THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

ETHIOPIAN PHARMACEUTICAL SUPPLY AGENCY

Pharmaceuticals Supply Transformation Plan II (PSTP II) 2020/21-2029/30

Final Report

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ADDIS ABABA

ACKNOWLEDGEMENTS

FOREWORD

From the Minister of Health

The Ethiopian Pharmaceuticals Supply Agency (EPSA) is one of the key institutions in the country's healthcare system. Since its establishment, the Agency has played an indispensable role in the achievements of the health sector in terms of reducing morbidity and mortality that result from communicable and non-communicable diseases. Over the years, the range and quantity of pharmaceuticals the Agency has procured and distributed has significantly increased. The Agency also stores and distributes products procured through donor/partner support or obtained through direct donation.

Among the various initiatives underway, significant progress made in the implementation of long-term procurement agreements (LTA), placement schemes, warehouse operations and management, establishment of modern disposal sites, and expansion of last mile, direct delivery. In addition to their regular supply chain management activities, the Agency has also played a central role in responding to public health emergencies such as the COVID-19 pandemic.

Despite these notable achievements, there is a lot to be done to meet the ever increasing demand for pharmaceuticals in the country now and in the future. The upcoming Social Health Insurance System is expected to notably increase the demand for pharmaceuticals. To this end, the Agency has developed the Second Pharmaceuticals Supply Transformation Plan 2020/21 – 2029/30 (PSTP II) in alignment with the Second Health Sector Transformation Plan (HSTP II). In this strategic plan, the Agency has envisioned to be "The most responsive and efficient pharmaceuticals supply chain organization in Africa by 2030" through the achievement of excellence in the areas of customer service, operations, financial sustainability, and leadership, governance, and human resource management.

Implementation of this strategy will require the concerted efforts of all interested stakeholders and partners. The Ministry is devoted to extending its support to the implementation of this strategic plan. I would like to call upon all stakeholders and partners to also extend their support to the Agency through this plan. I would also like to take this opportunity to thank the members of the Strategic Plan Development Taskforce, the management of EPSA, the consultants, and the stakeholders and partners who directly or indirectly took part in the plan development process.

Dr. Lia Tadesse

Minister of Health

From the Director General

The Ethiopian Pharmaceuticals Supply Agency (EPSA) has made significant progress in its operations towards achieving its vision of being "The most responsive and efficient pharmaceuticals supply chain organization in Africa by 2030". The Agency has contributed its part for the achievements made in the health sector in the management of both communicable and non-communicable diseases. In addition to the regular supply chain management activities, the Agency has also been playing critical roles in responding to public health emergencies including the current COVID-19 pandemic.

EPSA is managing all categories of pharmaceuticals required for the prevention, diagnosis and treatment of diseases. Since 2018, the Agency has been undertaking its operations with a focus on key pharmaceuticals as per the Pharmaceuticals Procurement List (PPL) developed through a consultative process. As part of implementation of the Revised Pharmaceuticals Supply Transformation Plan (2018-2020), various initiatives aimed at advancing operations of the Agency to industry standards have been underway with promising progresses. Despite the notable achievements so far, there is a lot to be done to meet the ever increasing demand for pharmaceuticals. To realize this, the Agency has developed its Second Pharmaceuticals Supply Transformation Plan 2020/21 – 2029/30 (PSTP II) in line with HSTP II.

With the vision "To be the most reliable and efficient pharmaceuticals supply chain organization in Africa by 2030", initiatives that can bring about transformative change in all operations of the Agency are included in the strategic plan. These include transformative initiatives in the areas of demand planning, medical equipment management, information management, strategic procurement, risk management, financial sustainability, warehouse operations management, strategic partnership, and leadership and governance. Appropriate implementation of this strategic plan will advance EPSA to an efficient, reliable and competent supply chain organization in the African continent that can supply pharmaceuticals to neighboring countries as well.

The Agency is committed to implementing the strategic plan through coordinating the efforts of its stakeholders and partners and would like to kindly request all its stakeholders and partners to join their hands for the implementation of this strategic plan thereby realizing the transformed EPSA. I would also like to use this opportunity to thank members of the strategic plan development team, the local and external consultants, and stakeholders and partners who directly or indirectly contributed for development of the strategy.

Dr. Abdulkedir Gelgelo
Director General of EPSA

ACRONYMS

ABC	Activity-Based Costing
APS	Advanced Planning and Scheduling
APTS	Auditable Pharmaceutical Transactions and Services
BPR	Business Process Re-engineering
BPT	Business Process Transformation
BSC	Balanced Scorecard
CAD	Cash Against Document
CCTV	Closed Circuit Television
CoE	Centre of Excellence
DTC	Drug and Therapeutics Committee
E.C.	Ethiopian Calendar
EFDA	Ethiopian Food and Drug Authority
EFY	Ethiopian Fiscal Year
EPHI	Ethiopian Public Health Institute
EPSA	Ethiopian Pharmaceuticals Supply Agency
ERP	Enterprise Resource Planning
FBPIDI	Food, Beverage and Pharmaceutical Industry Development Institute
FMHACA	Food, Medicine, Healthcare Administration and Control Authority
FMoH	Federal Ministry of Health
GDP	Good Distribution Practice
GF	Global Fund
GMP	Good Manufacturing Practice
HAPCO	HIV/AIDS Prevention and Control Office
HCMIS	Health Commodity Management Information System
HR	Human Resource
HSTP	Health Sector Transformation Plan
ICB	International Competitive Bid
IFRS	International Financial Reporting Standards
IPLS	Integrated Pharmaceuticals Logistics System
JSI	John Snow, Inc.
KPI	Key Performance Indicator
LC	Letter of Credit
MHE	Material Handling Equipment
MIS	Management Information System

PFSA	Pharmaceuticals Fund and Supply Agency
PSTP	Pharmaceuticals Supply Transformation Plan
QA	Quality Assurance
QC	Quality Control
QMS	Quality Management System
RDF	Revolving Drug Fund
RHB	Regional Health Bureau
SCM	Supply Chain Management
SDP	Service Delivery Points
SLA	Service Level Agreement
SWOT	Strengths, Weaknesses, Opportunities and Threats Analysis
TBD	To Be Determined
TMS	Transport Management System
TWG	Technical Working Group
UNCTAD	United Nations Conference on Trade and Development
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WMS	Warehouse Management System
WoHO	Woreda Health Office

EXECUTIVE SUMMARY

The Ethiopian Pharmaceuticals Supply Agency (EPSA), formerly known as Pharmaceuticals Fund and Supply Agency (PFSA), is a governmental pharmaceuticals supply agency established by proclamation number 553/2007 with a mission to supply quality assured pharmaceuticals to public health facilities at an affordable price in a sustainable manner.

While the Agency has made significant achievements supporting the rapid expansion of healthcare services in Ethiopia, rapid growth has also brought challenges. The planned expansion of the number of hospitals and health facilities nationwide over the coming decade also points to demand growth continuing into the foreseeable future.

Commencement of procurement based on the Agency's procurement list, the introduction of framework agreements, improved management of warehouse functions, ownership of network of warehouses equipped with necessary materials and transportation vehicles and increased stakeholder management are among the strengths internal to the Agency while lack of a robust system that best handles all the operations of the Agency and weak demand planning and less emphasis on market shaping, long procurement lead time, inadequate management of medical equipment were among the weaknesses noted. COVID-19 pandemic related global changes and are expected to be challenges to the product service delivery.

Current initiatives that are at different stages of implementation under the PTSP I (Revised), new transformational initiatives based on the visioning survey, insight gained by proactive scanning and the leadership aspiration in addition to the initiatives for the problems identified in the situational assessment are taken into account as part of the strategy. The strategic plan will be aligned with other pharmaceutical sectors' and related organizations to constitute the national pharmaceutical sector roadmap, which serves as a national guide for the pharmaceutical sector.

The new EPSA Vision and Mission Statements are as follows:

Vision: "To be the most responsive and efficient pharmaceuticals supply chain organization in Africa by 2030."

Mission: "We sustainably supply affordable and quality assured essential pharmaceuticals to our customers through advancing supply chain management systems to enhance the health of society."

Based on the situational assessment, stakeholder feedback, and the revised mission and vision statements, the Agency will focus its new 10 Year program on four strategic themes:

1. Excellence in Customer Service
2. Financial Sustainability
3. Operational Excellence
4. Excellence in Human Resource Management, Leadership and Governance

Through these strategic themes, the Agency intends to deliver high levels of customer satisfaction, improved financial capacity to operate the supply chain, a flexible and reliable operational model, and a learning organization with skilled and talented staff.

These four (4) strategic themes have been broken down into twelve (12) strategic objectives that describe the focus of the key activities and initiatives that the Agency believes are needed to deliver the changes in performance set out through the vision and mission statements.

The strategic objectives include:

C1: Enhance customer and stakeholder satisfaction

F1: Improve financial performance and sustainability

P1: Enhance the use of supply chain planning and analytics

P2: Advance the procurement process

P3: Enhance warehousing, order management & distribution processes

P4: Enhance financial efficiency

P5: Enhance compliance

P6: Strengthen risk management

P7: Strengthen strategic partnerships

CB1: Strengthen leadership, governance & human resource management

CB2: Transform the SCM information system

CB3: Strengthen monitoring & evaluation, and knowledge management

This Transformation Plan has a ten-year timeframe, starting in 2020 G.C. and is estimated to cost USD **64,318,772.31 .** Over half of this estimate (USD 32,000,000) is scheduled within the first three years of the plan. Notably, from the twelve strategic objectives, two of them: P3: Enabling Warehousing, Order Management and Distribution Processes, and CB2: ERP - Transforming Supply Chain Information System, account for roughly 75% of the total implementation budget required to commence the transformation.

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1. INTRODUCTION

1.1. Background

The Ethiopian Pharmaceuticals Supply Agency (EPSA), formerly known as Pharmaceuticals Fund and Supply Agency (PFSA), is a governmental pharmaceuticals procurement and supply agency established by proclamation number 553/2007. Its mission is to supply quality assured pharmaceuticals to public health facilities at an affordable price in a sustainable manner.

The Agency is responsible for the public sector's healthcare supply chain and all its key functions, including forecasting, procurement, warehousing, and distribution of medicines, medical supplies, diagnostic chemicals and reagents and medical equipment. Today, its activities constitute an annual turnover of almost USD 1 billion.

While the Agency has made significant achievements supporting the rapid expansion of healthcare services in Ethiopia, rapid growth has also brought challenges.

There have been significant increases in infrastructure and assets, yet business processes and systems have not kept up with this growth. Experience with Community-based Health Insurance (CBHI) suggests nationwide health insurance could double the demand for the medicines and other supplies covered by CBHI. The planned expansion of the number of hospitals and health facilities nationwide over the coming decade also points to demand growth continuing into the foreseeable future.

A Pharmaceuticals Supply Transformation Plan (PSTP) was approved for implementation by the Federal Ministry of Health (FMoH) after having been developed by EPSA in late 2015 and reviewed in 2018. The revised transformation plan from 2018 - 2022 had the following strategic objectives:

1. Achieve financial and operational self-sufficiency,
2. Ensure high levels of product availability and delivery of excellent customer service, and
3. Increase the level of Supply Chain Management (SCM) expertise and provide the staff   with rewarding careers.

Overall outputs from the situational analysis indicated that progress is being made in all areas of the supply chain operations, although the organization continues to operate in a functional manner, with long delays in execution. An inadequate investment in people and systems have held back progress towards more customer-driven processes and outputs. Supply chain activities and supporting systems are characterized by complex and lengthy business processes, low levels of asset utilization, lack of management information to control key supply chain functions, operational systems that do not allow for the introduction of best practice techniques, and a somewhat dissatisfied workforce.

Vision: "To be the most responsive and efficient pharmaceuticals supply chain organization in Africa."

Mission: "Ensure sustainable supply of quality assured essential pharmaceuticals to health facilities at affordable price through establishment of pooled procurement, robust inventory management and distribution, effective financial management, integrated management information system, and attracting and retaining motivated and competent workforce."

The strategic plan will be aligned with other pharmaceutical sectors' and related organizations to constitute the national pharmaceutical sector roadmap, which serves as a national guide for the pharmaceutical sector.

1.2. Purpose of the PSTP II Report

Currently the Federal Ministry of Health (FMOH) has developed 10-year Health Sector Transformation Plan II (2021-2030 G.C.), which is in line with the FDRE Plan and Development Commission's nationwide ten year strategic plan. To ensure alignment with the HSTP II, EPSA has also developed this 10-year strategic plan (PSTP II (2020/21-2024/25-2029/30 G.C.) that includes a number of transformational initiatives. The feedback received on priorities and performance suggested that EPSA should continue to improve performance across a broad range of key functions, programs, and activities.

Thus, this strategic document is developed to address the rapidly increasing health commodity demand of the society with due consideration of current initiatives that are at different stages of implementation under the PTSP I (Revised), new transformational initiatives based on the visioning survey, insights gained by proactive scanning and the aspirations of the leadership, as well as initiatives included to address key problems identified in the situational assessment.

1.3. PSTP II Formulation Framework

Project Management (Including Inception)
- ✓ CTT and consulting team alignment.
- ✓ Review key data and results
- ✓ Prepare work plan
- ✓ preliminary assessment
- ✓ Further document review
- ✓ Adjust project methodology and plan
- ✓ Prepare inception report

Strategic analysis → **Strategic formulation** → **Costing Study** → **Developing M&E Framework**

Strategic analysis	Strategic formulation	Costing Study	Developing M&E Framework
✓ External analysis(O/T) ✓ Internal Analysis (S/W) ✓ SWOT ✓ Mandate analysis ✓ Stakeholder analysis	✓ Strategic orientation/visioning exercise ✓ Develop 10 years PSTP II plan based BSC approach ✓ Develop an implementation time frame for the PSTP Plan	✓ Develop a 10 year costing study and budget for initiatives	✓ Develop M&E tools ✓ Develop performance evaluation tools

EPSA has used the Balanced Scorecard (BSC) approach to develop the 10 year Pharmaceutical Supply Transformation Plan (PSTP II). The strategic plan development went through the following steps.

The methodology for implementing the BSC strategic management system is attached in

Annex 6of this document.

2. SITUATIONAL ASSESSMENT

2.1. Introduction

2.1.1. Background

The Ethiopian Pharmaceuticals Supply Agency (EPSA), formerly known as Pharmaceuticals Fund and Supply Agency (PFSA), is a governmental pharmaceuticals procurement and supply agency established by proclamation number 553/2007. Its mission is to supply quality assured pharmaceuticals to public health facilities at an affordable price in a sustainable manner. The Agency has been procuring, warehousing and distributing all categories of pharmaceuticals (medicines, medical equipment and supplies, and laboratory chemicals and reagents) to health facilities.

The type and volume of products the Agency manages has significantly increased over the years. The total value of program and RDF pharmaceuticals procured has increased from about ETB 6.4 billion in 2008 EFY to about ETB 13.2 in 2011 EFY. The value of products distributed annually increased from ETB 500 million when it was established to over ETB 17 billion in 2011 EFY.

The Agency's operations were guided by the Revised Pharmaceuticals Supply Transformation Plan (Revised PSTP). Even though EPSA implemented various initiatives to achieve its vision of being "the most responsive and efficient pharmaceuticals supply chain organization in Africa" during the strategic period, it has a long way to go and is required to advance its operational effectiveness to attain a high level of customer satisfaction. To achieve excellence in its operations and thereby realize its vision, EPSA was required to evaluate its performance and develop a new strategic plan for the coming 10 years (2020-2030), aligned with the country's second Health Sector Transformation Plan (HSTP II).

