme guidelines.

#### **4.2.8.4 Non-claiming of ACA for capacity building**

The UIDSSMT guidelines provide for an additional assistance of five *per cent* of Central grant (or actual requirement, whichever is less) for capacity building, *i.e.* preparation of Draft Project Reports (DPRs), training, community participation, Information, Education and Communication (IEC), *etc.* for which ULBs could engage consultants and seek reimbursement from GoI. Audit observed that GUDM had engaged consultants for capacity building, but no demand towards the expenditure was raised to GoI. The total approved project cost of the work

<sup>49</sup> 25 *per cent* of ₹ 356.12 crore (Central share ₹ 316.62 crore plus State share ₹ 39.50 crore) released to NPs as of March 2013

was ₹ 434.87 crore and therefore, the State was eligible for ACA of ₹ 21.74 crore (maximum) at five *per cent*. Inaction to claim the expenditure towards capacity building resulted in loss of Central assistance of ₹ 21.74 crore.

The Government stated (August 2013) that demand for getting funds from GoI was under process.

## **Project Management Framework**

### **4.2.9 Planning**

The objective of a public protected water supply system is to supply safe and clean water in adequate quantity, conveniently and as economically as possible. The planning of the scheme and achievement of desired objectives is primarily based on the Draft Project Report (DPR). The DPR is to be prepared carefully and with sufficient details to ensure appraisal, approval and implementation in a timely and efficient manner.

The GUDM submitted DPRs for 62 projects under the scheme in respect of towns facing water problem of which 52 DPRs were sanctioned by the GoI. The GUDM could complete 21 projects as of March 2013 while the remaining 31 projects were under various stages of completion (**Appendix-XXV**).

#### **4.2.9.1 Loss of central assistance due to lack of planning**

Audit observed that in three test checked projects, essential components were not included in the Detailed Project Reports (DPRs) submitted to CSMC by GUDM. These components were subsequently carried out by the NPs for implementation of the WS project from State Sponsored scheme<sup>50</sup>. Thus, lack of planning while preparation of DPRs resulted in loss of central assistance of ₹ 3.27 crore as detailed in **Appendix-XXVII**.

## **Execution of Projects**

### **4.2.10 Tendering**

GUDM prepared flow chart for implementation of water supply scheme comprising of nine stages involving time duration of nine months starting with preparation of DPR to award of work (**Appendix-XXVIII**). GUDM also prescribed time limit of six to 24 months for completion of project which included preparation of Draft Tender Papers (DTPs), invitation of tenders by giving public notice in leading newspapers, finalisation of tenders, issue of work orders, completion of work, *etc.*

#### **4.2.10.1 Cost overrun due to delay in finalisation of tenders**

The scheme guidelines provide that the NP is entitled for ACA to the extent of 80 *per cent* of the project cost. The project cost in the DPR was worked out on the basis of the current Schedule of Rates (SOR) or of earlier period, available with the appropriate WS project executing Division of Gujarat Water Supply and Sewerage Board (GWSSB).

<sup>50</sup> Swarnim Jayanti Mukhya Mantri Sahri Vikas Yojna and State Scarcity Grant

Audit observed that in 15 out of 17 test checked projects, there was delay upto 33 months in issue of work order from the date of sanction of the project by the CSMC due to delay in tender processing resulting in non completion/delay in completion of projects and consequent cost overrun of ₹ 25.63 crore over the approved project cost (**Appendix-XXIX**). In four out of above 15 WS projects, Audit observed that injudicious rejection of tenders resulted in avoidable expenditure of ₹ 5.59 crore and denial of benefits to a targeted population of 2,10,507 as discussed below -

(i) The tender for Songadh NP WS augmentation project at an estimated cost (EC) of ₹ 3.00 crore was invited (May 2007). The lowest bid quoted at ₹ 3.52 crore (18 *per cent* above EC) was rejected (September 2007) by the NP on the advice of GUDM as it was 40 *per cent* above the rate received by Gujarat Water Supply and Sewerage Board (GWSSB) for similar work. There was no response to the tender on second/third occasion (September 2007) and on the fourth occasion (September 2008), the sole bidder quoted ₹ 9.56 crore. Since the NP was not financially capable to bear the extra financial burden over and above the sanctioned cost and grant, it was decided (September 2008) to get the work done through Gujarat Urban Development Company (GUDC).

