



INTERNAL AUDIT DIVISION

REPORT 2022/002

Audit of implementation of the environmental action plan in the United Nations Support Office in Somalia

**The Office needed to strengthen its
environmental management system and
improve implementation of environmental
initiatives**

**10 February 2022
Assignment No. AP2020-638-03**

Audit of implementation of the environmental action plan in the United Nations Support Office in Somalia

EXECUTIVE SUMMARY

The Office of Internal Oversight Services (OIOS) conducted an audit of implementation of the environmental action plan in the United Nations Support Office in Somalia (UNSOS). The objective of the audit was to assess the adequacy and effectiveness of the environmental action plan and systems put in place by UNSOS in ensuring efficient and effective use of natural resources and mitigating the related risks to personnel, local communities and ecosystems. The audit covered the period from 1 January 2019 to 30 June 2021 and included a review of the environmental management system, energy, water and wastewater management, solid waste management, and wider impact.

UNSOS developed an environmental policy, promulgated relevant procedures, outlined the mechanism for monitoring and measuring progress towards achievement of environmental objectives, and conducted training and awareness sessions for Mission personnel. UNSOS also supported the African Union Mission in Somalia (AMISOM) in developing their standard operating procedures on environmental management. However, the Senior Joint Environment Committee to oversee implementation of environmental activities and provide strategic guidance over environmental issues had yet to be established. This impacted the timely and effective implementation of the environmental action plan initiatives and environmental audits. UNSOS also needed to improve coordination with AMISOM to facilitate the implementation of the contingents' environmental requirements.

OIOS made eight recommendations. To address issues identified in the audit, UNSOS needed to:

- Establish a Senior Joint Environmental Committee to oversee the implementation of the environmental action plan.
- Semi-annually inspect wastewater disposal sites used by the contractor in Garowe.
- Coordinate with AMISOM to ensure that the environmental focal point has the capacity to facilitate the implementation of environmental requirements; and establish a mechanism for tracking recommendations from environmental inspections of AMISOM managed sites.
- Incinerate, recycle or compost non-hazardous solid waste when restrictions on contractors' personnel are lifted, and regularly inspect landfill sites to ensure waste is disposed in an environmentally compliant manner.
- Strengthen management of hazardous waste by: (a) requesting the fuel supplier to provide a clearance certificate from the Federal Government of Somalia for the disposal of oil/fuel contaminated items; (b) periodically observing waste disposal practices of the contractor in Garowe to ensure safe disposal of medical waste; and (c) tasking the Environmental Unit to maintain a consolidated inventory of hazardous substances.
- Centrally coordinate all solar energy initiatives to ensure joint procurement actions with a view to enhancing synergy and cost-effective implementation.
- Prioritize implementation of energy infrastructure management initiatives to reduce overall carbon footprint of its operations.
- Establish a mechanism to track and monitor implementation of recommendations of environmental baseline studies and environmental impact assessments.

UNSOS accepted the recommendations and has initiated action to implement them.

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Audit of implementation of the environmental action plan in the United Nations Support Office in Somalia

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of implementation of the environmental action plan in the United Nations Support Office in Somalia (UNSOS).
2. The environmental strategy for field missions led by the Department of Operational Support (DOS) calls to maximize the efficiency of peace operations in the use of natural resources to minimize their risk to people, societies and ecosystems and to leave a positive legacy. The strategy is based on five pillars: energy, water and wastewater, solid waste, wider impact, and environmental management systems. To assess and monitor environmental performance in line with the strategy, field missions were required to develop environmental action plans and systematically collect and report relevant data under five priority pillars. To facilitate the collection and reporting of environmental data with the latest technologies and tools available, in 2020, the Secretariat developed an online application, the Environmental Action Planning and Performance (eAPP). It supports field missions in improving data entry, validations, verification and approvals, as well as displaying data in intuitive and graphical dashboards on a single platform.
3. UNSOS manages the Mombasa Support Base (MSB) in Kenya and eight sites in Somalia, including the United Nations Assistance Mission in Somalia (UNSOM) site in Garowe. UNSOS is co-located with the United Nations Development Programme (UNDP) in Hargeisa in Somalia where all environmental services are provided and managed by UNDP on a cost-sharing basis. UNSOS is also hosted by the United Nations Office in Nairobi (UNON), where all environmental services are provided and managed by UNON.
4. The Environmental Unit in the office of the Director of Mission Support (DMS) oversees and coordinates implementation of environmental management measures and leads the preparation and reporting of the environmental action plan in coordination with other sections. The Environmental Unit also provides mentorship on environmental management to the African Union Mission in Somalia (AMISOM), which has an authorized troop strength of 19,626 uniformed personnel based in Mogadishu, six sector headquarters and 77 forward operating bases (FOBs) in Somalia. The Unit is headed by the Environmental Affairs Officer at the P-4 level who is supported by one international United Nations Volunteer and one national professional officer, which was currently under recruitment. The approved budgets for environmental projects covering the five pillars for fiscal years 2018/19, 2019/20 and 2020/21 were \$7.9 million, \$13.5 million and \$7.5 million, respectively.
5. Comments provided by UNSOS are incorporated in italics.

