



INTERNAL AUDIT DIVISION

REPORT 2021/036

Audit of demand and source planning in the United Nations Interim Security Force for Abyei

**The Mission needed to improve its demand
and source planning processes and ensure
timely procurement and delivery of goods and
services**

17 August 2021

Assignment No. AP2020-635-02

Audit of demand and source planning in the United Nations Interim Security Force for Abyei

EXECUTIVE SUMMARY

The Office of Internal Oversight Services (OIOS) conducted an audit of demand and source planning in the United Nations Interim Security Force for Abyei (UNISFA). The objective of the audit was to assess the adequacy and effectiveness of UNISFA's demand, source, and delivery planning processes. The audit covered the period from June 2019 to December 2020 and included a review of the demand, source and delivery planning and implementation processes.

The Mission needed to improve its demand and source planning processes and ensure timely procurement and delivery of goods and services.

OIOS made four recommendations. To address issues identified in the audit, UNISFA needed to:

- Ensure the Acquisition Management Unit provides additional guidance to technical sections on forecasting the Mission's requirements for goods and services and in developing demand plans that are based on adequate analysis of projected needs that take into account historical consumption patterns and inventory data;
- Establish and monitor key performance indicators to measure the effectiveness of procurement actions, including the prompt fulfilment of orders raised in shopping carts;
- Train staff in technical units on the required standards for raising shopping carts to reduce errors and thus minimize delays in the procurement process; and
- Improve delivery planning activities by scheduling delivery dates that take advantage of favorable weather conditions; training staff on customs clearance processes; using appropriate Incoterms; and adequately managing freight forwarding contracts.

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

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Audit of demand and source planning in the United Nations Interim Security Force for Abyei

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of demand and source planning in the United Nations Interim Security Force for Abyei (UNISFA).
2. Supply chain planning is a forward-looking process to determine how to best identify and fulfill missions' requirements for goods and services. It is an integrated cross-functional process where planning activities are conducted continuously in a coordinated and structured manner, with the aim to anticipate and meet missions' requirements through demand planning and forecasting, identifying appropriate sourcing options and delivering needed goods and services in an efficient and timely manner.
3. In January 2019, with the recruitment of the Chief of the Supply Chain Management Section, the Mission aligned its supply chain management activities with those prescribed in the Supply Chain Management (SCM) blueprint issued by the Office of SCM in the Department of Operational Support (DOS). Guidance on supply chain activities includes the supply chain management blueprint; provisional supply chain operational guidance; standard operating procedures for global supply chain; and various instructions and memoranda issued by DOS at United Nations Headquarters.
4. The Demand and Acquisition Planning (DAP) tool is the primary tool used by field missions to record their requirements for goods and services. The tool is a web-based interim solution pending implementation of Umoja Extension 2 supply chain planning functionality. Summary of UNISFA's demand and source plans for 2019/20 and 2020/21 is shown in Table 1.

Table 1
UNISFA demand and source plans
(in millions of United States dollars)

Sourcing type	2019/20	2020/21
Existing contracts	\$49.2	\$73.2
New procurement	\$37.0	\$21.6
Total DAP	\$86.2	\$94.8

Source: UNISFA DAP tool

5. The Acquisition Management Unit (AMU) was established in April 2019 with responsibilities for coordinating with and providing guidance to technical sections on the Mission's demand planning process, as well as being responsible for requisitioning goods and services. AMU has eight approved posts comprising a Chief at P-4 level who reports to the Chief of the Supply Chain Management Section, and assisted by four international staff, two United Nations volunteers and one individual contractor.
6. Comments provided by UNISFA are incorporated in italics.