The Revised PSTP I, prepared in 2010 EFY (2018 G.C), was the guide for EPSA's operations during the past two and half years. The Agency's performance during this period was assessed by the plan development Core Technical Team (CTT) with support from local and international consultants.

Thus, the CTT and consultants conducted the situational analysis of the external and internal environments of the Agency for the purpose of identifying opportunities, threats, strengths and weaknesses. In addition, stakeholder and mandate analyses were done to lay the groundwork for the development of the ten year strategic plan.

2.1.2. Methodology

The Revised PSTP, which had been guiding the Agency's operations, was first reviewed by the PSTP II development CTT to generate information for the situational analysis report.

To this end, findings of various surveys, assessments and studies conducted during the implementation period, as well as periodic performance reports of the Agency, were lso used in preparing the document.

The documents that were reviewed included the Pharmaceutical Logistic Master Plan of the Agency, assessment reports on forecasting and supply planning process, the Revised PSTP-I plan and its performance status, the HSTP–I plan and its Mid-term Review, the Monitoring and Evaluation Framework of the Agency, the draft HSTP-II situation analysis report, IPLS survey reports from 2015 & 2018, the national strategy and plan of action for pharmaceutical manufacturing development in Ethiopia (2015-2025), the Health Policy and National Drug Policy of Ethiopia, and the Proclamation of the Agency, as well as other related documents such as the competency framework, economic costing study, external audit reports, ERP business case, the Agency's human resource strategy, maturity model report, the Agency's annual performance reports, BPT report, BPR document, hub operational performance assessment report, Centre of Excellence progress update, quality management system progress update and others.

The report of the situational analysis presented the achievements and challenges in each operational area. In addition to the narrative, the team has made efforts to evaluate the Agency's performance against set targets based on available information.

2.2. Analysis of Internal Environment

This section focuses on the internal environmental analysis. The "internal environment" of the Agency was defined by a number of factors and circumstances, particularly those that are under the direct control of the organization and may be consistent with, or contradictory to, existing strategy, vision, and mission and core values. The analysis aimed to cover each element in the same depth and examined all of the important issues in detail using available data and resources.

The internal analysis report is organized in a way that makes it easy to triangulate the situational assessment and the respective strategic objectives, initiatives and activities.

2.2.1. Process Improvement

Customer Service Practice

The success of any organization depends on its customers. Therefore it is important to understand customer needs, wants and expectations in order to meet or surpass these expectations by providing appropriate service.

EPSA's customer value proposition represents the attributes the Agency provides to health facilities to create loyalty and satisfaction. The value proposition is the key concept for understanding the drivers of the core measurements of satisfaction, acquisition and retention. The following were found to form a common set of attributes that organize the value propositions of EPSA:

- ❖ Product/service: This encompasses the functionality of the product/service, its price, and its quality.
- ❖ Customer relationships: This dimension includes the delivery of the products/service to health facilities, including the response and delivery time dimensions, and how health facilities feel about purchasing from the Agency.
- ❖ Image and reputation: This reflects the intangible factors that attract health facilities to EPSA and enables it to proactively define itself for them.

Though EPSA has been striving to ensure pharmaceuticals availability to satisfy health facilities' demand in a timely manner, the revised PSTP clearly stated that some of the Agency's customers were not happy to the full extent for a host of reasons. Therefore, in order to assess the perceptions of the health facilities on its performance, the progress made to this point and to identify weaknesses, the Agency conducted a customer satisfaction survey.

The survey provided valuable information that can help measure the level of satisfaction of public health facilities on EPSA's overall performance, including its customer relationship management, capacity building activities at the health facility level, and areas that need to be strengthened. Findings showed that three out of four health facilities were satisfied on EPSA's overall performance, although there were significant variations across the hubs. Over 50% of the health facilities were satisfied across all of the 17 hubs of EPSA that were included in the survey.

EPSA has also been providing capacity building training for health facilities. However, only 68.2% of the health facilities were satisfied with the Agency's capacity building program. Similarly, only half of the health facilities were satisfied with the organization's customer relationship management.

The Customer Relationship Management (CRM)

Although serving its customers to the standards set by its mission and related mandates is the key objective of EPSA, the Agency has no customer service department/unit that integrates process, people and technology to provide a high degree of service to its customers.

The CRM process provides the structure of how the relationship with the customer is developed and maintained. This process includes identifying key customers, segmenting them and tailoring products and services to their needs. The process also includes all activities related to working with customers in order to improve processes, eliminate demand variability and non-value adding activities and develop agreements of metrics.

To this end, the following are major challenges the Agency is facing:

- ❖ Absence of customer service policy, CRM strategy and plan.
- ❖ Inadequate implementation of service standard/charter.
- ❖ Inadequate service quality performance measurement.
- ❖ Limited integration of end-to-end processes with key service providers and other supply chain partners to provide differentiated products and service bundling for different customer segments, providing holistic real time order process support, and assuring complete focus on meeting customer demand with market fluctuations.

2.2.2. Financial Management

The Agency generates income mainly from the revolving drug fund, procurement, storage and distribution service charges, and donations. The Head Office serves both as a central administrator and controller. The accounts management system currently utilizes a computerized Peachtree accounting system.

Accrual basis is used for accounting and recording transactions. In addition, quarterly reports are sent to the home office for budget utilization and financial planning.

Performance

The situational analysis revealed that the following are key findings:

1. Storage is the largest cost within the supply system and should be a target for cost reductions.
2. There is wide variation in total and unit cost across the Agency's Head Office and hubs.
3. Supply chain operations are undertaken at suboptimal level.
4. The costs of holding slow moving commodities are significantly higher than that of faster commodities.

Table 1: Financial Performance of the Agency by KPIs

Key Performance Indicator (KPI)	Baseline (2018)	Target (2020)	Performance (2020)
Reduce average credit sales collection days	NA	60 days	90 days
Decrease cost to income ratio	NA	30%	25%
Produce reliable quarterly management accounting reports	NA	4	100%
Unqualified audit reports produced	NA	3	TBD

2.2.3. Supply Chain Operations

2.2.3. 1. Quantification and Market Shaping
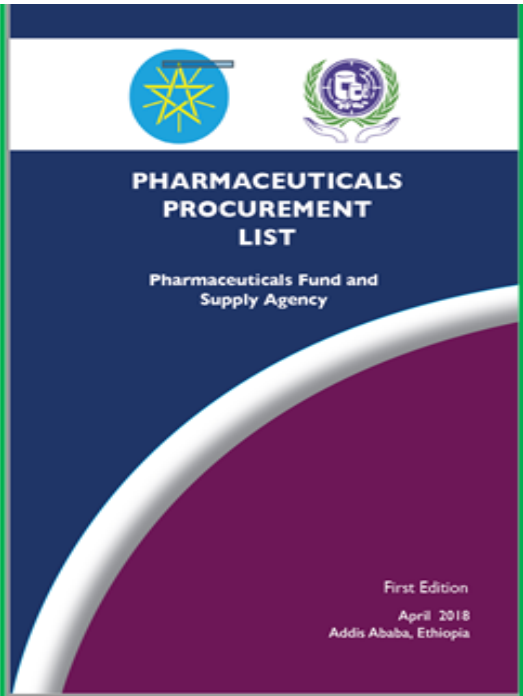
Unlike program pharmaceuticals' quantification, which is carried out centrally, the quantification of RDF pharmaceuticals is decentralized with health facilities being responsible to quantify their requirements annually. These estimates are then aggregated at the respective EPSA hubs. The aggregated requirement from the hub level is further consolidated at central EPSA level to determine national demand.

The quantification process has been constrained by a number of factors across the supply chain. According to the 2018 National Integrated Pharmaceuticals Logistics System (IPLS) Survey, about 93% of tertiary and general hospitals and close to two-thirds of primary hospitals (63.3%) have implemented the electronic Health Commodity Management Information System (HCMIS/DAGU); however, most of the facilities were not properly using this tool to monitor their pharmaceutical stock. This has resulted in lack of data to determine their consumption (Average Monthly Consumption and Months of Stock) leading to high rates of quantification error, stock-outs, and wastage across the supply chain.

In addition, the HSTP-I Mid-Term review and the HSTP - I performance report revealed the following major findings in relation to the supply management of pharmaceuticals at health facilities and other levels, which directly or indirectly affected the quantification accuracy of EPSA:

- ❖ Facility-specific medicine list was not available in most of the health facilities.
- ❖ Electronic HCMIS data of health facilities was not integrated with respective data systems of EPSA hubs and RHBs.
- ❖ Lack of availability and/or limited functionality of Drug and Therapeutics Committee (DTCs).
- ❖ The pharmacy unit was not well institutionalized to provide optimal pharmaceutical service; i.e. - promoting RDU, ensuring commodity availability, and increasing supply chain efficiency through better coordination between EPSA and health facilities.
- ❖ Health facilities forecasted their demand without considering their budget, and some health facilities did not know their pharmaceuticals budget at all.
- ❖ IPLS was only partially functional: bin cards, stock record cards, RRFs, IFRRs and other recording and reporting tools were not updated or used for forecasting demand.

Quantification within EPSA is supported only by semi-automated and fragmented tools (for supply planning and program commodities quantification like Quant-Med, PipeLine planning, Quant-TB etc). Quantification is often based on ordinary non-database tools (Excel spreadsheets) and standalone PCs that carry a high risk of data loss. The Revised PSTP acknowledged the introduction of the Pharmaceuticals Procurement List, which enabled the Agency to define its product portfolio. The procurement list of the Agency currently in use contains 1373 pharmaceuticals.

Category	Description	Number
RDF	Medicines	444
	Lab reagents	178
	Medical supplies	205
	Med. Equipment, Capital	87
	Med. equipment, non capital	358
	Total	1272
Health Programs	HIV	24
	FP	9
	Malaria	10
	TB	40
	MNCH	3
	Vaccines	13
	Nutrition	2
	Total	101
	All total	1373

Figure 2: EPSA's Pharmaceuticals Procurement List

The list, which has been in use since 2018, is currently under revision. In addition, a capital medical device standard technical specifications list has also been finalized recently.

A further recommendation in the revised PSTP was to strengthen the Market Shaping capability of the Agency through training and mentoring, although the Agency has not gone far in this regard.

An assessment on the quantification process conducted by consultants from SmartChain revealed that the annual quantification exercise by EPSA is a labor intensive, expensive, and bottom-up process that takes more than 6 months to generate a forecast. The product is generally not trusted and is ineffective for the purpose of operating an efficient supply chain. According to Smart Chain's survey, quantifications carried out by health facilities were not based on quality data and not in line with the budget allocated for pharmaceuticals. The report

indicated that 3% of health facilities drive greater than 50% of the commodity sales value, and only 2% of commodities drive more than 50% of the sales value of EPSA.

In general, the following major gaps were observed across the supply chain with regard to the quantification process for RDF pharmaceuticals:

- ❖ High amount of forecasting error.
- ❖ Lack of alignment of plans between health facilities, Regional Health Bureaus and the Agency.
- ❖ Poor or lack of monitoring and evaluation system on health facilities' pharmaceutical data management by RHBs or ZHDs or MOH.
- ❖ Lack of skill and commitment to manage logistics data at health facilities.
- ❖ Poor follow-up of shipment delivery schedules to effectively implement the supply plan of pharmaceuticals and medical instruments.
- ❖ Weak reconciliation of logistics and morbidity data; weak monitoring and reporting of reported case load vs. annual and quarterly demand forecast for early adjustment of demand forecast in case of program commodities.
- ❖ Weak market intelligence to rectify market shortcomings in the supply chain.

The quantification of health program pharmaceuticals is progressing satisfactorily with well-organized support from stakeholders and partners. Overall, the health system has better quality logistics, morbidity, service and demographic data available for the quantification of health program products. The presence of these sources of data has enabled the system to come up with better quantification results through triangulation of data from the various sources.

The Agency has achieved its target of reducing the forecasting error for program pharmaceuticals to less than 25%. However, the forecasting error for RDF products is far above the set target.

Table 2: Quantification Performance of EPSA in 2012 EFY

Key Performance Indicators (KPIs)		Baseline	Target	Performance
Reduce Forecasting Error	Health Program	-	Below 25%	17%
	RDF	-	Below 25%	38%

2.2. 3.2. Procurement

According to the Agency's 2011 EFY Annual Performance Report, the share of pharmaceuticals procurement by EPSA in relation to the total expenditure is 89%. A four-year trend analysis showed that the annual pharmaceuticals procurement value increased from about 6.5 billion ETB in 2015/2016 (2009 EFY) to 13.3 billion ETB in 2018/19 (2011 EFY)

As part of the Agency's strategy to transform its overall operational activities, the Agency has made remarkable progress in the area of procurement over the last two years following the implementation of the recent business process reengineering.

To reduce year-round repetitive tendering and procurement, the Agency has implemented Framework Agreement procurements. Currently, products for HIV/AIDS, family planning, malaria and RDF vital pharmaceuticals, medical supplies and chemical reagents are procured by framework agreement.

The following are the challenges associated with the procurement process:
* ❖ Long procurement lead time: The average procurement lead time from PO order request to product delivery was 296.5 days as shown in table below.

The placement initiative has also faced challenges:
* ❖ Inadequate service and logistics data recording system at most health facilities.
* ❖ Inadequate coordination and collaboration among health facilities, suppliers and EPSA on site readiness, installation and in timely signing of service level agreements.

Inadequate contract management, the cumbersome nature of EFDA's purchase order approval process, the long port clearance time (29 days on average), an inadequate performance bond tracking system, and the absence of implementing the practice of liquidated damages when suppliers fail to fulfil their obligations are some of the other problems that challenge the procurement process.

With regard to procurement from local manufacturers, the Ethiopian government developed a ten-year (2015–2025) National Strategy and Plan of Action for Pharmaceutical Manufacturing Development in Ethiopia. In this strategy, EPSA's procurement from local manufacturers was planned to be 20% in 2015, 50% in 2020 and 60% in 2025. However, EPSA and the local manufacturers have failed to meet the planned targets. According to the 2011 EFY Annual Performance Report of EPSA, the procurement share of local manufacturers was 22.3% from the total RDF and health program procurement, and hence their capability to substitute for the importing of pharmaceuticals lagged far behind the target.

The procurement performance of EPSA measured against the target KPI is presented in Table 3 below. The Agency's performance is lagging behind the set targets for most KPIs.

Table 3: Procurement Performance of EPSA

Key Performance Indicators (KPIs)	Baseline	Target	Performance
Procurement lead time (Procurement request time + Suppliers lead time + Port clearance time)	-	160 days	296.5 days
Procurement request time - up to purchase order issuing and contract signing time		Less than 60 days	119 days
Suppliers lead time - From LC opening up to arrival at port of entry		Less than 90 days	77 days
Port clearance time		Less than 10 days	27.5 days

2.2.3.3. Warehousing, Inventory Management and Distribution

Warehousing in EPSA involves the activities related to receiving, storing, and shipping of pharmaceuticals to and from distribution locations. It contributes to EPSA's supply chain goals by controlling costs, providing capacity at the right quality, and responding to changes.

Distribution in EPSA includes order management and fleet management. It is an essential activity within the supply chain to transfer products between storage locations. Distribution, like warehousing, is a key logistics function that must work closely with the warehousing operation to ensure availability while emphasizing cost effectiveness across the supply network.

The value of products distributed annually has increased from ETB 500 million when PFSA was established to over ETB 17 billion in 2011 EFY.

