

COUNTRY PAPER

ON

Environmental Audit

For

7th Seminar on Environmental Auditing and 6th Working Meeting of
ASOSAI WGEA from 29-31 January, 2018, Khao Yai, Thailand

By

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ACRONYMS AND ABBREVIATIONS

DAGP	Department of the Auditor General of Pakistan
EPA	Environment Protection Agency
GSWMC	Gilgit Solid Waste Management Company
GB	Gilgit-Baltistan
GB-EPA	Gilgit-Baltistan Environmental Protection Agency
INTTOSAI	International Organization of Supreme Audit Institutions
ISSAI	International Standards of Supreme Audit Institutions
MCG	Municipal Corporation Gilgit
SAI	Supreme Audit Institution

INTRODUCTION

Management of solid waste in Pakistan has become an issue of major concern due to increased quantity and complexity of generated waste. Main causative factors behind this continually growing problem are rapid growth in population, urbanization, industrialization, unplanned annexation/development of cities, improper planning & management of solid waste, lack of social awareness and insufficient resources etc.

This country paper aims at sharing audit methodology, criteria, scope, findings and challenges of an environmental auditing activity related to solid waste management in municipal areas of Gilgit town in the Northern part of Pakistan. Directorate General Audit, Gilgit-Baltistan which is a Field Audit Office of the Department of the Auditor General of Pakistan (DAGP) conducted Environment Audit on Solid Waste Management in municipal areas of Gilgit town with a view to assess the role and to evaluate performance of the responsible agencies.

Main purpose of the audit activity was to assess the roles and responsibilities of three main agencies responsible for solid waste management in the town i.e. Municipal Corporation Gilgit, GB-Environmental Protection Agency (GB-EPA) and one main Hospital in the town. Municipal Corporation Gilgit (MCG) is the responsible agency for solid waste management in Gilgit town and is entrusted with the responsibility of collection, transportation and dumping/ disposal of solid waste. Gilgit-Baltistan Environment Protection Agency (GB-EPA) is responsible for general aspects related to waste management, and draws up and oversee the Environment policy and implementation of the legislation regarding waste management. The main hospitals in the city are also responsible for the management of the generated waste till its final disposal in terms of Pakistan Environment Protection Act (PEPA), 1997.

ENVIRONMENTAL AUDITING IN SAI PAKISTAN

Department of the Auditor General of Pakistan (DAGP) is the Supreme Audit Institution (SAI) of Pakistan and is mandated to conduct an audit at all level of the government. DAGP has been instrumental over decades now in assisting the federal and provincial governments to overcome the environmental challenges by conducting independent review and assessment of the

government initiative and activities. DAGP allocates some amount of resources to conduct performance audits with environmental perspectives and evaluate the issues relating to environmental policies etc. Environmental auditing has been recognized as a specific auditing subject by the INTOSAI and DAGP has guidance available on environmental audit in shape of ISSAI 5110, 5120, 5130 and 5140. These INTOSAI guidelines are increasingly being consulted and used during environmental auditing activities of the SAI.

DAGP conduct Environmental auditing to check the existing environmental practices and assess the environmental effects of the activities carried out by the responsible agencies. The environmental auditing leads to a better understanding by the government agencies on how to meet their legal requirements and how to implement and manage environmental policy. Increased environmental auditing activities by DAGP, facilitates real improvements in environmental performance of the respective government agencies in the country.

AUDIT OBJECTIVES

Main objectives of the Environment Audit of ‘Solid Waste Management in Municipal Areas of Gilgit Town’ were to assess the roles and responsibilities of responsible entities mandated to manage and regulate all matters pertaining to solid waste management in Gilgit city. It involved analysis of waste management practices with the below mentioned perspectives:

- Substantiation of the compliance of Environment legislations & regulations
- Assessment of the existence of waste management practices & procedures and their effective implementation as per requirements of the Environment standards
- Evaluation of the aptness of waste management practices & methods
- Identification of inadequacies & shortcomings in the waste management procedures and suggest measures for improvement
- Assessment of the performance of the organizations with respect to resource management, Environment protection and prevention of pollution
- Review the existing monitoring and evaluation mechanism of the waste management

practices being followed by the institutions responsible for solid waste management.

