



PERFORMANCE AUDIT REPORT
ON
SINDH SOLID WASTE MANAGEMENT
BOARD, KARACHI

AUDIT YEAR 2018-19

AUDITOR-GENERAL OF PAKISTAN

PREFACE

The Auditor-General conducts audits subject to Articles 169 and 170 of the Constitution of the Islamic Republic of Pakistan 1973 read with sections 8 and 12 of the Auditor- General's (Functions, Powers and Terms and Conditions of Service) Ordinance 2001 and Section 116 of Sindh Local Government Act 2013. The performance audit of Sindh Solid Waste Management Board, Karachi was carried out accordingly.

The Director General Audit, Local Councils, Sindh conducted the performance audit of the Sindh Solid Waste Management Board, Karachi, from March 2014 to December 2018 with a view to report significant findings to stakeholders. Audit examined the economy, efficiency, and effectiveness of the SSWMB. In addition, Audit also assessed, on test check basis whether management complied with applicable laws, rules and regulation in managing the SSWMB. Audit Report indicates specific actions that, if taken, will help the management realize the objectives of the SSWMB. The observations included in this Report have been finalized in the absence of written response and discussion with the management due to no response and non-convening of DAC meeting by Principal Accounting Officer.

The Audit Report is to be submitted to the Governor of the Sindh in pursuance of Article 171 of the Constitution of the Islamic Republic of Pakistan, 1973 read with Section 116 of the Sindh Local Government Act 2013, for causing it to be laid before the Provincial Assembly of Sindh.

Islamabad
Dated:

(Javaid Jehangir)
Auditor-General of Pakistan

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ABBREVIATIONS AND ACRONYMS

BOQ's	Bill of Quantities
DMCs	District Municipal Corporations
EIA	Environmental Impact Assessment
GTS	Garbage Transfer Station
HRM	Human Resource Management
HSE	Health Safety Environment
IEE	Initial Environmental Examination
ISWM	Integrated Solid Waste Management
ISWMA	International Solid Waste Management Association
KMC	Karachi Metropolitan Corporation
LFSs	Landfill Sites
MRF	Material Recovery Facility
NIT	Notice Inviting Tender
PA	Procuring Agency
PC-I	Planning Commission Proforma one
PC-II	Planning Commission Proforma two
PMU	Project Monitoring Unit
Rs.	Rupees
RCE	Rough Cost Estimate
RFP	Request for Proposal

SBR	Sindh Board of Revenue
SAMA	Services and Assets Management Agreement
SOPs	Standing Operating Procedures
Sq. ft	Square Feet
SPPRA	Sindh Public Procurement Regularity Authority
SSWMB	Sindh Solid Waste Management Board
SWM	Solid Waste Management
Sq. yd	Square yard
Sq. km	Square Kilometers
UCs	Union Councils
WB	World Bank
USD	United State Dollar

EXECUTIVE SUMMARY

The Director General Audit, Local Councils, Sindh, Karachi, conducted Performance Audit of Sindh Solid Waste Management Board (SSWMB), Karachi from 13th December 2018 to 31st January 2019. The main objectives of the audit were to check whether the waste collection and its disposal was being done properly as per set standards of the Board and to check whether the required feasibility studies had been conducted for ascertaining the quantum of neighborhood level solid waste generation, collection and disposal. The element of efficiency, economy and effectiveness in the operation was also evaluated. It was also checked whether necessary steps to create public awareness for reduction of solid waste generation and its disposal had been taken. Execution of the contractual terms and condition for solid waste management was also examined during the audit, and lastly, compliance with applicable rules, regulations and procedures was checked.

The Sindh Solid Waste Management Board (SSWMB) was established under Sindh Solid Waste Management Board Act 2014 (IV of 2014) for collection and disposal of all solid waste, to arrange for effective delivery of sanitation services, provision of pollution free environment and to deal with other relevant matters in the Province of Sindh. The Board needed to develop and implement an integrated solid waste management system with the strategic approach for sustainable management of solid wastes, covering all sources and aspects such as generation, collection, segregation, transfer, sorting, treatment, recovery, trading and disposal of waste, in an integrated manner.

Key Audit Findings:

Feasibility study was not conducted prior to the establishment of Solid Waste Management System in Sindh. Operations of the Board were not extended to the entire province of Sindh as required under its Act. Sufficient Garbage Transfer Stations (GTSs) and Landfill Sites (LFSs) were not established even in Karachi, which was the only area of operation. Board failed to prepare Standard Operating Procedures, strategies, rules and regulations and solid waste tariff was not levied in a structured manner. Operational activities were not effective, efficient and economical resulting non-achievement of targets. No manuals were prepared for Financial and Human Resource Management. Issue of absenteeism of staff and non-transfer of human resource and other equipment of

DMC to SSWMB was observed. The board's meetings were not held regularly. Furthermore, health safety and environment friendly measures were not taken to provide healthy and hygienic environment to the employees. Payments to staff and contractors were also not timely made. No digital mapping measurement was obtained while making contractors payment. The waste of 5.348 million tons was not recycled to obtain revenue. Sindh Solid Waste Management Board allowance was being allowed without concurrence of Finance Department, Government of Sindh. The contractors failed to perform various works like door to door collection, manual sweeping of internal roads and streets, mechanical sweeping of main roads etc as per agreement. Contractors also failed to supply machinery and equipment as per the terms of agreement. Contractors failed to submit insurance policies related to work and work place for safety of employees.

Audit Recommendations:

Audit recommends that the Board should extend its operations to whole the province of Sindh as required under its Act. Necessary action should be taken for establishment of Land Fill Sites (LFSs) and Garbage Transfer Stations (GTSs) throughout the province. Necessary rules may be finalized without further delay for Board's various operations including timely preparation of the Schedule for solid waste tariff. SOPs may be prepared for collection, transportation and disposal of solid waste and a comprehensive plan may be prepared to carry out the operations of the Board in an efficient and effective manner. It should be ensured that Solid Waste Exploitation Plan, as cited in the Act, is complied with, in letter and spirit. Functions regarding solid waste management may be transferred to the Board. Proper inspection of source points of generation, transfer and recycling of the solid waste should be developed. Concrete efforts should be made to generate revenue through recycling of waste in Sindh.

1. INTRODUCTION

The Sindh Solid Waste Management Board (SSWMB) was established vide Sindh Solid Waste Management (SSWM) Act, 2014 (IV of 2014) passed by Provincial Assembly Sindh on 10th February 2014 for the purpose of collection and disposal of all solid waste for whole of province. Objectives included effective delivery of sanitation services and provision of pollution free environment. Another salient function of the Board was to develop and implement an integrated solid waste management system with integrated strategic approach for the sustainable management of solid wastes covering all sources and aspects such as collection, transfer, treatment and disposal. The Board does not collect garbage from Karachi Port Trust (KPT), Defense Housing Authority (DHA) Karachi and other Cantonment areas of Karachi.

1.1 Objectives/Functions of the Sindh Solid Waste Management Board:

The following are the main objectives/functions of the Board as per SSWM Act, 2014:

- a) Identify the solid waste management system components that will handle all non-hazardous solid waste generated;
- b) Maintain a comprehensive, integrated solid waste management approach that addresses collection, transportation, and disposal of Solid Waste;
- c) The approach will address the Solid Waste Hierarchy elements of source reduction, reuse, recycling, resource recovery, incineration, and land filling, in proportions appropriate for a district's needs;
- d) Prepare and submit to Government schedule of solid waste tariff, rates, charges or fees to be levied by the Board for approval;
- e) Collect and recover cess, rates, charge fees or impose fine for collection and disposal of solid waste against the rules;
- f) Construct, improve, maintain the buildings, sites and machinery relating to the operation of solid waste management;
- g) Make rules and regulations for operational, administrative, human resource management and finance for regulating operation of solid waste management, from time to time;
- h) Regulate control or inspect the source points of generation, accumulation, transfer, recycling, trading of the solid waste;

- i) Employ third party to take over management of solid waste on behalf of the Board which shall have the authority as vested in the Managing Director, to employ such parties as may expedite the waste management and benefit the people;

1.2 Source of Financing

According to SSWMB Act 2014, it was to be financed by Government of Sindh through Grand-in-Aid. The budget and expenditure figures for financial year 2017-18 along with budget estimates of 2018-19 are as under.