II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY

6. The objective of the audit was to assess the adequacy and effectiveness of the environmental action plan and systems put in place by UNSOS in ensuring efficient and effective use of natural resources and mitigating the related risks to personnel, local communities and ecosystems.
7. This audit was included in the 2021 risk-based work plan of OIOS due to the risk that potential weaknesses in environmental practices could have an adverse impact on the environment, health of staff and the local population and on the operations and reputation of the organization.

8. OIOS conducted this audit from May to October 2021. The audit covered the period from 1 January 2019 to 30 June 2021. Based on an activity-level risk assessment, the audit covered higher and medium risk areas in the implementation of the environmental action plan for all five pillars.

9. The audit methodology included: (a) interviews with key personnel; (b) review of relevant documentation; (c) analytical review of environmental audit reports, monthly wastewater treatment plants (WWTP) operational reports and monthly wastewater quality analysis reports; and (d) detailed testing of a judgemental sample of 40 out of 264 waste oil take back documentation, and 8 out of 24 monthly wastewater collection reports. Because of COVID-19 related movement restrictions, this audit was conducted remotely.

10. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

III. AUDIT RESULTS

A. Environmental management system

UNSOS needed to enhance the effectiveness of its environmental management system

11. Environmental objectives and practices were outlined in the UNSOS environmental policy, developed in 2016. The policy placed the responsibility for environmental compliance on all personnel and outlined the mechanism for monitoring and measuring progress towards achievement of environmental objectives. UNSOS designated an environmental focal point for AMISOM and supported AMISOM in developing its standard operating procedures (SOP) on environmental management in August 2020.

12. The Special Representative of the Secretary-General (SRSG) for Somalia and the Assistant Secretary-General for UNSOS issued joint annual environmental statements articulating UNSOM/UNSOS environmental priority areas for the year. The Water and Environment Team comprising representatives from sections with significant environmental footprint met biweekly to discuss environmental issues at the operational level. The Environmental and Climate Security Advisor in the office of the Deputy SRSG, Resident and Humanitarian Coordinator, UNSOM and the UNSOS/UNSOM Staff Welfare Recreation Committee also provided advice on environmental matters.

13. However, further oversight and direction was needed, as the following was observed:

- i. The Environmental Unit did not prepare a risk-based plan of environmental audits to be conducted including inspections and impact assessments and therefore, in 2019, six of the seven sites managed by UNSOS were inspected only once instead of twice a year as required.
- ii. UNSOS was not always reporting electricity generated and use of treated wastewater and instead used estimates rather than actual figures. This could impact UNSOS' performance score.
- iii. UNSOS reported that all environmental audit recommendations had been implemented, which was incorrect, as discussed later in the report. There was also no mechanism in place to track recommendations for their timely implementation. For instance, 45 per cent of the recommendations had not been implemented including the need to ascertain the final disposal site of wastewater generated at Garowe and to use treated wastewater to dissolve the ash pit in Beletweyne to prevent it from being blown away by the wind.

iv. The Office's environmental action plan was not being monitored to ensure initiatives were implemented and properly coordinated to avoid duplication. For 2019/20, the Office planned to implement 67 initiatives, and 27 of them were ongoing with delays due to COVID-19 and 12 had not yet started. New initiatives were also introduced (such as purchase of community bicycles) and implemented. Further, the implementation of the solar energy initiative was fragmented as the Electro-Mechanical Unit was using a service provider, while the Field Technology Section was using individual contractors, an area also discussed later in the report.

14. The Office had planned to establish a Senior Joint Environmental Committee (SJEC) with membership from UNSOS, UNSOM, the United Nations Country Team and AMISOM to oversee implementation of environmental activities and provide strategic guidance over environmental issues. However, this forum had yet to be established. In OIOS view this would be a good mechanism to oversee and report on environmental issues in the country as well as effective implementation of the UNSOS environmental action plan.

(1) UNSOS should establish a Senior Joint Environmental Committee to oversee the implementation of the environmental action plan through ensuring measures are implemented to mitigate environmental risks and good environmental practices are introduced.

UNSOS accepted recommendation 1 and stated that the Water and Environment Team met every three weeks to ensure appropriate environmental practices are maintained. The Joint Environmental Committee will oversee reporting on environmental issues and the implementation of UNSOS environmental action plan.