Inventory management is about ensuring that the correct level of products are stored within the supply network to enable maximum product availability at the lowest level of inventory (health facilities) while controlling inventory costs. From a supply chain perspective, it is about ensuring that inventory targets are set at each stage of the product flow and maintaining inventory within those targets. At the same time, inventory management is an integral part of sales and operations planning to fulfill customer demand without interruption.

Performance of the Agency in relation to warehousing, inventory management and distribution against the planned initiatives in the Revised PSTP are as follows:

1. Reducing the number of stock-holding distribution hubs from nineteen to ten.

An over-investment in distribution network assets has taken place in recent years as a result of decisions made that were not based on SCM best practices. The increase in the number of distribution hubs has resulted in overlapping delivery areas and a reduced level of delivery vehicle utilization. In 2007, the national logistics distribution design developed by SCMS included a total of eight major hubs along with six stockless hubs; this network was to serve the whole nation. The 2018 proposal by the consultants that revised the PSTP suggested two additional primary hubs (southeastern part of the country and in Addis Ababa), making 10 stock-holding hubs.

The economic costing study done in collaboration with UNFPA also supported this network approach. According to this study, storage cost is the main cost driver in EPSA, which was about Birr 695.6 million (USD 30 million) at that time and accounted for more than half (52%) of total EPSA costs. The distribution cost Birr 234 million (USD 10.1 million) is quite low in comparison and thus, EPSA has room for balancing these cost elements as a result of warehouse network restructuring.

In addition, the implemented GPS, with all its limitations (not yet fully utilized for fuel management), has indicated a low level of vehicle utilization, which is brought about to some extent by the large number of distribution hubs and limited transport planning expertise.

It is important to develop a comprehensive strategy considering EPSA's long-term organizational objectives of maturity and extended supply chain (EPSA's stake in the end-to-end supply chain system in CRM, VMI, reverse logistics, and market shaping). One of the success areas in this activity is the development of a proposal aimed at restructuring EPSA's network considering the new business model. The proposal clearly laid out commodity and information flows, the required human structures, and roles and responsibilities of the various parties in executing the activity.

2. Distribution Operations

The strategic initiative that is proposed in relation to distribution deploys direct deliveries to all health facilities on a more frequent basis than currently done. Work toward this goal has already been started by the Centre of Excellence Project Team at the Adama hub. This is an important Supply Chain operational goal, as the alternative would have been to invest in

additional storage capacity at health facilities in order to manage the expected increase in volume resulting from the introduction of the nationwide health insurance scheme.

A 'Last Mile' Pilot Study is proposed with the aim of testing this Supply Chain design and to identify issues and/or problems that might emanate from the implementation of the Supply Chain model incorporating a picking and packing operation at the selected hub. Currently, this pilot study is being implemented in Hawassa hub with Global Fund (GF) support.

As the distribution process is one of the vital cost centres, EPSA's hub distribution routes and vehicle planning are not supported by technologies to avoid human touch and which might bring increased efficiency and accountability to the distribution system.

3. Central Receiving Warehouse and Slow-moving Stock Facility

Warehouse operational efficiency is negatively impacted by the volume of slow moving and expired stock, which consumes valuable storage space, thus segregation is recommended. This is especially the case with regard to medical equipment and bed nets for which storage condition requirements are less stringent than those for pharmaceuticals and medical consumables. EPSA proposed to establish an in-bound central warehouse at Modjo for replenishing stock-holding hubs and managing the distribution of slow-moving stocks. This initiative is not yet implemented.

The Agency lacks strategic inventory management that requires process and capacity to make proactive decisions based on real time information and analytics. Specifically, stringent follow-up of stock-on-hand and stock-on-pipeline, national average monthly consumption of products, national Months of Stock (MoS) of items is not being done to the desired level, and viable information is not generated for decision-making.

Apart from the above major initiatives, the Agency has also designed and is implementing the following process improvement initiatives to enhance the warehousing, order management, distribution and other relevant processes to improve product availability and enhance customer service:

The Center of Excellence (CoE)

The CoE is a high intensity transformation project designed to transform EPSA's processes by optimizing inventory management to increase velocity of throughput; enhance operational and management skills through on the job training of staff; drive performance through process audit/compliance/visibility; and review and update KPIs/SOPs/Staff JDs to meet GDP standards of EPSA, in partnership with the USAID/AIDSFree Project and Imperial Health

Services (IHS). EPSA and USAID embarked on this project in June 2018, at the Addis Ababa and Adama hubs, to test the Centre of Excellence (CoE) hypothesis.

The Proof of Concept (POC) in Adama and Head Office is used to further roll-out the transformation project to achieve the Center of Excellence (COE) standards. In line with this, EPSA has made promising progress in achieving the CoE standards at EPSA Center and hubs. To mention a few:

- ❖ Cycle count cadence: Adama – 120 days, Central - 280 days
- ❖ Annual stock count days: Adama from 42 days to 7 days
- ❖ Increased storage capacity by 23.5% (1482 pallets), including ground-level picking implementation
- ❖ Good Distribution Practice (GDP) compliance increased from 28% to 74%

Despite some promising changes in warehousing, inventory control and distribution, the following are the key areas that need improvement:

- ❖ Use of inventory data for analytics and decision-making to help optimize processes and provide adequate customer service
- ❖ Implementation of maintenance strategies
- ❖ Medical equipment management
- ❖ Utilization of the currently available transportation resources due to poor maintenance planning, proactive capacity forecasting of volumes and unavailability of effective transport management system.

Defining 'cross-docking' processes and establishing a network of stockless locations to act as 'cross-docking' facilities

Cross docking is a logistical strategy where pharmaceuticals are unloaded from one inbound source and then immediately moved onto outbound transportation with as little storage time as possible. It was recommended to reorganize the remaining hubs (hubs that are no longer required for stock holding) into cross dock facilities. The new network structure is expected to improve inventory visibility and management, and facilitate more frequent deliveries and enhance the utilization of the delivery vehicles at the hubs. However, the absence of a strong system has made cross-docking lag behind thus far.

Establishing a reverse logistics system

Reverse logistics is a supply chain dedicated to the reverse flow of pharmaceuticals for the purpose of returns (disposal and/or recall) and stock redistribution across levels and facilities.

It is also utilized to move expired products to established incinerator sites located strategically throughout the country for destruction.

The 2015 PSTP included a strategic initiative which aimed at establishing a network of at least five eco-friendly disposal facilities at strategically located sites. In fact, eight incinerators have been installed at the hubs in Adama, Bahir Dar, Dessie, Hawassa, Mekele and Nekemte while Jimma and Jigjiga sites are awaiting installation of these machines.

Implementation of the incineration process is still challenging, as there are issues in relation to community's perceptions, the nature of the commodities to be disposed of, and the performance of the machines. Further analysis to understand the root cause of the challenges is being done so that interventions can be planned accordingly.

As shown in Table 4 below, the order turnaround time (warehouse order cycle time) is performed as per the target of 2 days. However, the performance of the availability of vitals, and inventory accuracy rate, are both below their targets of 100%.

Table 4: Inventory management and distribution KPI's

S/N	Key Performance Indicators (KPIs)	Baseline	Target	Performance
1	Availability of vitals	69%	100%	92.85%
2	Order turnaround time (Warehouse Order Cycle time in hours)	-	24	33.6
3	Wastage rate	-	2%	1.9%
4	Inventory accuracy rate	-	100%	89.76%
5	Inventory turnover rate	-	4	1.12

2.2.3.4. Quality Management System

As part of its transformation, the Agency has been working on introducing a Quality Management System (QMS) aimed at standardizing its operations, thereby meeting the needs of its customers. The Agency has developed a Quality Policy and Manual to support this goal. The Head Office, Adama and Hawassa are the main hubs where the implementation of QMS is happening while the roll-out to other hubs is moving less rapidly. This has allowed EPSA to standardize its activities through SOPs and to identify common risks. The Agency is also

working to get ISO 9001:2015 accreditations for its operations, especially for warehouse operations management. Supply Chain System Strengthening and Quality Teams have been established at the center and hubs to strengthen EPSA's data use culture and performance-based management system.

2.2.3.5. Supply Chain Maturity Level

A supply chain maturity model is being used to assess supply chain performance regularly. EPSA's supply chain maturity was assessed in 2019 using the Frontier Markets Supply Chain Maturity Model. Based on the validation assessment conducted in August 2019, the Agency's supply chain maturity level was '**Bronze**'; this was set as a baseline for subsequent assessments.

The overall maturity category as of 31 March 2020 for Outbound and Inbound wings were 'CANVAS' and 'BRONZE', respectively. From the Outbound side, expiry management, governance, and staff training and development were identified as areas for improvement. Performance management, and staff training and development were areas of improvement for the Inbound.

2.2.3.6. Infrastructure

Supply chain infrastructure consists of both the physical and informational assets required to run a supply chain. EPSA has been striving to meet the ever-increasing health product demand since its establishment in 2007 through expanding hubs, proper maintenance of the warehouse floors, installing CCTV cameras, Global Positioning System (GPS), and constructing modern disposal sites. The following describes the major activities performed by the Agency in the last three years with regard to infrastructure:

- ❖ The Agency has 17 modern warehouses constructed at Head Office and branches (hubs) during the last seven years. This has increased the warehouse capacity of the Agency by 289,150 m^3 and the total Agency-owned warehouses capacity to 305,910 m^3. Recently, the Agency has also constructed an additional G+1 warehouse (area of 10,000 m^2) as a result of which the Agency has ceased renting five warehouses during the last two years.
- ❖ The Agency has installed eight, environmentally friendly, modern incinerators capable of incinerating 500kg/hr. to 4500 kg/hr.
- ❖ Shortage of cold chain warehouses resulted in a creeping escalation in operating costs and eventual weakening of the Agency's financial capability. The Agency installed 1800m^3 new cold chain warehouses at Head Office and Addis Ababa hub 2.

❖ Installation of CCTV (closed-circuit television) systems that allow video cameras to monitor the interior and exterior of EPSA properties, transmitting signals to a monitor or set of monitors as an endeavor to boost its security system was the other significant task the Agency did. In collaboration with donors, the Agency has installed modern CCTV cameras at Head Office and branch warehouses to strengthen the security system. Properly functioning and use of these systems is a 'work in progress'.

❖ The Agency has also installed Global Positioning Systems in 186 transport trucks at Head Office and branches to display accurate location information for control of the trucks. However, to increase the efficiency and effectiveness of the fleet management, further functionality and use of the GPS system is a task that remains to be completed.

❖ The quality of the warehouse floors was a big challenge in the Agency, especially for branch operations over the last several years. The warehouse floors of 14 hubs and one Head Office warehouse have been properly upgraded at a cost of USD 3 million.

2.2.3. Organization and Supply Chain Human Resource Management

The Agency has a total of 2,605 staff (2249 permanent and 356 contract). With regard to gender mix, males account 73% (1901) while females account 27% (704) of total staff (technical and non-technical). The professional mix of employees includes: pharmacists, laboratory technologists, physicians, health officers, nurses, biomedical engineers, accountants, management professionals, economists, banking & insurance officers, economists, communication professionals, logisticians, IT professionals, security officers, drivers, porters, cleaners, and others.

Increasing the levels of SCM expertise and providing the staff with rewarding careers was one of the strategic objectives in the revised PSTP-I. Introducing motivation, retention and performance measurement systems, improving the capacity of the SC workforce, establishing a SC training and resource center, and revising the Agency's Proclamation were the initiatives under this strategic objective.

Accordingly, the following targets were set for 2020:

- ❖ Increase staff satisfaction to 80 percent.
- ❖ Increase the percentage of competent supply chain experts in the Agency to 80 percent.
- ❖ Reduce staff attrition rate from 3.7% to 2%.
- ❖ Training Centre established and functionalized.

In line with this, the staff satisfaction survey conducted at the end of 2011 EFY on how the Agency capacitates, motivates and maintains its employees revealed that:

- ❖ Only 18% of the staff were satisfied in relation to recognition, motivation and benefits.
- ❖ Only 34% of the staff were satisfied with the working environment.
- ❖ Only 42% of the staff were satisfied in relation to training and career development.
- ❖ 75% of the staff were satisfied with overall feelings about employment experience.
- ❖ 72% of the staff were satisfied with their role in the organization, and
- ❖ 65% were satisfied with communication, relationship and leadership.

In general, it is possible to observe that the overall satisfaction of EPSA's staff was below the expected level, as it was 57.8% only; and issues related with recognition, incentive packages, salary and benefits were major dissatisfying areas for the majority of employees.

In addition, cultural diagnosis conducted to understand the existing cultures in EPSA in order to appreciate how they support or undermine the goals and objectives of the organization, and how they can be enlisted to drive positive change, categorized into three broad cultures:

1. Mainstreamers: staff who try to do the jobs they were hired to do.
2. Intrapreneurs: staff that network together to capture and redirect resources to serve the needs of their group and its members.
3. Extrapreneurs: staff that reacted to the perceived lack of belonging and purpose by seeking fulfillment outside of the organization.

In addition, high staff attrition rate (4.8%) was one of the challenges in the Agency as per the 2011 EFY annual performance report of the Agency (targeted to decrease to 2%).

About half of the staff working in the Agency is within the 'young' age group, and this can be taken as a good opportunity to bring about radical change in the performance of the Agency and the supply chain management of the country in general.

With the overall objective of developing the staff's capacity per the competencies fundamental for the Agency's operations, the Agency has been developing a competency framework to provide standardized training for its staff. The Competency Framework sets out the technical, corporate, managerial and foundational skills that staff at central and branch level within EPSA are expected to have, as well as the professional competency profile for every post in the organization. Competency gaps and training needs are identified for core operations of the Agency.

In relation to this initiative, there was also a plan to establish a Supply Chain Training and Resource Centre (TRC) in the Agency to serve as a centre for training, research and service for the country and beyond. Efforts have been made to realize the TRC functionality including development of business cases and proposals on how to organize and run the Centre. The Agency has also made efforts to implement the HR strategy to achieve its KPIs, and a lot has to be done to achieve the targets set, as shown in Table 5 below, which summarizes the baseline, target and achievements so far for the KPIs related with SC workforce management and development.

Table 5: Performance in Human Resource Development by KPI's

S/N	Key Performance Indicators (KPIs)	Baseline (2018)	Target for 2020	Achievement
1	Staff satisfaction rate	Not known	80%	57.8%
2	Staff attrition rate	3.7%	2%	4.2%
3	Training and Resource Centre	None	Functional TRC	Under preparatory process

2.2.4. Supply Chain Systems and Process Improvements

2.2.4.1. Management Information System

The Management Information System (MIS) has been at the center of the pharmaceutical supply and service strategic plan, though the implementation has lagged far behind due to a host of reasons. In line with this, the Agency's processes were supposed to be well addressed with a robust system. EPSA Hub and Central warehouses were expected to operate using these inventory management tools, which would allow quick order processing and effective stock management that in turn minimizes wastage and expiry while providing adequate security for warehouse operations.

Currently, there is an automated Health Commodity Management Information System (HCMIS) both at EPSA Central and Hub levels. HCMIS is a systematic tool that manages daily transactions at central and branch warehouses and captures real-time transactional data across the EPSA network.