Sr.	DETAILS	BUDGET (2017-18)	Expenditures (2017-18)	BUDGET ESTIMATES (2018-19)
1.	Total employees related expenses (salary)	200,000,000	60,326,750	200,000,000
2.	Total operating expenses (non-salary)	48,000,000	26,133,437	63,250,000
3.	Total physical assets (non-salary)	13,000,000	858,060	25,500,000
4.	Total repair & maintenance (non-salary)	2,500,000	5,18,561	5,800,000
5.	Development work	184,500,000	13,062,798	244,500,000
6.	Integrated solid waste management (operational activities)	4,995,000,000	2,131,687,496	4,903,950,000
7.	R.M building & structure	105,000,000	0	105,000,000
GRAND TOTAL		5,548,000,000	2,232,587,075	5,548,000,000

1.3 The performance of SSWMB in terms of agreement only in four districts of Karachi is as under;

The table below depicts in percentage terms achievement of components of the outsource agreement in four districts of Karachi only.

MAJOR COMPONENTS AS PER AGREEMENT	WORK PERFUMED (%) PRESENT STATUS			
	South	East	Malir	West
Door to door collection	50	50	80	10
Manual sweeping of internal roads and streets	60	60	60	25
Mechanical sweeping of main roads	70	70	50	20
Mechanical washing of main roads (occasionally)	Nil	Nil	Nil	Nil
Placement of dustbin equipped with e-chip and connected with	80	75	70	30

MAJOR COMPONENTS AS PER AGREEMENT	WORK PERFORMED (%) PRESENT STATUS			
	South	East	Malir	West
command & control				
Real time movement of all garbage vehicles at command and control.	80	80	40	40
Establishment of complaint management system	30	30	30	30
Awareness program for community	30	30	10	10

The above data was taken from entity (SSWMB).

1.4 Completion period

Not applicable

2. AUDIT OBJECTIVES

The main objectives of the audit were to check:

- 2.1 the process of waste collection and its disposal;
- 2.2 whether collection, transportation and disposal of the waste was carried out efficiently, economically and effectively in its areas of operation;
- 2.3 whether necessary steps were taken to create public awareness for reduction of solid waste generation and its disposal;
- 2.4 execution of the contractual terms and conditions for solid waste management.

Audit was conducted in accordance with INTOSAI auditing standards.

3. AUDIT SCOPE AND METHODOLOGY

The performance audit was conducted as per following scope and methodology;

- 3.1 Scrutiny of record and secondary sources of data of the project throughout Sindh;
- 3.2 Interviews of key personnel of the office of Managing Director, SSWMB, Karachi/General Public for identification of SWM issues;
- 3.3 Visits to the SSWMB offices, workshops, GTS's, landfill sites & operational areas to identify any deficiencies regarding management, construction and operations of the SSWMB.
- 3.4 Economy, Efficiency and Effectiveness (3Es) of the SSWMB were focused

4. AUDIT FINDINGS & RECOMMENDATIONS

4.1 Organization and Management

4.1.1 Non-preparation of Feasibility Study (PC-II)

As per clause 3.3 of Project Management Guidelines issued by Project Wing, Planning Commission, it was mandatory for projects costing Rs 300.00 million and above to undertake proper feasibility studies before the submission of PC-I.

During performance audit of Sindh Solid Waste Management Board, it was observed that management did not prepare Feasibility Study for Solid Waste Management System in Sindh Province. Copy of the feasibility study report provided by the SSWMB was limited to Karachi only instead of covering the whole province and had been prepared in January 2008, six years before the initiation of the project in 2014. Detail is provided at Annexure-I.

Audit was of the view that feasibility study is required for initiation of any project and in its absence the intended objectives of the project cannot be achieved in efficient, effective and economic manner.

Deviation was reported to the management during the month of February, 2019. Department replied that the feasibility study of Karachi Division is already available and rest of province is under process. Departmental reply is not satisfactory as management failed to conduct the feasibility study before starting SSWMB's operations.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that fresh feasibility study may be conducted for whole province to plan future targets and responsibility may be fixed against person(s) at fault for initiating the project on an obsolete and incomplete feasibility study.

4.1.2 Non-extension of Board's operations to whole of the province of Sindh

As per Section-1 (2) of the Sindh Solid Waste Management Board Act, 2014, the operations under the SSWMB shall extend to the whole of the province of Sindh.

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to extend its operational activity regarding

integrated solid waste management to whole of Sindh and was performing its operations within only four out of six districts of Karachi. Detail is as under:

Sr#	Description	Location		WO No. & Dated
1.	Front end collection, sweeping, transportation & Municipal Solid Waste	DMC West	M/s Hangzhou Jinjiang Group of Sanitation Services Co. Ltd	SSWMB/ED(Ops-I)/NIT-4.1/LoA/997/2017 dated 11 th October 2017
2.	Front end collection, sweeping, transportation & Municipal Solid Waste	DMC East	M/s Changyi Kangjie Sanitation Engineering Co. Ltd	SSWMB/ED(Ops-I)/NIT-15/LoA/273/2016-17 dated 24 th March 2017
3.	Front end collection, sweeping, transportation & Municipal Solid Waste	DMC Malir	M/s Hangzhou Jinjiang Group of Sanitation Services Co. Ltd	SSWMB/ED(Ops-I)/NIT-4.2/LoA/998/2017 dated 11 th October 2017
4.	Front end collection, sweeping, transportation & Municipal Solid Waste	DMC South	M/S Changyi Kangjie Sanitation Engineering Co. Ltd	SSWMB/ED(Ops-I)/NIT-12/LoA/188/2016-17 dated 28 th February 2017

Audit was of the view that due to non-extension of operational activity of Board to whole province despite lapse of five years, the purpose for establishing the Board was not achieved.

The matter was reported to the management during the month of February, 2019. Department replied that the function of solid waste management also vests with the local councils as per law and SSWMB was extending its operations steadily throughout the province. Departmental reply is not tenable since the Act of SSWMB, 2014 states that operation shall be extended to the entire province.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that operations of the Board should be extended to whole of the province as per Act, under intimation to audit.

4.1.3 Non-establishment of Garbage Transfer Stations and Landfill Sites throughout Province.

As per Section-1 (2) of the Sindh Solid Waste Management Board Act, 2014, scope of the SSWMB shall extend to the whole of the province of Sindh.

As per brief report regarding garbage transfer station (GTS) only five GTSs viz. Qasba, Baldia Town, Sharafi Goth, Dhobhi Gath and EBM Causeway are functional.

As per progress report regarding District wise landfill sites, there are only two landfill sites in Karachi of 500 acres each, situated in District West, Karachi namely Jam Chakro and Gond Pass.

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to establish Garbage Transfer Stations and landfill sites throughout Sindh, except for the above mentioned two landfill sites. Even these above-mentioned landfill sites were established by KMC.



Gond Pass & Jam Chakro, Landfill sites

Matter was reported to the management during the month of February, 2019. Department replied that the construction of six modern GTSs in Karachi with Material Recovery Facility (MRF) and rehabilitation of two existing conventional landfill sites is under process. The departmental reply is not satisfactory as management failed to provide documentary evidence in support of the reply.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that immediate measures should be taken for establishment of Garbage Transfer Stations and landfill sites in whole province for efficient operations of board, under intimation to audit.

4.1.4 Non-recruitment of officers, advisors, consultants and other staff

As per Section 5(3) of the Sindh Solid Waste Management Board Act, 2014, the Board shall make recruitment of all officers, advisors, consultants, and other staff under the rules made under this Act.

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to recruit required officers / officials and appointed the entire staff from Local Government Department of Sindh on deputation basis.

Non-recruitment of officers, advisors, consultants and other staff affected the efficiency of the Board.

The deviation was reported to the management during the month of February, 2019. Department replied that the recruitment of professional and technical staff for SSWMB could be made after the finalization of recruitment rules which are under finalization process. Reply is not tenable since recruitment rules could not be finalized even after lapse of five years.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that the recruitment of staff may be made, under intimation to audit.

4.1.5 Unjustified frequent transfer of Managing Directors

As per Section 5(8) of the Sindh Solid Waste Management Board Act-2014, the Managing Director and four Executive Directors of the Board shall be appointed initially for a term of four years, which may be extended for a further period as may be determined by Government.

During performance audit of Managing Director, Sindh Solid Waste Management Board, Karachi, it was observed that Government of Sindh made frequent transfers of various Managing Directors without any justification. Detail is provided at Annexure-II.

The deviation was reported to the management during the month of February-2019, but no reply was received to justify the transfer/ postings of Managing Directors.

The PAO also failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that tenure of Managing Directors be ensured and frequent transfers be justified.