II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY

7. The objective of the audit was to assess the adequacy and effectiveness of UNISFA's demand, source and delivery planning processes.
8. This audit was included in the 2020 risk-based work plan of OIOS due to the financial and operational risks related to UNISFA's demand, source and delivery planning processes in fulfilling the Mission's requirements for goods and services.
9. OIOS initiated this audit in January 2020, but it was paused because of COVID-19 and continued from January and May 2021. The audit covered the period from June 2019 to December 2020. Based on an activity-level risk assessment, the audit covered higher and medium risks areas in demand and source planning activities, which included a review of the demand, source and delivery planning and implementation processes.
10. The audit methodology included: (a) interviews of key personnel; (b) review of relevant documentation; (c) analytical review of data; and (d) sample testing of demand plan data in the DAP tool.
11. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

III. AUDIT RESULTS

A. Demand, source, and delivery planning and implementation processes

Need to develop demand plans based on adequate analysis of the Mission's requirements

12. To ensure delivery of goods and services necessary to fulfill missions' mandates, DOS guidelines recommend that missions develop their gross demand plan based on forecasted operational requirements for the next fiscal year and adequate analyses of historical consumption patterns. The net demand plan is derived from the gross demand plan by incorporating the projected inventory holdings¹. The Office of SCM in DOS launched the DAP tool in 2017 as an interim measure to facilitate data collection, review, and aggregate annual demand plans of missions.
13. In developing its demand plans, UNISFA did not follow the required data driven process. Instead, technical units used information from their budget submissions and associated costing sheets and, with the assistance of AMU, uploaded the information to the DAP tool. No consideration was given to historical consumption patterns, inventory holdings and projected Mission needs. As a result, the Mission continued to purchase items for which there had been no issuances from inventory for a year or longer (classed as dead stock). For example, 33 items were purchased in 2019/20, including chemical kits, chest freezers, communication systems, and metal cutting discs amounting to \$4.4 million even though similar items were included in dead stock. This increased the risk of stock obsolescence and expired inventory, leading to wastage of financial resources. For example, 7 of the 33 items that were reordered, such as communication system analysers and audio amplifiers, had matching items in dead stock that were obsolete as they had exceeded their expected life spans without being effectively utilized.

¹ The projected inventory holdings are derived from current inventory at the time of preparing the demand plan, estimated consumption until the end of the financial year and any other planned movements in inventory such as ongoing procurement, goods in transit and goods requiring return or write off.

14. The Mission also did not adequately anticipate and include some foreseeable and critical requirements in acquisition plans. For example, accommodation units for Mission staff and wastewater treatment plants totalling \$3.9 million and critical spare parts for heavy duty engineering equipment totalling \$600,000 were omitted. Engineering equipment is critical to the Mission's operations especially in the rainy season when the Mission roads become impassable. Such critical needs were not planned for in the 2019/20 demand plan and had to be fulfilled through funds re-allocations at the end of the year after most of the equipment was grounded.

15. The absence of proper demand planning was mainly due to insufficient management supervision over the process. The Chief of the Supply Chain Section was only appointed in January 2019 and initially dedicated his time to restructuring and resourcing the function. There was also a prevalence of a siloed working culture in the Mission, which impacted coordination and information sharing across relevant sections to ensure an integrated approach to demand planning. For example, AMU did not take part in the budget formulation process, which was left to technical sections to develop and therefore, the required coordination, support and guidance was not provided. The Mission since October 2020 has implemented monthly integrated business planning meetings to improve coordination across the various sections and ensure an integrated approach to demand planning. However, there was a need to further strengthen the demand planning process.

(1) UNISFA should develop and implement an action plan for the Acquisition Management Unit to provide additional guidance to technical units on forecasting the Mission's requirements for goods and services and preparing demand plans based on adequate analysis of projected needs taking into account historical consumption patterns and inventory data.