The GUDC invited tender (March 2009) for the work and the work was eventually awarded (June 2009) to the lowest bidder at ₹ 5.22 crore and was due for completion in April 2010. However, the work had not been completed (August 2013) due to outstanding electricity bills, change in alignment in laying of pipes, pending permission from National Highway Authorities, *etc.* Thus, rejection of tender on first invitation which was 18 *per cent* above EC and acceptance of tender which was 74 *per cent* above EC resulted in avoidable expenditure/cost overrun of ₹ 1.70 crore, besides delay in completion of work for more than six years (August 2013) depriving benefits from the project to a targeted population of 26,515.

The Government stated (August 2013) that due to passage of time and increase in cost of material and labour, the rates received in subsequent invitations were very high. The reply was not acceptable as the rate received in the first instance which was only 18 *per cent* above the EC should have been accepted. The delay in awarding the work led to a cost escalation of ₹ 1.70 crore with a time overrun of six years and denial of benefits to the targeted population.

(ii) First part of the WS project of Radhanpur NP, consisting of rising main<sup>51</sup>, Elevated Storage Reservoir (ESR), pump house and pumping machinery, *etc.* at an EC of ₹ 1.10 crore was completed (December 2008) at a cost of ₹ 1.50 crore. Tender for second part of the project consisting of Under Ground sump, ESR and distribution network was invited (October 2009) by GWSSB (the Project Executing Agency) at an EC of ₹ 1.75 crore. The lowest bid of ₹ 2.04 crore received was eventually rejected (June 2010) by GWSSB as the tender was not finalised within the validity period (April 2010). The tender was re-invited (July 2010) and work was awarded (April 2011) to the lowest bidder at TC of ₹ 2.18 crore. Thus, failure to accept the lowest tender on first invitation resulted in avoidable expenditure/cost overrun of ₹ 0.14 crore and the work remained incomplete till date (March 2013) affecting the targeted population of 39,558.

<sup>51</sup> The pipe through which water from an engine is delivered to an elevated reservoir



The Government stated (August 2013) that as the validity period (28 April 2010) of 180 days got exhausted in the process of submitting the tender quotations and other necessary details from the Zonal Officer to the office of Chief Engineer of GWSSB, the agency refused to work. The procedural delays could have been avoided had the Government ensured the timely issue of work order within the validity period and adhered to the time duration of 45 days prescribed in the work flow chart of GUDM for finalisation of tender as shown in **Appendix-XXVIII**.

(iii) First part of the WS augmentation project of Jetpur-Navagadh NP, consisting of construction of Water Treatment Plant, ESR, sump, pump house and pump machinery, etc. at an EC of ₹ 4.72 crore was completed (November 2011) at a cost of ₹ 5.90 crore. Tender for second part of the work consisting of providing, lowering and laying different sizes (700 mm and 800 mm diameter) of Bar Wrapped Steel Cylinder (BWSC) pipes at an EC of ₹ 12.76 crore was invited in May 2007. The lowest bidder quoted rate at ₹ 20.51 crore, but was rejected (October 2007) by GUDM considering the rates as abnormally high.