4.1.6 Failure to convene Board's meetings.

As per Section-9 (1) (2) of the Sindh Solid Waste Management Board Act, 2014, "The Board shall hold a meeting at least after two months which shall be presided by the chairman i.e. Chief Minister or his nominee to review the progress of work and take decisions by majority of vote on all existing and new initiatives taken by the board. In case chairman is out of the country or not in position to preside over the meeting the managing director will preside the meeting and will obtain post-facto approval from the chairman on all decisions taken in such meetings".

During performance audit of Sindh Solid Waste Management Board, it was observed that the management of the board failed to regularly convene Board's meeting as required under the Act. Since 2017, only two meetings were held till issuance of the report in March 2019. Detail is provided at Annexure-III.

Deviation was reported to the management during the month of February, 2019. Department replied that regular meetings could not be held due to lack of quorum. Departmental reply was not satisfactory since it was responsibility of the management of the Board to ensure resumed of quorum for the meetings.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that the Board's meetings may be held regularly as required under the Act.

4.2 Strategic Planning & Implementation

4.2.1 Failure to make rules and regulations for Board's operations

As per Section 8(3) (g) of the Sindh Solid Waste Management Board Act, 2014, "The Board shall make rules and regulations for operational, administrative, human resource management and finance for regulating operation of solid waste management, from time to time in the province".

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to make various rules and regulations for its operational, administrative, human resource and financial management for smooth functioning of the Board, despite lapse of five years. Failure to make its own rules resulted in reliance on ad-hoc arrangements especially with regards to recruitment of staff.

Audit was of the view that due to non-framing of rules and regulations, the board is working on ad-hoc basis and performance of the board was affected due to this lack of its own rules.

The lapse was reported to the management during the month of February, 2019. Department replied that the services rules had been drafted and forwarded to the Law Department for vetting. Departmental reply is not satisfactory as it failed to provide any documentary evidence in support of reply.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that the service rules may framed at the earliest as required under the Act.

4.2.2 Non-preparation of schedule of solid waste tariff, rates, charges or fees

As per Section-8(3) (a) (b) (c) of the Sindh Solid Waste Management Board Act, 2014, Volume-I, “Board shall recommend to Government a cess, tax or any other charges as per rules prescribed. Prepare and submit to Government schedule of solid waste tariff, rates, charges or fees to be levied by the Board for approval. Collect and recover cess, rates, charges, fees or impose fine for collection and disposal of solid waste against the rules prescribed.”

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the Board failed to prepare and submit to Government schedule of tariff, rates, charges or fees levied despite lapse of five years.

Audit was of the view that non-preparation/submission of schedule of solid waste tariff, rates, charges or fees to be levied by the Board for approval to Government resulted into non generation of potential revenue for the Board, which constituted weak administrative and financial management.

The deviation was reported to the management during the month of February, 2019. Department replied that rules for levy and collection of cess, rates, charge fee and imposition of fines for integrated solid waste management is under process with the consultation of relevant fora which would be implemented with the approval of Chief Minister, Sindh. Departmental reply was not satisfactory as management did not share any progress with audit.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that schedule of solid waste tariff, rates, charges or fees to be levied by the board should be prepared and submitted immediately for approval to Government, under intimation to audit.

4.2.3 Non-availability of data for total daily waste generation and collection

Section 8(1) read with section 8 (3) of the Sindh Solid Waste Management Board Act, gives Board the right over the solid waste related issues, assets, funds and liabilities including right to impose cess, tax or any other charges, rates, fees including fine for collection and disposal of Solid Waste against prescribed rules.

During performance audit of Sindh Solid Waste Management Board, it was observed that the management of the board did not have data regarding total daily waste generation and disposal of the province. In absence of data, the Board's operations and activities regarding collection, disposal, outsourcing/contract agreements and imposition of any taxes were based on estimates and guess works. Board relied on borrowed data from other agencies like KMC and DMCs.



Qasba Colony (District West)



Baloch Colony, District East

Audit was of the view that due to lack of data regarding waste generation and collection, performance of the Board could not be ascertained.

The matter was reported to the management during the month of February, 2019. Department replied that estimate of generation of waste in each out sourced district of Karachi was made in pursuance to the SOPs determined by International Solid Waste Management Association (ISWMA), Vienna and World Bank (WB) and SSWMB had taken care of all available parameters being used as SOP for estimation of the generation of Municipal Solid Waste (MSW). Departmental reply was not satisfactory as department failed to provide documentary evidence in supports of the reply.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that SSWMB should carry out a proper assessment of the total waste generated throughout the province and prepare a comprehensive plan for its disposal, under intimation to audit.

4.2.4 Non-preparation of Board’s SOPs and strategies for collection, transportation and disposal of waste

As per Section 8(5) of the Sindh Solid Waste Management Board Act, “The Board may prepare and implement directly or with external professional assistance, solid

waste exploitation plan. (i) Methodology to bring the plan into being in the most expeditious way so as to benefit the people. (h) The plan has to set clear targets benefits and tangible or intangible accruals.”

As per section 8(1) of the Sindh Solid Waste Management Board Act, has to “(g) make rules and regulations for operational, administrative, human resource management and finance for regulating operation of solid waste management, from time to time; (h) review the existing schemes or prepare new schemes relating to solid waste management and undertake execution thereof; (i) regulate control or inspect the source points of generation, accumulation, transfer, recycling, trading of the solid waste;

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to prepare SOPs for various functions of integrated solid waste management such as collection, transportation and disposal of solid waste including strategies and plans for disposal of the waste in cost effective manner.

Audit was of the view that in absence of SOPs and strategic plans, SSWMB could not achieve its desired objectives, which shows weak administrative management.

Absence of approved SOPs and strategic plans showed poor planning and weak administrative management.

The deviation was reported to management during the month of February, 2019. Department replied that all works and contracts being executed by the SSMWB are based upon SOPs, which include preparation of RFP’s, submission of technical proposals, BOQ’s and working plan by the contractor on the basis of information provided by the SSWMB. The department also replied that ADP schemes regarding SWM were approved for Hyderabad City, Shaheed Benazirabad City, Mirpurkhas City & Larkana City. The procedural formalities including acquisition of land for establishment of GTSS and LFSs for ISWM are under process. However, departmental reply is not tenable because the board failed to prepare SOPs and strategic plans in documented.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that Board should develop SOPs and strategic plans for collection, transportation and disposal of solid waste under intimation to audit.

4.2.5 Non-preparation of performance evaluation criteria of staff/contractors

As per section 8(3)(g) of the Sindh Solid Waste Management Board Act, the Board shall make rules and regulations for operational, administrative, human resource management and finance for regulating operation of solid waste management, from time to time.

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to develop any job descriptions, performance evaluation criteria/benchmarks for performance evaluation of staff/contractors.

Non-preparation of performance evaluation criteria/benchmarks resulted into improper vigilance/monitoring over the staff/contractors affecting the overall performance of the Board.

The deviation was reported to the management during the month of February, 2019. Department replied that all works being executed based upon certain performance indicators and benchmarks provided in Request for Proposal (RFP) and bidding documents. Departmental reply is not satisfactory as it failed to prepare and implement performance indicators and benchmarks for evaluation of staff/contractors.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that SSWMB should workout the benchmarks for performance evaluation of their staff and contractors, under intimation to audit.

4.2.6 Non-preparation and implementation of Community Awareness Programme

As per Clause-XV of contract agreement for work of Front-End Collection and Disposal of MSW signed b/w SSWMB and Contractors, “The contractor in collaboration with the procuring agency shall prepare and implement community awareness program within earliest possible time but not later than 60 days of start of field operation in the area. This will be an ongoing activity throughout the contract period.”

During performance audit of Sindh Solid Waste Management Board, it was observed that despite lapse of more than two years, management of the board failed to get

the community awareness program prepared and implemented through contractors, in violation of above clause of the agreement.

Non preparation and implementation of community awareness program affected the cleanliness of the city.

The lapse was reported to the management during the month of February, 2019. Department replied that community awareness is integral part of solid waste management for reduction and sorting of garbage. The board outsourced the work of front-end collection to two Chinese companies and those companies were responsible for community awareness. Under the supervision of Director Operations, Chinese companies are working on awareness campaign through print and electronic media. However, for overall solid waste management campaign, the media cell of SSWMB is also planning the campaigns, which would be effective in coming days. Departmental reply is not satisfactory as no concrete documentary evidence/data was provided regarding awareness campaign/plans.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends SSWMB should take immediate measures by pressing contractors for preparation and implementation of community awareness program, under intimation to audit.

