



INTERNAL AUDIT DIVISION

AUDIT REPORT

Water and environmental protection operations in UNAMID

Delays in obtaining land and drilling boreholes hindered water self-sufficiency and increased costs, and environmental risks were insufficiently mitigated

18 March 2011
Assignment No. AP2010/634/11

United Nations  Nations Unies

INTEROFFICE MEMORANDUM

MEMORANDUM INTERIEUR

OFFICE OF INTERNAL OVERSIGHT SERVICES · BUREAU DES SERVICES DE CONTRÔLE INTERNE
INTERNAL AUDIT DIVISION · DIVISION DE L'AUDIT INTERNE

TO: Mr. Ibrahim Gambari, Joint Special Representative
A: African Union - United Nations Hybrid Operation in
Darfur

DATE: 18 March 2011

REFERENCE: IAD: 10-00299

FROM: Fatoumata Ndiaye, Director
DE: Internal Audit Division, OIOS

Fatoumata

SUBJECT: **Assignment No. AP2010/634/11 - Audit of water and environmental protection operations in**
OBJET: **UNAMID**

1. I am pleased to present the report on the above-mentioned audit.
2. Based on your comments, we are pleased to inform you that we will close recommendations 5, 6, 14 and 16 in the OIOS recommendations database as indicated in Annex 1. In order for us to close the remaining recommendations, we request that you provide us with the additional information as discussed in the text of the report and also summarized in Annex 1.
3. Your response indicated that you did not accept recommendation 13 and 15. In OIOS' opinion however, these recommendations seeks to address significant risk areas. We are therefore reiterating them and requesting that you reconsider your initial response based on the additional information provided in the report.
4. Please note that OIOS will report on the progress made to implement its recommendations, particularly those designated as high risk (i.e., recommendations 2 and 9) in its annual report to the General Assembly and semi-annual report to the Secretary-General.

cc: Mr. Mohamed Yonis, Deputy Joint Special Representative for Operations and Management, UNAMID
Mr. Henry Thompson, Officer-in-Charge, Mission Support Division, UNAMID
Mr. Swatantra Goolsarran, Executive Secretary, UN Board of Auditors
Ms. Susanne Frueh, Executive Secretary, Joint Inspection Unit
Mr. Jonathan Childerley, Chief, Oversight Support Unit, Department of Management
Mr. Seth Adza, Chief, Audit Response Team, DFS
Mr. Byung-Kun Min, Special Assistant to the USG-OIOS
Ms. Eleanor T. Burns, Chief, Peacekeeping Audit Service, IAD, OIOS
Ms. Amy Wong, Programme Officer, Internal Audit Division, OIOS

INTERNAL AUDIT DIVISION

FUNCTION

“The Office shall, in accordance with the relevant provisions of the Financial Regulations and Rules of the United Nations examine, review and appraise the use of financial resources of the United Nations in order to guarantee the implementation of programmes and legislative mandates, ascertain compliance of programme managers with the financial and administrative regulations and rules, as well as with the approved recommendations of external oversight bodies, undertake management audits, reviews and surveys to improve the structure of the Organization and its responsiveness to the requirements of programmes and legislative mandates, and monitor the effectiveness of the systems of internal control of the Organization” (General Assembly Resolution 48/218 B).

CONTACT INFORMATION

DIRECTOR:

Fatoumata Ndiaye: Tel: +1.212.963.5648, Fax: +1.212.963.3388,
e-mail: ndiaye@un.org

DEPUTY DIRECTOR:

Gurpur Kumar: Tel: +1.212.963.5920, Fax: +1.212.963.3388,
e-mail: kumarg@un.org

CHIEF, PEACEKEEPING AUDIT SERVICE:

Eleanor T. Burns: Tel: +1.917.367.2792, Fax: +1.212.963.3388,
e-mail: burnse@un.org

EXECUTIVE SUMMARY

Audit of water and environmental protection operations in UNAMID

The Office of Internal Oversight Services (OIO) conducted an audit of water and environmental protection operations in the African Union - United Nations Hybrid Operation in Darfur (UNAMID). The overall objective of the audit was to assess the adequacy and effectiveness of the internal controls over the Mission's water and environmental protection activities. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

