



INTERNAL AUDIT DIVISION

AUDIT REPORT

Management of engineering activities in UNAMID

Overall results relating to effective management of engineering activities in UNAMID were initially assessed as unsatisfactory. Implementation of two critical and two important recommendations remains in progress.

FINAL OVERALL RATING: UNSATISFACTORY

15 June 2012

Assignment No. AP2011/634/13

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AUDIT REPORT

Management of engineering activities in UNAMID

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of management of engineering activities in the African Union-United Nations Hybrid Operation in Darfur (UNAMID).
2. In accordance with its mandate, OIOS provides assurance and advice on the adequacy and effectiveness of the United Nations internal control system, the primary objectives of which are to ensure (a) efficient and effective operations; (b) accurate financial and operational reporting; (c) safeguarding of assets; and (d) compliance with mandates, regulations, and rules.
3. The Engineering Section was responsible for the planning, design, construction and maintenance of buildings, physical infrastructure, and the operation and maintenance of engineering assets such as generators. The Engineering Section was headed by a Chief Engineer and there was an approved staffing level of 513 posts comprising of 19 professional, 46 field service and 448 national staff.
4. The Engineering Section's budget for the period from 1 July 2008 to 30 June 2011 was \$432 million. Since 2008, UNAMID's estimated that they have completed 191 projects valued at \$361 million (84 per cent of the budget).
5. Comments provided by UNAMID are incorporated in *italics*.

II. OBJECTIVE AND SCOPE

6. The audit of engineering activities was conducted to assess the adequacy and effectiveness of UNAMID's governance, risk management and control processes in providing reasonable assurance regarding the **effective management of engineering activities**.
7. The audit was included in the 2011 OIOS risk-based work plan due to the criticality of having timely completion of engineering projects to ensure implementation of UNAMID's mandate.
8. The key control tested for the audit was **project management**. For the purpose of this audit, OIOS defined project management as controls that provide reasonable assurance that there is sufficient project management capacity to achieve its mandate including: (i) sufficient financial resources; (ii) sufficient and competent human resources; and (iii) appropriate management tools to monitor projects.
9. The key control was assessed for the control objectives shown in Table 1.
10. OIOS conducted the audit from September 2011 to February 2012. The audit covered the period from 1 July 2009 to 30 June 2011, and included an in-depth review of four major engineering projects: (a) mission subsistence allowance (MSA) accommodations for civilian staff and offices; (b) asphalt roads; (c) community policing centers; and (d) gravel roads totaling \$125.26 million. This audit did not cover the construction and renovation of team sites for military and police accommodations and offices valued at \$192 million, which was covered under a separate audit (AP2010/634/14).
11. OIOS conducted an activity-level risk assessment to identify and assess specific risk exposures, and to confirm the relevance of the selected key controls in mitigating associated risks. Through

interviews, analytical reviews and tests of controls, OIOS assessed the existence and adequacy of internal controls and conducted necessary tests to assess their effectiveness.

III. AUDIT RESULTS

12. UNAMID’s governance, risk management and control processes examined were assessed as **unsatisfactory** in providing reasonable assurance regarding the **effective management of engineering activities**. OIOS made four recommendations to address the issues identified. UNAMID had implemented a number of engineering projects to support its operations. However, there were insufficient procedures and tools to adequately plan, monitor and report on projects. Action was being taken to improve procedures, including: the development of Mission-specific standard operating procedures, a database to track and monitor projects and conducting environmental impact assessments.

13. The initial overall rating was based on the assessment of key control presented in Table 1 below. The final overall rating is **unsatisfactory** as implementation of two critical and two important recommendations remains in progress.

Table 1: Assessment of key control

	Key controls	Control objectives			
		Efficient and effective operations	Accurate financial and operational reporting	Safeguarding of assets	Compliance with mandates, regulations and rules
Effective management of engineering activities	Project management	Partially satisfactory	Unsatisfactory	Partially Satisfactory	Unsatisfactory
FINAL OVERALL RATING: UNSATISFACTORY					

A. Project management

UNAMID had implemented a number of projects

14. Since the establishment of UNAMID, notwithstanding the security situation and challenging working environment, UNAMID had implemented almost 200 projects. These included construction and maintenance of MSA accommodations, team sites, roads in super camps, airports in El-Fasher and Nyala, and construction of Formed Police Unit camps and community policing centres.

High priority projects were not completed in a timely manner

15. A Senior Infrastructure Planning Team (SIPT), chaired by the Chief of Integrated Services and comprised of the Chief Engineer, Chief of Water and Environment Section and Chief of Supply, was established in 2010 to manage project priorities. However, criteria for prioritizing projects were not developed. As a result, low priority projects were carried out while some higher priorities were delayed. Materials were used for constructing additional perimeter walls for VIP units in El Fasher, delaying the construction of perimeter walls for team sites - an important security feature. The communications centre construction project has taken more than three years to complete due to the re-allocation of resources to

other projects. Meanwhile, 16 of 36 prefabricated buildings constructed for temporary offices in Sector South were vacant, as UNAMID continued to rent premises, and community policing centres in Tulus and Buram were constructed that were not included in the planned and approved projects. These delays were not reported to or monitored by the SIPT.

16. In March 2012, UNAMID implemented a new mechanism over overseeing engineering projects called the Project Management Group (PMG), which was chaired by the Chief, Integrated Support Services, with its membership larger than the SIPT with the aim to adopt a more integrated approach to the planning and prioritization of UNAMID projects and ensure that resources were used efficiently. As this new mechanism included a requirement to prioritize project management tasks including establishment of a project management function, OIOS is satisfied with the action taken to strengthen project management.

