



**Executive Summary Of The Consolidated Report  
Of The Arab Countries Participating In The  
Cooperative Audit Task On Solid Waste  
Management And Recycling**

**2020**

# **GENERAL BACKGROUND ON THE COOPERATIVE AUDIT TASK**

This report was prepared in implementation of the cooperative audit task adopted by the Executive Council of the Arab Organization of Supreme Audit Institutions (ARABOSAI) at its 55<sup>th</sup> meeting held in Qatar on March 28 - 29, 2017. The audit task was carried out under the theme of "Performance Assessment of Solid Waste Management".

The present report was drafted building on a number of audit plans set out by the SAIs who have participated in the audit task. The participant SAIs were the State Audit Bureau of Kuwait, the State Audit Institution of the Sultanate of Oman, the State Audit Administrative Control Bureau of the State of Palestine, and the National Audit Chamber of the Republic of Sudan. In addition, this report was prepared in line with the ISSAI 5800 as well as the other performance audit standards (i.e., ISSAI 3000, 3100, 3200 and 300).

Different audit methodologies were adopted by those participant countries. For instance, the State of Kuwait performed an assessment on the projects pertaining to the management of solid waste. Kuwait has also carried out a risk management assessment on stakeholders using SWOT Analysis. On the other hand, the Sultanate of Oman performed a KPI assessment to evaluate the operating companies. The State of Palestine and the Republic of Sudan, however, assessed the role of auditees in the management of solid waste.

Therefore, this consolidated report was prepared to document the efforts of the participant SAIs under the supervision of the Arab Organization of Supreme

Audit Institutions (ARABOSAI). The documented experiences of the participant countries in this report may be utilized and accessed by all member SAIs.

## **FIRST: EXECUTIVE SUMMARY**

Waste management is crucial for all countries around the world. It serves to find an effective and efficient system for mitigating any potential environmental risks resulting from the increasing amounts of different types of waste. In this context, the SAIs are keen to provide public sector institutions with the needed support and assistance to help them improve their performance, develop their capacities, and ensure an effective, efficient, and low-cost execution of their plans and projects. To that end, the different participant SAIs have sought to assess, through their reports, the performance of their respective stakeholders in the field of solid waste management. Those SAIs have also contributed to assessing the plans and projects related to the management of solid waste. Such efforts are primarily aimed at evaluating the efficiency and effectiveness of work systems and regulations adopted by the entities concerned with solid waste management. The efforts of the participant SAIs were also geared towards verifying the effectiveness of waste treatment and recycling programs as well as assessing their impact on reducing the adverse effects of using improper methods in dealing with solid waste, in particular.

In assessing their findings, the participant SAIs drew upon sources of their adopted standards. Those findings were formulated based on the respective legal materials of each country, which were listed in detail under a specific section.

Findings of the audit task carried out by the participant SAIs on their respective auditees include:

1. Poor laws and regulations governing the organization and management of the solid waste sector;
2. Inadequate plans and policies regulating the management of the solid waste sector;
3. Ineffective procedures for coordination among entities concerned with the organization and management of the solid waste sector;
4. Poor performance of the auditees responsible for the organization and management of the solid waste sector;
5. Inadequate provision of basic needs for the entities responsible for the management and organization of the solid waste sector;
6. Low efficiency of the supervisory and audit role of the auditees;and
7. Poor social awareness and inadequate promotion of waste segregation at source.

The participant SAIs had set out their recommendations for each entity responsible for solid waste management to improve the performance of such auditees according to their granted powers and legal responsibilities. A number of common defects were noted across the Arab countries regarding the management and recycling of solid waste. Below are the key recommendations presented by the participant SAIs in the cooperative audit report.

- 1. With respect to the effectiveness of laws and regulations governing the management and organization of the solid waste sector,** the participant SAIs recommended that the concerned entities, under their individual

powers, amend and reconsider their regulations for solid waste, or they may adopt their pending regulations.