EPSA has made some progress in improving efficiencies of supply chain data driven management through the FANOS/KPI dashboard reports and HCMIS/DAGU roll-outs to health facilities. With all its privileges in supporting the operations of the Agency, the current system (HCMIS) does not address a number of key excellence areas. The following are the major areas this system failed to accommodate:

- ❖ Susceptibility for attack: The likelihood that most of the database tables or the whole HCMIS database can be destroyed easily by a simple penetration attack.
- ❖ Supply Chain and other administrative planning: HCMIS does not support any one of the listed Supply Chain planning standard features. (No MIS is available for forecasting and supply planning, procurement, fund management, human resource, and asset management.)
- ❖ Order processing/Invoicing: HCMIS does not support 74% of the listed standard features of order processing/invoicing.
- ❖ Warehouse/inventory management: HCMIS does not support 77% of the listed standard features of warehouse/inventory management.
- ❖ Transport Management: HCMIS does not support any of the listed standard features of TMS.
- ❖ Lack of integration (between processes and between centre & hubs) and interconnection of information systems across the supply chain levels (SDPs, hubs and centre) to the extent required.
- ❖ Limited data visibility across the entire supply chain.

As per the recommendation of PSTP mid review, EPSA has undertaken a Business Process Transformation (BPT) exercise, which aimed at identifying and eliminating non-value adding activities of the Agency's current business processes and subsequently defining transformed processes which will easily be computerized or implemented through an industry-accepted, off-the-shelf ERP system. The BPT exercise showed that out of 4,233 activities, 42% of the activities were found to be 'Non-Value Adding' and 60.3% of them 'Hands-Offs'. In order to implement the BPT recommendations, EPSA has established an automation project office and completed the preparatory process for sourcing and implementing ERP. The Roadmap shows that it would take around 30 months to fully implement such a system across the Agency.

2.2.5. Performance Management

2.2.5.1. The Design of M&E Framework

The Agency has developed a comprehensive M&E framework to guide planning, performance monitoring, and evaluation of supply chain activities at all levels. The framework is designed to drive performance at the individual, process, and corporate levels. The corporate level indicators show outcomes at an organizational level, while process level indicators aim to measure the performance of EPSA systems and processes. Individual level indicators aim to monitor the accomplishment of individuals against standard operating procedures. A total of seven (7) corporate, 41 process level, and more than 300 individual level indicators were selected through an iterative process of consultation with EPSA experts, supervisors, leadership, and key stakeholders.

The development of the M&E framework considered the adoption of international and local M&E practices, such as the supply chain operation reference model (SCOR), the international practice for data quality assurance and data use, and alignment with the country's information revolution roadmap.

2.2.5.2. Implementation of EPSA's M&E System

EPSA launched the implementation of the M&E framework at the Agency's annual review meeting in August 2018. All stakeholders engaged in the review meeting endorsed the document with high commitment and urgency to implement these M&E system. All 20 central EPSA directorates and all EPSA hubs started the implementation of the M&E framework in FY19. They report performance using process and corporate level KPIs. EPSA uses KPIs as an input for performance monitoring and performance review. KPIs mainly complement as an

explanation of the accomplishment of planned activities or execution of operations as per standard operating procedures. Moreover, EPSA uses selected KPIs for designing an intervention, and for operational and strategic planning.

The M&E framework is the document guiding the implementation of the M&E system. Previously the organization did not have policies for data sharing, data quality framework, assessment protocol, information use policy, etc.… There was also no costed strategy for M&E activities.

Informed decisions are at the heart of the M&E system; it is all about using data for decision-making. There are platforms to facilitate the use of information for decision-making such as performance review teams, quality improvement and impact teams, supply chain system strengthening platform, and various technical working groups.

2.3. Analysis of the External Environment

The external environment of EPSA is defined by factors and circumstances which are not under the direct control of the organization but could have an impact on the implementation of the organization's strategy and vision. The external factors may include political, economic, social, technological change and legislation.

To this end, these external factors have their own contribution to the supply of pharmaceuticals to society.

The commitment of the Ethiopian government to enhance the health condition of its citizens through appropriate health policy upon which the provision of essential pharmaceuticals is one of the priorities is in favor of EPSA's mission.

On the other hand, the greatest emphasis given to industrial development in general and pharmaceuticals manufacturing in particular in the second growth and transformation plan is one of the opportunities for the improvement in the supply of pharmaceuticals in the country leading to benefit of increasing access to pharmaceuticals and promoting rapid industrialization of the country.

Moreover, the population growth and the upcoming health Insurance scheme can also be taken as an opportunity to be leveraged.

The availability of modern telecommunication systems including fibre optic telecommunication and Internet also enhances communication and supply chain management system

The provision which prohibits public health facilities to procure pharmaceuticals by themselves from other sources unless provided with stock out report from EPSA also gives the Agency a guarantee to continue as a sole public supplier of pharmaceuticals

On the contrary, the recent COVID 19 or coronavirus pandemic and other potential pandemics in the future might cause slowing down of the global economy which has direct repercussions on Ethiopia economy.

3. SWOT ANALYSIS

SWOT stands for strengths, weakness, opportunities, and threats. Strengths and weaknesses are internal factors, whereas opportunities and threats are external factors to the organization. SWOT analysis is a strategic planning technique used to support an individual or organization. This trick detects the Strengths, Weaknesses, Opportunities, and Threats related to commercial competition or plan development. Accordingly, the SWOT analysis of the Agency is presented as follows.

Strengths	**Weaknesses**
- Procurement List developed - Implementation of Framework Agreement and Placement Initiative - Defined national specification catalogue for medical equipment - Improvement in Operations (procurement, warehouse CoE, Quick-win …) - Own network of warehouses equipped with necessary materials and transportation vehicles - Renovation of warehouse floors - Increase in cold storage capacity - Installation of environment friendly disposal facilities (incinerators) - Undertaking of Business Process Transformation exercise - Updated financial statement - Commencement of IFRS implementation - Significant improvement in liquidation of debts - Improved stakeholder engagement (Parliament, MoH, EFDA …) and partner coordination	- Inadequate customer and stakeholder satisfaction - Weak demand planning and management, and less emphasis on market shaping activities - Lack of system to prequalify suppliers - Long procurement lead time - Unsatisfactory supplier relationship management and performance evaluation system - Unsatisfactory management of medical equipment across the supply chain - Inadequate inventory management - Inadequate warehouse operations managements Weak distribution planning and fleet management - Weak track and trace system across the supply chain - Lack of comprehensive maintenance system - Lack of robust information system that support the complexity and magnitude of EPSA's operations - Lack of financial sustainability plan, and inadequate financial planning and budget control - Cash shortage due to delay in collection of receivables and low inventory turnover rate - Inadequate costing system for operations - Qualified external audit reports - Inadequately trained staff, poor motivation schemes, and inefficient utilization of the workforce - Unsatisfactory organizational culture and unsatisfactory process-based thinking

	- Inadequate internal communication, and weak customer and stakeholder's relationship Management - Inadequate customer and product segmentation - Lack of risk management system - Inadequate follow-up of legal proceedings related with theft and crime - Weak monitoring and evaluation system
Opportunities	**Threats**
- Government policy direction that considers pharmaceuticals as a strategic product - Direction towards inter-country pooled procurement of pharmaceuticals - Donors' support - Revision of the Public Procurement and Property Administration proclamation - The selection of EPSA by Federal Public Procurement and Property Administration Agency as pilot organization for the implementation of e-procurement - Legalization of electronics transactions - The presence of robust technologies on supply chain management - Government direction towards health insurance scheme	- Inadequate organizational autonomy - Poor quality quantification data received from health facilities - Inadequate allocation of budget for the procurement of pharmaceuticals by health facilities - Inadequate and unreliable local manufacturers leading to sourcing majority of the products from foreign companies - Increasing cost of pharmaceuticals and related costs at global level - The global and national impact of COVID-19 and related health emergencies - The risk of counterfeited /quality compromised pharmaceuticals on the market - Delay in site preparation and lack of appropriate infrastructures for capital medical equipment's installation in hospitals - The absence of a Mega warehouse near Modjo dry port

4. THE STRATEGIC FORMULATION

The strategic document articulates the mission and vision statements, the corporate values, the long term objectives (which form a strategy map), performance measures and targets, and key initiatives. The overall purpose of the long-term strategic plan is to establish how the organization intends to deliver value for its customers and stakeholders as presented below.

4.1. Mission, Vision and Values

Mission

"We sustainably supply affordable and quality assured essential pharmaceuticals to our customers through advancing supply chain management systems to enhance the health of society."

Vision

"To be the most responsive and efficient pharmaceuticals supply chain organization in Africa by 2030."

Values

- Customer first
- Integrity
- Transparency
- Accountability
- Change and innovation
- Teamwork
- Professionalism
- Impartiality
- Respecting the law

4.2. Strategic Themes

Strategic themes are the main focus areas of the strategy; the key areas in which the pharmaceutical supply system must excel in order to achieve its mission, vision and overall strategy. Strategic themes are the "Pillars of Excellence." For each theme, an explicit strategic result, measures and initiatives are articulated. There are four strategic themes, as follows:

1. Customer Service Excellence
2. Financial Sustainability
3. Operational Excellence
4. Excellence in Human Resource Management, Leadership and Governance

EPSA Strategy House
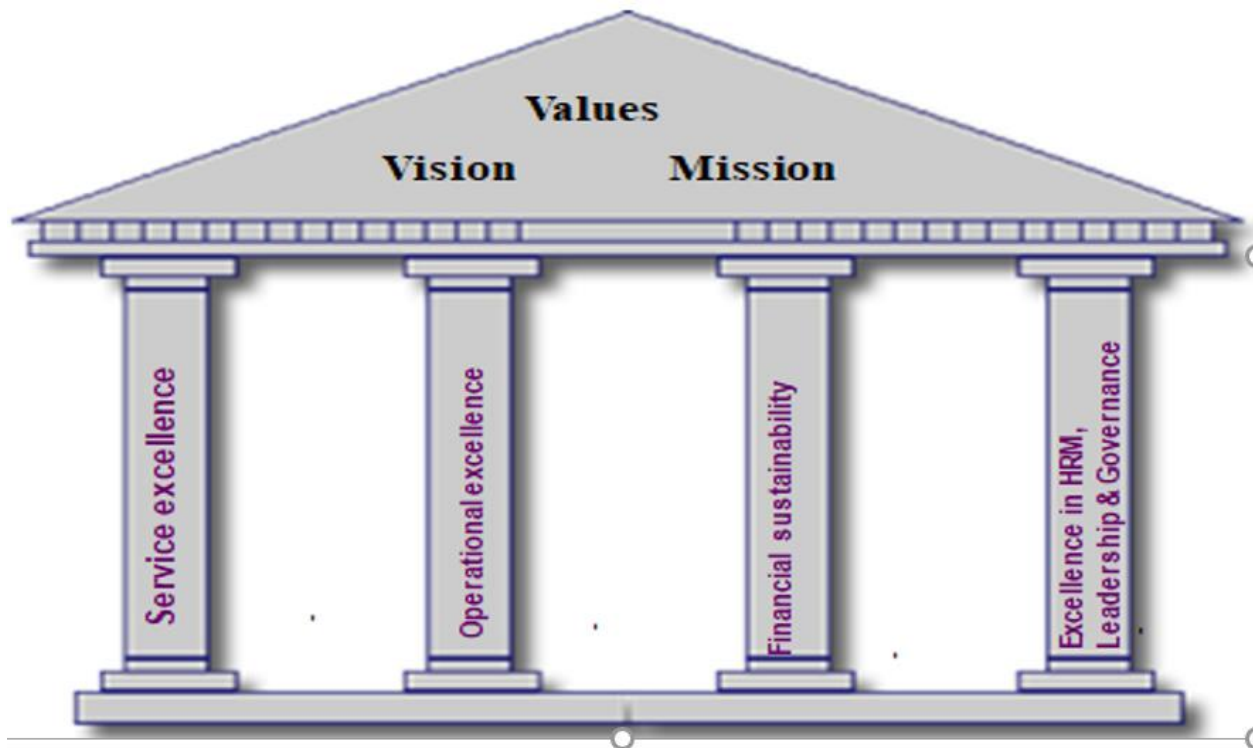
Figure 3: EPSA Strategy house

Strategic Theme 1: Customer Service Excellence

This theme focuses on building a reliable and efficient pharmaceuticals supply chain system that is responsive to rapidly growing customer needs. It refers to availing quality assured essential pharmaceuticals at public health facilities at affordable prices in adequate quantities and in a sustainable manner. It is all being more responsive to customers' needs and building a good image.

Strategic Theme Result:

- ❖ Satisfied customers through our convenient and responsive services and affordable product prices; satisfied stakeholders; uninterrupted availability of quality assured, demand driven essential pharmaceuticals.

Strategic Theme 2: Financial Sustainability

This strategic theme encompasses strengthening cost recovery and financial capacity to sustain the revolving drug fund scheme for uninterrupted supply of pharmaceuticals. It also focuses on the mobilization and efficient utilization of funds from different sources. The Agency will engage in related activities to generate additional incomes. The Agency will implement various

initiatives to enhance financial performance and ensure financial self-sufficiency. Its attributes include adequate financing, up-to date financial statements, transparency, financial planning, budget control and assurance.

Strategic Theme Result:

- Improved financial capacity to run supply chain operations; increased revolving drug fund; improved utilization of resources and self-sufficiency.

Strategic Theme 3: Operational Excellence

This theme focuses on building a reliable and efficient pharmaceuticals supply chain system that is responsive to the rapidly growing customer needs. Operations will be based on the Agency's pharmaceuticals procurement list, strategic procurement, health facilities demand and the country's emergency needs.

Various initiatives will be implemented under this theme to advance the procurement process, enhance warehousing, inventory management and distribution processes through utilizing robust supply chain management information systems. Its attributes include quality, availability, affordability, efficiency, accessibility, continuity, diligence, visibility, security, timeliness and accuracy of data.

Strategic Theme Result:

- Continuous availability of products and services, efficient, reliable, seamless and integrated processes, data quality and visibility with wider interface.

Strategic Theme 4: Excellence in human resource management, leadership and governance

This theme refers to creating shared vision and values, formulation of policies and procedures, evidence-based resource allocation, communication and coordination that integrates all thematic areas. The theme also focuses on developing human resource capacity at all levels, leadership succession planning, building appropriate organizational culture, and engaging the staff and stakeholders in the process of decision-making. Moreover, the theme targets building the capacity of the supply chain professionals at health facilities and other governmental, non-governmental and private organizations in Ethiopia and beyond. Staff motivation, retention and bestowing the Agency with better autonomy is also a focus of this theme. Its attributes include accountability, unity of purpose, professionalism, responsiveness, transparency, safety, and equity.

Strategic Theme Result:

- Competent, motivated and productive staff, dynamic and proactive leadership, and conducive working environment

4.3.   Strategic Objectives and the Strategy Map

4.3.1.   Strategic Objectives

Balanced Scorecard (BSC) is followed as a strategic management approach. The BSC requires that an organization maintains a balance between various perspectives in accomplishing its mission and striving to achieve its vision. For a public organization like EPSA, the BSC requires that this balance is maintained through four different perspectives

The strategic objectives make up the detailed game plan which outlines what is to be done to accomplish the Strategic Results. Strategic Objectives are used to break the Strategic Themes into more actionable activities that lead to the Strategic Results.

