



Ministry of Health



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2018 Annual Project Report

Cover Page

Implementing Agency/Agencies): United Nations Development Programme

Project Title: Strengthening Supply Chain Management in the Health Sector in Zambia Project No(s): 00104048

Project Start Date: 18th July 2017

Project End Date: 31st December 2019

Fiscal Year: 2018

Reporting Period: 1st January 2018 to 31st December 2018

Project Expenditures (US\$) for the Reporting Period

	Expenditures (US\$)
Donor 1: Churches Associations of Zambia (CHAZ) (Choma Regional Medical Warehouse (Hub))	677,999.39
Total Expenditures (US\$):	677,999.39

Submission Date: 28 February 2018

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1. Executive Summary

In 2015, MSL in collaboration with UNDP and other Cooperating Partners (CPs) developed a MSL Master Plan (MMP) to address the capacity challenges in the short, medium and longer term. The NSCS Implementation Plan articulated a number of priority areas across the public health sector. The proposed set up was to allow for each of the elements to be funded by different donors/grants, but have the implementation take place within the master plan framework. Each step aimed at providing incremental improvements in storage space, quality of service, and technical capacity, while allowing MSL to continue with its normal operations for providing logistical services.

This annual report covers the Design and Construction of the regional medical warehouse (hub) and installation of specialist equipment in Choma (Southern Province).

UNDP signed the original Cost Sharing Agreement (CSA) for these works with the Churches Association of Zambia (CHAZ) in April 2017. UNDP conducted the international competitive process and signed the contract for the main works with the contractor on 18th July 2017. The contract start date was 18th July 2017 with the expected completion date of 31st December 2017. The contract was extended to 31st March 2018 after additional works were included through a contract amendment 1.

The Choma MSL regional medical warehouse (hub) was partially handed over on 14th April 2018 and MSL began operations on 1st May 2018. The partial handover was due to delayed arrival of long-lead time main air-conditioning units. The full handover was affected on 1st September 2018 after the two main air-conditioning units had been installed. Full progress details are contained in the attached project handover report.

As of 2nd September 2018, the hub is under the Defect Liability Period (DLP) until September 2019. UNDP continues to monitor the operations of these hubs and specialist equipment and having all defects rectified as and when they occur.

In December 2018. UNDP had signed a separate contract for the supply and installation of Solar Equipment at the newly constructed hub. The contract start date was 1st January 2018 with the initial completion date of 31st March 2018. The contractor delayed completion of the project and the contractor was given an extension to 30th June 2018 after UNDP obtaining authority from the infrastructure steering committee. The on-grid system was completed as of 30th June 2018 while the off-grid system was in delay due to the late arrival of the solar batteries.

2. Background and Purpose of Programme/Project

After years of dramatic growth in the public health total commodity supply volumes handled by Medical Stores Limited (MSL) central warehouse, MSL was faced with serious capacity challenges. There was need for expanding and strengthening the public health supply chain systems, as articulated in the National Supply Chain Strategy (NSCS) 2015-2017. This included investments in expanding central warehousing capacity and construction of a number of regional hubs, as a relay for distribution of health products to the outlying health facilities. In addition, the need was identified for investments in information technology systems to support the supply chain management operations

In 2015, MSL in collaboration with UNDP and other Cooperating Partners (CPs) developed a MSL Master Plan (MMP) to address the capacity challenges in the short, medium and longer term. The NSCS Implementation Plan articulated a number of priority areas across the public health sector. The MSL Master Plan 2015 proposed the following key priority areas:

- a) Urgent upgrade of MSL existing infrastructure as part of the efforts to maintain and improve the quality of logistics services provided to the public health sector.
- b) Implementation of a modern Enterprise Resource Planning (ERP) systems; which include a new Warehouse Management System (WMS), Electronic Logistics Management Information Systems (eLIMS) and automation of other warehouse processes and techniques such as barcode reading.
- c) Construction of a new dispatch warehouse and offices at Medical Stores Limited at central warehouse compound.
- d) Expansion of the Central Warehouse in Lusaka from the current 7,000m² to approximately 22,000m².
- e) Construction of a second central warehouse (6,000m²) on the Copperbelt Province in Luanshya district.
- f) Construction of regional hubs at selected sites and district stores.