Training of AMISOM personnel on environmental practices could be further enhanced

15. To develop capacity among both civilian and uniformed components on good environmental practices, UNSOS developed and provided training to UNSOS and UNSOM personnel. This included a session during the mandatory induction programme to newly assigned personnel. UNSOS also trained 11 contractor personnel providing waste management services and 130 AMISOM personnel expected to act as environmental focal points in the respective areas of operations. UNSOS complemented training with continuous environmental awareness campaigns on water and wastewater management, solid waste segregation and recycling, reduction of paper consumption, and prudent use of energy through email broadcasts, posters at strategic compound locations, presentations at townhall meetings, and videos.

16. Training was provided in English although UNSOS used contingent interpreters to communicate its contents to non-English speaking contingents. However, the Mission had not evaluated whether the training had achieved its intended objectives and if the interpreters provided effective services. There was a risk that environmental focal points might not be able to fully understand and meet the required environmental standards. As this issue is addressed in a separate OIOS report¹, no recommendation is made.

¹ Audit of the Integrated Mission Training Centre in UNSOS (Report No.2020/014)

B. Water and wastewater

Water and wastewater management needs improvement

17. UNSOS is required to responsibly manage its water resources and adequately mitigate environmental risks associated with wastewater.

18. UNSOS established a water conservation programme and monitored water abstraction at all managed sites. Water conservation measures included installation of water saving devices at accommodations and common facilities like kitchens and ablutions; regular monitoring of water pipes and taps and addressing leakages to prevent water loss; management of reject water from the wastewater treatment plants (WWTP) to prevent pollution to groundwater; and recycling wastewater where possible to reduce groundwater abstraction.

19. UNSOS measured bulk water consumption at all eight sites in Somalia through meters on WWTPs and at MSB through meters provided by the water supplier. UNSOS also installed meters to identify water losses per cluster of residential or office units. Water abstraction in the Aden Abdulle International Airport (AAIA), Kismayo, Jowhar, Beletweyne and Baledogle was estimated through WWTPs production and consumption reports because of the high salinity of the water, which frequently damaged the abstraction meters. UNSOS explained that because all water abstracted is treated and all water from WWTPs is measured, water abstraction in these areas was accurately reported.

20. At MSB in Kenya, wastewater was managed in accordance with the Government of Kenya's regulations, and there were no reported cases of sewage leakages or tanks overflowing within the UNSOS compound. UNSOS wastewater management sites were equipped with WWTPs, septic/holding tanks, grease traps and soak pits. UNSOS also established a water quality laboratory in Mogadishu to determine if treated wastewater from WWTPs was fit for disposal into the environment or could be reused. OIOS review of monthly wastewater collection reports and WWTPs operational reports for 2019 and 2020 showed that: (i) all wastewater was collected and treated daily, except in Garowe; and (ii) the effluent was tested against World Health Organization recommended parameters. Each report indicated whether the effluent was safe for disposal to the environment or to reuse.

21. UNSOS was adequately disposing of treated wastewater, which was used for dust control and irrigation, and any sludge generated was dried and incinerated. Grey water from showers, wash basins and kitchens were diverted to soakage trenches and pits to drain into the ground. UNSOS ground maintenance contractor in Somalia monitored any leakages, treatment systems and tanks in UNSOS managed sites, and inspected pipes, tanks and wastewater treatment systems daily and reported any issues to the Water and Sanitation Unit.

22. However, wastewater treatment infrastructure was not installed at the Garowe compound because there was no continuous flow of wastewater needed by a WWTP due to low occupancy. The disposal of untreated wastewater was outsourced to a contractor who disposed of it in an off-site location. This was contrary to DOS environmental policy that requires all wastewater to be treated before disposal. The contractor disposed of the wastewater in government designated land that was regularly inspected by UNSOS without presenting a permit from the local government to use the site. Although after the audit, UNSOS provided the necessary permit, UNSOS needed to review these issues to mitigate any reputational risk to the Organization which could arise if the contractor is not disposing wastewater in an environmentally friendly manner that mitigates health and safety risks to the people of Somalia.

(2) UNSOS should semi-annually inspect wastewater disposal sites used by the contractor.

UNSOS accepted recommendation 2 and stated that wastewater disposal sites used by contractors were inspected semi-annually. Management will document the wastewater disposal site inspection reports.

Need to effectively follow-up on recommendations from environmental inspections of AMISOM sites

23. AMISOM Force Commander, in consultation and coordination with the UNSOS Director of Mission Support, is required to ensure that military components comply with the UNSOS environmental policy and the United Nations environmental principles.