- 2. With respect to the plans and policies regulating the management of the solid waste sector,** the participant SAIs recommended that the concerned entities set up the needed plans and programs and assess their approved plans and the executed projects.
- 3. With respect to the coordination among entities concerned with the management and organization of the solid waste sector,** the participant SAIs recommended that the concerned auditees should ensure coordination among the entities that are relevant and responsible for the organization and management of solid waste.
- 4. With respect to the performance of auditees responsible for the organization and management of the solid waste sector,** the participant SAIs recommended that the auditees responsible for the organization of the solid waste sector should develop some of their adopted procedures to ensure better work performance.
- 5. With respect to the provision of basic needs for the auditees responsible for the organization and management of the solid waste sector,** the participant SAIs recommended that the auditees responsible for the organization of the solid waste sector should undertake a set of measures to

ensure the proper functioning of such entities. This includes providing the necessary equipment for operating the intermediate solid waste plants and ensuring their maintenance in a timely manner. The suggested measures also include creating professional staff in the field of waste management, restructuring the operation departments, granting more attention to the supervision and follow-up work, ensuring firmer environmental audits, and redressing any unhealthy environmental conditions.

- 6. With respect to the supervision and audit role of the auditees,** the participant SAIs recommended that the audit role of entities responsible for the audit and supervision of the solid waste management and organization sector should be brought into full play.
  
- 7. With respect to the social awareness and promoting segregation of waste,** the participant SAIs recommended that the concerned entities make greater efforts towards raising social awareness on the management of solid waste, particularly regarding the segregation at source and the safe disposal of waste.

## **SECOND: INTRODUCTION**

Through their issued reports, the SAIs of Arab countries strive to achieve the vision of their respective strategic plans, which calls for adding a difference in the lives of both their citizens and residents. This particular vision consistently corresponds to the goals of the governments and could be realized through the national policy agendas of those governments. It is noteworthy that the national agendas and the Sustainable Development Goals (SDGs) share a number of common themes relating to the domain of solid waste. For instance, good health and well-being (SDG3), sustainable cities and communities (SDG11), and the other SDGs relating to preserving the environment and reducing pollution. Therefore, it was necessary to examine the preparedness of governments to carry out their work in accordance with the SDGs.

### **1. MOTIVES OF THE AUDIT TASK**

At its 55th meeting held in Qatar on March 28-29,2017, the Executive Council of ARABOSAI mandated the participant SAIs to prepare a cooperative report on "Performance Assessment of Solid Waste Management".The report was prepared inline with the Sustainable Development Goals (i.e., SDG11 – Sustainable Cities and Communities)<sup>1</sup>.

Upon attending the meeting held in Kuwait on December 1, 2018, the participant SAIs agreed to carry out a performance audit on the efficiency and effectiveness of government entities responsible for the management and

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<sup>1</sup><http://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-11-sustainable-cities-and-communities.html>

recycling of the solid waste in an efficient and effective manner. This agreement took place due to the following considerations:

### **1.1. Relevance of the topic: Strategic considerations of the participating SAIs' governments**

The topic of the audit task corresponds to the Sustainable Development Goals (SDGs). According to the report of the Republic of Sudan, waste management is considered a primary goal of the SDGs. Particularly, Target (6) of the SDG11 – Sustainable Cities and Communities, which calls for reducing the adverse per capita environmental impact of cities by 2030, including paying special attention to air quality and the management of municipal and other types of waste. Likewise, the report of the State of Palestine correlated the achievement of the SDGs with the plans set by the government, especially the plans relating to the management of solid waste.

### **1.2. Risks: Communal and environmental aspects**

Indiscriminate spreading of waste on roads, which would negatively affect the urbanization and image of cities and communities;

Random landfills are spreading on the outskirts of cities and communities;

Deficiency in the management and recycling of solid waste, as reported in newspapers and websites.

In addition, the phenomenon of the increase in solid waste is spreading across some Arab countries and worldwide. According to a report issued by the World Bank, the total amount of waste generated annually is greater than 2 billion tons,

and by 2050 the world is expected to generate 3.40 billion tons of waste annually<sup>2</sup>.