SCOPE OF AUDIT

The scope of Audit included:

- Performance evaluation of main responsible entities with respect to solid waste management i.e. operational activities of Municipal Corporation Gilgit city and Hospitals in managing solid waste while showing compliance with Environment regulations and performance of GB EPA in environmental policy implementation
- Identification of shortcomings in methods adopted by the responsible entities in solid waste management.
- Assessment of existing solid waste management policies, quality of implementation of policies, resource management, pollution prevention systems and occupational health and safety

AUDIT METHODOLOGY

The data collected for audit scrutiny was mainly of qualitative nature. Information was gathered using a variety of methods to gain a better understanding of the situation, issues, perspectives and priorities. The audit was carried out by an analysis of documents review and statistics, interviews, site visits, literature review, physical inspection and extrapolation of data through survey questionnaire. Checklists were prepared prior to the visit to check the presence or absence of techniques used, safety measures adopted, compliance with regulatory measures, and the pollution prevention system adopted. Data gathered through the results of laboratory tests performed with the help of GB-EPA on the selected water samples was also made part of the audit methodology.

AUDIT CRITERIA

- All solid waste management activities including collection, segregation, transportation and disposal should be carried out by the responsible agencies in accordance with policies and guidelines under the PEPA Act, 1997.

- Health institutions should derive a well structured strategy to manage the health care waste in accordance with guidelines given under the Hospital Management Rules, 2005 and should also adopt health safety measures during waste management according to WHO standards.
- GB-EPA should formulate and enforce institutional and legal framework for implementation of GB-EPA Act, 2014.

MAIN AUDIT FINDINGS

Main audit findings are outlined as under:

- An adequate plan for the solid waste management, its monitoring & surveillance mechanism was lacking in entities.
- Important procedures of treatment and disposal of the solid waste through the sanitary land filling and composting had been overlooked by the entities.
- Collection and transportation mechanism of waste was found inadequate as vehicles used to transport waste were open and had no covering tents resulting in scattering of waste and foul odor during transportation of waste.
- Crude open dumping of the solid waste was the most common practice and dumping sites were commonly set alight to reduce the volume of accumulating waste instead of being compressed and buried under soil as per required Environment regulations.
- Owing to the non-functional equipment and untrained work force, disposal/ treatment of hazardous waste was not being carried out as per required standards.
- Placement of bins was not adequate keeping in view the population density and the quantity of waste generated.
- Contrary to the regulations, sanitary workers and waste handling staff were found ill equipped with the protective clothing & equipment making them vulnerable to the transmissible diseases and there was no evidence to show that staff took medical examinations.
- Dumping site was found fenceless and no mechanism was in place to prevent unauthorized access to the site by people and other scavengers. Besides, no supervision and monitoring of

the activities at the site were observed resulting in waste being dumped haphazardly and exposing it to scavenging.

- Dumped general wastes of hospitals were found coalescing with the infectious waste. Besides, the workers were not performing proper Segregation & Processing of hospital waste before its disposal, and no monitoring/ supervision of the collection, treatment, and disposal of hospital waste was done allowing the workers to sell the waste material to the informal sector.
- Contrary to the provision of Hospital Management Rules 2005, no Waste Management Plan and Waste Management Team were found in hospitals to manage the generated waste.
- No Environment management planning was done by the responsible entities and monitoring during collection, transfer, process, and disposal were also found lacking.
- Data/record about solid waste management was poorly maintained by the entities which was resulting in inefficient monitoring of the collection, transportation, processing and disposal processes.
- Although laws and regulations governing solid waste management did exist and EPA was supposed to enforce compliance, however, deficiencies in existing policies for proper management of solid waste as well as in compliance and their enforcement were observed by audit.

AUDIT RECOMMENDATIONS

- Comprehensible Environmentally sound waste management policies and procedures may be outlined by the responsible departments and their strict adherence may be ensured
- Closure of the dumpsites and setting up of the sanitary landfill sites with integrated composting plants should be hastened
- Transportation trucks & dumpers should be completely covered to prevent scattering of waste and foul odor.
- Waste transfer stations/ points should be re-located to an outlying locality far from the populated area.