24. UNSOS mentored AMISOM in the preparation of the AMISOM SOP on environmental management issued in August 2020. To effectively implement the requirements of the SOP, it is important that AMISOM appoints a qualified Environmental Focal Point to collaborate with UNSOS, who will be, on a regular basis, reporting on environmental issues, such as pollution, contamination, health hazards in AMISOM locations to the Director of Mission Support. However, the newly appointed Environmental Focal Point for AMISOM had no background on environmental issues and, therefore, might not have a clear understanding of his roles and expectations.

25. The above impacted AMISOM's ability to effectively collaborate with UNSOS in managing environmental issues. While UNSOS collected and treated waste and wastewater generated by AMISOM at shared locations, there were no wastewater treatment infrastructures such as septic and waste collection tanks in the AMISOM FOBs. Due to increased security situation and temporary nature of the FOBs, AMISOM personnel used latrines and waste was disposed by AMISOM.

26. During the audit period, UNSOS conducted eight environmental inspections of AMISOM sites and made recommendations to improve environmental management. However, UNSOS did not monitor and track these recommendations. As a result, there was no evidence that actions were taken to: repair leaking ablutions in camps, construct proper septic tanks to prevent sewage overflow into the environment, and fix leaks at kitchens to ensure grey water generated is collected and treated. These recommendations, if not implemented, expose increased health hazards to AMISOM troops and reputational risk to the Organization. UNSOS stated that a system is being developed by the Field Technology Section to track the status of recommendations from environmental audits and is expected to go live in June 2022.

(3) UNSOS should: (a) assist the African Union Mission in Somalia (AMISOM) in ensuring that the environmental focal point has the capacity to facilitate the implementation of AMISOM environmental requirements; and (b) establish a mechanism for tracking of recommendations from environmental inspections of AMISOM managed sites, including assigning target dates, and conducting regular follow up to ensure effective implementation of the recommendations.

UNSOS accepted recommendation 3 and stated that the AMISOM environmental focal point attended the Water and Environment Team meetings and had the capacity to implement environmental requirements. Also, the monitoring tool to track recommendations from environmental inspections of AMISOM sites was under development to be fully operational by February 2022.

C. Solid waste

Need to ensure appropriate disposal of non-hazardous waste

27. UNSOS developed a waste management plan and strategy for 2018-2020, which included 13 main waste management pillars and delineated responsibilities for each pillar. This included: development of SOPs on waste management; classification and estimation of waste; waste reduction strategies; and management and disposal of hazardous solid waste. UNSOS implemented initiatives in each of the 13 pillars. For example, UNSOS recycled used toner cartridges and introduced an optimized print management process (SafeCom) to enable control printing operations to reduce paper usage. UNSOS also registered a lower than all-mission average solid waste generation score (1.2 kg per capita/day vs. 1.65 kg per capita/day).

28. Management of non-hazardous solid waste in Kenya and Somalia was outsourced to local contractors. Waste was segregated and placed in colour-coded bins provided by UNSOS. The contractors obtained the necessary licenses and permits to dispose of the waste in a government-approved disposal site. Waste management yards with associated equipment, such as incinerators, shredders and weighbridges, were established in all UNSOS managed sites and non-hazardous solid waste was segregated.

29. However, due to COVID-19 movement restrictions, non-hazardous waste was disposed of at government designated sites in Baidoa, Baledogle, Kismayo, Jowhar, Beletweyne, Garowe and Dhobley. This practice was contrary to the UNSOS environmental policy that requires that all solid waste be incinerated, recycled or composted where possible. This impacted UNSOS' performance score on waste management that increased from low risk in 2018/19 to moderate risk in 2019/20. UNSOS explained that they had not been able to deploy the recently procured incinerators to respective locations by road due to the security situation nor by air due to weight and/or dimension. The seven landfill sites had also not been inspected by UNSOS contrary to the requirement that waste disposal sites be inspected every six months to ascertain that waste is disposed of in an environmentally compliant manner.

(4) UNSOS should incinerate, recycle or compost non-hazardous solid waste when restrictions on contractors' personnel are lifted and regularly inspect landfill sites to ensure waste is disposed in an environmentally compliant manner.

UNSOS accepted recommendation 4 and stated that composting of solid waste in sectors was scheduled to start shortly. Solid waste management including incineration, recycling and compost of non-hazardous solid waste will be completed in all UNSOS managed sites.