4.2.7 Non-preparation of Solid Waste Exploitation Plan

As per Section 8 (5) of Sindh Solid Waste Management Board Act, 2014, The Board may prepare and implement directly or with external professional assistance, solid waste exploitation plan. As per section 8(5)(i), the board may prepare the methodology to bring the plan into being in the most expeditious way so as to benefit the people.

During performance audit of Sindh Solid Waste Management Board, the management of the board failed to prepare and implement solid waste exploitation plan of Municipal Solid Waste for composting and power generation, in violation of above section of Act.

Audit was of the view that without preparation and implementation of exploitation plan, the solid waste could not be exploited for the benefit of the people in most expeditious way as required by the Act.

The lapse was reported to the management during the month of February, 2019. Department replied that the exploitation plan on Municipal Solid Waste for composting and power generation was placed before the 9th Board meeting. The board decided to prepare feasibility study for power generation and composting. Departmental reply is not satisfactory because no copy of decision of the board was provided and no solid waste exploitation plan was prepared despite lapse of five years.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that fixing responsibility on person(s) at fault on account of non-preparation of solid waste exploitation plan, under intimation to audit.

4.3 Segregation of Duties

4.3.1 Overlapping in municipal services between Sindh Solid Waste Management Board and other municipal entities

As per section 8(1) of the Sindh solid waste management board Act, “The Board shall have the right over the solid waste related issues, assets, funds and liabilities of the councils and shall possess sole rights on all kinds of solid waste within the limits of all councils.”

During performance audit of Sindh Solid Waste Management Board, it was observed that there was overlapping of municipal service functions between SSWMB and other municipal entities especially in the city of Karachi wherein the Karachi Metropolitan Corporation (KMC) & District Municipal Corporations (DMCs) of Central and Korangi were also performing the solid waste disposal related functions within their respective jurisdictions.

Audit was of the view that SSWMB should take control of all solid waste management function of all municipal entities throughout Sindh as required under the SSWMB Act. Overlapping of municipal services between SSWMB and other municipal entities resulted into waste of resources.

The matter was reported to the management during the month of February, 2019. Department replied that the work will be carried out with mutual consensus of all stake holders who had already been involved in solid waste management in Karachi City and its operations will be taken over through Services and Assets Management Agreement

(SAMA). Departmental reply is not satisfactory because it failed to justify overlapping in municipal services between Sindh Solid Waste Management Board and other municipal entities.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that the services of solid waste management of all municipal entities in the province should immediately be handed over to SSWMB as per law, under intimation to audit.

4.3.2 Non–lifting/collecting of industrial and hospital waste

As per section 8(1) of the Sindh Solid Waste Management Board Act, The Board shall possess sole rights on all kinds of solid waste within the limits of all councils.

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board did not collect industrial and hospital waste.

Audit was of the view that non-collection of industrial and hospital waste, resulted in unhygienic environment and risk of unhealthy life of general public.

Deviation was reported to the management during the month of February, 2019. Department replied that the detailed survey to prepare feasibility studies to identify the volume, nature and characterization of Industrial and medical Hazardous Waste in Karachi, Hyderabad and Mirpurkhas division was under process. Departmental reply was not satisfactory as no documentary evidence was provided.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that concrete efforts should be taken for collection and disposal of waste of industries and hospitals in Sindh, under intimation to audit.

4.3.3 Non–hiring the services of consulting firm for third party Monitoring & Evaluation

As per Clause-xxi of contract agreement dated 06-10-2017 for work of Front-End Collection and Disposal of Municipal Solid Waste signed b/w SSWMB and contractor M/s Hangzhou Jinjiang Group Sanitation Co. Ltd. “The procuring agency may hire the services of a consulting firm for third party Monitoring & Evaluation of the scheme. In addition to regular monitoring, evaluation and feedback, this third-party consulting firm

shall also carry out verification of supplies made, works and services carried out as well as claims / bills submitted by the contractors. Payment to the contractor shall be made on verification of their claims/ bills by third party or the departmental scrutiny and verification committee, as the case may be.”

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to hire the services of consulting firm for third party monitoring & evaluation.

Audit was of the view that non-hiring of services for third party for monitoring and evaluation resulted into doubtful expenditures on operations and deprived the board evaluation and feedback.

Deviation was reported to the management during the month of February, 2019. Department replied that the Board engaged NED and Dawood Engineering Universities for vetting of RFP documents and for hiring third party monitoring and evaluation of all operations. Accordingly hiring of third party is under process. Departmental reply is not satisfactory since the contractual obligation of third-party monitoring and evaluation could not be carried out to date and mere vetting of RFP is not enough.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that compliance of above-mentioned clause be made, under intimation to audit.

4.4 Financial Management

4.4.1 Delayed payment to contractor and staff

As per section 12 (1) & (2) of the Sindh Solid Waste Management Board Act-2014, “The annual, supplementary and revised budget of the board shall be sanctioned by the Government. The annual budget shall be submitted to the Government as per budget schedule announced by the Finance Department.”

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board followed a complicated budgeting procedure. Under this procedure, Secretary Local Government sends from its cost-center a bill of Grant-in aid to A.G Sindh. After clearance of this bill the Cheque of A.G Sindh is

deposited into own A/c in Sindh Bank. Then Secretary LGD issues cheque of Grant-in-aid in favor of M.D, SSWMB and MD then deposits this cheque in Sindh Bank and subsequently transfers this amount into management board fund.

Audit was of the view that due to delayed releases from FD in shape of Grant-in-aid and cheque from Secretary LGD, the payments to contractors delayed. As a result of delayed payment, the contractors suspended the services of lifting of solid waste.

The deviation was reported to the management during the month of February, 2019. Department replied that the in-9th meeting of the Board, issued directions to management to coordinate with Finance Department, Govt. of Sindh for simplification of this complex procedure. Departmental reply is not satisfactory as it did not provide any documentary evidence in support of reply.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that separate cost center should be opened into A.G Sindh and payment should be made timely to contractors to avoid any inconvenience, under intimation to audit.

4.4.2 Payment made to contractors without obtaining digital mapping measurement

As per Clause XVI of conditions of contract agreement dated 16-10-2017 between SSWMB and contractor M/s Hangzhou Jinjiang Group Sanitation Co. Ltd., “Within 60 days of signing of this agreement, the contractor shall carry out UC wise Geographic Information System based / digital mapping of whole district showing size, length and breadth of lanes, streets / roads, open plots etc. The billing of mechanical sweeping, washing of the streets/roads, shall be done to the contractor and supported by digital map showing measurement thereof”.

During performance audit of Sindh Solid Waste Management Board, it was found that the management of the Board made payments to the contractors on account of mechanical sweeping, washing of streets / roads etc. without obtaining the GIS based / digital mapping of the concerned areas.

Audit is of the view that non-obtaining of digital measurement mapping against claims and payments on lump sum basis resulted in undue favor to the contractors which constitutes poor financial management.

Deviation was reported to the management during the month of February, 2019. Department replied that contractor M/s Changyi Kangjie Sanitation Co. has completed digital mapping in District South and M/s Hangzhou JinJiang Sanitation has also finalized the digital mapping in District West. Departmental reply is not satisfactory as no documentary evidence was provided in support of reply.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that GIS based digital mapping should be obtained from the contractor at the earliest, under intimation to audit.

4.4.3 Loss of potential revenue due to non-recycling of waste

As per section 8(2) of the Sindh Solid Waste Management Board Act, “The Board shall have the authority to grant permission to individuals, institutions, industries, factories, workshops, furnaces, compost making and power generation from the solid waste, for segregation of the recycle material from the waste, collection, treatment, sale and purchase, recycling or disposal of any kinds of waste.”

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to avail the opportunity of generating revenue through recycling of waste as required under the Act.

Audit was of the view that recycling of the solid waste would have given board considerable amount of revenue.

Deviation was reported to the management during the month of February, 2019. Department replied that the construction of six modern Garbage Transfer Stations (GTSs) in Karachi with Material Recovery Facility (MRF) was under process. Departmental reply is not satisfactory as no recycling was started till finalization of report.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that efforts may be made to generate revenue through recycling of waste in Sindh, under intimation to audit.

4.4.4 Un-authorized payment of Sindh Solid Waste Board allowance to officers/ officials - Rs23.959 Million

According to Section 12(1)&(2), the annual, supplementary and revised budget of the board shall be sanctioned by the Government. The annual budget shall be submitted to the Government as per budget schedule announced by finance department.