- Segregation of waste should be made at an intermediate level before transportation to the disposal site, and recyclable material should be retrieved from the waste before disposal.
- To improve the segregation of waste at source and throughout the solid waste management process, adequate staffing, supervision, procedures, training, and equipment need to be given.
- Higher efficiency for collection and transportation of waste can be achieved by upgrading and substituting the obsolete waste collecting vehicles and machinery with mechanical loading collection vehicles and proper machinery/equipment.
- Waste burning should be strictly prohibited, and stern action may be taken in this regard.
- Adequate safety and protective clothing, i.e. heavy duty PVC gloves, gumboots, gas mufflers, safety gears etc. should be provided to the sanitary workers and waste handling staff to prevent their exposure to diseases.
- Regular health and safety programmes should be arranged to educate the staff on the ill effects of manual handling of waste, walking bare foot in dump yards and continuous exposure to waste.
- Regular health checkups should also be carried out to monitor the health of the workers involved in the collection and transportation of waste and records of fitness should be submitted and reported subsequently.
- Training and workshops should be arranged for the capacity building of the workforce.
- Being the key stakeholder, the community involvement at every stage should be ensured to create a sense of ownership in public.
- Dumping site should be properly protected from illegal activities like scavenging and stealing of waste material, and such incidents should be properly monitored and reported.
- Data management regarding the solid waste management should be improved to help monitor the efficiency of the collection, transportation, processing, and disposal mechanism.
- Monitoring during collection, transfer, process, and disposal needs to be made an integral part of the waste management system.

- To prevent assimilation of animal waste into the river from the slaughterhouse, a proper filtration system needs to be established immediately.
- Cattle market should be relocated from the riverbank to avoid river water pollution and its contamination with the animal waste.
- Management of hospitals, clinics and health centers operating in Gilgit city should ensure strict conformity of Hospital Waste Management Act, 2014 for the efficient management of generated hospital waste.
- GB-EPA should effectively enforce National Environment Standards and ensure that every department responsible for the waste management should conform to the Environment standards in letter & spirit.

CHALLENGES

During the information-gathering process audit team conducted interviews, site visits and checked various documents of the concerned departments but an inclusive assessment could not be performed owing to the below-mentioned shortcomings:

- Lack of documentation of solid waste management procedures adopted by the Municipal Committee Gilgit.
- Non-existence of Hospital Solid Waste Management Committees in Hospitals of Gilgit and the required relevant record/ data
- Lack of cooperation by private healthcare institutions (private hospitals, clinics, workshops, hotels, etc.) in providing information regarding their waste management practices
- Absence of primary and secondary data regarding management of solid waste in Gilgit city
- Non-availability of documentation/ record about newly established Gilgit Solid Waste Management Company (GSWMC).

CONCLUSION

DAGP through environmental auditing activities play an important role in assisting the government in dealing with environmental challenges. DAGP evaluate the environmental performance of the respective government agencies through financial, performance and compliance audits and provide valuable feedback and guidance to the policy and decision makers. DAGP in their audit reports provide a constructive and concrete recommendation to the respective agencies on the environmental matters.

The sharing of audit activities related to environmental subjects by the SAIs at the forum of ASOSAI will undoubtedly help in the capacity building of the SAIs in the field of environmental auditing and will help improve the national roles of member SAIs in environmental protection. The ASOSAI SAIs need to engage more and more in cooperative environmental audits. The collaborative audits may take the form of joint, parallel or coordinated audits. The broad areas for cooperative audits may include audit of international and regional environmental agreements, watersheds and solid/domestic waste management etc.

**CAPITAL DEVELOPMENT AUTHORITY
ISLAMABAD**

No.CDA/FW(Member/FA-I)/2017-18/

Islamabad, 11, December 2017

To

The Director General (IR&C)
Office of the Auditor General of Pakistan
Constitution Avenue
ISLAMABAD

Subject: **7th Seminar on Environmental Auditing and 6th Working Meeting of ASOSAI WGEA from 29-31 January 2018 at Khao Yai, Thailand**

Kindly refer to letter No.CDA/FW(Member/FA-I)/2017-18/ 15330 dated 27.11.2017 on the subject.

2. The country paper submitted to IR&C Wing vide referred letter has been revised and improved in the light of the discussions held with the Director General IR&C and Deputy Director concerned.
3. The revised country paper is enclosed for further necessary action please.

Encl: As Above

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