On re-tendering (October 2007), the offer was issued (July 2008) to the lowest bidder for ₹ 16.69 crore which was not accepted by the bidder on the ground that the validity period of the tender had already expired in May 2008. The second lowest bidder on negotiation agreed (September 2008) to execute the work at ₹ 17.55 crore. Accordingly, the work was awarded (December 2008) with condition to complete the work by October 2010. Thus, orders/instructions regarding award of work and post tender negotiations as stipulated by Central Vigilance Committee (CVC) were flouted as instructions of CVC forbid post tender negotiations/negotiations with any agency other than the lowest bidder. Delay in issue of offer within validity period to the lowest bidder resulted in avoidable expenditure/cost overrun of ₹ 0.86 crore and the work remained incomplete till date (March 2013) affecting targeted population of 1,18,302.

The Government attributed (August 2013) the reasons for delay in issue of offer to the lowest bidder by the Engineer in charge of the work. The Government further stated that as the validity period lapsed, the bidder refused to work. This indicated that the GUDM had not ensured the implementation of the project by NP as per the time duration prescribed in the work flow chart (**Appendix-XXVIII**), thereby delaying the project by more than 30 months.

(iv) The WS augmentation project for Sutrapada NP was split into three parts. First part of the project consisting of construction of pump house and pumping machinery, sump, ESR, etc. at an EC of ₹ 0.86 crore was completed at a cost of ₹ 1.10 crore. The NP invited (October 2007) the tender for second part of the work consisting of providing and laying pipelines of various dimensions at an EC of ₹ 4.85 crore and the lowest bid at ₹ 7.74 crore received was forwarded (March 2008) to GUDM for approval. The GUDM in turn called for certain information<sup>52</sup>. However, the NP did not provide the information and the case was not further

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<sup>52</sup> Copy of advertisement financial and technical qualifying report of the agency whose quotation was downloaded, original documents of the bidder and clear opinion of NP for recommending the quotation

processed at NP level. The NP had no information/records relating to invitation of tenders on second to fourth occasions of second part. On the fifth invitation (September 2008), the negotiated bid of first lowest agency stood at ₹ 10.63 crore and the work was accordingly awarded (June 2009). Further, the NP had not yet initiated any action (April 2013) for construction of Water Treatment Plant under third part. Thus, failure to accept the lowest tender on first invitation resulted in avoidable expenditure/cost overrun of ₹ 2.89 crore and the work remained incomplete till date (March 2013) affecting the targeted population of 26,132.

The Government stated (August 2013) that as there was no permanent establishment with NP at that time, the tender was not processed within the validity period and hence the bidder refused to work. The reply is not acceptable as PIU was to be created to help enhance the skill mix of the ULB. As this was not done the project suffered and has been considerably delayed.

#### ***4.2.10.2 Delay in completion of projects***

The administrative approval issued by the GUDM for each WS project under the scheme stipulates the time limit of 24 months for completion of the project. However, in 10 projects, it was observed that due to failure in obtaining of permission/clearances from other Government agencies, identification of land, identification of water source, non-availability of fund, *etc.*, the projects remained incomplete or were not completed within the stipulated time limit resulting in denial of benefits to a population of 4,52,703 as discussed below:

##### ***i) Failure in obtaining permission/clearances***

As per technical comments of the Central Public Health and Environmental Engineering Organisation<sup>53</sup>, necessary clearances/approvals for the project were to be obtained from the Railways/State/Highway Authority, wherever necessary, before implementing the scheme. Audit observed that the WS projects of Gondal NP and Petlad NP remained incomplete due to delay/non-obtaining of permission from Government agencies (**Appendix-XXX**).

##### ***ii) Failure in identification of land***

The scheme guidelines for preparation of DPRs of WS Projects provide that land had to be identified for the project and earmarked in the layout plan and wherever necessary, land acquisition process be initiated well in advance to avoid undue delay and litigation in implementation of the project after its approval. Audit observed that the water supply project of Umreth NP sanctioned in September 2007 was subsequently decided by the NP (July 2011) to be dropped due to non-availability of land and the first instalment of ACA (₹ 1.72 crore) received from GUDM was refunded. Non-completion of project resulted in denial of potable water to a population of 33,762. Audit further observed that the WS project of Dwarka NP remained incomplete (August 2013) due to non-construction of pump house for want of land, resulting in supply of untreated water from the local source of Mayasar talav, thus exposing the targeted population of 38,873 to water borne diseases.