Overall, the internal controls over the Mission's water and environmental protection activities needed improvement in order to achieve its goal of water self-sufficiency and to mitigate environmental risks. Significant audit results were as follows:

- The Mission's Water and Environmental Protection Section (WEPS) had not taken the necessary steps to achieve water self-sufficiency at all locations in the Mission area. As a result, the Mission was outsourcing water from 18 vendors at an annual cost of about \$1.2 million. The goal of water self-sufficiency was not met due primarily to delays in drilling boreholes. As at January 2011, 26 boreholes out of the 95 planned had been drilled.
- Only 28 out of 105 imported wastewater treatment plants had been installed, as of January 2011. Therefore, only 17 per cent of the targeted 40 per cent savings by extracting water from wastewater management was achieved. Delays in installing wastewater treatment plants were due to security concerns and shortage of cement and construction equipment.
- OIOS' field visits identified instances of inadequate wastewater treatment practices. For example, in Nyala wastewater flowed downstream posing potential health risks to the nearby community.
- The Mission had not developed a comprehensive emergency response plan to address leakage of fuel gases, chemical or other substances, which had the potential to contaminate the air, soil or water. The absence of a contingency plan may delay a timely and effective response to environmental accidents.
- Unrecyclable waste was not separated into biodegradable and non-biodegradable material due to a lack of defined usage for different types of solid wastes and lack of storage bins for sorting, increasing the risk of soil, water and air pollution, vermin infestation and other health threats.

OIOS issued a number of recommendations to address the issues identified during the audit and to strengthen the operations of WEPS.

TABLE OF CONTENTS

Chapter	Paragraphs
I. INTRODUCTION	1-5
II. AUDIT OBJECTIVES	6
III. AUDIT SCOPE AND METHODOLOGY	7 - 8
IV. AUDIT RESULTS	
A. Water management	9 - 26
B. Environmental management	27 - 38
C. Environmental governance	39 - 48
V. ACKNOWLEDGEMENT	49
ANNEX 1 – Status of Audit Recommendations	

I. INTRODUCTION

1. The Office of Internal Oversight Services (OIOS) conducted an audit of the water and environmental protection operations in the African Union - United Nations Hybrid Operation in Darfur (UNAMID). The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.
2. Water supply is one of the most important provisions in field missions, since it affects efficiency, morale, general health and welfare of the peacekeeping troops. The Environmental Policy for United Nations Field Missions requires the Mission to integrate environmental measures into its planning and operations in order to minimize impact on the environment and to protect the health of Mission personnel and the local community.
3. The Water and Environmental Protection Section (WEPS) is responsible for providing effective and efficient water and environmental protection services in all UNAMID locations in order to facilitate the achievement of the Mission's mandate.
4. The Chief of WEPS reports to the Chief, Integrated Support Services. The Section is divided into three units: Water Sources and Survey Development, Water Supply and Quality Monitoring, and Environmental Protection. During the 2010/2011 financial period, WEPS had 131 approved posts. The budget for the last three financial periods is shown in Table 1.

Table 1: Water and Environmental Protection Section Budgets

Object code	Cost center	2010/11 (\$000)	2009/10 (\$000)	2008/09 (\$000)
4203	Utilities/water	1,462	1,467	778
5356	Acquisition -water purification equipment	908	1,013	3,509
5358	Acquisition-water and septic tank	6,927	4,714	305
4111	Waste disposal services	2,982	1,769	901
	Total	12,279	8,963	5,493

5. Comments made by UNAMID are shown in *italics*.

II. AUDIT OBJECTIVES

6. The main objectives of the audit were to assess the adequacy and effectiveness of the internal controls over the Mission's water and environmental protection support services.
-

III. AUDIT SCOPE AND METHODOLOGY

7. The audit covered WEPS operations from 1 January 2008 to 31 December 2010 and included a review of DPKO/DFS' environmental policies and guidelines, as well as measures taken to achieve the Mission's goal of water self-sufficiency.

8. The audit methodology included interviews and discussions with UNAMID staff involved in water and environment issues, and review of relevant records and reports. Field visits were made to inspect water facilities, and environmental processes such as water sourcing, storage, distribution, quality control procedures and waste disposal.