The proposed set up was to allow for each of the elements to be funded by different donors/grants, but have the implementation take place within the master plan framework. Each step aimed at providing incremental improvements in storage space, quality of service, and technical capacity, while allowing MSL to continue with its normal operations for providing logistical services.

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3. Progress against Planned Results/Implementation

Country Programme Outcome(s) the programme/Project contributes to: By 2021 national institutions at all levels target, manage, coordinate and account for resources for equitable service delivery and economic growth that is based on reliable data.

Country Programme Output (s) wholly or partially attributed to the project: Countries have strengthened institutions to progressively deliver universal access to basic services.

Country Programme Outputs	Attribution (Partial/ Whole)	Output Indicator(s)	Baseline	Target	Progress Attained	Reasons if progress is below target	Remedial measures/ Action
1.1 Storage capacity increased		Extra regional warehouse hubs constructed	0	1	1		

Programme/Project Specific or Joint Programme Outputs

Output	Output Indicator(s)	Baseline	Target	Progress Attained	Reasons if progress is below target	Remedial measures/ Action
1.1.1 Storage capacity increased	Extra regional warehouse hubs constructed	0	1	1		
1.1.2 New of Solar Equipment	Solar on-grid and off-grid system installed	0	1	80%	Contractor's own delays for off-grid system	Liquidated damages evoked for delays

Progress on Implementation of Activities

Main Activity	Target	Progress against planned activities and targets	Planned Completion Date	Implementation Status (Completed, Ongoing-On Track, Ongoing-Off Track & Cancelled)	Reason (s) for slippage (if progress and implementation is not on track) and remedial measures taken	Budget & Expenditure Monitoring Framework		
						Budget (US\$)	Expenditure (US\$)	Delivery (%)
1.1.1.1 Construction of Choma MSL regional Medical Hub	Construction of Choma MSL regional Medical Hub	Construction of Choma hub completed and handed over	March 2018	Handed over on 14 th April 2018		1,763,241.88	1,725,762.71	98%
1.1.1.2 Installation of Solar Equipment	On-grid and off-grid system completed	On-grid system completed. Off-grid system delayed.	May 2018	On-grid system completed June 2018. Off-grid system on-going	Contractor's own delays. Liquidated damages deducted	208,343.48	208,343.48	100%

4. Progress towards achievement of results

APR and Annual Reports:

During the report period the construction of the regional warehouse was completed and successfully handed over and accepted by Medical Stores limited as of 14th April 2018.

Medicals Stores Limited commenced operations in the newly constructed warehouse as of 1st May 2018. The new Choma regional medical warehouse hub has MSL's strategic direction to deliver essential medicines and other health products to the health facilities (the last mile).

Challenges and constraints experienced during the project phase are highlighted in the attached practical handover report.

5.0 Key Development Drivers and Cross Cutting themes

The equipment installed at the site included the solar equipment to provide renewable energy to the warehouse with the capacity of 130KW. This include the on-grid system and off-grid system. The national grid electricity supply will be on standby as the environmentally friendly renewable solar power will be adequate to provide required energy to all critical installation and equipment within the warehouse. All security lighting around the warehouse perimeter fence are solar.

The main warehouse air-conditioning units are also energy efficient in operations. They operate in such a pattern that when the outside of the warehouse is cooler it only blows cold air to the inside of the warehouse thereby saving energy that could have been used in the normal cooling operation.

The ceiling of the warehouses are fitted with heavy (thick) insulation with low thermal conductivity. The insulation contributes to prevention of the transfer of heat to the inside of the warehouses and so reduces the energy required to raise temperatures and protects medicines and health products from heat damage.