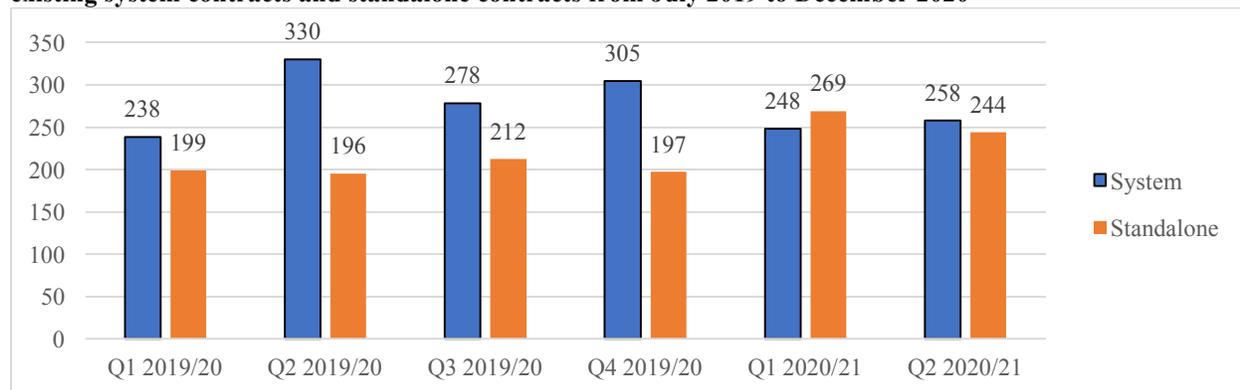
UNISFA accepted recommendation 1 and stated that the transition to Umoja Extension 2 will provide a new integrated approach to supply chain planning for the 2022/23 acquisition planning and will also enable 24-month rolling plans. Recommendation 1 remains open pending receipt of evidence of automated forecasting based on historic consumption following the implementation of Umoja Extension 2 solution.

Need for timely implementation of demand plans and effective delivery planning

16. An analysis of the Mission's supply chain responsiveness index (a measure of the lead time between when a shopping cart for an item is raised in Umoja and delivery of the item) for the period from July 2019 to December 2020, showed that UNISFA scored on average 22 per cent against the expected performance goal. For 19 categories of goods, the lead times for standalone contracts ranged between 190 and 270 days to receive goods in the Mission as indicated in Figure 1. It took significantly longer to receive items purchased using systems contracts such as power generation equipment and wastewater treatment equipment. For instance, lead time for goods delivered in the second quarter of 2019/20 were on average 330 days from the time shopping carts were raised, compared to 196 days for the standalone contracts.

Figure 1

Average number of days taken from raising a shopping cart to delivery of goods to the Mission under both existing system contracts and standalone contracts from July 2019 to December 2020



Source: Analysis of the UNISFA supply chain responsiveness index

a. Unclear specifications and inadequate monitoring of open shopping carts

17. There were delays in approving shopping carts due to unclear specifications of requirements from technical units. Therefore, AMU had to revert to technical units to clarify the specifications before approving the shopping carts. This occurred because some requisitioners did not have proper training and guidance in articulating specifications for goods needed.

18. There were also significant delays by the Procurement Unit in processing procurement requisitions and in some instances not acting at all on requisitions submitted by the technical units and AMU. For example, 233 shopping carts amounting to \$16.7 million were raised between 1 March and 30 June 2020 representing about 19 per cent of the total 2019/20 demand plan. Out of these, 16 shopping carts amounting to \$2.6 million of essential supplies such as plumbing materials, running water and wastewater laboratory, and incinerators were closed without action from the Procurement Unit. There was a continued need for these items as they were re-ordered in 2020/21 and were at the tender opening stage as of May 2021.

19. In addition, there was a general lack of proactive follow-up by procurement officers on open shopping carts raised in Umoja to ensure that requisitions raised by technical units/AMU were procured timely. This impacted the ability of the Mission to fully implement its demand plan and operational priorities. Only 47.5 per cent of the planned procurements in the established 2019/20 demand plan were successfully processed. The Procurement Unit had not established timelines for processing shopping carts. In addition, the retirement of the Chief of the Procurement Unit after a period of absence from the Mission reduced oversight of procurement officers to ensure they were effectively performing their functions. Recruitment of the Chief of the Unit was underway, and an Officer-in-Charge had been appointed for the interim period.

20. The Procurement Unit needed to be proactive in efficiently processing shopping carts for goods and services to ensure solicitations are initiated timely, and lead times minimized. Furthermore, all open shopping carts need to be regularly monitored to ensure that there are no overdue requisitions that remain outstanding without a valid reason. This would be facilitated by the establishment and monitoring of relevant key performance indicators (KPIs), and remedial action taken to address significant deviations.