Need to strengthen management of hazardous waste

30. OIOS review of eight reports of the results of environmental audits noted that UNSOS hazardous solid waste categories included: (a) medical waste such as infectious and contaminated materials, sharps, and expired liquid and solid drugs from UNSOS-managed or supported hospitals or clinics; and (b) non-medical waste such as petroleum, oil and lubricants, chemicals, printer cartridges vehicle batteries and tyres, and electronic waste. They were disposed of as follows:

- Medical waste was incinerated in medical incinerators with the ash disposed of in ash pits or stockpiled in locations without an ash pit awaiting disposal. UNSOS outsourced the disposal of medical waste to a contractor with the Facilities Maintenance and Management Section providing oversight. UNSOS tested emissions from incinerators to ensure they were not harmful to fauna, vegetation and human health.

- Used tyres were sometimes transferred to an entity in Kenya for reuse. However, due to the high cost of transporting them from Mogadishu to Mombasa, they had been stockpiled in Mogadishu since 2019 awaiting disposal through sales.
- UNSOS established a take-back scheme with fuel supplier wherein waste products such as used oil, contaminated soils and rags, and oil spill pads from the fuel supplied were taken back. OIOS review of 40 of the 264 take back documentation showed that waste oil, contaminated fuel and other damaged oil/fuel items were returned to the supplier, who used a local contractor to dispose of the items outside UNSOS compounds. The local contractor used the waste oil as low-grade lubricants for old trucks and servicing of generators.

31. However, the final disposal manner of other oil/fuel contaminated items such as soils and rags and spill pads by the local contractor in Somalia was uncertain. The certificate of disposal provided by the contractor to the fuel supplier was not from the Federal Government of Somalia (FGS). Also, in Garowe, medical waste was disposed of by a contractor known to dispose non-hazardous solid waste at a site where open burning is practiced and with no engineered sanitary landfill. Thus, there is an increased risk that such items were not disposed of in an environmentally safe manner.

32. UNSOS did not maintain an inventory of hazardous substances, with sections such as medical services, transport and life support each maintaining separate inventory, which were not shared with the Environmental Unit. It is important that UNSOS centrally manages all hazardous substances to ensure that hazardous waste is disposed of consistently in an environmentally compliant manner.

(5) UNSOS should: (a) request the fuel supplier to provide a clearance certificate from the Federal Government of Somalia for the disposal of oil/fuel contaminated items; (b) periodically observe waste disposal practices of the contractor in Garowe to ensure safe disposal of medical waste; and (c) task the Environmental Unit to maintain a consolidated inventory of hazardous substances.

UNOS accepted recommendation 5 and stated that the local contractor has requested disposal certificate from the FGS. Also, a barrel incinerator and composter were being deployed in Garowe, hence no medical waste will be taken outside the camp. A database for an inventory of hazardous substances will be compiled.

D. Energy conservation

Need to prioritize implementation of energy initiatives to reduce overall carbon footprint

33. To efficiently manage and optimize its overall energy performance, UNSOS conducted energy production and consumption analyses. Based on this, UNSOS developed an energy infrastructure management plan for 2019-2022 detailing energy sources for all managed sites in Somalia and Kenya, identified main energy uses, and outlined initiatives by responsible sections to reduce energy use.

34. To reduce energy consumption, UNSOS also installed timers in air-conditioning units and lighting motion sensors in common areas to ensure that lights are only switched on when the facilities are in use. Also, 84 per cent of fluorescent light tubes were replaced with more efficient and environmentally friendly LED-light bulbs, and approximately 69 per cent of split-type air-conditioners were replaced with more energy-efficient cooling systems.

35. To reduce its carbon footprint, UNSOS procured fuel and generators that met the United Nations-recommended standards to reduce air pollution, right sized all generators, and directly measured energy from generators to determine if it was in line with fuel consumption. However, due to delays in implementing other initiatives, as of October 2021, only 6 of 9 (67 per cent) powerhouse generators had been synchronized at UNSOS's main compound against the full planned installation by December 2020. Further, none of the generators in Baledogle, Dhobley, Beletweyne and Jowhar were synchronized, while only 50 per cent of the generators in Kismayo had been synchronized as of September 2021. Accordingly, UNSOS' performance score on the use of synchronized generators was 14 per cent in 2019/20. As a result, the UNSOS greenhouse gas emission score of 4.91 tons carbon dioxide (CO₂) per capita was significantly higher than the 1-ton CO₂ per capita score of best performing missions.

36. UNSOS took some action to increase reliance on renewable energy including powering water heaters and walkway lights in its camps with solar energy and connecting its Garowe site to a local commercial grid, generating 96 per cent of its energy from solar. As at September 2021, UNSOS had completed 24 of 96 planned solar energy projects generating 630,895 kilowatt/hour (KWh) of electricity for radio communication equipment in UNSOS managed sites in Somalia.