During performance audit of Sindh Solid Waste Management Board, it was observed that the board vide its 1st meeting held on 20th January, 2015, approved monthly Sindh Solid Waste Management Allowance for officers/officials posted in SSWMB and paid an amount of Rs23.959 million to officers/ officials on above account without concurrence/sanction of the Government through finance department. Detail is given below.

Sr. No.	Posts	Designation wise SSWB Allowance	Board Decision
1	Managing Director	150,000	Proposed Salaries & Allowance Approved
2	Executive Director/Secretary Equivalent	100,000	
3	Deputy Director Equivalent	65,000	
4	Assistant Director Equivalent	50,000	
5	Superintendent (Equivalent)	30,000	
6	Computer Operator (Equivalent)	15,000	
7	Supporting Staff	10,000	
8	Class-IV	8,000	

Audit was of the view that unauthorized payment of monthly SSWB allowance to officers/ officials without concurrence of the Government resulted into loss to the Government exchequer.

The matter was reported to the management during the month of February, 2019. Department replied that para was already settled in DAC meeting of regularity audit, but no documentary evidence was furnished in support of reply.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that unauthorized payment of monthly SSWMB allowance to officers/ officials without concurrence of the Government may be worked out till date, and may either be regularized or recovered and deposited into Government treasury.

4.5 Procurement and Contract Management

4.5.1 Non–installation of weigh bridges on Garbage Transfer Stations

As per SSWMB brief report regarding garbage transfer station (GTS) in Karachi, only five GTSs viz. Qasba, Baldia Town, Sharafi Goth, Dhobhi Gath and EBM Causeway were functional.

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to install Weigh Bridge on below mentioned garbage transfer stations (GTSS) in Karachi despite lapse of almost five years. Further, during physical visits of GTSS, it was noticed that the weigh bridges installed at Sharafi Goth and EBM Causeway were not functional. Detail is as under:

Sr.	Proposed GTS Site	Current Status of Weigh Bridges
1	GTS Qasba Colony	Installation of weigh bridge will be started shortly but during physical verification still not installed
2	GTS Baldia Town	Installation of weigh bridge will be started shortly but during physical verification still not installed
3	GTS EBM Cause Way	Installation of weigh bridge is in process and will be completed
4	GTS Sharafi Goth	Installation of weigh bridge is in process and will be completed shortly
5	GTS Dhobi Gath	There is no proposal in report for installation of Weigh Bridge but on physical verification some machinery and material was seen for construction of weigh bridge.

Audit was of the view that due to non-installation of weigh bridges on above mentioned five garbage collection stations (GTS), all garbage vehicles had to go to private weigh bridges which were designated by SSWMB for weighing the solid waste. The authenticity of these private weigh bridges could not be verified, since there is no check to assure the validity.

Non-installation and functioning of weigh bridges on five Garbage Collection Stations (GTS) in Karachi, resulted into variance of garbage weighing with risk of excess payment from government exchequer.

The deviation was reported to the management during the month of February, 2019. Department replied that the installation of weigh bridges at GTS and Landfill Sites were under process at Baldia, Qasba & Dhobighat and at EBM Causeway & Sharafi Goth have been installed. Departmental reply is satisfactory, because even though weigh

bridges at EBM Cause Way and Sharafi Goth were installed, they were not working during the visit of audit team.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that necessary action should be taken for installation and functioning of weigh bridges in all proposed Garbage Transfer Stations (GTS) in Karachi and rest of Sindh under intimation to audit.

4.5.2 Improper maintenance of Measurement Books

According to paragraph 208 of Public Works Accounts Code, “Payments for all work done otherwise than by daily labour and for all supplies are made on the basis of measurement recorded in Measurement books, Form 23 and as per paragraph 209(a) detailed measurements should be recorded only by Executive, Assistant Executive, or Assistant Engineer, or by executive subordinates in charge of works to whom measurement books have been supplied for the purpose.”

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to maintain measurement books properly. The following observations were noted;

- i. The Measurement books were recorded on single item basis instead of recording all the items in continuation with the last measurement data and progressive total of quantities.
- ii. Measurement books were signed by Deputy Director instead of Engineer.
- iii. There was no recording of deductions in Measurement books, for example income tax, Sindh sales tax, retention money or withheld amount.

Audit was of the view that authenticity of expenditure could not be ascertained due to improper maintenance of measurement books.

Deviation was reported to the management during the month of February, 2019, but no reply was furnished to audit till finalization of this report.

The PAO also failed to convene the DAC meeting despite pursuance by audit.

Audit recommends fixing responsibility on person(s) at fault for non-maintenance of measurement book under intimation to audit.

4.5.3 Non-operating of command and control centers

As per clause XIII of contract agreements dated 16-10-2017, “For effective and efficient working, and real time monitoring of the performance/ operations, the contractor shall establish a well-equipped Command and Control Centre within earliest possible time but not later than 60 days of start of field operation in the area.”

During performance audit of Managing Director, Sindh Solid Waste Management Board, Karachi, it was observed that command and control centers established by contractors namely, M/s Hangzhou Jinjiang Group Sanitation Services Co. Ltd and M/s Changyl Kangjie Sanitation Engineering Company Ltd at head office of SSWMB were not operated by any expert staff of contractors and were found closed. The staff of SSWMB was not trained to operate and run these centers in absence of expert staff of contractors.

Audit was of the view that in absence of expert staff of both contractors at command and control centers, the purpose of these centers was not achieved which resulted into wastage of public money.

Deviation was reported to the management during the month of February, 2019, but no reply was furnished to audit till finalization of this report.

The PAO also failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that expert staff should be deputed at command and control centers immediately and management of SSWMB should also get their concerned staff trained to operate the centers, under intimation to audit.

4.5.4 Absence of permanent staff on duty for solid waste operations

As per clause XX of contract agreements dated 16-10-2017, The contractor in consultation with the Procuring Agency shall devise a Biometric attendance system of employees and submit their monthly attendance to procuring agency at a mutually agreed date.

During performance audit of Managing Director, Sindh Solid Waste Management Board, Karachi, it was observed during visits of concerned command and control centers of contractors, while checking daily attendance report of staff; the majority of staff was found absent. Detail is provided at Annexure-IV.

Audit was of the view that due to poor attendance of staff, the operation of collection and disposal of solid waste was badly affected. The shortage of staff shows that management failed to deploy all the concerned staff on duties as per requirement and agreement.

Deviation was reported to the management during the month of February, 2019, but no reply was furnished to audit till finalization of this report.

The PAO also failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that deployment of required number of employees be made and their attendance may be ensured for smooth running of solid waste management activities, under intimation to audit.

4.5.5 Less execution of work as compared to items quoted in BOQ

As per price list and BOQ mentioned in contract agreement between SSWMB and M/s Changyi Kangjie Sanitation Engineering Co; Ltd. on October 15,2015.

During performance audit of Sindh Solid Waste Management Board, it was observed that contractor executed less quantities of work as compared to Bill of Quantity (BOQ), in violation of contract agreement. Detail is provided at Annexure-V.

Audit was of the view that contractor failed to lift/ collect the garbage/ solid waste and manual & mechanical sweeping of roads, in contravention of contact agreement.

The deviation was reported to the management during the month of February, 2019. Department replied that the bill of quantity was prepared on estimation basis, actual Municipal Solid Waste generated was 346,176 tons during the notice period, manual sweeping work was executed less due to delay in placement of DMC Staff by the DMC authorities, and mechanical sweeping was executed less due to specific schedule chalked out by the Operational Team on monthly basis. Departmental reply is not satisfactory as it did not provide any documentary evidence regarding total number of staff agreed to handover by DMCs to SSWMB in support of reply.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that management should ensure execution of all items of BOQ under intimation to audit.

4.6 Construction and Works

4.6.1 Non-completion of boundary wall construction work

As per SSWMB Progress Reports dated 14-12-2018 regarding Garbage Transfer Station (GTS) and Landfill Sites, only five GTSs viz. Qasba, Baldia Town, Sharafi Goth, Dhobhi Gath and EBM Causeway were functional. The boundary walls around GTSs at Dhobhi Gath, EBM Causeway and landfill site at Jam Chakro were not constructed.

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board awarded the contract for construction of boundary walls at Dhobhi Gath and EBM Causeway, but the same were not constructed.

Audit was of the view that due to non-construction of boundary wall at Landfill sites of Jam Chakro and above-mentioned GTSs, there are chances of Land encroachments at these sites. Further, at Qasba GTS due to non-construction of boundary wall on the side of Qasba Nallah, the solid waste was being dumped into the Qasba Nallah, resulting in blockage.