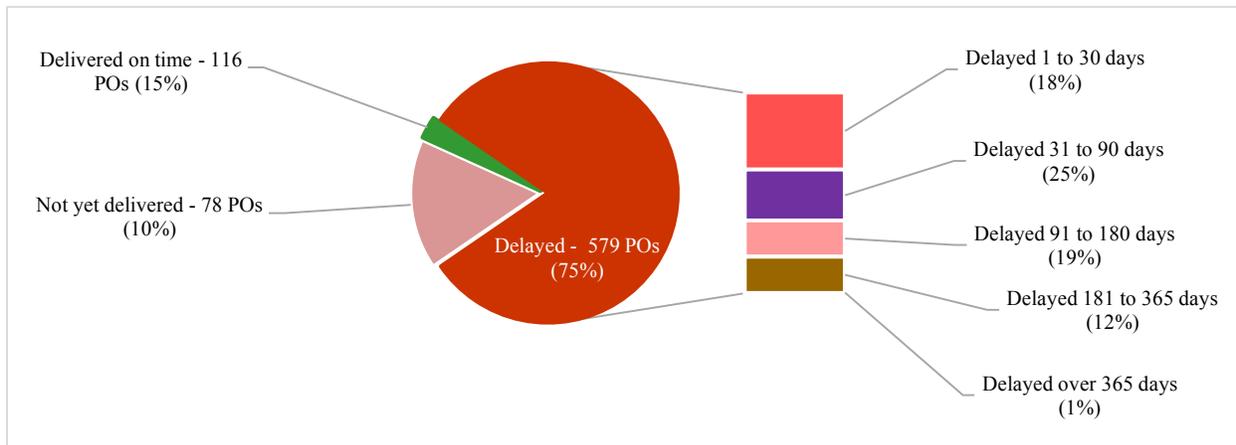
b. Incoterms of system contracts and other logistical challenges

21. OIOS analyzed the timelines from raising purchase orders to delivery of goods to the Mission. The analysis showed that for 75 per cent of purchase orders, delivery of goods was delayed. In addition, goods

relating to 78 purchase orders worth \$7.8 million had not yet been delivered to the Mission at the time of the audit, and these were outstanding for an average of one year.

Figure 2

Timeliness of delivery of goods from issuance of purchase order



Source: Umoja

22. Delays in delivering essential supplies to the Mission were mainly attributable to the incoterms of system contracts; and significant logistical challenges inherent to the operating environment faced by UNISFA. The Mission utilizes system contracts for sourcing most of its goods. In 2019/20 and 2020/21, the Mission sourced 57 per cent and 77 per cent respectively, of its goods using system contracts. However, all system contracts contained the Incoterm, free carrier, and the goods were usually delivered to an agreed drop-off point outside the Mission area. The ports selected were not the most convenient points of delivery for the Mission as it always had to engage a forwarder to move goods from these drop-off points. Furthermore, roads were often impassable during the rainy season for periods of up to at least six months. One of the ports had particularly cumbersome and bureaucratic entry clearance procedures that could stretch for months thus adding to the lead time to have goods delivered to the Mission.

23. There were also internal weaknesses that contributed to delays in delivery of goods such as inadequate follow-up with freight forwarders on the status of movement of goods and delivery timelines, and the Mission not always being proactive in liaising with government entities on a timely basis in getting the documentation required for the clearance of goods destined for the Mission.

24. The inherent challenging environment in which the Mission was operating necessitated proper delivery planning to ensure important goods and services are received when needed.

(2) UNISFA should establish and monitor key performance indicators to measure the effectiveness of procurement actions, including the prompt fulfilment of orders raised in shopping carts.

UNISFA accepted recommendation 2 and stated that the project on KPIs for the Acquisition Management and Procurement Units was recently introduced in June 2021. The Procurement Unit will work closely with technical units to ensure timelines stipulated in source selection plans are realistic and complied with, and reasons for significant changes are documented. Recommendation 2 remains open pending receipt of evidence that relevant KPIs are in place and regularly monitored for effective and timely procurement actions.