<sup>53</sup> Technical Wing of the Ministry of Urban Development, Government of India dealing with the matters related to urban water supply and sanitation including solid waste management in the country

**iii) Failure in identification of water source**

The scheme guidelines provide that 95 per cent dependability and reliability of selected raw water source must be established by the concerned State Department so as to ensure long term sustainability of the project for the prescribed design period. Audit observed that WS projects for Dakor NP and Radhanpur NP remained incomplete due to failure in identification of water source (**Appendix-XXX**).

**iv) Non-planning of water distribution network**

The WS project sanctioned (September 2007) for Bardoli NP at a cost of ₹ 5.13 crore was completed after incurring an expenditure of ₹ 6.05 crore. However, ESR constructed in the project at a cost of ₹ 0.32 crore (July 2010) could not be put to use for want of distribution network (August 2013). Audit observed that the NP had not planned for synchronisation of distribution network along with WS project resulting in denial of benefits to the targeted population of 60,821. The Government stated (August 2013) that the distribution network would be linked with the overhead tank shortly.



Idle ESR of Bardoli NP  
(16.04.2013)

**v) Reduction in scope of work leading to non-commissioning of projects**

GoI releases ACA to the State Government and the State Government in turn releases the ACA alongwith matching State share to the GUDM. GUDM disburses the funds to NPs for execution of work. Excess expenditure, if any, over and above the approved project cost is to be borne by the NPs. Audit observed that the WS project for Balasinor NP was incomplete due to paucity of funds (**Appendix-XXX**).

**vi) Work abandoned by contractors**

The work of WS augmentation project sanctioned (June 2007) for Pethapur NP was awarded (October 2007) to an agency at a TC of ₹ 4.98 crore with stipulated date of completion being July 2008. Audit observed that the agency after executing work to the extent of ₹ 2.46 crore abandoned the work (January 2013). The NP approached (May 2013) the Bank for encashing the Bank Guarantee amounting to ₹ 0.25 crore. Thus, even after a lapse of six years, the project remained incomplete and resulted in denial of benefits of safe drinking water to a population of 23,497.

The Government stated (August 2013) that the Hon'ble High Court of Gujarat has granted (May 2013) stay against encashment of Bank Guarantee. The fact remained that the project could not be completed even after a lapse of six years.

*vii) Work abandoned due to non-payment of bills*

The work of WS augmentation project sanctioned (December 2006) for Palitana NP was divided into seven parts. Five parts<sup>54</sup> were completed (between January 2008 to October 2009) at a cost of ₹ 2.46 crore. The sixth part consisting of laying of rising main and distribution pipeline at town and taleti area was awarded (April 2008) to an agency at a TC of ₹ 1.51 crore. The agency had executed work to the extent of ₹ 0.17 crore till November 2008. In the meantime, an NGO Shubh Mangal Foundation, Surat (Foundation) offered (August 2008) its willingness to complete the remaining work of supplying and laying Ductile Iron (DI), Mild Steel (MS) and Polyvinyl chloride (PVC) pipelines at the same EC and was also ready to bear any excess cost. The NP accordingly awarded (January 2009) the work to the Foundation. Audit observed that the first Running Account Bill of ₹ 0.25 crore submitted (June 2010) by the Foundation was not passed by the NP due to numerous observations<sup>55</sup> of the Engineer-in-charge. Thereafter no bills were submitted by the Foundation. However, the NP stated (May 2013) that the work was completed, but the details of the same could not be verified in Audit from the records of the NP. Thus, the NP had not made payment for the work done by the Foundation nor refunded the unspent amount to the GUDM.