Table 6: The 10-year Strategic Objectives by Perspective

Perspective	Objective	Nature
Customers/stakeholder	C1: Enhance customer and stakeholder satisfaction	**Output**
Financial	F1: Improve Financial Performance	
Internal Processes	P1: Enhance the supply chain planning and analytics	**Inputs**
	P2: Advance the procurement process	
	P3: Enhance warehousing, order management & distribution processes	
	P4: Enhance financial efficiency	
	P5: Enhance compliance	
	P6: Strengthen risk management system	
	P7: Strengthen strategic partnership	
Learning and growth (capacity building)	CB1: Strengthen Leadership, Governance & human resource management	
	CB2: Transform the SCM information system	
	CB3: Strengthen monitoring & evaluation, and knowledge management	

4.3.2.   Objective - Commentary

C1: Enhance customer and stakeholder satisfaction

Description: The level of satisfaction of our customers and stakeholders shall be improved by providing quality products and services that meet their demands. This includes the timely supply of the right products, in the right quantity, quality, and right condition, at an affordable price and to the right place, accompanied by customer focused services. This objective is

designed to increase customer / stakeholder satisfaction through enhanced service delivery and sustainable availability of products. Moreover, through designing and strengthening customer relationship management system and continuously assessing and improving the level of customer and stakeholder satisfaction.

Outcomes: Improved customer and stakeholder satisfaction; built trust and reputation, gained loyalty of customers and stakeholders.
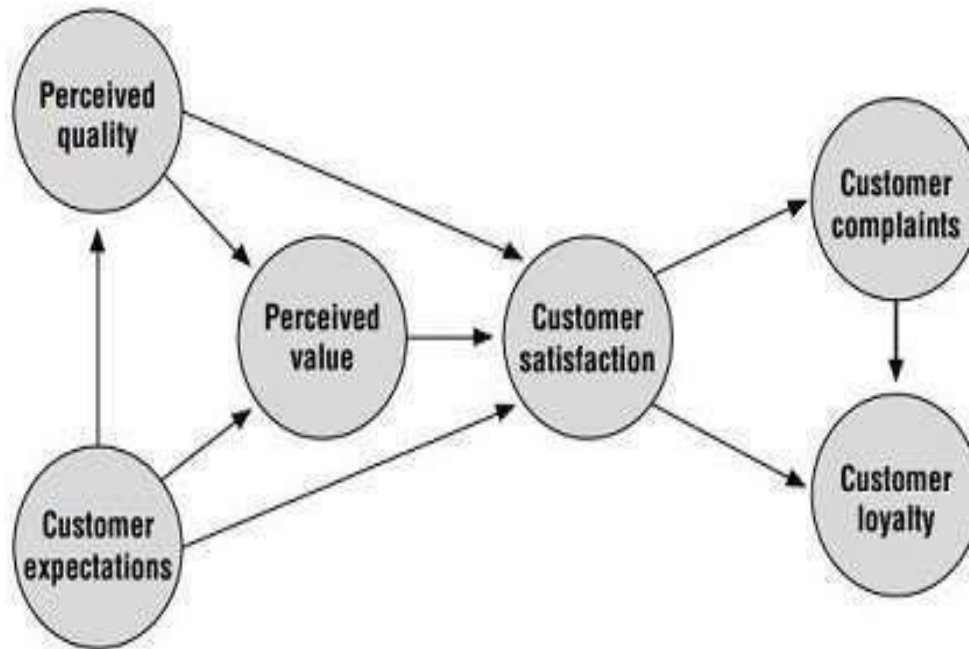
Figure 4: Model of Customer Satisfaction

F1: Improve Financial Performance

Description: Financial performance refers to the degree to which financial objectives are currently being or have been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure a firm's overall financial health over a given period of time, and it enables firms to have sufficient cash, working capital and liquidity positions. This objective is also designed to increase revenue and financial capability of the Agency by developing new revenue opportunities or diversifying different income generating and cost reduction activities. Due emphasis will be given for financial planning, automation of financial management, reconciliation of transactions, and strengthening of the financial assurance mechanisms.

Outcomes: Financial growth; availability of cash, better procuring/availing capacity of pharmaceuticals

P1: Enhance Supply Chain Planning and Analytics

Description: Supply chain planning is the process of coordinating assets, including inventory, optimizing the delivery of product and information from supplier to customer, and balancing supply and demand. The supply chain planning and analytics is supposed to encompass all activities related to quantification (forecasting and supply planning), comprehensive inventory analysis, customer relationship management and central order processing.

Best practices include new forecasting models to manage the demand signal coming from consumers. It also includes integrated planning systems with algorithms to ensure inventory optimization. Joint supply/demand anticipation based on real-time visibility of the consumption of pharmaceuticals is an important point to be taken into consideration. Advanced analytics to support supply network modelling decisions to minimize costs, optimize inventory and improve service to different segments more frequently, based on customer demand patterns and distribution performance will be in place.

Outcomes: Higher product availability; demand based supply; lower inventories; reduced capital investment; less wastage, shorter product delivery lead times.

Figure 5: Supply Chain Planning

P2: Advance the procurement process

Description: The focus of this strategic objective is to advance the procurement processes with the ultimate goal of acquiring the rights of logistics (product, price, time, quality, place, condition, quantity). It includes strengthening framework and placement procurement, category management, e-procurement, supplier relationship management system and other relevant procurement mechanisms.

Outcomes: Fulfilled customer need and reduced total cost.
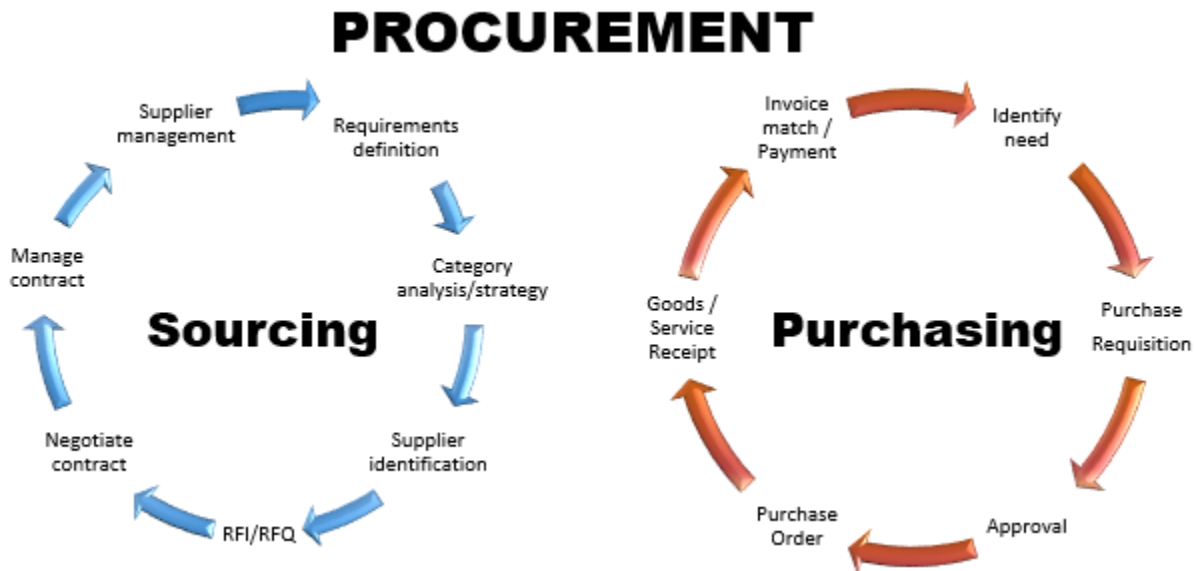
Figure 6:Procurement Process cycle

P3: Enhance warehousing, order management and distribution processes

Description: The focus of this strategic objective is to maximize storage and inventory management efficiency through deployment of robust systems. Systematic perpetual inventory, product volume analysis for vehicle volume determination, good storage practice with the application of bar coding, and other best practices will be used to enhance the process. Optimizing the distribution network by using available transportation resources efficiently and streamlining fleet management within the distribution system that addresses delivery of products to the final service delivery points - will also be in place. The distribution network will be optimized in a way that orders will be managed centrally. To decrease the higher demurrage costs that the Agency is incurring at Modjo dry port and to store slow moving stocks, the Agency will build a mega warehouse near the dry port.

Outcomes: Integrity of pharmaceuticals maintained at all levels; efficient warehouse operation and distribution system; end to end product visibility and traceability.

P4: Enhance financial efficiency

Description: Financial Efficiency is a measure of the organization's ability to translate its financial resources into mission related activities. Financial efficiency is desirable in all organizations regardless of individual mission or structure. It measures the intensity with which a business uses its assets to generate gross revenues and the effectiveness of producing, purchasing, pricing, financing and marketing decisions. Hence this strategic objective includes efficient utilization of available funds, generating additional income, and reducing operational costs. It includes developing and implementing a financial sustainability plan, developing and implementing income generating activities, implementing an appropriate costing system that

allows financial control and performance measurement, and optimizing operations to minimize costs.

This requires an effective and transparent fund management, maintaining a separate account for individual resources, building capacity of personnel involved in financial management including the internal control systems, and timely collection of receivables. Cost saving activities will also be undertaken as part of achieving this objective. Strengthening International Financial reporting Standard (IFRS) will also be the focus area of this strategic objective .

Outcomes: Reliable financial capacity to run supply chain operations; ensured financial sustainability; reduced costs , efficient utilization of budget .

P5: Enhance compliance

Description: This strategic objective advocates establishment of an internal quality assurance system that has the capacity to ensure adherence to the quality parameters of pharmaceutical products and supply chain operations as per the standards, and standardization of EPSA's processes so that all the Agency's processes comply with the standards that are set.

In line with this, the central quality control laboratory will be equipped with appropriate laboratory equipment and skilled professionals in order to ensure quality control through inspection and laboratory testing at certain points in the supply chain.

More emphasis will be given to strengthening the internal quality assurance mechanisms and internal process and service enhancement through appropriate system strengthening and reform tools like Kaizen, Six Sigma, continuous improvement process, and other relevant tools so that key supply chain operations are performed in accordance with agreed working procedures and standards. It is also about enforcing adherence to Internal Rules & Regulations and other applicable laws in relation to EPSA operations. Staff complies with regulations and regular monitoring of compliance is conducted.

Outcomes: Quality assured pharmaceuticals at the Agency's warehouses; reduced variability of operations; increased efficiency in operations; legal compliance.
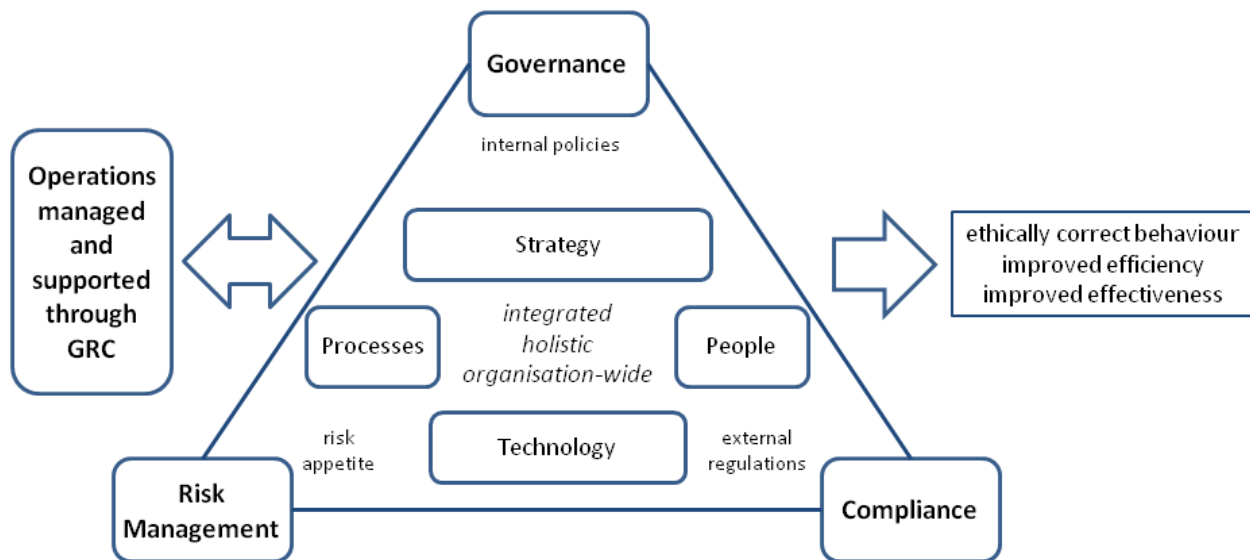
Figure 7: Compliance

P6: Strengthen risk management system

Description: Supply chain risk management is the systematic identification, assessment, and quantification of potential supply chain disruptions with the objective to control exposure to risk or reduce its negative impact on supply chain performance. In the supply chain, risk management should be integrated with internal departments. Risk in the supply chain can take many forms and need to be addressed taking a system wide perspective. As a supply chain organization, EPSA is predisposed to a range of supply chain risks like supply, demand, process, hazard, financial and malfeasance risks. Thus, this strategic objective is designed to address these major risks of the Agency that will potentially impede its business.

Outcomes: Safe working conditions; managed risks; responsive and resilient emergency supply chain operations.

P7: Strengthen strategic partnerships

Description: EPSA is supported by and works with a diverse range of stakeholders that include funders, technical assistance providers, and international organizations. A well-designed and executed coordination platform is key to addressing some of the issues that EPSA is facing through engagement with several players including EPSA themselves. Enhancing the internal process through partnership with public or private organizations in areas where the Agency is not performing well is also the other focus of this objective. Potential areas that could challenge performance on core processes of the Agency will be identified, outsourced and done in partnership with other public/private organizations. Given the number and complexity of projects being managed by EPSA, and their importance, a Project Management Office establishment is very useful to manage the successful accomplishment of the projects.

On the other hand, as EPSA is the largest procurer and supplier of healthcare products in the country, strengthening the national pharmaceutical manufacturing sector is also a priority for the Ethiopian government.

Outcomes: Increased and strengthened partnerships/links; improved operational efficiency, profitable growth; enhanced local pharmaceutical manufacturing capacity.

CB1: Strengthen leadership, governance and human resource management

Description: This strategic objective is about enhancing leadership capacity and good governance, revising and implementing HR strategy of the Agency, making operational the training and resource center for SCM, increasing level of autonomy of the Agency, transforming the organizational culture, gender mainstreaming and other related aspects. The strategic objective focuses on ensuring skilled and motivated human resources and leadership development in adequate numbers and implementing appropriate systems within the Agency. This objective also spotlights creating good working conditions that will enable the leadership and staff to improve their satisfaction and performance. It will also focus on improving the core competency, skills and attitudes and tools of staff by encouraging and facilitating our people to gain a broad understanding of the business and its operations, thereby creating a sustainable competitive advantage.

Outcomes: Satisfied staff, strengthened leadership, good governance, increased engagement, increased staff productivity.

CB2: Transform the SCM Information System

Description: This strategic objective focuses on the need for continuous adoption of innovative practices, establishing and utilizing appropriate IT systems, as well as maximizing efforts to advance the use of data in the evidence-based decision-making processes. It fosters the design and implementation of a robust system / Enterprise Resource Planning (ERP) / and other information technologies for end-to-end process integration and data visibility. It also focuses on devising strategies on how to manage all the relevant data and information of the Agency, i.e. mode of information flows and by whom - for the purpose of sharing of information with relevant stakeholders.