- (3) UNISFA should train staff in the technical units on the required standards for raising shopping carts so that errors that cause delays in the procurement process are minimized.**

UNISFA accepted recommendation 3 and stated that efforts will be made to hold benchmark meetings with technical units aimed at streamlining the submissions of requisitions and orienting them on the impact of not submitting clear and complete documentation regarding purchase requests. More in-depth engagement will be targeted at technical units in all aspects for a smooth and agile acquisition process. In addition, regular integrated business planning meetings with technical units were organized during last two years and it is an ongoing activity. Recommendation 3 remains open pending receipt of evidence that technical units have been trained on the required standards for raising shopping carts.

- (4) UNISFA should take action to improve delivery planning activities by scheduling delivery dates to take advantage of favorable weather conditions, training staff on customs clearance processes, using appropriate Incoterms, and adequately managing freight forwarding contracts.**

UNISFA accepted recommendation 4 and stated that it will continue to improve coordination with internal and external stakeholders to improve efficiencies on the selection of incoterms, delivery routes, assignment of priorities, scheduling of deliveries and management of contractors' performance. The roll-out of Umoja Extension 2 will equip the key internal stakeholders with the training and knowledge for efficiencies in freight delivery and supply chain processes. Recommendation 4 remains open pending receipt of evidence of actions implemented to improve delivery planning, that include ensuring planned delivery dates take advantage of favorable weather conditions, staff are trained on customs clearance processes, appropriate Incoterms are used, and freight forwarding contracts are adequately managed.

IV. ACKNOWLEDGEMENT

25. OIOS wishes to express its appreciation to the management and staff of UNISFA 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 demand and source planning in the United Nations Interim Security Force for Abyei

Rec. no.	Recommendation	Critical ² / Important ³	C/ O ⁴	Actions needed to close recommendation	Implementation date ⁵
1	UNISFA should develop and implement an action plan for the Acquisition Management Unit to provide additional guidance to technical units on forecasting the Mission's requirements for goods and services and preparing demand plans based on adequate analysis of projected needs taking into account historical consumption patterns and inventory data.	Important	O	Receipt of evidence of action taken to improve demand planning, including the implementation of Umoja Extension 2 DP/SNP solution.	31 August 2022
2	UNISFA should establish and monitor key performance indicators to measure the effectiveness of procurement actions, including the prompt fulfilment of orders raised in shopping carts.	Important	O	Receipt of evidence that appropriate KPIs are in place for effective and timely procurement actions.	31 October 2021
3	UNISFA should train staff in the technical units on the required standards for raising shopping carts so that errors that cause delays in the procurement process are minimized.	Important	O	Receipt of evidence that technical units have been trained on the required standards for raising shopping carts.	31 August 2022
4	UNISFA should take action to improve delivery planning activities by scheduling delivery dates to take advantage of favorable weather conditions, training staff on customs clearance processes, using appropriate Incoterms, and adequately managing freight forwarding contracts.	Important	O	Receipt of evidence that the Mission has implemented actions to improve delivery planning activities that include ensuring planned delivery dates take advantage of favorable weather conditions, staff are trained on customs clearance processes, appropriate Incoterms are used, and freight forwarding contracts are adequately managed.	30 April 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 UNISFA in response to recommendations.

APPENDIX I

Management Response

INTER OFFICE MEMORANDUM

DATE: 5 August 2021
REFERENCE: CMS/IOM/21/85

To: Fatoumata Ndiaye,
Under-Secretary-General
For Internal Oversight Services

Through: Major-General Kefyalew Amde Tessema
Acting Head of Mission and Force Commander
UNISFA

From: Robert Kirkwood
Chief of Mission Support
UNISFA

Kirkwood

05/08/2021



Subject: Draft report on an audit of demand and source planning in the United Nations Interim Security Force for Abyei (Assignment AP2020-635-02)

1. I am pleased to inform you that I have received the above-mentioned report.
2. I welcome the findings and recommendations of the report which form a good basis for further improving the demand and source planning in UNISFA. Accordingly, my team has developed the attached action plan to respond to the recommendations and will report to me on progress regularly.
3. I would like to take this opportunity to thank the OIOS team for its efforts and cooperation with the UNISFA focal points.
4. Thank you and best regards.