Further, it was observed that the NP enquired (November 2008) the willingness of the Foundation to take up the work of seventh part, to which no response was received. However, no efforts were made by the NP to award the work to any other agency which resulted in work remaining incomplete till date (May 2013) and denial of benefits to a population of 64,497.

*4.2.10.3 Outcome*

The Ministry of Urban Development had laid down (2008-09) indicators and benchmarks with respect to the water supply projects. These benchmarks require 100 *per cent* water supply connection, supply of quality water all through 24 hours, *etc.* The status of achievement against these benchmarks in test checked NPs is shown in **Table 1** as follows –

54 First part – Laying of distribution pipeline at Station area (₹ 1.26 crore), Second part – Sump, pumping machinery, *etc.* (₹ 0.18 crore), Third part – Ductile Iron rising mains (₹ 0.52 crore), fourth part – Laying distribution pipeline in OG area (₹ 0.17 crore) and fifth part – ESR at Virpur (₹ 0.33 crore)

55 Suppliers' bill for pipes not provided, date of supply of pipes not mentioned, details of measurement of excavation not authenticated, nodes number not mentioned, third-party inspection of pipes not done, *etc.*



**Table 1 : Outcome of the implementation of WS projects (January 2013 to May 2013)**

Sr. No.	Name of NP	Coverage of water supply connections (in per cent)	Per capita supply of water per day (in litre)	Extent of metering of waterconnections (in per cent)	Continuity of water supply	Quality of water supplied <sup>56</sup>	Efficiency in redressal of customer complaints <sup>57</sup>	Efficiency in collection of WS related charges
<b>National Benchmark</b>		<b>100</b>	<b>135</b>	<b>100</b>	<b>24 hours</b>	<b>100</b>	<b>80</b>	<b>90</b>
1	Bardoli	73	130	0	2 hours/day	100	80	85
2	Balasinor	65	120	0	One and ½ hour/day	Partially	80	35
3	Dakor	70	146	0	Two and ½ hour/day	Partially	80	56
4	Dwarka	42	60	0	45 minutes/alternate day	Partially	40	63
5	Gondal	66	100	0	One hour/every 4th day	100	40	68
6	Himmatnagar	100	120	0	2 hour/day	100	80	52
7	Jetpur	59	90	0	45 minutes every 3rd day	100	80	81
8	Keshod	29	40	0	4 hour/every 15th day	Partially	80	70
9	Palitana	82	140	0	One hour/day	Partially	80	43
10	Pethapur	71	70	0	Two hour/day	Not available	80	53
11	Petlad	73	125	0	Three hour/day	Partially	80	38
12	Prantij	100	80	0	Two and ½ hour/day	Partially	80	31
13	Radhanpur	100	70	0	Two hour/Alternate day	Partially	80	28
14	Songadh	66	140	0	One hour/day	100	80	67
15	Sutrapada	0	40	0	One hour/day	100	80	18
16	Valsad	59	140	0	Two hour/day	100	80	67

(Source: Information furnished by test checked NPs)

The above table showed that out of 16 test checked NPs, only three NPs had provided 100 per cent water supply connection and none of the NPs had achieved the benchmark of supplying water for 24 hours. Metering system was also not implemented in any of the test checked NPs, supply of quality water was not ensured in nine NPs, redressal of the complaints within 24 hours was not ensured in two NPs and the efficiency in collection of water charges ranged from 18 per cent (Sutrapada NP) to 85 per cent (Bardoli NP). Thus, the 16 test checked NPs failed to achieve the performance parameters in implementation of WS projects and thereby the very purpose of providing safe and sufficient drinking water to the population was defeated.

56 If surface water is provided and cleaned in WTP then quality of water supplied is 100 per cent, if surface water provided but WTP is not constructed then presence of suspended solid would continue and if ground water is provided fully or partially then content of TDS and turbidity would be high i.e. water would not be safe

57 If complaints are redressed within 24 hours 80 per cent marks achieved. If complaints are redressed within 48 hours 40 per cent marks achieved.