37. Despite these efforts, UNSOS had still a considerable way to go to reach the renewable energy targets set by the United Nations Secretariat Climate Action Plan of 40 per cent by 2025 and 80 per cent by 2030 for all missions. UNSOS renewable energy sources of 227,897 KWh during the period from January to June 2021 accounted for less than 1 per cent of its total energy generation of 17,392,583 KWh in the same period. UNSOS attributed the low score to: (i) limited space for solar energy installations in UNSOS camps in Somalia; and (ii) delays in implementing renewable energy initiatives caused by COVID-19 restrictions.

38. Additionally, when implementing its energy management plan, UNSOS did not explore opportunities for savings by considering common or similar needs of various sections for possible joint procurement of renewable energy services. No consideration was given on whether to let one section take the lead and others piggyback on an existent contract to reduce the overall costs. The Engineering and Field Technology Sections were using two different service contractors for installation of solar panels. This illustrated the need for UNSOS to jointly address procurement activities related to environmental initiatives for synergy and cost-effective implementation.

(6) UNSOS should centrally coordinate all solar energy initiatives to ensure joint procurement actions with a view to enhancing synergy and cost-effective implementation.

UNSOS accepted recommendation 6 and stated that it would ensure that solar projects were coordinated under the Energy Infrastructure Management Plan.

(7) UNSOS should prioritize implementation of energy infrastructure management initiatives to reduce overall carbon footprint of its operations.

UNSOS accepted recommendation 7 and stated that it budgeted the implementation of energy efficiency and the expansion of renewable energy projects through both in-house and power purchase agreements and is engaging with the state and federal authorities in this regard.

E. Wider impact

Implementation of environmental recommendations was not monitored

39. In 2019, the Environmental Unit conducted environmental baseline studies of two UNSOS managed sites: base camp in Mogadishu, Somalia and MSB in Kenya to assess the environmental conditions of the sites and propose recommendations to improve the situation. The results of the studies were used as the baseline for subsequent environmental impact assessments of UNSOS operations and its support activities to AMISOM. No baseline studies were conducted in 2020 and 2021, as no new sites were occupied by UNSOS.

40. In 2019, the Environmental Unit carried out seven environmental impact assessments of UNSOS managed or related locations of MSB old site, MSB new site, Jowhar, Baidoa, Hargeisa, Beletweyne, and Dhobley. In 2020, only one impact assessment at the Garowe site was conducted due to COVID-19. OIOS review of assessment reports indicated that the inspections covered areas such as water abstraction, wastewater management, medical waste management, and solid waste management. Reports identified risks related to accumulated ashes from burnt solid waste in landfill blown by wind, leading to contamination of the surrounding air; and wastewater collection pit flooding during the rainy season increasing health risk to persons and the local environment. These assessments raised 149 recommendations, including 37 that were deemed critical.

41. Due to absence of a monitoring mechanism, OIOS was unable to determine the status of all recommendations, but a review of environmental inspection reports for MSB new site, Baidoa and Beletweyne indicated that only 29 of 65 of recommendations had been implemented. Without systematically tracking recommendations, UNSOS could not ensure that all underlying environmental risks had been fully addressed and without this, it could result in further environmental damage, as well as health and safety risks to the mission personnel and the local community. UNSOS attributed the non-implementation or delay in implementation to the COVID-19 pandemic.

(8) UNSOS should establish a mechanism to track and monitor implementation of recommendations of environmental baseline studies and environmental impact assessments.

UNSOS accepted recommendation 8 stating that the tracking tool would monitor the implementation of recommendations of the environmental baseline studies and environmental impact assessments.

UNSOS established responsible presence in its managed sites but needed to boost its positive legacy initiatives

42. To ensure responsible presence and raise staff awareness, UNSOS included in the induction training programme its policy on prohibited hunting, logging, harvesting, collecting, purchasing or acquiring wild animals or wild plants; fishing of protected and vulnerable species; the taking of wild animals or plants out of the country; and all forms of cruelty towards animals. UNSOS also ensured that generator sites were constructed with minimum environmental impact; managed reject water from WWTPs in six of the seven sites to prevent damage to the environment; repaired environmental damage to the three sites: AMISOM FOBs at Afgooye and Marianguway, and Jaalle Siyaad Military Academy prior to handover. It also obtained environmental clearance certificates for these three sites from FGS to confirm they were in good environmental condition.

43. To reduce sand dust, provide shade to the people of Somalia and reduce carbon dioxide emission from the burning of fossil fuel, UNSOS planted 200,000 trees outside of UNSOS and AMISOM sites, and 100 trees per month within UNSOS compounds, established tree seedling nurseries in all sector hubs and engaged the local community to work in them. It also procured a composter to convert organic waste into fertilizer for the trees. Jointly with contractors and AMISOM, UNSOS conducted regular beach clean-up exercises at AAIA. According to the Service Delivery Management pillar report and clean-up pictures provided by the Environmental Unit, more than 12 tons of waste were safely removed in three clean-up exercises.