IV. AUDIT RESULTS

A. Water management

The goal of water self-sufficiency had not yet been achieved

9. WEPS had been unable to fully implement the steps necessary to achieve its goal of water self-sufficiency at all locations in the Mission area primarily due to delays in drilling boreholes. As at January 2011, only 26 boreholes out of 95 planned (27 per cent) had been drilled. The low rate of borehole completion was due to a number of factors including: (a) delay in acquiring land from the Government of Sudan (GoS); (b) security concerns preventing access to some drilling sites; and (c) delays in procuring drilling rigs. Due to the delays, the Mission was outsourcing water from 18 vendors at an annual cost of about \$1.2 million.

10. The inability to provide water resources at team sites had in some cases resulted in delayed deployment of military, police and civilian staff. For example, in the Seleah team site a borehole could not be commissioned due to restrictions imposed by the Sudan Armed Forces and rebel groups. This delayed the deployment of the Senegalese formed police unit. In another case, the super camp in El Geneina was nearing completion but a borehole to supply water had not yet been drilled, as negotiations for the land were not finalized.

11. Moreover, newly drilled boreholes were not always commissioned in a timely manner due to delays to provide engineering equipment and materials to conduct connection tests. For example, boreholes in Zalingei, Umm Kadada, Tawilla and Kutum were not completed due to delays in providing pump installation and connections, generators, prefab shelters, ablution units and materials for fencing the borehole and generator site.

12. The Mission had also planned to construct earth dams and harvest rainwater at strategic locations to provide additional water supplies. However, due to challenges in identifying and acquiring appropriate sites, little progress has been made to construct the dams.

Recommendations 1 to 3

The UNAMID Mission Support Division should:

- (1) Expedite the commissioning of newly drilled boreholes by ensuring that all the necessary engineering equipment and materials required are available on timely basis;
- (2) Take additional steps to expedite the acquisition of land for borehole drilling and construction of earth dams by conducting high-level dialogue with the Government of Sudan; and
- (3) Expedite the procurement of United Nations owned drilling rigs in order to speed up the drilling of boreholes in the Mission area.

13. *The UNAMID Management accepted recommendation 1 and stated that material requests have been submitted to the Engineering Section and these requests have been approved. Also, pumps needed for some boreholes are being procured to expedite the commissioning of water points. Recommendation 1 remains open pending receipt of a copy of documentation showing that the boreholes have been commissioned.*

14. *The UNAMID Management accepted recommendation 2 and stated that high-level dialogue between UNAMID and the GoS is ongoing to resolve land issues. Recommendation 2 remains open pending receipt of evidence that adequate land has been secured for drilling boreholes.*

15. *The UNAMID Management accepted recommendation 3 and stated that a vendor had been identified and committed to deliver all the drilling rigs by August 2011. Recommendation 3 remains open pending copies of the receipt and inspection reports for the procured drilling rigs.*

Additional action was needed to conserve water supplies

16. Only 28 out of 105 imported wastewater treatment plants had been installed as of January 2011. As a result, only 17 per cent of the targeted 40 per cent savings by extracting water through wastewater management was achieved. Delays in installing wastewater treatment plants were due to: (a) delays in delivering the plants to team sites due to the security situation coupled with poor road conditions in the rainy season; (b) shortage of cement for construction of foundations for the plants; and (c) lack of equipment such as forklifts

17. The Mission had water-saving plumbing fixtures such as high efficiency cisterns, push taps, and self-closing faucets. Additional water-saving plumbing fixtures had also been requisitioned. However, the plumbing fixtures had not been installed in all locations due to delays in distribution and shortage of staff to carry out the plumbing work.

18. Moreover, inadequate repairs and maintenance of water plumbing and equipment resulted in frequent water leaks. For example, during site visits, the water tank located at the main borehole in El-Fasher was leaking and at the Sheria team site, treated drinking water was being used in ablution units and washing bay due to an error in the layout of water pipes. Lack of repair and maintenance was attributed to the shortage of plumbers and unavailability of spare parts in the local market.