The Government stated (August 2013) that in majority of the NPs water supply has been increased from 70-80 litre *per capita per day* (lpcd) to 105-110 lpcd. The reply was not acceptable as the benchmark for water supply envisaged supply of 135 lpcd *per day*.

#### **4.2.11 Non-Implementation of Urban Reforms**

With a view to providing reforms driven fast track and planned development of identified towns, UIDSSMT envisaged implementation of the mandatory and optional reforms by the State Government and NPs to access ACA for bringing about infrastructural development. The State Government and NPs were to accept implementation of the reforms and execute a tripartite Memorandum of Agreement (MoA) with GoI.

Status of implementation of urban reforms at State/ULBs level was mentioned in Para 4.1.7.4 of the Report of the Comptroller and Auditor General of India on Local Bodies for the year ended March 2012. Audit observed that there was no change in the status as of March 2013. Thus, though access to ACA was subject to implementation of Urban Reforms, there were following deficiencies in implementation of urban reforms –

- The powers for simplification of legal and procedural framework for conversion of agricultural land for non-agricultural purposes, introduction of property title certification, registration of land property and reform of rent control are still with the State Government;
- Though Public Disclosure Law was notified (May 2007), no information was uploaded by the State/Nagarपालikas on their web-sites;
- Building bye laws provide that rain water harvesting is mandatory, but except for Himatnagar NP, none of the test checked NPs have implemented this reform;
- Earmarking atleast 20-25 *per cent* of developed land in all housing projects for economically weaker sections and low income group was not done as Gujarat Town Planning and Urban Development Act provides reservation of only 10 *per cent* of developed land for the urban poor;
- Except for periodical meeting by the elected members of the ULB, no public participation in implementation of the projects was ensured;

- Except for computation of property tax and registration of birth and death (in eight out of 16 NPs test checked), e-Governance was not implemented;
- Utilisation of Geographic Information System for mapping properties and achieving 90 *per cent* tax collection efficiency were not achieved; and
- Recovery of user charges for water supply ranged from three *per cent* (Sutrapada NP) to 54 *per cent* (Prantij NP) in 12 out of 16 NPs test checked by Audit.

The Government stated (August 2013) that while mandatory reforms were implemented, optional reforms are at various stages of implementation in different NPs. The reply was not acceptable as UIDSSMT was a reforms driven programme and non-implementation of reforms defeated the very purpose of the scheme objectives.

#### 4.2.12 Other points of interest

##### 4.2.12.1 Irregular procurement of material

###### i) Surplus material

Audit scrutiny in the test checked NPs revealed that the ULBs, after execution of works, were holding surplus material as shown in **Table 2** as below –

**Table 2 : Showing details of surplus material procured**

Sl. No.	Name of NP	Details of surplus material	Date of procurement	Remarks
1	Jetpur	Pipes and joints worth ₹ 1.14 crore (May 2013)	February 2011	Due to change in alignment, there was excess procurement of material. Thus, on account of defective survey, the material were rendered surplus.
2	Keshod	Pipes and joints worth ₹ 1.63 crore (April 2013)	January 2009 to January 2010	Estimates were made at alignments where pipeline already existed; thus the survey and estimation were defective entailing procurement of surplus material.

(Source: Information provided by the Chief Officers of respective NPs)

The Government stated (August 2013) that surplus material would be utilised for maintenance and repair works and for laying pipelines in areas where they do not exist. The reply was not acceptable as material remaining surplus indicated defective assessment of requirement which could result in diversion for projects not connected with the Mission and ran the risk of pilferage, if not stored and accounted for.

***ii) Open purchases of pipes against the advice of Nodal Agency***

The WS augmentation project of Valsad NP was approved (September 2006) at a cost of ₹ 6.19 crore. The scope of the work included (i) providing and laying of Ductile Iron (DI) and High Density Poly Ethylene (HDPE) pipelines for WS distribution network at Mograwadi zone and Abrama North Zone at an EC of ₹ 1.80 crore.