44. However, positive legacy initiatives have been limited. UNSOS informed that it mainly used prefabricated materials with limited life span rather than concrete materials that can be handed over to the local community at the end of operations. This practice had been adopted because of the short-term nature of the initial and subsequent mandates. UNSOS had also not established a platform for continuous engagement with the local community on environmental issues. Nonetheless, the Environmental Unit informed that there was a plan to use Information Support Management Section platforms to ensure environmental concerns of the local community are heard. UNSOS had also started constructing buildings with longer lasting materials. Based on these initiatives, OIOS did not make a recommendation at this time.

IV. ACKNOWLEDGEMENT

45. OIOS wishes to express its appreciation to the management and staff of UNSOS for the assistance and cooperation extended to the auditors during this assignment.

(Signed) Eleanor T. Burns
Director, Internal Audit Division
Office of Internal Oversight Services

STATUS OF AUDIT RECOMMENDATIONS

Audit of implementation of the environmental action plan in United Nations Support Office in Somalia

Rec. no.	Recommendation	Critical ² / Important ³	C/ O ⁴	Actions needed to close recommendation	Implementation date ⁵
1	UNSOS should establish a Senior Joint Environmental Committee to oversee the implementation of the environmental action plan through ensuring measures are implemented to mitigate environmental risks and good environmental practices are introduced.	Important	O	Receipt of evidence that a SJEC has been operationalized and actions are taken to enhance oversight of environmental matters in UNSOS.	30 May 2022
2	UNSOS should semi-annually inspect wastewater disposal sites used by the contractor.	Important	O	Receipt of copies of the wastewater disposal site inspection reports.	31 May 2022
3	UNSOS should: (a) assist the African Union Mission in Somalia (AMISOM) in ensuring that the environmental focal point has the capacity to facilitate the implementation of AMISOM environmental requirements; and (b) establish a mechanism for tracking of recommendations from environmental inspections of AMISOM managed sites, including assigning target dates, and conducting regular follow up to ensure effective implementation of the recommendations.	Important	O	Receipt of evidence that: (a) the AMISOM environmental focal point is trained on environmental practices and procedures; and (b) the monitoring tool to track recommendations from AMISOM site inspections is operational.	31 March 2022
4	UNSOS should incinerate, recycle or compost non-hazardous solid waste when restrictions on contractors' personnel are lifted and regularly inspect landfill sites to ensure waste is disposed in an environmentally compliant manner.	Important	O	Receipt of evidence that waste is being incinerated, recycled and composted at all UNSOS managed sites.	30 June 2022

² Critical recommendations address those risk issues that require immediate management attention. Failure to take action could have a critical or significant adverse impact on the Organization.

³ Important recommendations address those risk issues that require timely management attention. Failure to take action could have a high or moderate adverse impact on the Organization.

⁴ Please note the value C denotes closed recommendations whereas O refers to open recommendations.

⁵ Date provided by UNSOS in response to recommendations. [Insert "Implemented" where recommendation is closed; (implementation date) given by the client.]

STATUS OF AUDIT RECOMMENDATIONS

Audit of implementation of the environmental action plan in United Nations Support Office in Somalia

5	UNSOS should: (a) request the fuel supplier to provide a clearance certificate from the Federal Government of Somalia for the disposal of oil/fuel contaminated items; (b) periodically observe waste disposal practices of the contractor in Garowe to ensure safe disposal of medical waste; and (c) task the Environmental Unit to maintain a consolidated inventory of hazardous substances.	Important	O	Receipt of evidence that: (a) disposal of oil/fuel contaminated items has been cleared by FGS; (b) waste disposal practices of the contractor in Garowe are periodically observed; and (c) a consolidated hazardous substances database has been developed.	31 March 2022
6	UNSOS should centrally coordinate all solar energy initiatives to ensure joint procurement actions with a view to enhancing synergy and cost-effective implementation.	Important	O	Receipt of evidence that all solar energy initiatives are documented and analyzed for joint procurement actions.	30 June 2022
7	UNSOS should prioritize implementation of energy infrastructure management initiatives to reduce overall carbon footprint of its operations.	Important	O	Receipt of a plan to prioritize implementation of energy infrastructure management initiatives.	31 October 2022
8	UNSOS should establish a mechanism to track and monitor implementation of recommendations of environmental baseline studies and environmental impact assessments.	Important	O	Receipt of reports generated from the tracking tool.	31 August 2022