### **1.3. Timing of the report:**

Upon reading reports of the participant SAIs, it was noted that the preparation of this cooperative report coincides with the time when a number of SAIs are adopting a wide range of waste disposal projects, and funds have already been allocated for funding such projects.

### **1.4. Performance indicators:**

The participant SAIs noted that there were performance indicators (KPIs) demonstrating the materiality of the audit topic. Some of those indicators were presented as risks in the report of the State of Kuwait, including:

The spread of closed waste landfills and the potential risks they may pose due to unsafe handling;

Low environmental performance in the weather and energy indicator, and lack of commitment to the regional and international treaties related to the solid waste domain;

Potential risks that could lead to groundwater contamination due to improper landfilling of wastes; and

Potential risks that could lead to air pollution due to unhealthy incineration of waste.

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<sup>2</sup><https://openknowledge.worldbank.org/handle/10986/30317>

### **1.5. The projected value to be added by the audit task:**

According to the participant SAIs, it is expected that their presented reports would help provide the governments with thematic data on the de facto situation of solid waste management and recycling. This audit task is projected to contribute to the following:

examining and addressing the identified deficiencies through the remarks and recommendations presented by the teams taking part in this audit task. Those remarks and recommendations would stimulate the adoption of more effective and efficient procedures for managing and recycling solid waste. Besides, reducing the cost of waste collection and regulating waste disposal would serve to provide better environmental services for the citizens. The latter can also be realized by ensuring the recycling and reuse of waste, when possible, along with reducing any potential risks. To that end, necessary measures may be undertaken to minimize the proportion of the resulting emissions and leakages and mitigate the environmental pollutions (i.e., reducing the percentages of air and water pollution); and

promoting transparency, integrity, and accountability in the domain of public fund management, and empowering the legislative bodies of the countries to carry out their mandates in an efficient and effective manner.

## **2. DESIGN OF THE AUDIT TASK**

### **2.1 Purpose of the audit:**

The purpose of this audit task is to assess the efficiency and effectiveness of stakeholders with respect to their management of solid waste in the participant countries. The task is also targeted towards verifying the effectiveness of waste treatment and recycling programs as well as assessing the impact of such programs on reducing the adverse effects of using improper methods in dealing with waste, particularly hazardous waste. Besides, the task includes assessing how effective are the development projects pertaining to the solid waste management systems and the optimal utilization of waste constituents.

Another purpose of the audit is to assess the actions taken by the entities concerned with waste management in order to reduce solid waste products and ensure optimal disposal and recycling of wastes in an efficient and effective manner.

### **2.2 Audit scope:**

The Arab SAIs taking part in the task have carried out an audit on the efficiency and effectiveness of the actions undertaken for the management and recycling of solid waste. The audit scope was defined as follow:

- **The Auditees:**

The entities responsible for the management of solid waste vary from one country to another as per their granted powers and responsibilities. Table (1) clarifies the auditees in each participant Arab country that were included in the audit task

No	Country	Audited entities	Remarks
1	Sudan	<ol style="list-style-type: none"> <li>1. Khartoum State Cleaning Corporation</li> <li>2. Cleaning commissions in Khartoum state districts</li> </ol>	Include all entities managing solid waste in terms of collection, transport, treatment and recycling.
2	Kuwait	<ol style="list-style-type: none"> <li>1. Kuwait Municipality</li> <li>2. Public Authority for Industry</li> <li>3. Environment Public Authority (EPA)</li> </ol>	Kuwait has conducted a SWOT analysis over the entities managing solid waste. Based on the SWOT results, the entities to be audited were defined.

3	Palestine	<ol style="list-style-type: none"> <li>1. Ministry of Local Government</li> <li>2. Environment Quality Authority</li> <li>3. Ministry of Health</li> <li>4. Councils of Common Services</li> </ol>	Ministries corresponding to solid waste and Council of common services were selected: It is a combination of institutions put together to form a Council that assists local authorities to properly dispose waste.
4	Sultanate of Oman	<ol style="list-style-type: none"> <li>1. Oman Environmental Services Holding Company - Be'ah</li> <li>2. Ministry of Environment and Climate Affairs</li> <li>3. Ministry of Regional Municipal and Water Resources</li> </ol>	The Oman Environmental Services Holding Company - "Be'ah manages all types of waste such as solid, hazardous, and medical wastes in all Omani governorates.