Mission-specific procedures and guidelines for engineering projects were not developed

17. There were no Mission-specific standard operating procedures (SOPs) to guide staff in their day-to-day activities. While UNAMID was using the DFS Engineering Manual and related SOPs, these were insufficient to direct its staff in the planning, execution and close-out phases of engineering projects. For example, criteria for prioritizing projects, taking into consideration the challenges faced including shortage of skilled labour and readily available materials, had not been developed, delaying the implementation of higher priority projects.

(1) UNAMID should develop Mission-specific standard operating procedures to supplement the DFS Engineering Manual to provide more detailed guidance to staff.

UNAMID accepted recommendation 1 and stated that they referred to the DFS Engineering Manual and related procedures to guide them, and this did not contribute to delays in implementing high priority projects. An effort was underway to finalize the SOPs to provide more detailed guidance to staff. Recommendation 1 remains open pending receipt of a copy of the Mission-specific SOPs for engineering projects.

Monitoring and control of engineering projects needed strengthening

18. The Engineering Section had implemented a procedure to assign project engineers and supervisors to monitor the implementation of high-value projects. These included visits to projects sites to evaluate the status and quality of work performed, and validate the work reported by contractors prior to approving payments. However, these procedures were not fully effective as OIOS observed accommodation units that had significant cracks in walls that should have been detected during the Engineering Section's periodic inspections; an issue already reported in OIOS' audit of team sites (AP2010/634/14). Monitoring activities were not consistently documented and therefore assurance could not be obtained that they were carried out as planned.

19. Change orders for the construction of the MSA accommodations, including cost deductions for non-delivery of water heaters costing \$797,148 and the cost increase in respect of additional annex space costing \$613,615 were not adequately documented, although they appeared to be reasonable. These change orders represented 1.6 per cent of the total value of the contract (\$90.13 million). These changes were included on a post facto basis in the amendment of the contract, dated 3 October 2011.

(2) UNAMID should ensure that all monitoring activities and change orders are properly documented and done in a timely manner.

UNAMID accepted recommendation 2 and stated that the project documents may not all have been made available at the time of the audit; however it was a well-documented project and the project file was now available. Further, all the change orders mentioned were incorporated in an amendment to the contract. UNAMID informed OIOS that the plaster cracks identified by OIOS were superficial and had no structural significance. Recommendation 2 remains open pending OIOS' verification of the project file for the MSA accommodations.

Project documentation and records system

20. UNAMID did not have adequate tools and procedures for tracking, monitoring and reporting on project activities. Galileo contains a project estimation and tracking module that could have been used to track project planning and requisitioning of materials, and the labour element of projects could be recorded through automated work orders. However, this module was not used by the Engineering Section. There were also no project files in the Section, and critical project documents were not always printed and available, as most of the communications were in e-mails. As a result, OIOS was precluded from verifying the accuracy and completeness of the list of engineering projects both completed and on-going, as well as the status of each project.

(3) UNAMID should ensure that a reliable database of projects and related project case files including all essential project documents are maintained.

UNAMID accepted recommendation 3 and stated that in the absence of trained UNAMID staff on the usage of the tracking and monitoring tool in Galileo, it was not used. Recommendation 3 remains open pending OIOS' verification that UNAMID has developed a system to track, monitor and report on project activities, and that project documentation is held in a central repository.

Environmental impact assessments

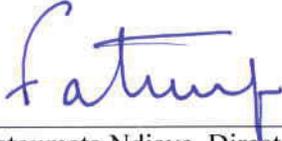
21. The environmental policy for United Nations field missions required that construction work and/or clearing of sites minimize negative impacts on the environment. An Environmental Compliance Unit was established by UNAMID to record, process and report compliance with environmental standards at all UNAMID sectors. The procedures implemented required site visits at project sites by environmental officers to assess the impact of projects on the environment. However, no environmental impact assessments were conducted for the four major engineering projects valued at \$125.26 million.

(4) UNAMID should comply with the United Nations environmental policy and conduct environmental impact assessments of engineering projects.

UNAMID accepted recommendation 4 and stated that it had been complying with the United Nations environment policy since the DPKO/DFS policy was issued in 2009. Since then 23 assessments were conducted for new projects undertaken. Assessments were not conducted for all major engineering projects, and UNAMID needs to address this. OIOS reiterates the recommendation that UNAMID address the situation satisfactorily.

IV. ACKNOWLEDGEMENT

22. OIOS wishes to express its appreciation to the Management and staff of UNAMID for the assistance and cooperation extended to the auditors during this assignment.



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STATUS OF AUDIT RECOMMENDATIONS

Audit of management of engineering activities in UNAMID

Recom. no.	Recommendation	Critical ¹ / important ²	C/O ³	Actions needed to close recommendation	Implementation date ⁴
1	UNAMID should develop Mission-specific standard operating procedures to supplement the DFS Engineering Manual to provide more detailed guidance to staff.	Critical	O	A copy of the Mission-specific SOPs for engineering projects	30 June 2012
2	UNAMID should ensure that all monitoring activities and change orders are properly documented.	Important	O	Verification of the project file for the MSA accommodations.	June 2012
3	UNAMID should ensure that a reliable database of projects and related project case files including all essential project documents are maintained.	Important	O	Verification that UNAMID has developed a system to track, monitor and report on project activities, and that project documentation is held in a central repository.	June 2013
4	UNAMID should comply with the United Nations environmental policy and conduct environmental impact assessments of engineering projects.	Critical	O	Evidence that environmental impact assessments have been conducted for all major engineering projects.	June 2012

1 Critical recommendations address significant and/or pervasive deficiency or weakness in governance, risk management or internal control processes, such that reasonable assurance cannot be provided regarding the achievement of control and/or business objectives under review.

2 Important recommendations address important deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

3 C = closed, O = open

4 Date provided by UNAMID