Formatted: Bullets and Numbering

Recommendations 4 and 5

The UNAMID Mission Support Division should:

(4) Prevent water wastage by ensuring that: (a) plumbing spare parts of suitable quality are procured in a timely manner to reduce plumbing fixture breakages; and (b) sufficient plumbers are deployed to team sites to carry out regular repairs and maintenance; and

(5) Carry out comprehensive repair and maintenance exercise throughout the Mission to ensure that all leaking taps, pipes and tanks are replaced.

19. *The UNAMID Management accepted recommendation 4 and stated that requisitions for plumbing materials had been raised and that efforts are being made to deploy more plumbers at all team sites by hiring independent contractors. Recommendation 4 remains open pending receipt of document evidencing procurement of spare parts and deployment of additional plumbers.*

20. *The UNAMID Management accepted recommendation 5 and stated that the Mission is working toward the implementation and that the pace depends on the availability of the requisitioned plumbing materials. Based on the action taken, recommendation 5 has been closed.*

There was inadequate security at water treatment and storage facilities

21. To prevent unauthorized access to water treatment and storage facilities, and the risk of contamination of water supplies, adequate security measures need to be implemented. At the El Fasher super camp, the water facilities were not properly fenced to prevent unauthorized access. The Engineering Section had been requested to carry out the work but no action had been taken for over six months.

Recommendation 6

(6) The UNAMID Mission Support Division should ensure that water treatment and storage areas are fenced off and properly secured to avoid unauthorized access thereby reducing the risk of water supply contamination.

22. *The UNAMID Management accepted recommendation 6 and stated that fencing material has been received and individual contractors have been hired to accelerate the fencing project. Based on the action taken, recommendation 6 has been closed.*

Water points were not clearly labeled

23. Water points were not appropriately labeled with signs indicating whether the water was safe to drink thereby increasing the risk of drinking contaminated water. For example, at the Kass team site where an old water treatment plant was still operational, it did not treat water to the required World Health Organization standards. However, there was no label indicating that the water was not safe to drink. At other locations visited, it was unclear whether or not the water from taps was safe for drinking as no signs had been displayed.

Recommendation 7

(7) The UNAMID Mission Support Division should ensure that water points are clearly labeled with signs stating whether the water is potable or not in order to minimize health hazards.

24. *The UNAMID Management accepted recommendation 7 and stated that they are prioritizing the fixing of signs to describe the condition of the water. Recommendation 7 remains open pending receipt of evidence that water points have been appropriately labeled.*

Action is needed to fill vacant posts

25. There were 61 vacant posts out of 131 approved posts (47 per cent) as at 1 November 2010 with 24 posts under recruitment. Difficulty in recruiting and retaining suitably qualified staff was attributed to harsh living conditions and the unpredictable security situation in Darfur.

Recommendation 8

(8) The UNAMID Mission Support Division should ensure that all Water and Environmental Protection Section vacancies are filled in a timely manner to provide adequate staff to carry out water resource activities in the Mission.

26. *The UNAMID Management accepted recommendation 8 and stated that there has been a challenge in finding available technically cleared candidates in this specialized area. The Mission will undertake more outreach programmes to get suitable candidates on board and explore ways and means of retaining staff. Recommendation 8 remains open pending verification that vacancy rates have fallen to an acceptable level taking into consideration the working environment.*

B. Environmental management

Wastewater is not always properly disposed off

27. There are two methods to treat wastewater in the Mission: (i) natural waste treatment via oxidation ponds, or (ii) wastewater treatment system using a septic tank system, lift station and containerized water treatment plant. As of January 2011, UNAMID has 208 septic tanks of which 200 were emptied by the Mission and eight by contractors. However, OIOS' field visits found that at a number of locations, the capacity of the wastewater treatment plant fell below the volume of waste generated. As a result wastewater was often improperly disposed off, and this could result in health risks and environmental damage. This was primarily due to inadequate monitoring of wastewater disposal methods and a lack of a programme to create environmental awareness among staff and contractors. Some examples of improper disposal were as follows:

- In Nyala, wastewater was disposed off along the roadside where it flows downstream. This resulted in potential health risks to the local community.
- In Kass, wastewater had accumulated outside the camp, creating a pond which was not emptied in a timely manner.
- In Foro Baranga, septic tanks were close to overflowing due to the failure of the contractor to empty them.
- At one El Fasher location, wastewater from the septic tank often overflowed causing foul odor and unsanitary conditions.
- In the team sites, the ablution units were also used as washing areas resulting in a pool of water which was a breeding ground for mosquitoes.