The matter was reported to the management during the month of February, 2019. Department replied that the work of boundary wall was disturbed due to some legal issues and encroachments which had been sorted out and presently work is under progress. The departmental reply is not satisfactory as no documentary evidence was provided in support of reply.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that boundary walls may be constructed around all GTSs and Landfill sites including construction of wall from the side of nallah at Qasba GTS.

4.6.2 Non-performance of works by the contractor

According to Clause 1.2 of RFP and Technical/Operational Approach and Methodology submitted by the contractor, scope of services and works/assignments, which were agreed upon by both parties included the following:

1. Door to door collection of garbage on daily basis & revamping of bin system as per schedule and modalities keeping in view the feasibility and ground situation.

2. Sweeping of roads streets, lanes, footpaths, medians and open spaces and sweeping waste collection and disposal on daily basis as per schedule and modalities keeping in view the feasibility and ground situation.
3. Washing of important roads as and when required on special occasions.

During performance audit of Sindh Solid Waste Management Board, it was observed that the contractor M/s Hangzhou Jinjiang Group Sanitation Services Co. Ltd failed to perform the activities as per above clauses of agreement in districts West, South, East and Malir. Detail is as under:

MAJOR COMPONENTS AS PER AGREEMENT	WORK PERFORMED (%) PRESENT STATUS			
	South	East	Malir	West
Door to door collection	50	50	80	10
Manual sweeping of internal roads and streets	60	60	60	25
Mechanical sweeping of main roads	70	70	50	20
Mechanical washing of main roads (occasionally)	Nil	Nil	Nil	Nil
Placement of dustbin equipped with e-chip and connected with command & control	80	75	70	30
Real time movement of all garbage vehicles at command and control.	80	80	40	40
Establishment of complaint management system	30	30	30	30
Awareness program for community	30	30	10	10

The management failed to get the work done from the contractors as per the agreement clauses. No evidence was provided regarding imposition of any penalty against the contractor for short / non-performance.

Audit was of the view that due to non-implementation of sweeping work in District West, South, East & Malir, undue favour was extended to the contractor.

The matter was reported to the management during the month of February, 2019. Department replied that due to non-handing over of the sanitary staff to the companies for certain reasons, the target of manual sweeping remained below target, but mechanical sweeping was performed by the company according to the schedule. Departmental reply is an admission of audit observation.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that responsibility should be fixed upon person(s) at fault, under intimation to audit.

4.6.3 Less supply of garbage equipment by contractor

As per agreement between Sindh Solid Waste Management Board and M/s Changyi Kangjie Sanitation Engineering Co. Ltd, following garbage equipments were to be provided by the contractor in Districts South and East.

District	Equipment as per agreement	Specification	Quantity as per agreement
South	Dustbins	0.66m ³ metallic dustbin	5,650
East	Dustbins	10m ³ Container	1,752
South	Dustbins	10m ³ Container	2,292

During performance audit of Sindh Solid Waste Management Board, it was observed that contractor short supplied the above equipment as per following details.

District	Equipment as per agreement	Specification	Quantity as per agreement	Quantity supplied	Short supply	% Short supply
South	Dustbins	0.66m ³ metallic	5,650	3,427	2223	39%
East	Dustbins	10m ³ Container	1,752	367	1,385	79%
South	Dustbins	10m ³ Container	2,292	1,428	864	38%

Audit was of the view that due to inadequate supply of equipment by contractor, the lifting/collection of solid waste services could not be performed as per terms of agreement. However, no evidence of imposition of any penalty against the contractor was provided.

The matter was reported to the management during the month of February, 2019. Department replied that the Board ascertained the fact of short supply kept on reminding them to provide the committed remaining dustbin. Departmental reply is not satisfactory as it did not impose any penalty against the contractor.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that management should impose penalty on contractor due to less supply of equipment.

4.6.4 Variation in monthly collection/ dumping of solid waste

The Sindh Solid Waste Management Board provided daily and monthly data for 2016-2019 on dumping of solid waste at Jam Chakro and Gond Pass Landfill sites by Karachi Metropolitan Corporation (KMC) and Sindh Solid Waste Management Board (SSWMB) itself.

During performance audit of Sindh Solid Waste Management Board, it was observed that huge variation was observed in data on daily / monthly collection and disposal of solid waste by SSWMB. Detail is provided at Annexure-VI.

Audit was of the view that due to huge unrealistic variation in monthly collection of solid waste figures, the chances of undue favor to the contractor through manipulation of garbage collection figures / data could not be ruled out. No evidence of prior proper study by the SSWMB on production of daily/monthly solid waste before award of contract was provided to audit.

The matter was reported to the management during the month of February, 2019, but no reply was furnished to audit till finalization of this report.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that huge variation in dumping of solid waste may be justified.

4.6.5 Inadequate supply of Machinery & Equipment

As per clause-7.9 of technical proposal of contractor regarding Malir District, under the head, Equipment Deployment, and Clause-4.9 of District West, the Joint Venture has proposed the following deployment plan of machinery based on their experience and understanding of the areas of all three zones of DMC Malir.

Name of District	Vehicles Type & Number						Total
	Mini Tipplers	Garbage Compactors	Mechanical Sweepers	Mechanical Washers	Wheel Loader	Chain Doser	
Malir	70	31	4	2	0	0	107
West	254	118	8	4	2	1	405

During performance audit of Managing Director, Sindh Solid Waste Management Board, Karachi it was observed that list of vehicles fleet provided by contractor on demand was less than the numbers mentioned in technical proposal, in violation of above clause. It was also observed that majority of the vehicles were not registered with Sindh Excise Department.

Name of District	Compactors required	Compactors Supply	Short supply of Compactors	Total Vehicles	No. of vehicles registered	No. of vehicles not registered
Malir	31	16	15	93	13	80
West	118	25	93	238	3	235

Audit was of the view that due to inadequate supply of compactors, the capacity of lifting of garbage was affected. Moreover, contractor revealed the fact that six (06) vehicles were in police custody due to non-registration which also affected the work of collection of garbage.

The matter was reported to the management during the month of February, 2019, but no reply was furnished to audit till finalization of this report.

The PAO also failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that management should take immediate steps for supply of adequate number of vehicles for operation of collection of solid waste from contractor, under intimation to audit.

4.6.6 Non-provision of metal container by contractor for collection of solid waste in District west

As per price list & BOQ vide agreement dated October 2017 for District West item No.6(c) 700 Metal containers of various dimensions were to be provided by the contractor M/s Hangzhou Jinjiang Group Sanitation Services Co. Ltd;

During performance audit of Managing Director, Sindh Solid Waste Management Board, Karachi and visit of concerned office of M/s Hangzhou Jinjiang Group Sanitation Services Co. Ltd in District West, it was observed that only seven (07) metal containers were supplied by the above-mentioned contractor, in violation of above BOQ,

Audit was of view that contractor failed to supply the required number of containers of prescribed capacity which effected the capacity of lifting the garbage by the contractor.

The lapse was reported to the management during the month of February, 2019, but no reply was furnished to audit till finalization of this report.

The PAO also failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that management should ensure supply of required containers for operation of collection of solid waste under intimation to audit.

4.7 Assets Management

4.7.1 Non-transfer of moveable and immoveable assets from DMC West & Malir

As per Clause 6(i) of Services & Assets Management Agreement dated 28th August 2017 between SSWMB and the DMCs West and Malir, the DMCs West and Malir shall transfer the moveable and immoveable assets to SSWMB with immediate effect.

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to get moveable and immoveable assets from DMC West & Malir, in violation of the above clause of the agreement.

Audit was of the view that management failed to comply with terms and conditions as agreed mutually by Board and DMCs resulting in poor performance and weak administrative management.

The deviation was reported to the management during the month of February, 2019. Department replied that the handing over of sanitation staff from DMC West & Malir was in process and that the staff would be transferred soon. The departmental reply is not satisfactory as it did not provide any progress through documentary evidence in support of reply. No reply was given regarding transfer of moveable / immoveable assets.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends fixing responsibility on person(s) at fault on account of non-transfer of staff including moveable and immoveable assets of DMC West & Malir to SSWMB, under intimation to audit.

4.7.2 Non-submission of insurance to SSWMB

As per clause 7.9 Section VII of Conditions of Contract and Price Sheet mentioned in Request for Proposal (RFP), the contractor shall be responsible for safeguarding of work and work places and the contractor shall take all insurances required by pertinent rules and legislation and submit the insurance policies to the client.

During performance audit of Sindh Solid Waste Management Board, it was observed that both the contractors failed to provide /submit insurance policies related to work and work places, in violation of above clause of RFP.