Heat shielding paint with low thermal conductivity has also been used to paint the roofing materials for the warehouses.

6.0 Key Lessons learnt and Best Practices

The use of the experienced UNDP focal contract management Staff to monitor progress of the projects was seen to be more beneficial during the contract execution period. Other key best practices include:

- 1. Timely engagement of qualified and experienced contract managers either as ICs or firms.**

During the implementation stage, delays were experienced when engaging some of the supervision team and this had an impact in initial stages of the project progress.

- 2. Formation of the multi-discipline contract management team (including the end users).**

At the start of the project the direct supervision team did not include Medical Stores Limited (MSL) project Staff. As the end user MSL Staff were key in the process of handover because they were required to sign the handover and acceptance forms. As such they were only

incorporated towards the end of the project. This action was helpful in concluding the handover process.

3. Establishments of a risk log register and mitigation measures

The risk log was very useful as it helped in anticipating potential risks and taking mitigation measures to correct risk situations.

4. Scheduled regular contract management and site meetings.

Weekly and site meetings were key in monitoring and tracking progress on site. The resident clerk of works was responsible for day to day supervision and monitoring of the daily progress of the work.

5. Arranging customs preclearance of imported goods

An arrangement was made to have the goods cleared before the consignments reached the Zambian border. This ensured that no delays were experienced at the border as consignments were precleared before arrival at the border. This made entry into Zambia faster avoiding any demurrage charges.

6. Formation of the high level sector wide steering committee to superintend and make strategic decisions on the direction of the projects.

A sector wide Steering Committee comprising the Ministry of Health, Medical Stores Limited (MSL), Churches Association of Zambia (CHAZ), USAID and UNDP was formed as a project coordination mechanism for the implementation of the infrastructure projects. It was responsible for the overall oversight of the construction of the hubs and extension of the central warehouse infrastructure including making key decisions. This committee was chaired by the Ministry of Health while MSL was the secretariat. Meetings were held frequently and all implementing partners were required to report progress and high level decisions were made by this committee.

7.0 Project Expenditure up to 31 December 2018

Output Details	Budget	Expenditure	Balance	Delivery (%)	Remarks and recommendations
Outcome 1					
Output 1.1 Storage capacity increased	1,763,241.88	1,725,762.71	37,479.17	98%	
Outcome 2:					
Output 2.1 Solar Equipment installation	208,343.48	208,343.48	0	100%	
Total	1,967,585.00	1,934,106.19	37,479.17	98%	

8.0 Success Stories

In accordance with its mission statement;

“to provide a reliable and accountable one-stop public health supply chain services for a healthier and productive nation.”

Medical Stores Limited (MSL) has and will continue to increase the public value in the delivery of pharmaceutical products and other healthy supplies until implementation of all the supply chain strategies proposed in the 2015 Master Plan are fully completed.

The construction of these regional medical warehouses (hubs) is gradually decentralizing both the warehousing and distribution operations. The completed medical warehouse hubs have reduced the monthly long-haul bulk distribution deliveries to district centres for onward smaller quantities distributions to health facilities. With its presence in the new regional hubs, MSL is able to distribute medicines and other health products in small loads directly to health facilities (last mile) in smaller quantities much faster using appropriated delivery vehicles in based in regions where regional medical hubs now exist.

It is evident that in the short to medium term, MSL has been able to improve its overall operations after implementing the new SC strategies that were proposed in the 2015 MSL Master Plan. The increased public value created by the implementation of these SC strategies can be seen in the faster delivery of medicines and health supplies and information flow to and from the health facilities.

9.0 Next Year's (2019) Focus and Priority

Planned activities in 2019 include:

1. Management of the defect liability period for Choma hub.
2. To conduct an end of project review and final handover of the project.

Annex 1 - Practical completion report for Choma hub

Annex 2 – Progress in Pictures



Completed Choma Regional Hub