Recommendations 9 and 10

The UNAMID Mission Support Division should:

(9) Take measures to improve the disposal of wastewater by ensuring that: (a) wastewater is not discharged directly into streams, rivers and other water bodies without treatment; and (b) contractors empty septic tanks on a regular basis to avoid health hazards; and.

(10) Expedite the installation of additional wastewater treatment plants to ensure that all wastewater is properly treated.

28. *The UNAMID Management accepted recommendation 9 and stated that the Mission took precautionary measures to improve the disposal of wastewater and that contractors are tasked to collect waste on a daily basis although in some cases, contractors' trucks breakdown.* Recommendation 9 remains open pending receipt of evidence confirming the improved disposal of wastewater.

29. *The UNAMID Management accepted recommendation 10 and stated that all materials were procured and independent contractors will be used to expedite the installation. Recommendation 10 remains open pending receipt of evidence that additional wastewater treatment plants have been installed.*

Solid waste disposal needs improvement

30. The United Nations Environmental Policy requires the Mission to segregate different types of waste before disposal. Non-segregation of solid waste can result in soil, water and air pollution, vermin infestation and health problems. OIOS' field visits found that there was frequently inappropriate disposal of solid waste as shown in the examples below. This was caused by lack of designated locations for waste disposal or waste storage methods, and lack of safety procedures to prevent access to waste sites.

- At the level II hospital in El Fasher, medical waste was improperly disposed of by mixing it with general garbage for disposal in plastic bags.
- Used tires, batteries, oil and air filters and other metal waste were sometimes stored together with used oil. Used batteries need to be emptied and acid neutralized before storing.
- There was no segregation of general solid waste due to lack of defined usage for the different solid wastes and a lack of storage bins for sorting.
- Illegal dumping along the perimeter fence of some team sites was observed due to the absence of designated land for solid wastes disposal.
- At some locations, designated dump sites were not fenced posing health risk to the local community and scavengers that frequent the sites.

Recommendations 11 and 12

The UNAMID Mission Support Division should:

(11) Ensure that there is proper segregation, disposal, recycling, recovery or incineration of solid waste, including reporting of medical waste disposal in compliance with the United Nations Environmental Policy; and

(12) Secure dump sites with fences in order to prevent health risks to the local communities.

31. *The UNAMID Management accepted recommendation 11 and stated that medical wastes were being segregated at the point of generation and incinerated. A comprehensive solid waste segregation will be undertaken, as soon as the necessary equipment is available and landfills constructed. Recommendation 11 remains open pending receipt of evidence that adequate action has been taken to not only segregate waste but dispose of it in compliance with United Nations policies and procedures.*

32. *The UNAMID Management accepted recommendation 12 and stated that the Mission has started fencing of dump sites. Recommendation 12 remains open pending receipt of a report confirming the fencing of all dump sites.*

Written-off assets should be promptly disposed off

33. The Environmental Policy requires the Mission to dispose of written-off assets in an environmentally friendly manner. Delays in disposing of assets increase the risk of environmental damage. Furthermore, inadequate controls over inventory expose the Mission to the risk of loss from theft and deterioration. WEPS is responsible for supervising and reporting on the environmental impact of the asset disposal procedures.

34. In UNAMID, assets awaiting disposal included vehicles, sea containers, and various other assets. According to the Mission, the assets have not been disposed of since they were waiting for authority from the United Nations Controller to dispose of them.

Recommendation 13

(13) The UNAMID Mission Support Division should seek approval from the United Nations Controller to dispose of written-off assets in order to avoid a negative environmental impact resulting from their extended storage.