Audit was of the view that due to non-execution of insurance policies of work and work places to client, any mishap or accident related to staff may affect the working of SSWMB and could cause loss of life and material.

The deviation was reported to the management during the month of February, 2019. Department replied that over a period of time some unforeseen incidents accrued during operations and contractor(s) paid compensation to the affectees. The companies have been directed to formally engage bonafide insurance companies for this purpose.

The departmental reply is not satisfactory as it did not provide any documentary evidence in support of reply.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends fixing responsibility on person(s) at fault for non-compliance of clause of RFP from contractors and submission of insurance policy under intimation to audit.

4.8 Monitoring & Evaluation

4.8.1 Improper monitoring/inspection of the source points of generation and transfer of solid waste

As per section 3(i) of the Sindh Solid Waste Management Board Act-2014, the board shall regulate, control or inspect the source points of generation, accumulation, transfer, recycling, trading of the solid waste.

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board failed to monitor/ inspect the source point of generation, accumulation, transfer, recycling and trading of the solid waste properly, in violation of above law.

Audit was of the view that due to non-monitoring by SSWMB, the performance of the contractor(s) could not be evaluated properly.

Deviation was reported to the management during the month of February, 2019. Department replied that the cleanliness process is two pronged: first fresh garbage picking and second collection of back logs by the local contractors. Board started its operations in February 2017 on modern techniques by outsourcing of front-end collection

system. Departmental reply was not to the point and did not address the audit observation.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that proper system of inspection of source points of generation, accumulation, transfer, recycling and trading of the solid waste should be developed in compliance of the requirement of the Act.

4.8.2 Non-provision of uniform and safety apparel to the field sanitation staff

As per clause 5.9 Section V of Terms of Reference & Technical Specification mentioned in RPF, “All field sanitation staff of the contractor shall wear a proper uniform as approved by the client. A logo of SSWMB shall be placed on the front pocket and on the back of the uniform. The Supervisory staff shall also wear an approved uniform bearing logo of SSWMB. The cost of uniform shall be included in the unit price of work items mentioned in the price list.”

During performance audit of Sindh Solid Waste Management Board, it was observed during physical visits of Karachi that contractors did not provide the necessary safety apparel kit to its sanitary staff despite charging the price of the same to the SSWMB as per above mentioned clause. No action was taken by SSWMB for non-compliance of the above agreement clause.

Audit was of the view that since collection, transportation and dumping of waste, exposes the sanitary staff to a number of health hazards, wearing of the approved uniform kit was necessary for the safety of the staff / environment. Non-imposition of any penalty against the contractor by the SSWMB resulted in undue favor to the contractor in addition to wasteful expenditure and exposure of the staff to hazardous environment.

The deviation was reported to the management during the month of February, 2019. Department replied that the contractors have provided complete kits wherein majority workers are wearing but there were some sporadic incidents of slackness on which contractor has been directed to adhere upon the provision of RFP. The departmental reply is not satisfactory because no documentary evidence regarding provision of safety kits to the staff was provided.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that the documentary evidence regarding provision of safety apparel / kits may be provided for verification.

4.9 Environment

4.9.1 Award of contracts without obtaining Initial Environmental Examination (IEE)

As per section 17(1) of the Sindh Environmental Protection Act, 2014, no proponent of a project shall commence construction or operation unless he has filed with the agency an initial environmental examination or environmental impact assessment, and has obtained from the agency approval in respect thereof.

During performance audit of Sindh Solid Waste Management Board, it was observed that management of the board awarded the works without consulting concerned environmental protection agency for obtaining approval of initial environmental examination or environmental impact assessment, in violation of above law.

Audit was of the view that award of works without obtaining initial environmental examination or environmental impact assessment report from EPA Sindh showed negligence on part of management.

The lapse was reported to the management during the month of February, 2019. Department replied that there is no such provision in SPPRA rules and SSWMB Act, to conduct IEE and EIA before award of contract. However, Board hired contractors for lifting of garbage which are already registered with Environmental Protection Agency. Departmental reply is not satisfactory as Board failed to provide registration of contractors with Environmental Protection Agency in support of its reply.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that the environmental impact assessment may be conducted and approval of EPA may be provided.

4.9.2 Hazardous Landfill Sites

As per progress report of SSWMB dated 14th December 2018 regarding district wise landfill sites of Sindh, there are only two landfill sites in Karachi namely Jam Chakro and Gond Pass, comprising 500 acres each, both situated in District West, Karachi. Both the landfill sites are operational.

As per section 17(1) of the Sindh Environmental Protection Act, 2014, “No proponent of a project shall commence construction or operation unless he has filed with the agency an initial environmental examination or environmental impact assessment, and has obtained from the agency approval in respect thereof.”

During performance audit of Sindh Solid Waste Management Board, it was observed during visit of both landfill sites in Karachi namely Jam Chakro and Gond Pass located in district West, that there was huge smoke being emitted from the landfill areas stinking smell due to burning of solid waste. No steps were taken by the SSWMB to ensure environment friendly disposal of the solid waste at the landfill sites, in violation of above laws.

Audit was of the view that due to huge smoke and stinking smell, the population around whole area was exposed to pollution.

The matter was reported to the management during the month of February, 2019. Department replied that relevant rules are being drafted in consultation with relevant stake holders. The animation of smoke at landfill site for burning of solid waste is due to pickers and scavengers. The departmental reply is not satisfactory because the citizens are being exposed to the hazardous environment due to lack of proper management of the landfill sites by the SSWMB.

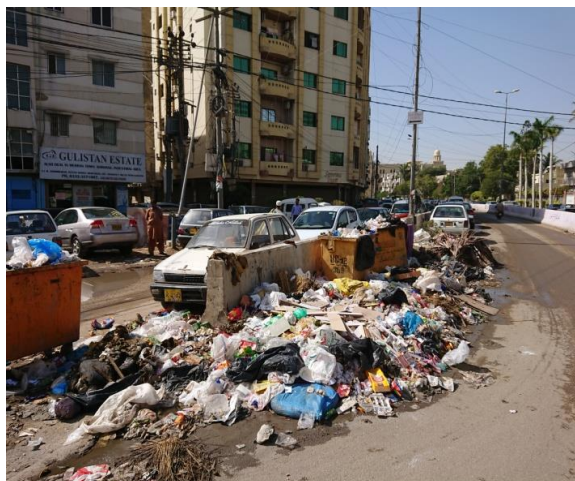
The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that immediate arrangements may be made to manage the landfill sites in an environment friendly manner to save citizens from continuous health hazards.

4.9.3 Improper collection and disposal of solid waste

As per section 17(1) of the Sindh Environmental Protection Act, 2014, “No proponent of a project shall commence construction or operation unless he has filed with the agency an initial environmental examination or environmental impact assessment, and has obtained from the agency approval in respect thereof.”

During performance audit of Sindh Solid Waste Management Board, it was observed that the management of the board failed to properly collect and dispose the solid waste. The solid waste was partially collected from various areas of city resulting in spread of the solid waste at many public places. Few of the examples are cited below:



Audit was of the view that the management of SSWMB failed to properly monitor the contractors responsible for collection and disposal of solid waste, resulting in partial collection and improper disposal of the solid waste throughout the city causing health and safety hazards to citizens.

The matter was reported to the management during the month of February, 2019. No reply was received from the department.

The PAO failed to convene the DAC meeting despite pursuance by audit.

Audit recommends that the management may take steps to properly monitor the collection and disposal solid waste properly by the contractors.

Sustainability

The issues highlighted in this performance audit report reveal poor human resource and financial management by the Board. Lack of institutional capacity, non-compliance to various provisions of the SSWMB Act 2014 coupled with lack of jurisdictional and functional policies adversely affect. Execution, monitoring and follow up of the objectives of the Board leave much to be desired. The Board suffers from usual public sector inertia, inefficiency and lack of motivation which are essential for a modern day successful public service provider especially for a mega city like Karachi, if not for the whole province. The inter institutional rivalry and tug of war for power do not augur well for the successful future of SSWMB as a modern-day service provider.