APPENDIX I

Management Response



Interoffice Memorandum

To: Ms. Eleanor T. Burns, Director
Internal Audit Division, OIOS

Ref: UNSOS/1221/M.018


From: Harjit Dhindsa, OIC
Mission Support UNSOS

Date: 29 December 2021

Subject: Draft report on an Audit of implementation of the environmental action plan in the United Nations Support Office in Somalia (Assignment No. AP2020/638/03)

1. Further to your memorandum ref. OIOS-2021-01880 dated 16 December 2021, please find attached the UNSOS response to the subject audit.
2. We thank you for your continued support to the work of UNSOS.

cc: Ms. Hedwig Maex, UNSOM
Mr. Clark Toes, UNSOS
Mr. Harjit Dhindsa, UNSOS
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Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	UNSOS should establish a Senior Joint Environment Committee to oversee the implementation of the environmental action plan through ensuring measures are implemented to mitigate environmental risks and good environmental practices are introduced.	Important	Yes	Director UNSOS	30 May 2022	Management seeks to advise the auditors that the Water and Environment Team (WET) meets every three weeks to ensure that appropriate environmental practices are maintained. The Joint Environmental Committee will oversee reporting on environmental issues and the implementation of UNSOS environmental action plan.
2	UNSOS should semi-annually inspect wastewater disposal sites used by the contractor.	Important	Yes	Chief, Engineering & Facility Maintenance-Management Section	31 May 2022	Wastewater disposal sites used by contractors are inspected semi-annually. Wastewater in Garowe and Mombasa is taken outside the UN camp for disposal.

¹ Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

² Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

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						Management will document the wastewater disposal site inspection reports.
3	UNSOS should: (a) assist the African Union Mission in Somalia (AMISOM) in ensuring that the environmental focal point has the capacity to facilitate the implementation of AMISOM environmental requirements; and (b) establish a mechanism for tracking of recommendations from environmental inspections of AMISOM managed sites, including assigning target dates, and conducting regular follow up to ensure effective implementation of the recommendations.	Important	Yes	Environmental Affairs Officer	31 March 2022	Management seeks to advise the auditors that a) The AMISOM focal point Engineer attends the WET meeting and has the capacity to implement environmental requirements. b) The monitoring tool to track recommendations of AMISOM environmental inspections of AMISOM sites is under development and is expected to be fully operational by February 2022.
4	UNSOS should incinerate, recycle or compost non-hazardous solid waste when restrictions on contractors'	Important	Yes	Chief, Engineering & Facility Maintenance-	30 June 2022	Management seeks to advise the auditors that composting of solid waste management in sectors is

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	personnel are lifted and regularly inspect landfill sites to ensure waste is disposed in an environmentally compliant manner.			Management Section		scheduled to start shortly. Solid waste management including incineration, recycling and composting of non-hazardous solid wastes will thereby be completed in all UNSOS managed sites.
5	UNSOS should: (a) request the fuel supplier to provide a clearance certificate from the Federal Government of Somalia for the disposal of oil/fuel contaminated items; (b) periodically observe waste disposal practices of the contractor in Garowe to ensure safe disposal of medical waste; and (c) task the Environmental Unit to maintain a consolidated inventory of hazardous substances.	Important	Yes	Environmental Affairs Officer	31 March 2022	Management will ensure that a) The local contractor has requested disposal certificate from the Federal Government of Somalia. b) A barrel incinerator and composter are being deployed in Garowe. Hence no medical waste will be taken outside the camp. c) A database for an inventory of hazardous substances will be compiled.
6	UNSOS should centrally coordinate all solar energy initiatives to ensure joint procurement actions with a	Important	Yes	Environmental Affairs Officer	30 June 2022	Management will ensure solar projects are coordinated under the

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	view to enhancing synergy and cost-effective implementation.					Energy Infrastructure Management Plan.
7	UNSOS should prioritize implementation of energy infrastructure management initiatives to reduce overall carbon footprint of its operations.	Important	Yes	Chief, Engineering & Facility Maintenance-Management Section	31 October 2022	Management budgeted the implementation of energy efficiency and the expansion of renewable energy projects through both in-house and the Power Purchase Agreement (PPA). UNSOS is prioritizing the PPA to achieve the UNSCAP target. KUBE has signed an agreement with the Southwest state authorities and engaged the Somalia Federal Member State governments in Kismayo, Beletweyne and Jowhar to replicate the PPA project.
8	UNSOS should establish a mechanism to track and monitor implementation of recommendations of environmental baseline studies and environmental impact assessments.	Important	Yes	Environment Affairs Officer	31 August 2022	The tracking tool will monitor the implementation of recommendations of the environmental baseline studies and environmental impact assessments.