35. *The UNAMID Management did not accept recommendation 13 and stated that the Mission is awaiting the Controller's approval. SAUs have initiated the write-off process in accordance with the Financial Regulations and Rules and the Property Management Manual. UNAMID was not able to provide evidence that the approval of the Controller had been sought, and considering the delay in response, there is a need for further follow-up. OIOS therefore reiterates recommendation 13, and requests the Mission to obtain approval from the Controller. Recommendation 13 remains open pending receipt of approval from the United Nations Controller to dispose of the written-off assets.*

Procedures needed to prevent environmental damage from waste oil

36. Section 10.3 of the DFS Fuel Manual requires cleaning of oil spillage and contamination as rapidly as possible. OIOS' physical inspection of generator locations and workshops found that, in many cases, measures had not been taken to prevent oil spillage on the ground. For example, there was often no concrete flooring under the generators and channels on the sides to trap oil waste. Although a recommendation made by OIOS and accepted by the Mission to address the issue of waste oil spillage was made in the audit of fuel management (AP2009/634/07), action had not yet been taken to implement it.

37. Moreover, to ensure that oil spillage from generators does not seep onto the ground, waste oil needs to be placed in drums with a proper lid and stored in

a concrete central storage area. This will make cleaning up easier and minimize the level of soil contamination.

Recommendation 14

(14) The UNAMID Mission Support Division should take measures to prevent oil spillage and ensure that the Engineering Section install concrete flooring and channels in workshops and under generators to trap waste fuel and leaks to protect against soil contamination.

38. *The UNAMID Management accepted recommendation 14 and stated that WEPS has raised awareness on oil spillage danger and the need to monitor and control it. Also, draft guidelines have been developed and are being used for oil management. WEPS will continue to enforce compliance through regular monitoring and reporting. All newly installed generators are placed on concrete slabs. Based on the action taken, recommendation 14 has been closed.*

C. Environmental governance

An environmental assessment of UNAMID operations had not been carried out

39. Paragraph 24 of the Environmental Policy for United Nations Field Missions requires that mission-specific baseline studies be established by conducting environmental assessments of the Mission's operations. The assessments should form the basis for developing environmental action plans and the maintenance of an environmental log. The baseline study should be updated by conducting periodic assessments to determine environmental conditions.

40. WEPS had not conducted an environmental assessment to establish UNAMID-specific baseline data. This was because UNAMID inherited its operations from the African Union Mission in Sudan (AMIS) and WEPS were of the view that conducting a baseline study was not feasible at the time of takeover of operations by UNAMID. Moreover, there was no properly functioning environmental unit in the Mission at the start of operations. Therefore, WEPS' strategy was to conduct environmental audits, which would be the reference for future assessments. However, as of January 2011 only four audits had been conducted by WEPS. The first audit was conducted in September 2010. The lack of a baseline study limits the Mission's ability to effectively monitor environmental issues and mitigate their impact. Moreover, there was a risk that UNAMID may be unable to adequately defend itself against environmental damage claims that may arise.

Recommendation 15

(15) The UNAMID Mission Support Division should expedite the completion of environmental assessments to establish UNAMID-specific baseline data, develop an environmental plan, and an environmental log in compliance with the United Nations Environmental Policy.

41. *The UNAMID Management did not accept recommendation 15 and stated that baseline environmental data for existing camps, prior to the establishment of UNAMID in January 2008, was not available. Furthermore, studies done by PETRONAS on the oil contaminated sites form part of the baseline data while environmental assessments for some team sites have been conducted, and are being used as a reference point for monitoring environmental degradation or improvement. UNAMID needs to establish base-line data by carrying out a study in compliance with Paragraph 24 of the Environmental Policy for United Nations Field Missions, which is important to ensure the environmental strategy and plans are properly focused. Therefore, OIOS is reiterating the recommendation and requests the Mission to reconsider its response. Recommendation 15 remains open pending receipt of UNAMID-specific baseline study, environmental plan, and an environmental log monitoring the environmental degradation or improvement.*

Mission-specific environmental policies should be disseminated to Mission personnel

42. Paragraph 32 to 34 of the Environmental Policy requires the Director of Mission Support, Force Commander and Police Commissioner to ensure that all Mission personnel receive information on environmental policies. Furthermore, the Head of the Mission should issue, at the start of each year, a signed statement reminding personnel of the Mission's environmental policy and objectives. The Mission has not implemented this part of the Environmental Policy.