Outcomes: Enhanced business operations; improved data visibility and wider interface linkages.
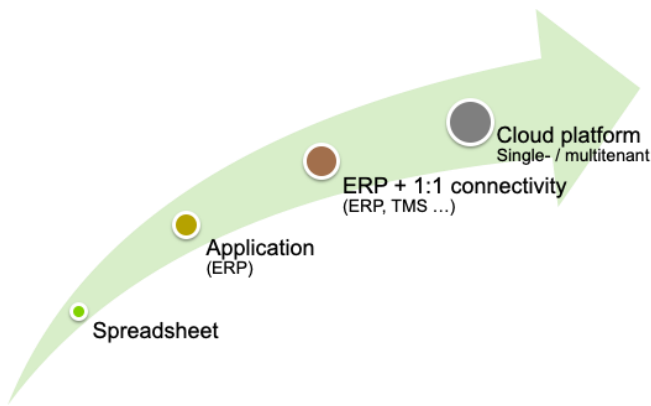
Figure 8: Transforming the SCM Information System

CB3: Strengthen monitoring & evaluation, and knowledge management

Description: This strategic objective deals with strengthening the monitoring and evaluation system and knowledge management throughout the supply chain to enhance overall performance. The objective starts by recommending the strengthening of the current plan, as well as the Monitoring and Evaluation team. It focuses on improving decision-making through systematic generation of information for evidence-based decision making in the supply chain system. Implementing M&E framework with defined key performance indicators and data sources at all levels of processes whereby data analysis, interpretation, dissemination, and application in decision making will be a standard of work.

The objectives of the PSTP II formulation are designed in a way that enables the Agency to cascade every activity to the individual score card level and objectively measure performance at the corporate, process and individual level.

Knowledge and skill gained through work, regular education, training, experience sharing, tutorial, mentorship and other means will be used smoothly transferred to successors. This objective also focuses on exit reports and smooth work status transferring to be a culture of the Agency.

Outcomes: Robust internal monitoring and evaluation system established; evidence-based decision-making; data made available to track performance; organizational knowledge managed and used continuously for performance improvement.

The Strategy Map

The 10 year strategic map uses cause-effect linkages ("if-then" logic connections) between the various strategies in appropriate scorecard perspective categories.

The cause-effect relationships among the strategies are used to identify the key performance drivers of each strategy that, taken together, will chart the path to successful end outcomes as seen through the eyes of customers, the owner, and the stakeholders.

The EPSA strategic map is presented in Figure 9 below:

	Strategic Theme
	1. Service Excellence 3. Operational Excellence
	2. Financial Sustainability 4. Excellence in HRM, Leadership and Governance

Customer/ stakeholder	Enhance customer and stakeholder satisfaction
Finance	Improve Financial Performance
Internal process	Enhance financial efficiency; Enhance compliance; Enhance warehousing, order management & ...; Advance the procurement process; Strengthen strategic partnership; Strengthen risk management system; Enhance the supply chain planning and
Learning and growth	Strengthen Leadership, Governance & HRM; Transform the SCM information system; Strengthen monitoring & evaluation, and knowledge management

Figure 9: EPSA PSTP II Strategy Map

4.3.3. Performance Measure, Targets and Initiatives

C1: Enhance Customer and Stakeholder Satisfaction

Performance measures and targets:

- Increase customer satisfaction from ---- to 85% by 2025, and to 90% by 2030.
- Increase stakeholder satisfaction from ----- to 85% by 2025, and to 90% by 2030.

Initiative C1.1: Design the Customer Relationship Management (CRM) System

Description: Customer Relationship Management (CRM) is a systematic approach to managing interactions with customers (both current and potential)**.** Implementing a CRM is an essential component of EPSA's new customer centric focus. EPSA today does not actively manage customers, rather it responds to customer orders or requests. With CRM, EPSA will proactively manage customers, assessing their needs and wants and engaging with them actively. CRM also means far more than procuring and implementing a software tool; it means creating a new working unit, adding new roles to the organogram including customer support, marketing and sales, developing new processes and ways of business. It will be especially important as EPSA seeks to expand its private sector business, but CRM should also apply to existing public sector customers. It will mean creating customer segments (for instance, large hospitals, institutional accounts, private institutions, etc), and introducing new proactive ways to manage customers. Effectiveness of the CRM system will be determined by collecting feedback and regularly undertaking customer and stakeholder satisfaction surveys aligned with the set survey standards.

Activities:
1. Establish CRM Unit including structures and positions
2. Develop JDs and fill staff positions
3. Develop CRM strategy
4. Identify key accounts and develop service standards
5. Develop detailed processes and SOPs for CRM
6. Train the leadership and staff on CRM
7. Automate the CRM using appropriate technology
8. Conduct customers' and stakeholders' satisfaction survey
9. Dissemination workshop for the surveys
10. Put in place a system to regularly measure, disseminate and incorporate satisfaction survey findings into business planning.

F1: Improve financial performance

Performance measures and targets:
- Decrease cash to cash cycle time from 427 to 180 days by 2025, and to 90 days by 2030.
- Decrease cost to income ratio from 26% to 17% by 2025, and to 10% by 2030.
- Increase return on assets from 1.9% to 7% by 2025, and to 12% by 2030.

Initiative F1.1 Develop and implement comprehensive financial management measures

Description: Tracking financial management and performance at EPSA is vital to assess performance, including the success or otherwise of new initiatives and course-correct as needed, and monitor the financial health of the agency. Note that under Section P4 below we look at other strategic aspects of financial management; this activity is only concerned with measuring financial performance.

Activities:
1. Identify financial performance strategies and activities
2. Develop performance measures for each and overall financial management
3. Benchmark performance
4. Monitor over time, and adjust activities accordingly

P1: Enhance the supply chain planning and analytics

Performance measures and targets:
- Increase forecasting accuracy (RDF) from ---- to 80% by 2025, and to 90% by 2030.
- Increase stock according to plan (SAP) from 19.3% to 90% by 2025, and 100% by 2030.

Initiative P1.1: Develop and implement demand-based forecasting and supply planning

Description: To increase product availability without an increase in investment in physical assets and inventory, it is important to reduce lead times, increase visibility of product supply and ensure information flows throughout the supply chain system. In a supply organization, these activities are the responsibility of the supply chain planning function that forecasts both the long term and short-term demand forecast and designs the capacity planning and inventory management of the physical supply chain and coordinates product supply across the supply network. The long-term demand forecasting process should be built on market intelligence activities and order histories, and be undertaken by a multi-functional team. This forecast combined with agreed product supply lead times will be used to ensure sufficient capacity throughout the supply network (for example, warehousing, in-transit, suppliers) and set the

inventory targets. A short-term demand plan should be built to manage the deployment of products within the country using inventory to ensure optimized product availability to the customer. Supply planning should work with a multi-functional team to provide visibility of product supply, reduce lead time, and ensure timely product distribution.

Activities:

1. Assess the existing demand and supply planning processes.
2. Build a business case of the benefits and resources required to implement new redesigned planning processes.
3. Reorganize the demand and supply planning process in a way that makes continuous inventory analysis and decision-making for central ordering part of the process.
4. Reorganize demand and supply planning teams for product/customer segmentation.
5. Design the new planning process, the planning organization and the interfaces with the other supply chain functions.
6. Develop JDs and SOPs based on the new process.
7. Develop and implement stock-holding policy.
8. Update and maintain historical demand data (monthly).
9. Revise the Agency's Pharmaceuticals Procurement List (at least every 2 years).
10. Prepare short- and long-term demand and supply plans.

Initiative P1.2: Design and Implement a Sales and Operations Planning Process

Description: In the existing practice, there is lack of alignment between the forecasted quantity, supply (capacity) and available budget/fund. It is critical in an organization that the forecasted volumes and activities are aligned with financial targets and budgets of the business and that this is visible to senior management. This alignment is done through a Sales and Operational Planning (S&OP) process. It takes the long term demand forecast created and agreed by the demand planning team and converts this to a financial forecast. This financial forecast can then be compared to the financial targets (turnover, margin, profit, budget) set by the senior management. Any misalignment between forecast and target will then be discussed and actions agreed to align forecast and target (e.g. reduce financial targets, add additional demand etc.).
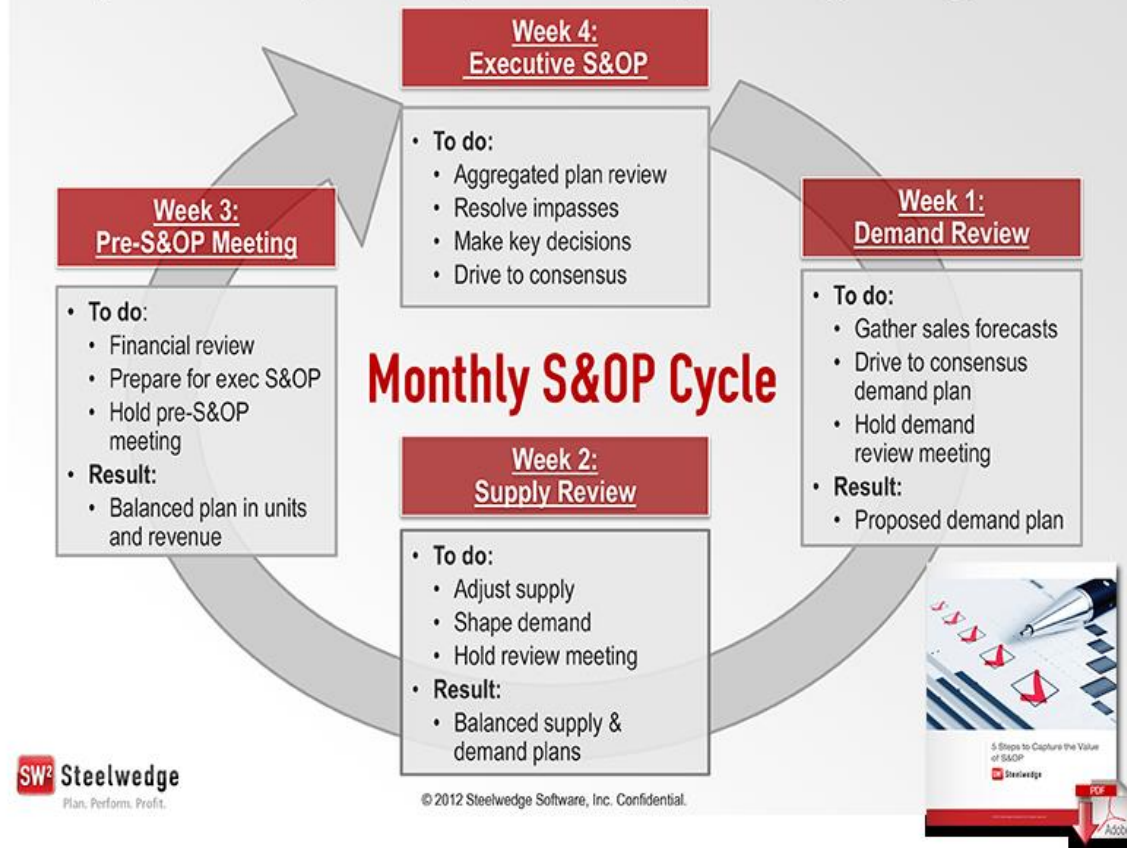
Figure 10: Sales and Operation activity cycle

Activities:

1. Create Sales and Operations Planning Team and Forum.

2. Develop SOPs for the S&OP process.

3. Prepare an annual work plan for the S&OP activities.

4. Review demand (gathers forecast data and develop demand plan) (monthly).

5. Review supply (adjusts supply, shape demand, prepare balanced supply and demand plan) (monthly).

6. Review financial capacity.

7. Hold pre-S&OP Meeting to balance demand with budget (monthly).

8. Hold Executive S&OP Meeting to get top management's approval and execute decisions (monthly).

Initiative P1.3: Create data analytics capability within the planning function for decision-making

Description: With the implementation of a planning function and processes, and with a robust master data management and an end-to-end reliable ERP system, EPSA will begin to get

visibility of data across the full supply chain, including lead times, shortages, supply risks, demand fluctuations, etc. This data can be further analyzed to optimize the supply chain thereby improving availability and reducing inventories and wastage. This initiative will be implemented once the planning function is implemented and processes established. This is about equipping the planning team, process and enabling technology to use big supply chain data for strategic and operational decision-making on demand planning, resource management, and resource requirement optimization and allocation.

Activities:

1. Build analytics capability in planning organization through training and external benchmarking.
2. Implement Advanced Planning and Scheduling (APS).
3. Undertake demand planning, resource management, resource requirement optimization and allocation through the use of advanced planning and scheduling (APS).
4. Use analytics data for strategic and operational decision-making.

Initiative P1.4: Strengthen Market Intelligence and Shaping

Description: Market shaping is about accelerating the market to a more optimal equilibrium point in terms of improved health outcomes and sustainability. It is intended to be a catalytic intervention that achieves lasting results. By taking inventory of successful market shaping interventions and assessing commonalities, it presents a high-level roadmap and an opportunity to further the discussion over how market shaping can advance the health goals. The indicators are the set of five measurable market characteristics: Affordability, Availability, Assured Quality, Appropriate Design, and Awareness. These "5As" to conceptualize an ideal market state with optimal health outcomes. By contrasting this ideal against the current market state, we can isolate the most critical market shortcomings and identify the diagnostics or analyses necessary to uncover the root causes. Market shaping interventions typically use three types of levers: Reduce transaction costs, increase market information, and balance supplier and buyer risks.

Gathering market intelligence involves a few activities, including scanning information about the market, trade magazines, and economic data produced by the government to find out about trends and what the competition is doing.

Activities:
1. Design marketing intelligence and shaping workflow
2. Perform market intelligence by gathering information surrounding the markets.

3. Observe the market shortcomings through the five measurable market characteristics (availability, affordability. assured quality, appropriate design and awareness).

4. Diagnose root causes to design successful and sustainable market shaping interventions.

5. Develop Market Shaping Options.

6. Implement Customized Intervention.

7. Monitor and evaluate the intervention's impact.

P2: Advance the Procurement Process

Performance measures and targets:
- Decrease procurement lead time from 296.5 days to 120 days by 2025, and 90 days by 2030.
- Increase local supplier percentage share from 22.3% to 60% by 2025, and to 80% by 2030.
- Increase supplier fill rate from _____ to 100% by 2025.

Initiative P2.1: Strengthen Strategic Procurement System

Description: Strategic procurement, also known as strategic sourcing, refers to the long-range plan to ensure a timely supply of products and services that are critical to EPSA's ability to meet its core objectives. It incorporates actions aimed at reducing the overall supplier base (prequalified suppliers), negotiations, communications, and working to maintain long-term relationships with suppliers. To this end, the agency will strengthen current framework agreements and placement schemes, introduce regional pooled procurement, e-procurement, supplier prequalification system and other potential strategic procurement modalities. This will enable the Agency to reduce costs, complexity and shorten supplier lead times.

What is Strategic Procurement?
An integrated, strategic approach to the supply side

People & Organisation
Corporate Business Strategy
Performance Measurement
Beyond Price
Risk
Process Management
Supplier Management
IS Systems and Procedures

Figure 11: Strategic Procurement

Activities:
1. Develop an annual procurement plan.
2. Categorize products as critical, leverage, strategic and nuisance, and suppliers as core, developmental, exploitable and nuisance.
3. Implement supply strategies for each product category.
4. Prequalify suppliers.
5. Strengthen procurement through long-term agreements and placement schemes for additional products.
6. Implement e-procurement.