Management Response

Audit of demand and source planning in the United Nations Interim Security Force for Abyei

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1.	UNISFA should develop and implement an action plan for the Acquisition Management Unit to provide additional guidance to technical units on forecasting the Mission's requirements for goods and services and preparing demand plans based on adequate analysis of projected needs taking into account historical consumption patterns and inventory data.	Important	Yes	Chief AMU	Ongoing timelines of UMOJA module implementations are depending on UNHQ deployment team. Gross demand plan transition to Umoja to be completed by end August 2021	The mission will soon transition to Implementation of Umoja Extension 2 (New Supply Chain Planning Tool) which is designed to focus on the actual mission needs and is embedded with automated forecasting based on historic consumption pattern and existing inventory data. The Plan will also allow a 24-month rolling plan instead of 12 months under the legacy system. The mission expects to implement its Acquisition Planning for 2022-23 using the new Tool and a lot of corrective measures will begin to be adopted with the current DAP 2021-22, as much as it is practically possible, under the phasing out structure. The current version of the DAP tool was not integrated in Umoja, it was a tool outside Umoja that needed to be reconciled and aligned manually. The new Supply Planning tool integrated in Umoja will have all the consumption and historical data available in Umoja automatically and will not be based on the budget consumption but on the real goods and service consumption.
2	UNISFA should establish and monitor key performance indicators to measure the effectiveness of procurement actions, including the prompt fulfilment of orders raised in shopping carts.	Important	Yes	CPO	31/10/2021	Project on KPI for Acquisition Management Unit and Procurement for goods shopping carts and PO timelines was recently introduced in June 2021 (attached). Procurement will work closely with the technical units to ensure timelines stipulated in the source selection plan are realistic and complied during the solicitation process. Any significant changes to the timelines will require justification and be well documented. Procurement Staff will ensure that the validity period in the solicitation documents is in line with the Procurement manual and that awards are made within the validity period.

¹ 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.

² 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.

Rec. no.	Recommendation	Critical/ Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
						Procurement will also work closely with Technical Units and Movcon to ensure the appropriate INCOTERMS are stated in the solicitation documents.
3	UNISFA should train staff in the technical units on the required standards for raising shopping carts so that errors that cause delays in the procurement process are minimized.	Important	Yes	Chief AMU	On-going Monthly Internal Business Plan (IBP) meetings	Efforts will be made via Teams to hold benchmark meetings with technical units aimed at streamlining the submissions of requisitions as well as orienting the Clients on the overall impact of not submitting clear and complete documentation with regards to their purchase requests. More in-depth engagement will be targeted at Technical Units in all aspects for a smooth and agile acquisition process. Also regular Internal IBP meetings with Technical Units were organized during last 2 years and it is an ongoing activity.
4	UNISFA should take action to improve delivery planning activities by scheduling delivery dates to take advantage of favorable weather conditions, training staff on customs clearance processes, using appropriate Incoterms, and adequately managing freight forwarding contracts.	Important	Yes	Chief MOVCON	30 April 2022.	<p>The mission will continue to improve coordination with internal and external stakeholders to improve efficiencies on the selection of incoterms, delivery routes, assignment of priorities, scheduling of deliveries and management of contractors' performance. The roll-out of the UE 2 (Supply Chain Planning Tool) will have the key internal stakeholders equipped with the training and knowledge for efficiencies in the freight delivery and supply chain processes</p> <p>One of the main difficulties faced in terms of Inventory Management was the initial inventory migration from Galileo to Umoja that introduced several discrepancies in terms of PIDs, Product IDs (we moved from a material master catalogue to another one). An intensive PIDs data cleansing exercise was done in 2019 through the PIRO project (coordinated by HQ) in conjunction with the establishment of the Supply Chain pillar and the Centralized Warehouse Unit that was not existing until then.</p>