43. Furthermore, the Mission has not developed and disseminated Mission-specific standard operating procedures (SOPs) on environmental objectives and control measures partly due to the required information not being supplied by stakeholders such as the Transport Section, Fuel Unit and others. UNAMID had also not developed SOPs for efficient water use and overall water management. In addition to issuing administrative instructions and regular broadcasts, the Mission should carry out regular campaigns by, for example, the use of posters and banners to remind staff to conserve water.

Recommendations 16 to 18

The UNAMID Mission Support Division should:

(16) Finalize the development of Mission-specific environmental guidelines for distribution to all Mission personnel in order to increase awareness of environmental objectives, control measures and personal responsibilities;

(17) Ensure that Mission-specific standard operating procedures are developed for efficient water use and overall water management; and

(18) Carry out regular campaigns to sensitize and enhance awareness among UNAMID personnel on the need to conserve water in Darfur.

44. *The UNAMID Management accepted recommendation 16 and stated that draft environmental guidelines are now being reviewed before dissemination to all mission personnel. Based on the action taken by UNAMID management, recommendation 16 has been closed.*

45. *The UNAMID Management accepted recommendation 17 and stated that the draft SOPs had been developed and are being reviewed and finalized. Recommendation 17 remains open pending receipt of a copy of the SOPs.*

46. *The UNAMID Management accepted recommendation 18 and stated that an Administrative Instruction was broadcasted in 2009 and regular campaigns are being intensified to ensure compliance. Recommendation 18 remains open pending receipt of a copy of some of the campaign materials.*

Emergency preparedness

47. Paragraphs 46 of the Environmental Policy require that field missions develop a comprehensive emergency response plan. However, UNAMID had not developed a comprehensive emergency response plan to deal with situations such as leakage of fuel gases, chemical or other substances with the potential to contaminate the air, soil or water. Absence of a contingency plan could delay timely and effective responses to environmental incidents.

Recommendation 19

(19) The UNAMID Mission Support Division should identify all situations that can cause environmental accidents and develop a comprehensive emergency response plan to address them.

48. *The UNAMID Management accepted recommendation 19 and stated that coordinated efforts from other stakeholders will be undertaken. Recommendation 19 remains open pending receipt of the comprehensive emergency response plan.*

V. ACKNOWLEDGEMENT

49. We wish to express our appreciation to the Management and staff of UNAMID for the assistance and cooperation extended to the auditors during this assignment.

STATUS OF AUDIT RECOMMENDATIONS

Recom. no.	Recommendation	Risk category	Risk rating	C/O ¹	Actions needed to close recommendation	Implementation date ²
1	The UNAMID Mission Support Division should expedite the commissioning of newly drilled boreholes by ensuring that all the necessary engineering equipment and materials required is available on timely basis.	Operational	Medium	O	Receipt of the commissioning report.	June 2011
2	The UNAMID Mission Support Division should take additional steps to expedite the acquisition of land for borehole drilling and construction of earth dams by conducting high-level dialogue with the Government of Sudan.	Governance	High	O	Receipt of documents indicating that land for borehole drilling has been provided.	May 2011
3	The UNAMID Mission Support Division should expedite the procurement of United Nations owned drilling rigs in order to speed up the drilling of boreholes in the Mission area.	Operational	Medium	O	Receipt of the receiving and inspection report.	August 2011
4	The UNAMID Mission Support Division should prevent water wastage by ensuring that: (a) plumbing spare parts of suitable quality are procured in a timely manner to reduce plumbing fixture breakages; and (b) sufficient plumbers are deployed to team sites to carry out regular repairs and maintenance.	Operational/ Human resources	Medium	O	Receipt of document evidencing procurement of spare parts and deployment of additional plumbers.	On-going
5	The UNAMID Mission Support Division should carry out a comprehensive repair and maintenance exercise throughout the Mission to ensure that all leaking taps, pipes and tanks are replaced.	Operational	Medium	C	Action taken.	Implemented
6	The UNAMID Mission Support Division should ensure that water treatment and	Operational	Medium	C	Action taken.	Implemented