Initiative P2.2: Develop and Implement a Supplier Relationship Management (SRM) system

Description: A key element to support the procurement function is reliable, timely and accurate information. As part of the move to a more strategic approach understanding suppliers, their performance and their capability is critical in making decisions. Hence having a comprehensive approach to manage an enterprise's interactions with suppliers is vital which is called SRM. SRM is often associated with automating procure-to-pay business processes, evaluating supplier performance, and exchanging information with suppliers. This is a methodology to structure and support relationships with suppliers that will assist in reducing procurement and inventory costs, supporting a customer-centric business that delivers product/ service customization and quality in the desired time frame and continuously improving supply processes.
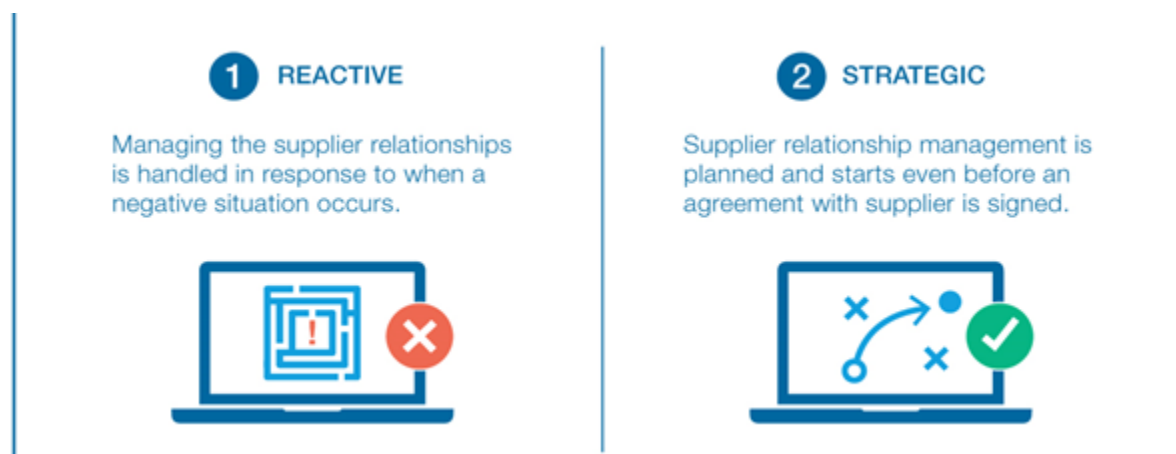
Figure 12: Approach to Supplier Relationship Management

Activities:
1. Strengthen the SRM Team.

2. Develop SRM strategy.

3. Identify key suppliers.

4. Develop SRM SOPs, Job Descriptions and KPIs with targets to measure performance.

5. Measure supplier performance using the KPIs and use results for supplier related decisions.

6. Implement supplier collaboration meetings with major suppliers of key products.

7. Automate the SRM using appropriate technology.

Initiative P2.3: Design and Implement Medical Equipment Management

Description: The challenges of management of Medical Equipment are very different from those of medicines. Medical Equipment normally requires a large investment in large pieces of equipment that take up a large amount of space in the warehouse and require a large amount of coordination across the different functions of the organization. Product attributes are complex, and often equipment requires a supply of associated ancillaries including consumables. Maintenance (MEM) is also a factor in selection and procurement. In summary, Medical Equipment Management requires a different supply chain operation with different performance criteria.

Figure 13: The Medical Equipment Management Cycle

Activities:

1. A cross functional team of planning, procurement and warehousing is created to manage medical equipment.

2. Undertake assessment to identify the major bottlenecks and issues in the management of medical equipment throughout the SC system.

3. Design and implement a new supply chain system and KPIs to manage medical equipment.

4. Introduce strategic procurement considering special characteristics of medical equipment.

5. Procure appropriate vehicles for self-loading- unloading of medical equipment

6. Implement a proper end-to-end track and trace system to monitor the whole process.

7. Develop SOPs and guidelines for proper management of medical equipment.

8. Establish the necessary system and manage medical equipment as per the guidelines.

P3: Enhance warehousing, order management and distribution processes

Performance measures and targets:

- Increase on time and in full (OTIF) from ___ to 80% by 2025, and to 95% by 2030.

- Increase RDF inventory turnover rate from 1.12 to 2.2 by 2025, and to 3.0 by 2030.

- Decrease pharmaceutical wastage rate from 1.9 to 1.5 by 2025, and to below 1.0 by 2030.

Initiative P3.1: Sustain Implementation of Warehouse Center of Excellence

Description: The warehouse Center of Excellence (COE) initiative focuses on transforming EPSA warehouse operations through extending the current capacity of people, processes, premises and governance, and leveraging the existing infrastructure, personnel and systems. EPSA has made good progress in achieving the CoE standards at Center and hubs. The Agency has adopted a warehouse process maturity model called 'EPSA Operational Maturity Model' to facilitate continuous improvement practice and culture within the warehouse. The goal for CoE is to have each EPSA center and hubs achieve level 5 maturity. Warehouses need to have well-defined and standardized best practices, organization wide standards, and common processes in order to reach a maturity level 5. This will create the foundation needed for an enterprise resource planning (ERP) system implementation at EPSA. In addition, the accomplishment will facilitate EPSA's journey for self-reliance and create the foundation towards achieving international certification (GDP/ISO).

Activities:

1. Develop a strategy to maintain existing warehouse CoE and scale up it across the organization.

2. Optimize inventory management to increase velocity of throughput.

3. Provide on-the-job training to the staff to enhance operational and management skills.

4. Introduce process audit to drive performance through compliance and visibility.

5. Review and update KPIs, SOPs, and staff JDs to meet GDP standards.

Initiative P3.2: Optimize the Receiving warehouse network

Description: The Revised PSTP indicated that the warehousing operational efficiency is impacted by the volume of slow, non-moving and expired stock consuming valuable storage space in the warehouses and segregation was recommended. Excessive demurrage costs accrue due to insufficient storage space. This is especially the case with regard to medical equipment and other bulk shipments for which the storage condition requirements are less stringent than those for pharmaceuticals and medical consumables. So, it was recommended to establish an in-bound central warehouse at Modjo for directly replenishing stock holding hubs and not necessarily moving stock to Addis. This location would also manage the distribution of slow-moving stocks. Accordingly, EPSA will build a mega warehouse near Modjo Dry Port to have value adding warehouse operations. In addition, EPSA's receiving warehouses in Addis Ababa are very much scattered making the receiving and distribution process time taking, inefficient and warehouse management a difficult task. Thus, this initiative will also address this issue in addition to building a central medical store at Modjo dry port.

Activities:
1. Develop investment case proposal
2. Resource mobilization to secure fund for construction and kitting
3. Securing land for construction
4. Construction and kitting
5. Deploying process best practices that are aligned with other strategic initiatives like cross docking and COE
6. Develop appropriate organizational structure
7. Develop SOPs, JDs and fulfill the staff requirement.

Initiative P3.3: Implement the Immunization Supply Chain Management Strategy

Description: EPSA has developed an Immunization Supply Chain Strategy focusing on system design, cold chain equipment and maintenance, leadership and HR, continuous improvement and planning. The goal is to establish a sustainable immunization supply chain that builds on partnerships and systemic learning processes that improve performance and data for management.

Activities:

1. Develop and implement annual action plans based on the strategy.
2. Procure all relevant cold chain equipment (cold chain vehicles, MHEs, etc.).
3. Assess and implement options for vaccine direct delivery to hospitals and health centers.
4. Expand last mile direct delivery to all hospitals and health centers.
5. Undertake segmentation and distribution/network analysis to ensure better supply chain performance.
6. Implement as per the findings.
7. Develop and implement maintenance strategy for cold chain equipment and MHEs, leveraging public private partnership (PPP).
8. Implementation stock management using mobile application for visibility and improved inventory in all public hospitals and health centers.
9. Improve analytical skill and data use culture at all levels.
10. Capacity building to promote learning and continuous improvement.
11. Pilot innovative technologies like drone technology for last mile delivery and scale up.

Initiative P3.4: Establish Central Order Management System

Description: As the existing order processing environment is viewed as being complex, cumbersome and convoluted, with too many process hand-offs, it is proposed that all orders be processed via telephone operators and a central ordering system linked to the Inventory Master Data. A central ordering function is only able to be fully optimal within a functional MIS environment.

The process is expected to be supported by the CRM and WMS (as part of ERP or best of breed) using a central ordering function generating orders to the hubs for load planning and subsequently, picking, packing and dispatch. The proposed central ordering process in which health facilities deal directly with EPSA will reduce the administrative burden and tasks associated with acting as a distribution intermediary. Any data collected as a result of the new Supply Chain MIS will be available to the woredas and potentially, in more detail than is currently the case. The efficiency gain is through direct link with customers, elimination of wasted time, and enhanced visibility of orders. Most importantly, it is expected to bring better customer experience and satisfaction.

Activities:
1. Develop a business case for the system.
2. Define the end to end business process requirements.

3. Organize a central ordering team.

4. Develop guidelines, SOPs and tools.

5. Align with other initiatives like cross docking and ERP.

6. Develop user and functional requirements for the Central Order Management System within the ERP.

7. Develop phased implementation and change management plan.

Initiative P3.5: Optimize the distribution network.

Description: As the number of warehouses has increased, the control and management of the warehouses and the stock they hold becomes increasingly difficult. In addition, the original distribution routes have been 'cannibalized' as some delivery points are transferred to the new hubs. The consequence is a degrading of the efficiency of PHARMID's hubs as the number of delivery points is reduced at each hub.

This strategy has increased cost, reduced efficiency, increased opportunities for service failure, increased the levels of slow-moving and non-moving stock and imposed a greater level of stress into the management of the Supply Chain. Plus, it has increased the need for appropriate MIS and skilled personnel, all of which are not readily available.

It was recommended in the revised PSTP that a transformational initiative should be adopted which establishes a network of PHARMID's ten distribution hubs, based on the current network of primary hubs with secondary hubs becoming pass-through or "cross dock" sites - thus not holding any stock. This would enable alternative 'best practice' supply chain techniques to be deployed at the sites that are no longer required as stockholding locations.

Activities:
1. Conduct quantitative network analysis to refine the proposed distribution network design (hub restructuring).

2. Refine processes for stock holding and stockless hubs, their interrelation, and alignment with other initiatives like central order processing and ERP.

3. Undertake segmentation analysis to propose differentiated inventory policy for health facilities (considering volume/demand) that will in turn help to determine delivery frequency - differentiated).

Initiative P3.6: Optimize Distribution Planning and Fleet Management

Description: Currently, EPSA is directly delivering program medicines to all public hospitals and most high volume health centers every two months. Supply chain 'best practice' advocates

the optimization of inventory through more frequent deliveries based on demand. This is expected to improve supply chain efficiency by reducing inventory holding cost at lower levels, minimizing risk of loss, and increasing velocity - the speed at which inventory cycles through the system. As the frequency of deliveries is increased, the storage requirements at the health facilities will be reduced. This is an important additional supply chain operational benefit, as the alternative is to invest in additional storage capacity - at health facilities - to manage the likely increase in volume resulting from the introduction of the nationwide health insurance scheme.

An analysis of EPSA's fleet utilization suggested that vehicles are poorly utilized. Vehicle utilization in a network with fewer stockholding points is best achieved through the application of appropriate transport management system (TMS) to determine the most effective route patterns. 'Best practice' fleet management operates on a flexible basis with dynamic route scheduling. Experience in utilizing such systems has revealed that fixed routes tend to decrease the utilization of the capacities of the fleet in terms of volume, weight and time.

Activities:

1. Assess the current distribution and fleet management practice, performance and identify areas for improvement.
2. Implement the identified intervention areas.
3. Establish vehicles, cold chain equipment and MHE maintenance management system
4. Monitor the maintenance time taken for every vehicle, evaluate performance against KPIs set and make interventions for improvements.
5. Install fuel tank at Head Office for emergencies.
6. Implement a transport management system (TMS) that can interface with the GPS and WMS.
7. Introduce dynamic route scheduling system.
8. Develop phased implementation and change management plan.

Initiative P3.7: Reinforce Integrated Pharmaceuticals Logistics System (IPLS)

Description: IPLS is the integrated pharmaceuticals reporting and distribution system used in the public pharmaceuticals supply chain system. The other initiatives under this objective will directly or indirectly affect the IPLS. The purpose of this initiative is to strengthen specific IPLS elements including facility-hub network mapping, reporting/requisition model, and facility inventory policy.

Activities:

1. Undertake quantitative distribution optimization analysis to properly map hubs with facilities for resupply/direct delivery.

2. Design and define processes, relationships, and roles and responsibilities of health facilities for reporting to and resupply from affiliated stock holding or stockless hubs.

3. Develop and implement electronic data interchange (EDI) system to link priority public health facilities' inventory management system with EPSA's Central Ordering System.

4. Conduct segmentation analysis to propose differentiated inventory policies for health facilities (considering volume/demand), including reporting schedule and min-max.

Initiative P3.8: Strengthen Last Mile Delivery

Description: Last mile delivery is a major supply chain value-adding modality. Health facility staff wastes valuable time and resources collecting healthcare products from higher levels, something which could be done far more efficiently through dedicated delivery. While EPSA has expanded direct delivery significantly, either as IPLS for program medicines, and monthly delivery for vaccines, much work needs to be done to:

- Expand IPLS direct delivery to all health facilities.
- Increase direct delivery frequency from the current bimonthly (every two months) cycle
- Add RDF items to direct delivery.
- Expand vaccine direct delivery to all facilities cost effectively (either as a vertical delivery or integrated with IPLS).
- Explore direct delivery options to health posts.
- Test new delivery technologies, including drones.

These will be challenging to achieve and will take time and resources, but need to be prioritized.

EPSA needs to assess and prioritize them, analyze their feasibility, design and implement pilot or research activities to support them. All studies need to be costed, as expansion of direct delivery will be driven by financial resources as well as capacity, while direct delivery can reduce overall costs for the system it also means shifting costs from those picking up supplies to EPSA which means a shift in resources.

A 'Last Mile' Pilot Study was proposed in the revised PSTP with the aim of testing the supply chain design and to identify issues and/or problems that could emanate from the implementation of the Supply Chain incorporating a picking and packing operation at the selected hub. In order to directly deliver to every health center, it will be necessary to identify

those that are currently hard to reach and require smaller vehicles. The data obtained from the GPS will be an invaluable input to the overall process.

Activities:

1. Evaluate the performance of Hawassa hub's last mile delivery pilot program and take relevant decisions.

2. Mobilize resources for the scale up of the last mile delivery.

3. Decide which activities can be done at scale and which require pilots and/or further analysis.

4. Develop implementation plans and undertake last mile delivery by all hubs based on the decisions made.

Initiative P3.9: Establish Reverse Logistics System

Description: An efficient and effective reverse logistics system to ensure that excess or unusable stock is returned to where it can be redistributed or disposed is an essential process for any supply chain organization. The objective focuses on the redistribution of usable stocks from one site to another site where the commodity is needed and transportation of expired health commodities, clinical, anatomical and related wastes from health facilities and other potential sites to the incineration sites for safe disposal. The process is supposed to be done in an integrated manner. To this end, eight incinerators have been procured and are currently installed in Adama, Bahir Dar, Dessie, Jijiga, Hawassa, Jimma, Mekele and Nekemte hubs. In order for the incineration sites to dispose of the wastes, a reverse logistics supply chain system has to be developed to bring the waste from hospitals, health centers, health posts and other centers to the incineration sites. In addition to providing 'cross-docking' services, the hubs that will no longer be needed as stockholding locations can act as locations for the consolidation of waste prior to the onward delivery to the incineration sites. To operate effectively, the network of disposal sites will require vehicles with tailgate lifts and the incineration sites are required to be equipped with appropriate safety and operation equipment. These incineration sites have the potential business opportunity of offering the service to the large number of private, NGO and faith-based health facilities in Ethiopia. Implementation of the incineration process is still challenging, as there are issues in relation to community's perception, nature of the commodities to be disposed of, and equipment performance. Further analysis to understand the root cause of the challenges is being done.