**Table no. (1) audited entities within the participating countries**

- **Audit duration**

The participating Arab countries have agreed that the audit is to cover the years 2016-2018.

- **Constrains**

No one among the participating Arab SAIs has mentioned any constraints or drawbacks in their work except for the SAI of Palestine. Its audits did not cover the south governorates due to the political conditions (the occupation).

- **Audit Time**

The participating Arab SAIs conducted audits in 2019.

### **2.3 Audit Inquiries**

The participating SAIs agreed that the audit inquiries must address the efficiency and effectiveness within solid waste management bodies. By reviewing national reports developed by the participating SAIs, relevant performance assessment criteria were employed and linked to the roles of the concerned entities in each participating country based on the powers and laws that govern their missions. The primary inquiry has been:

**Is solid waste being managed efficiently and effectively by relevant parties and public bodies?**

The SAIs have selected their sub-inquiries and/or assessment procedures for the entities based on the current status quo in each country, according to their legal powers. Several countries have signed agreements with different parties to manage solid waste projects.

The inquiries were classified and unified to align with the reports developed by the SAIs:

1. Are the public laws currently in place efficient, effective, and adequate with the status quo?
2. Do the applied strategic plans consider the management and recycling of solid wastes?
3. Is there an execution program for the strategic plan?
4. Are the relevant entities fulfilling their roles in managing solid wastes efficiently and effectively?
5. Is the coordination between the responsible entities effective and efficient?
6. When managing solid wastes, are the available resources being optimally exploited?
7. Are there any effective social outreach programs to minimize the production of solid wastes?

**Reporting efficiently means:** How relevant entities are able to exploit current financial and human resources to manage solid wastes properly.

**Reporting effectively means:** The extent to which entities achieve their mandated goals and activities in managing and recycling solid wastes.

## 2.4. Sources of Evaluation Criteria

The participating Arab SAIs used the current laws and regulations in managing and recycling solid wastes as sources for the applied criteria. The SAIs resorted to the statements in their laws and regulations as the fundamental criteria for evaluation.

## 2.5. Methods of Data Collection (the Methodology)

To some extent, the countries that participated in developing the report have adopted the same methodology considering the order in office and fieldwork. Observation and examination were employed to collect information and proof of evidence. Comparative studies were carried out to verify the effectiveness of relevant entities in their duties. The data collection methods were classified based on the following:

- **Documentary data:**

- Reviewing ad hoc laws and regulations.
- Reviewing and inspecting the plans, policies, goals, indicators, models, circulars, and technical and health requirements relevant to the audit theme.
- Reviewing and inspecting the reports and work mechanisms of the entities responsible for collecting and recycling wastes.

- **Interviews:**

- Field interviews with administrative and technical officials at the responsible entities within the sample.
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- Field visits to municipalities, local governing bodies, landfills, and other relevant bodies.
- **Material data:**
  - Studying waste collection and recycle mechanisms efficiently and effectively in the relevant bodies through sample observations.
- **Analytical data**
  - An analytical comparison of the data and information collected from the audited bodies.
  - Study the official statistics issued by the statistical agencies on solid wastes.

### **THIRD: PROCEDURES APPLIED BY THE RELEVANT BODIES IN MANAGING AND ORGANIZING WASTE**

Waste imposes one of the most significant challenges facing the entire world today due to its damaging implications on the environment, species, surface, and groundwater. Overpopulation and the increase in the income rate in some countries, the vertical and horizontal urbanization of cities, and the emergence of new variables, practices, and behaviors used by people in their daily lives along with the accessibility of modern technology in homes, are factors that pertained to the enlarged quantities of waste. These factors impose a health risk

on the environment in connection to the chronic diseases that they may cause. They can create a nurturing environment for disease vectors of animals, rodents, and insects. Agricultural lands may also be damaged, and more areas may be lost as a result of their use as landfills.