Recom. no.	Recommendation	Risk category	Risk rating	C/O ¹	Actions needed to close recommendation	Implementation date ²
	storage areas are fenced off and properly secured to avoid unauthorized access thereby reducing the risk of water supply contamination.					
7	The UNAMID Mission Support Division should ensure that water points are clearly labeled with signs stating whether the water is potable or not in order to minimize health hazards.	Operational	Medium	O	Receipt of a report confirming that labeling of water points has been completed.	May 2011
8	The UNAMID Mission Support Division should ensure that all Water and Environmental Protection Section vacancies are filled in a timely manner to provide adequate staff to carry out water resource activities in the Mission.	Human resources	Medium	O	Verification that vacancy rates have fallen to an acceptable level taking into consideration the working environment	On-going
9	The UNAMID Mission Support Division should take measures to improve the disposal of wastewater by ensuring that: (a) wastewater is not discharged directly into streams, rivers and other water bodies without treatment; and (b) contractors empty septic tanks on a regular basis to avoid health hazards.	Compliance/Operational	High	O	Receipt of evidence confirming the improved disposal of wastewater.	On-going
10	The UNAMID Mission Support Division should expedite the installation of additional wastewater treatment plants to ensure that all wastewater is properly treated.	Operational/Compliance	Medium	O	Confirmation that additional wastewater treatment plants have been installed.	30 September 2011
11	The UNAMID Mission Support Division should ensure that there is proper segregation, disposal, recycling, recovery or incineration of solid waste, including reporting of medical waste disposal in compliance with the United Nations Environmental Policy.	Operational	Medium	O	Receipt of evidence that adequate action has been taken to not only segregate waste but dispose of it in compliance with United Nations policies and procedures.	31 December 2011
12	The UNAMID Mission Support Division should secure dump sites with fences in	Operational/Governance	Medium	O	Receipt of a report confirming the fencing of all dump sites.	30 August 2011

Recom. no.	Recommendation	Risk category	Risk rating	C/O ¹	Actions needed to close recommendation	Implementation date ²
	order to prevent health risks to the local communities.					
13	The UNAMID Mission Support Division should seek approval from the United Nations Controller to dispose of written-off assets in order to avoid a negative environmental impact resulting from extended storage.	Operational	Medium	O	Receipt of documentation indicating that UNAMID has requested approval from the United Nations Controller to dispose of the written-off assets.	Not provided
14	The UNAMID Mission Support Division should take measures to prevent oil spillage and ensure that the Engineering Section install concrete flooring and channels in workshops and under generators to trap waste fuel and leaks to protect against soil contamination.	Operational	Medium	C	Action taken.	Implemented.
15	The UNAMID Mission Support Division should expedite the completion of environmental assessments to establish UNAMID-specific baseline data, develop an environmental plan, and an environmental log in compliance with the United Nations Environmental Policy.	Compliance	Medium	O	Receipt of UNAMID-specific baseline study, environmental plan, and an environmental log monitoring the environmental degradation or improvement.	June 2011
16	The UNAMID Mission Support Division should finalize the development of Mission-specific environmental guidelines for distribution to all Mission personnel in order to increase awareness of environmental objectives, control measures and personal responsibilities.	Compliance	Medium	C	Action taken.	Implemented
17	The UNAMID Mission Support Division should ensure that Mission-specific standard operating procedures are developed for efficient water use and overall water management.	Operational/ Compliance	Medium	O	Receipt of a copy of the SOP.	30 April 2011
18	The UNAMID Mission Support Division should carry out regular campaigns to sensitize and enhance awareness among	Compliance	Medium	O	Receipt of a copy of campaign materials.	30 May 2011

Recom. no.	Recommendation	Risk category	Risk rating	C/O¹	Actions needed to close recommendation	Implementation date²
	UNAMID personnel on the need to conserve water in Darfur.					
19	The UNAMID Mission Support Division should identify all situations that can cause environmental accidents and develop a comprehensive emergency response plan to address them.	Compliance/Operational	Medium	O	Receipt of the comprehensive emergency response plan.	30 September 2011

1. C = closed, O = open

2. Date provided by UNAMID in response to recommendations.