4.10 Overall Assessment

- **Relevance:** The SSWMB is indispensable for waste disposal and achieving hygienic environment in the province, but thus far it has failed to achieve the desired results.
- **Efficiency:** SSWMB failed to properly implement the desired policies.
- **Economy:** SSWMB could not utilize the solid waste for optimum benefits by making its disposal a source of revenue rather than a liability.
- **Effectiveness:** The SSWMB suffered from ineffectiveness as it failed to provide service delivery of core objective of collection and disposal of solid waste in effective manner to general public.
- **Compliance with rules:** Non-preparation of feasibility report, deviation from PC-I and other relevant rules.
- **Risk rating of SSWMB:** High
- **Performance rating of project:** Unsatisfactory

5. CONCLUSION

Sindh Solid Waste Management Board is indispensable for effective disposal of solid waste in the province and for providing healthy, hygienic and fulfilling environment to the province of Sindh. Even though its operations have been restricted to the city of Karachi only, it has not been able to achieve its objectives of properly solid waste disposal within the city.

SSWMB has been provided with adequate resources and during its existence for the last five years, it has failed to provide tangible results. If the Board is run efficiently with commitment and capable management, it can make a difference in providing clean environment to the inhabitants of the province in general and the city of Karachi in particular.

Lessons identified:

- i. Proper governance, and long and short-term planning and strategizing is critical for an organization's performance
- ii. Instead of multiple agencies having overlapping responsibilities, solid waste management in the province should be under a single governing entity for effective implementation
- iii. Data availability and analysis regarding volume of solid waste, its composition, trends and its future projections including a proper feasibility study before initiation of any project is critical for effective strategizing of solid waste management in the province
- iv. Availability of adequate human resource and its management is critical for effective performance
- v. Proper and strict monitoring and evaluation, inclusive of M&E of tasks outsources to contractors, should be ensured for efficient and effective implementation of policies
- vi. SSWMB should not be dependent on Government funding, instead it should focus on self-generation of revenue from levy/charges for lifting of solid waste from the city / province.

ACKNOWLEDGEMENT

The DAGP express gratitude to the Management and staff of SSWMB for the assistance and cooperation extended to the auditors during this assignment.

ANNEXURES

Annexure-I

Detail of awarded tenders without preparation of Feasibility Report

					Amount in million \$
Sr#	Description	Location		WO No. & Dated	Amount
01.	Front end collection, sweeping, transportation & Municipal Solid Waste	DMC West	M/S Hangzhou Jinjiang Group of sanitation Services Co. Ltd	SSWMB/ED(Ops-I)/NIT-4.1/LoA/997/2017 dated 11 th October 2017	22.335
02.	Front end collection, sweeping, transportation & Municipal Solid Waste	DMC East	M/S Changyi Kangjie Sanitation Engineering Co. Ltd	SSWMB/ED(Ops-I)/NIT-15/LoA/273/2016-17 dated 24 th March 2017	9.651
03.	Front end collection, sweeping, transportation & Municipal Solid Waste	DMC Malir	M/S Hangzhou Jinjiang Group of sanitation Services Co. Ltd	SSWMB/ED(Ops-I)/NIT-4.2/LoA/998/2017 dated 11 th October 2017	6.134
04.	Front end collection, sweeping, transportation & Municipal Solid Waste	DMC South	M/S Changyi Kangjie Sanitation Engineering Co. Ltd	SSWMB/ED(Ops-I)/NIT-12/LoA/188/2016-17 dated 28 th February 2017	14.254
Total					52.374

Annexure-II**Detail of frequent transfer of Managing Directors without any justification**

Sr.	Name	Date of Appointment	Date of Transfer	Total Period of Post
01	Roshan Ali Shaikh	30-03-2015	18-04-2016	12 months 18 days
02	Laeq Ahmed	18-04-2016	09-09-2016	04 months 21 days
03	Dr. Atur Das Sajnani	09-09-2016	09-02-2018	17 months 00 days
04	Tuaha Ahmed Farooqui	09-02-2018	25-06-2018	04 month 16 days
05	Dr. Saeed Ahmed Mangnejo	25-06-2018	01-01-2019	06 months 06 days
06	Iftikhar Ahmed Shalwani	01-01-2019	19-01-2019	18 days
07	Dr. Atur Das Sajnani	19-01-2019	to date	-

Detail of failure to Convene Board's Meeting

Sr.	Description	Date of Board's Meeting held on	Meeting held after lapsing approx.
01	First meeting of SSWMB	20 th January 2015	10 months
02	Second meeting of SSWMB	07 th July 2015	6 months
03	Third meeting of SSWMB	08 th October 2015	3 months
04	Fourth meeting of SSWMB	5 th March 2016	5 months
05	Fifth meeting of SSWMB	10 th October 2016	7 months
06	Sixth meeting of SSWMB	10 th July 2017	9 months
07	Seventh meeting of SSWMB	Non-issued	-
08	Eighth meeting of SSWMB	5 th September 2018	14 months

District East Staff Summary on dated 23-01-2019

Sr. No.	Description	Present	Absent	On Leave	Total
1	CK Staff	69	437	0	506
2	DMC Staff	704	431	0	1,135
3	CK Sweeper	28	504	0	532
4	Total	801	1,372	0	2,173

District South Staff Summary on dated 23-01-2019

Sr. No.	Description	Present	Absent	On Leave	Total
1	CK Staff	54	261	0	315
2	DMC Staff	384	582	0	966
3	CK Sweeper	35	615	0	650
4	Total	473	1,458	0	1,931

Detail of less execution of work

Item No.	Description of Item	Unit	BOQ	Quantity Executed	Less in Quantity	Period	% of less Execution
1	Providing for and collection of MSW, sweeping waste including cost of door to door collection, management, operational, monitoring cost and cost of machineries, labors, sweepers, coolies, drivers, transportation, etc, cost of all taxes and other incidental cost as per the contract agreement.	Tons	491,590 per year	346,176	148,414	March-17 To Feb-18	30%
2	Providing for and manual sweepings of roads and streets including management operational, monitoring cost, labour, drivers, coolies cost and cost of tools and other incidental cost and cost of all taxes as per contract agreement	Kilo Meter	110,286	51,115	59,171	March-17 To Feb-18	54%
4	Providing for and mechanical sweeping of roads including management operational, monitoring cost, labour, drivers, coolies cost and cost of tools and other incidental cost and cost of all taxes as per contract document.	Per Kilo Meter	12,004 KM Per Year	3,484	8,520	March-17 To Feb-18	71%

Report of dumping for three years at Jam Chakro & Gond Pass Landfill Sites

MONTHS	2016 KMC		2017 SSWMB		2018 SSWMB	
	GOND PASS	JAM CHAKRO	GOND PASS	JAM CHAKRO	GOND PASS	JAM CHAKRO
January	22,000	57,489	27,000	119,382	52,436	233,848
February	21,000	50,740	29,000	109,833	50,926	126,386
March	19,900	72,927	28,000	142,096	72,161	183,691
April	25,000	67,022	26,000	104,891	93,528	202,011
May	24,500	41,451	100,496	95,889	80,955	188,992
June	25,000	51,340	76,182	148,606	82,198	153,722
July	26,000	45,000	59,952	214,062	111,885	209,427
August	39,000	39,000	40,114	151,617	82,007	169,733
September	36,000	36,000	54,568	171,669	54,138	148,206
October	22,000	60,000	52,175	211,409	76,243	142,554
November	37,000	37,000	65,533	244,021	82,162	137,937
December	43,000	43,000	37,924	220,716	33,113	48,270
Total	340,400	600,969	596,944	1,934,191	871,752	1,944,777
GRAND TOTAL	941,369		2,531,135			2,816,529

DATE	JAM CHAKRO	GOND PASS	TOTAL
1-May-17	2900	31274	34174
2-May-17	3675	1816	5491
3-May-17	3465	1956	5421
4-May-17	3491	1980	5471
5-May-17	3610	2766	6376
6-May-17	3455	2560	6015
7-May-17	2748	2877	5625
8-May-17	4236	0	4236
9-May-17	3897	2470	6367
10-May-17	2939	2345	5284
11-May-17	1284	417	1701
12-May-17	1721	363	2084
13-May-17	1036	472	1508
14-May-17	288	238	526
15-May-17	914	396	1310

DATE	JAM CHAKRO	GOND PASS	TOTAL
16-May-17	1006	260	1266
17-May-17	969	719	1688
18-May-17	4046	1853	5899
19-May-17	4078	2630	6708
20-May-17	3810	3484	7294
21-May-17	4081	3781	7862
22-May-17	3622	4306	7928
23-May-17	4122	3856	7978
24-May-17	3414	3765	7179
25-May-17	3613	3014	6627
26-May-17	4484	2592	7076
27-May-17	4599	3242	7841
28-May-17	4549	3527	8076
29-May-17	3692	3755	7447
30-May-17	3013	4258	7271
31-May-17	4255	3524	7779
Total	95,889	100,496	196,385