



Ministry of Health



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## 2018 Annual 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: 18<sup>th</sup> July 2017**

**Project End Date: 31<sup>st</sup> December 2019**

**Fiscal Year: 2018**

**Reporting Period: 1<sup>st</sup> January 2018 to 31<sup>st</sup> December 2018**

**Project Expenditures (US\$) for the Reporting Period:**

	<b>Expenditure (US\$)</b>
Donor: Ministry of Health	1,987,220.16
<b>Total Expenditure (US\$):</b>	<b>1,987,220.16</b>

**Submission Date: 28 February 2018**

**Contact Details:**

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## 1. Executive Summary

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 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 pharmaceutical warehouses (hubs) and installation of specialist equipment in Mansa (Luapula Province), Mpika (Muchinga Province) and Chipata (Eastern Province) by UNDP, funded by Zambia Government/GFTAM.

UNDP signed the original Cost Sharing Agreement (CSA) for these works with the Ministry of Health in April 2017. UNDP conducted the international competitive process and signed 3 contracts for the works with the contractors on 18<sup>th</sup> July 2017 respectively. The contract start date was 18<sup>th</sup> July 2017 with the initial expected completion date of 15<sup>th</sup> December 2017. All contracts were extended to 31<sup>st</sup> March 2018, for various reason as explained in the attached practical completion reports for each site respectively.

Mansa hub was partially handed over on 18<sup>th</sup> May 2018 and MSL began operations on 1<sup>st</sup> June 2018. The partial handover was due to delay in arrival of long lead-time main air-condoning units. The full handover was affected on 25<sup>th</sup> August 2018.

Chipata hub was fully handed over on 31<sup>st</sup> May 2018 and MSL began operations on 1<sup>st</sup> July 2018.

Mpika hub handover experienced further delays (see details in the attached practical completion report) and was only fully handed over on 29<sup>th</sup> October 2018 and MSL began operations on 1<sup>st</sup> November 2018.

The 3 hubs are currently under the Defect Liability Period (DLP). UNDP continues to monitor the operations of these hubs and specialist equipment and having all defects rectified as and when they occur.

## 2. Background and Purpose of 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 7,000m<sup>2</sup> to approximately 22,000m<sup>2</sup>.
- e) Construction of a second central warehouse (6,000m<sup>2</sup>) 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.

This annual report covers the Design and Construction of the regional medical warehouses (hubs) and installation of specialist equipment in Mansa (Luapula Province), Mpika (Muchinga Province) and Chipata (Eastern Province).

### 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	Partial	Extra 5 regional warehouse hubs constructed	0	3	3		
1.2 Supplies handling capacity improved	Partial	New commodity handling equipment and system installed	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 5 regional warehouse hubs constructed	0	3	3		
1.1.2 Supplies handling capacity Improved	New commodity handling equipment and system installed	0	1	1		

#### 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
1.1.1.1 Construction of Mansa Regional Medical Hub	Construction of Mansa MSL regional medical hub	Construction of Mansa hub completed and handed over	March 2018	Handed over on 18 <sup>th</sup> May 2018	To complete additional works
1.1.1.2 Construction of Mpika Regional Medical Hub	Construction of Mpika MSL regional medical hub	Construction of Mpika hub completed and handed over	March 2018	Handed over on 29 <sup>th</sup> October 2018	Contractor own delays. Liquidated damages deducted
1.1.1.3 Construction of Chipata Regional Medical Hub	Construction of Chipata MSL regional medical hub	Construction of Chipata hub completed and handed	March 2018	Handed over on 31 <sup>st</sup> May 2018	Contractor own delays. Liquidated damages deducted.
1.1.1.4 Supply of materials handling equipment for Mansa hub only	Installation of racking and supply of reach truck	Racking installed and reach truck delivered	June 2018	Completed by 30 June 2018	
1.1.1.5 Installation of Solar Equipment at Mansa, Mpika and Chipata medical hubs	On-grid and off-grid system completed	On-grid system completed. Off-grid system delayed	May 2018	On-grid system completed on 30 June 2018. Off-grid system on-going	Contractor's own delays. Liquidated damages deducted

#### **4. Progress towards achievement of results**

During the report period the construction of the regional warehouses were completed and successfully handed over to the Ministry of Health and Medical Stores limited.

Medicals Stores Limited commenced operations in the newly constructed warehouse as follows:

1. Mansa; operations commenced on 1<sup>st</sup> June 2019.
2. Chipata; operations commenced on 1<sup>st</sup> July 2018
3. Mpika; operations commenced on 1<sup>st</sup> November 2018.

Mansa hub was also equipped with racking and one reach truck.

Challenges and constraints experienced during the project phase are highlighted in the attached practical handover reports for each site respectively.

#### **5. Key Development Drivers and Cross Cutting themes**

The equipment installed at the 3 sites included the solar equipment to supply power to the warehouses with the capacity of 160KW respectively. 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 equipment within the warehouses. All security lighting around the warehouses' 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 they only blow 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 outside of 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 projects progress.

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

At the start of the projects 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-off the handover and acceptance forms. As such they were only

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

**3. Establishments of a risk log register and mitigation measures**

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

**4. Scheduled regular contract management and site meetings.**

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

**5. Arranging customs preclearance of imported goods**

An arranged 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.

**6. Formation of the high-level sector 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 fortunately 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

<b>Output Details</b>	<b>Budget</b>	<b>Expenditure</b>	<b>Refund</b>	<b>Balance</b>	<b>Delivery (%)</b>
Output 1.1 Storage capacity increased	8,069,250	6,824,299	1,200,000	44,950	99%

## **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.

The Mpika regional pharmaceutical warehouse was officially launch by His Excellency the President of the Republic of Zambia on 15<sup>th</sup> February 2018. In his speech the President said;

“investing in health of our people to improve the productivity and quality of life is line with our vision of a productive and health Zambia and a sure way to improving the health sector.”

## **9.0 Next Year's (2019) Focus and Priority (APR & Annual Reports)**

Planned activities in 2019 include:

1. Management of the defect liability period for all the three hubs.
2. Engagement of and Individual contract to manage the technical aspect of the defect liability period.
3. To conduct an end of project review and final handover of the projects.



## **Annex 1: Practical completion reports**

See attached reports

**Annex 2: Progress in pictures**



Mansa Regional Hub



Mpika Hub officially launched by the President of the Republic of Zambia



Chipata Regional Hub