Valsad NP invited tenders (September 2008) for providing and laying distribution pipeline network at Mograwadi and Abrama North. However, the tender of ₹ 3.50 crore received was rejected (December 2008) by the SLNA (GUDM) and the NP was directed to purchase pipes from rate contract (RC) holders of GWSSB. Audit observed that the NP did not purchase pipes from the RC holders of GWSSB, but purchased (February 2010) the same from the open market at a higher rate resulting in excess expenditure of ₹ 0.36 crore as detailed in **Appendix-XXXI**.

The NP stated (February 2013) that decision to purchase pipes from open market was taken by the water works controlling committee. However, reasons for taking such decisions were not found on record.

The Government stated (August 2013) that there was no rule requiring the NPs to procure pipes as per RC rates. The reply was not acceptable as there was no reason found on record for not adhering to the instructions of SLNA and due to violation of the same an excess expenditure of ₹ 0.36 crore was incurred.

***4.2.13 Monitoring and Evaluation***

***4.2.13.1 Non-convening of meetings***

The primary role of the State Level Sanctioning Committee (SLSC) was deciding and prioritising projects under the scheme. Its role was also to monitor the implementation of the projects and review the progress of urban reforms in the State. The SLSC was to meet as often as required, but should meet at least thrice in a year and review the progress of ongoing projects and sanction new projects.



Audit observed that only six meetings of SLSC (set up in 2006) were held upto March 2013 as against the minimum 21 required meetings. It was also seen that meeting of the SLSC had not been held since February 2009.

The Government stated (August 2013) that regular reviews have been carried out at the level of SLNA. The fact however remained that regular meetings were not held to discuss the outcome of the mission/projects being implemented in various towns/NPs.

#### ***4.2.13.2 Non-formation of supporting agencies***

The UIDSSMT guidelines provided for establishment of a Programme Management Unit (PMU) at SLNA level. Similarly, the guidelines also provided for formation of Project Implementation Unit (PIU) at NP level as an operational unit supplementing organ, to enhance skills mix of the NPs and to keep the pace and quality of implementation of UIDSSMT.

Audit observed that the GUDM, being the SLNA, subsumed the role of PMU, while PIU had not been formed in any of the test checked NPs. Thus, providing of enhanced skills for the work could not be accomplished.

#### ***4.2.14 Conclusion***

The Performance Audit of the scheme revealed that there was delay upto 40 months in release of funds to Nagarpalikas by State Level Nodal Agency (GUDM). Lack of planning in preparation of DPRs resulted in loss of Central assistance as essential components not included in the DPRs were subsequently carried out from State Sponsored scheme. Delay in finalisation of tender resulted in non-completion/delay in completion of projects and consequent cost overrun of ₹ 25.63 crore in 15 test checked projects. Injudicious rejection of tenders in four projects resulted in avoidable expenditure of ₹ 5.59 crore. In most of the test checked NPs, service level benchmarks for supply of sufficient quantity of quality water, as envisaged, were not achieved. Implementation of Urban Reforms was deficient. The State Level Sanctioning Committee did not meet as often as it should to review the implementation of various projects.

#### ***4.2.15 Recommendations***

- PIUs should be established at each NP immediately;
- Timely release of funds to NPs should be ensured to avoid delay/non-completion of projects due to paucity of funds;

- DPRs should be prepared after conducting proper survey to include all essential components;
- Before commencement of projects, the availability of pre-requisite frame-work such as land, source of water, permission/clearances from other government agencies, availability of funds, *etc.* may be ensured;
- Tender process may be completed expeditiously and prompt action may be taken for completion of the projects sanctioned; and
- Achievement of Service level benchmarks earmarked under the scheme should be ensured.

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