Wastes are defined as the materials disposed of or intended to be disposed of or removed by a possessor. Based on its sources, waste is classified as domestic and industrial. The industrial waste includes hazardous and non-hazardous wastes. The waste management process goes through several stages, known as:

1. Sorting at the source, which means segregating organic and non-organic wastes at the place of origin.
2. Collection and transportation.
3. The stage of treatment, recycle, and safe disposal of waste.

Waste management is defined as the employment of systematic activities to collect and remove different types of wastes from their origin, bins, or collection sites and move them to the designated sites for disposal, recycle, treatment, or elimination.

## **1. Description of the auditees' activities based on the evaluation criteria sources**

The dissimilarities within the waste management bodies in the Arab countries are based on the legal mandate granted to each entity in reference to their area of specialization. In the reports developed by the SAIs, it is noticed that some

countries have established specialized companies in managing solid wastes. For example, the Sultanate of Oman has introduced the Oman Environmental Services Holding Company - Be'ah. Other governments had signed contracts with companies to manage solid waste management operations. Sudan is one example, for it contracted with Ozone Company.

## **2. The status quo of solid wastes in the participating countries**

The quantity of generated waste varies from one country to another. It is based on several variables such as the population, density, the total space of a country, per capita income, exchange and purchase of essential and non-essential everyday goods, and the number of people in areas with no access to waste collection. In the State of Palestine, for example, the percentage of households with no access to solid waste services reached 5.5% in 2015.

## **FOURTH: CONCLUSION**

The participating SAIs pointed out in their reports that their countries are attentive to the management and recycle of solid waste. In fact, this subject has been incorporated within the countries' annual budgets. Large sums of money were allocated to treat the growing quantities of waste. Investment projects were operated and funded to address all kinds of risk factors imposed by waste.

The participating SAIs concluded that there is room for improvement and development in the performance of the auditees (waste management bodies). The procedures and mechanisms at these entities do not guarantee the efficient

and effective operation for competent waste management that eliminates the subsequent damages. Said damages are known to have their implications on the environment or the citizens. Therefore, it is crucial to set mechanisms that align with the SDGs.

These factors have led to the emergence of drawbacks and unsettled obstacles such as the lack of coordination and cooperation among the relevant bodies or the intervening parties, the limited capacity of the Public Sector in general, and the districts in particular. The lack of capabilities and resources such as equipment and tools, failure of legal frameworks to include different aspects of waste quantity development are also among said obstacles. Also, there is a deficiency in outreach activities and environmental education and an absence of inactive development in organizing some waste types. Moreover, there is a shortcoming in the private sector's participation. Scarcity in financial resources to cover the treatment and recycling costs and difficulties in marketing the recycled goods are also among other obstacles.

The opportunity is still given to the auditees to develop their operations and enhance their supervisory and control role as per their available supplies. The gap facing the participating SAIs is attributable to the weak planning in general, on both strategic and executive levels alike.

Therefore, more strict control is to be imposed on solid waste management to regulate industrial waste (particularly hazardous waste), domestic waste, and its equivalents. One-quarter of said waste is randomly dumped in the natural environment in some of the participating countries. National strategies must be in place for energy valorization of waste, and practical schemes should be developed to prioritize and set up the required criteria to develop the hygiene system further. It is also important to activate all environmental measures,

enhance control, and hold violators accountable as per the relevant laws of health protection violations.

As for waste management policies and programs, there is a need to conduct necessary evaluations, present new visions, and deliver proper alternatives for the defected and activate all its constituents, particularly when it comes to valorization to boost its outcomes.

It is also vital that the relevant entities strive to have better administration of waste management resources, whether of human or financial capitals, and develop their performances and operations in this field. It is necessary to activate civil society's roles in environmental duties and sustainable development. Outreach and educational programs are to be adopted to promote an ethical environment culture among citizens.