Activities:

1. Develop investment/business case for the reverse logistics and waste management system program (for kitting, feasibility and profitability as income generating / cost recovery activity).
2. Define the process, regulatory, and service requirements.
3. Design the reverse logistics and waste disposal system.
4. Review and/or implement the waste disposal/reverse logistics guideline
5. Procure appropriate capital equipment (vehicles, MHEs, and all other relevant materials) and equip the waste management facilities.
6. Implement the reverse logistics and waste disposal system.

P4: Enhance financial efficiency

Performance measures and targets:

- Increase percentage of credit sales collected during the reporting period from 70% to 100% by 2025 and maintain sustainability
- Increase fund utilization rate from 66.4% to 100% by 2025 and maintain sustainability

Initiative P4.1: Implement Appropriate Costing System that Allows Financial Control and Performance Measurement

Description: EPSA is planning to introduce Activity Based Costing (ABC) to determine the actual costs of the services it provides. By assigning more of their indirect costs to actual value add activities, EPSA can better identify and manage their costs, including being better able to set fees it charges to stakeholders for services (such as distribution fees). ABC can contribute to the setting of medicine prices, with appropriate mark-up, as well.

Activities:

1. Establish a task force to assess activity based costing.
2. Train the task force on ABC.
3. Identify supply chain activities that need to be costed and their major cost drivers.
4. Cost the identified activities by reviewing relevant resource documents.
5. Develop ABC policy and guidelines based on the assessment findings and implement it.
6. Set product prices with appropriate mark-ups and establish a basis for future benchmarking of performance.
7. Monitor and evaluate implementation of the guidelines and take corrective measures timely.

Initiative P4.2: Design and Implement Cost Reduction Projects

Description: In addition to income generation, EPSA needs to focus on cost reduction, ensuring that operations and activities are cost-effective. Part of this is having a system to assign and identify costs (see ABC above), a system to track those costs over time, and an oversight system that responds to changing costs and resets policies accordingly.

Activities:

1. Identify cost centers.
2. Identify activities with potential for cost reduction by function (e.g. procurement, warehouse management etc.).
3. Track costs over time and identify activities that are inefficient.
4. Develop and implement appropriate interventions to optimize operational costs.
5. Revise policies and procedures as necessary to accommodate changes.

Initiative P4.3: Strengthen Financial Planning, Budget Control and Management

Description: As part of this initiative, a long term rolling financial plan will be developed and updated periodically. The Agency will also introduce management accounts to enable managers to control their activities against budgets and operational cost standards, track resources, and optimize the management of EPSA funds using key performance indicators. The introduction of management accounts in addition to the financial reports will not only ensure monitoring and evaluation of financial performance but also indicate to management the actions to be taken to improve performance and meet strategic objectives. The new activities will include the production of monthly budget performance reports that compare budgeted and actual revenue and expense performance.

Activities:

1. Review current performance and structure of the management accounting of the Agency.
2. Reorganize and staff the management accounting team as per findings of the review.
3. Train the management accounting team as per the competency framework.
4. Prepare a long term rolling plan and update it annually
5. Create specific General Ledger codes for each key EPSA functional area, including: procurement, distribution, warehousing, management information systems and administration.
6. Design and implement an appropriate budget control system.

Initiative P4.4: Strengthen the Management of Financial Receivables

Description: Management of financial receivables is critical to EPSA's management of its financial health, including its liquidity. Setting policies on credit terms and implementing them will allow EPSA to strengthen its financial position and offer better service to the public.

Activities:

1. Assess current status of financial receivables.
2. Take the necessary modifications by reviewing implementation of the financial guidelines related with receivable and its bottlenecks.
3. Develop and implement short-term plan, as per the revised guidelines.
4. Monitor and evaluate performance, and take appropriate measures**.**

Initiative P4.5: Develop and Implement Long-term Financial Sustainability Plan

Description: Creating appropriate balance between the public responsibility and financial sustainability of EPSA is very important to sustain operations. A financial sustainability plan will outline long-term financial goals, strategies, and action plans that will enable EPSA to sustain its business over the long term, including being able to respond to short term crises. The financial sustainability of EPSA is predicated not just on the ability to control costs but also to generate income. As Ethiopia moves to become a middle income country (target in 2025), it will become less reliant on external funding and there will be expanded business opportunities as the middle class, as disposable income grows. Direct government funding may replace some of this external funding, but there will also be pressure to both expand the RDF and national health insurance for cost sharing purposes.

Income generation for EPSA will also receive a lot of attention. Possible income generating activities include sales to the private sector, addition of new product lines with full cost recovery plus margin (for example, consumer goods), regional expansion outside of Ethiopia, expansion of service offerings (for example contract procurement), to name a few. Income generation needs to be balanced with the overall social mission of EPSA to provide access to affordable, quality medicines and health products to all Ethiopians.

On the other hand, asset management refers to the systems and procedures by which EPSA manages physical assets (for example, warehouses, buildings, vehicles, equipment, IT hardware) to ensure their proper maintenance and ability to support the Agency's activities. It combines managerial, financial, technical/engineering (for example physical maintenance) applied to these assets. It also includes setting specifications, and procurement, maintenance and repairs, and disposal of assets amongst other activities.

Activities:

1. In collaboration with stakeholders, identify income generating and cost reduction interventions to foster financial sustainability.

2. Develop income generating and cost reduction projects.

3. Develop financial sustainability plan by incorporating income generating and cost reduction projects.

4. Implement the plan and continuously monitor performance.

5. Revise the plan as necessary based on performance.

6. Establish an appropriate asset management system.

7. Develop and implement comprehensive maintenance and replacement/disposal strategy.

8. Monitor and evaluate performance.

P5: Enhance compliance

Performance measures and targets:

- Increase the percentage of ISO certified processes per entity (hubs and Head Office) from 0% to 50% by 2025, and to 100% by 2030.

Initiative P5.1: Develop and Implement Quality Management System

Description: The situational analysis highlights a number of weaknesses in the Quality Assurance process, including lack of standard processes, lack of trained personnel, and non-adherence to standard work procedures. The process to obtain ISO certification will ensure that these weaknesses are eliminated with the introduction of standard operating procedures, training and auditing of quality management activities.

Activities:

1. Raise awareness of management and staff on ISO certification and its requirements.
2. Strengthen the Quality Management unit.
3. Develop plan to obtain ISO certification for key processes.
4. Implement the ISO certification plan.
5. Obtain ISO certification
6. Monitor and evaluate progress and take corrective actions.

Initiative P5.2: Reinforce Internal Auditing

Description: The Internal Audit Directorate is expected to provide independent and objective assessment of EPSA's financial and technical performance in accordance with international

standards [International Professional Practice Framework (IPPF) issued by the Institute of the Internal Auditors (IIA)]. EPSA should strengthen the internal audit system to assess, evaluate and manage the financial and managerial risks associated with fund management and develop a mitigation plan in compliance with policies, procedures and laws. In common with the other elements of financial reporting and management accounting, the resources within the internal audit function should add value to the organization by not only reporting findings, but also to indicate areas and initiatives for improvement. The situational analysis highlights that internal processes are not followed and the BPT exercise revealed that there is a huge amount of non-value added activities both within and across functions. With the design and implementation of new processes in Procurement, Planning, Quality and distribution and installation of an ERP, it will be critical that standard processes and procedures are followed. The role of internal auditing will be to check compliance to these standard processes and to support EPSA to highlight areas of good and bad practice.

Activities:

1. Review the current structure of the audit team and reorganize with an appropriate mix of professionals to strengthen the unit.

2. Review existing internal audit policies and procedures, and strengthen to appropriately carry out financial and system audit activities.

3. Train team of internal auditors on agreed supply chain processes that should be audit, auditing standard operating procedures and best SC audit practices.

4. Develop a plan to audit key processes of the supply chain based on risk level and business benefit.

5. Implement the plan using a team of trained internal auditors and expert practitioners.

Initiative P5.3: Develop and Implement Internal Product Quality Control System

Description: As part of its Quality Assurance system, EPSA has been working to establish its own internal quality control system. This is to ensure the quality of products it avails to its customers. This requires organizing and equipping a QC laboratory and capacitating the QA staff in collaboration with universities, the regulatory authority, donors and partners.

Activities:

1. Appoint a multidisciplinary taskforce to establish the system.

2. Identify the key processes and activities that influence product quality (e.g. specifications, storage conditions, handling conditions, equipment standardization, and measurement devices).

3. In collaboration with stakeholders, develop a working manual that governs operations of the QC laboratory.

4. Build capacity of the QC team and the QC laboratory through collaborating with public Schools of Pharmacy, EFDA and donors/partners.

5. Equip the QC laboratory.

6. Develop the internal quality control plan, and implement.

7. Monitor and evaluate performance and take corrective actions.

Initiative P5.4: Develop and Implement Occupational Health and Safety

Description: EPSA is an organization with over 2,500 employees. The health and welfare of employees is a key value of EPSA. It is proposed to set up a Health and Safety programme that builds on the current work with a steering committee, agreed programme and a set of performance measures to monitor progress. It may be necessary to appoint an external consultant to provide expertise and guidance.

Activities:

1. Identify and prioritize risky areas and develop guidelines and a working manual for the Occupational Health and Safety Process.

2. Establish a team to coordinate the Occupational Health and Safety activities.

3. Train the team on occupational health and safety, and equip with the necessary resources.

4. Create awareness of the Agency's management and staff on occupational health & safety.

5. Develop and implement occupational health and safety plan based on the guidelines and SOPs.

6. Monitor and evaluate performance and take corrective actions.

P6: Strengthen Risk Management System

Performance measures and targets:
- Increase the number of processes with active risk registers from 0% to 100% by 2025
- The number of Active risk register assessments/follow ups done

Initiative P6.1: Develop and Implement Risk Management Strategy

Description: Supply chain risk management is the "systematic identification, assessment, and quantification of potential supply chain disruptions with the objective to control exposure to risk or reduce its negative impact on supply chain performance" (SCOR 2007). In the supply chain, risk management should be integrated with internal departments. Risk in the supply chain can take many forms and thus needs to be addressed taking a system-wide perspective.

As a supply chain organization, EPSA faces the following supply chain risks:

❖ Supply risks due to failure of the supplier in fulfilling their contractual obligation in terms of OTIF delivery, pricing, quality, and lead time.

❖ Demand risks due to poor quantification (forecast error), inter organizational relationship, OTIF delivery, and quality issues.

❖ Process risks due to poor systems, process, and infrastructure to plan and implement proper movement of products, information, and finance. This will result in poor capacity/inventory management and poor receivable and payable management system.

❖ Hazard risks due to natural disasters, political turmoil, and war that caused property damage and business disruptions.

❖ Financial risks relate to the financial solvency and credit issues of the organizations and of others up and down the supply chain. It also includes foreign exchange issues.

❖ Malfeasance (wrongdoing) risks include risks of supply chain theft, loss, fraud, and corruption.

Activities:

1. Establish a cross-functional Task Force to organize a risk management system, and capacitate it to complete its responsibilities..
2. Develop risk management strategy
3. Increase awareness of the management and staff on risk management.
4. Develop and implement a risk register for all functions to identify and mitigate risks.
5. Continuously identify, analyze, prioritize risks, and design appropriate interventions.
6. Develop and implement a risk mitigation plan to apply the interventions.
7. Monitor and Evaluate performance, and take corrective measures.
8. Communicate the result to stakeholders

Initiative P6.2: Develop and Implement Emergency Supply Chain Management Process

Description: Emergency supply chain management is the process of planning, managing and controlling the efficient flows of supplies, information, and services from the points of origin to the points of destination to meet the urgent needs of the affected people under emergency conditions. It is different from stable health care delivery as it requires very large volumes of items to enter into a country often within a short period of time. Additionally, there is often a high degree of uncertainty in demand volumes (i.e., populations affected), local commodity distribution capacity, and regulatory processes governing importation (which result in uncertain delivery lead times). This results in high costs for storage and distribution, requiring creativity and thorough coordination in order to successfully receive and deliver required items. This context can also result in significant volumes of waste if resources are not managed properly.

EPHI in collaboration with EPSA and with other key partners has been working hard in providing appropriate, adequate and timely responses to the health commodity needs of affected people. Major supply chain operations such as procurement, stock status monitoring and distribution of health commodities which are relevant to the management of public health emergencies, on the behalf of the institute, are undertaken by EPSA, in close collaboration with key partners.

Activities:

1. Revitalize the already established emergency supply chain TWG.
2. Assess the existing emergency supply chain system, and reorganize appropriately.
3. Develop working manual/guidelines to govern emergency supply chain management.
4. Develop and implement an emergency supply chain preparedness and response plan.
5. Train the management and staff on emergency supply chain management.
6. Undertake process optimization allowing flexibility needed to maintain resilience during the event.
7. Establish basic visibility into inventory and transactions to better establish demand, determine requirements, fill orders faster, and discourage pilferage.

P7: Strengthen Strategic Partnerships

Performance measures and targets:
- Increase percentage of effective strategic partnership established from _____ to 100% by 2025.
- Increase partners' satisfaction rate from _____ to 90% by 2025, and to 100% by 2030.

Initiative P7.1: Implement Communication Strategy and Strengthen Collaboration and Cooperation with Stakeholders

Description: EPSA is supported by and works with a diverse range of stakeholders that include funders, technical assistance providers, and international organizations. The Agency needs a strong engagement strategy for these stakeholders. A well-designed and executed coordination platform is key to addressing some of the issues that EPSA is facing through engagement with several players including EPSA themselves. Galvanizing partners to work towards the Agency's mission and vision, requiring that there is coordination of all donors and Implementing partners to strategically support the enablement and coordination presents an opportunity to create high-level governance at policy and strategy level, from which strategic approaches and resource mobilization activities are jointly undertaken and allocations of responsibilities, tasks and accountabilities are assigned.

Activities:
1. Assess the existing status of communication, collaboration and cooperation.

2. Develop and implement a comprehensive communication, collaboration and cooperation strategy.

3. Develop a working manual that guides the Agency's communication, collaboration and cooperation with internal and external stakeholders.

4. Develop a tool for appraising strategic partners.

5. Develop joint plans.

6. Implement the joint plans.

7. Hold regular partner forums and evaluate performance.

8. Publicize EPSA and its operations through various media outlets.

Initiative P7.2: Develop and Implement a Public Private Partnership Strategy

Description: This strategic objective focuses on enhancing the internal process through partnership with public or private organizations in areas where the Agency is not performing well. Potential areas that could challenge performance on core processes of the Agency will be identified, outsourced and done in partnership with other public/private organizations. To date, EPSA has limited experience with PPP, apart from some limited outsourcing of distribution and maintenance. The visioning exercise carried out for this strategic plan showed that many stakeholders believe PPP be applied to where it is most relevant. Given that these programs are new for EPSA accompanied by the early stage development of the private sector, it can be challenging to successfully implement for which a strong learning agenda should be a priority.

Activities:

1. Review current experience in PPP to identify barriers and opportunities.
2. Identify potential supply chain activities that can be outsourced to the private sector.
3. Undertake feasibility study on applicability of the identified areas for PPP and benchmark best practices.
4. Develop PPP guidelines/directives.
5. Pilot the PPP programs on selected areas and take lessons.
6. Apply PPP for the identified areas as per the guidelines.
7. Monitor and evaluate performance and take corrective action.

Initiative P7.3: Build up Project Management Capacity

Description: A project management office (PMO) is a group or department that defines and maintains standards for project management within the organization**.** Given the number and

complexity of projects being managed by EPSA, and their importance, a PMO could be a useful tool.

Activities:

1. Develop and implement a working manual to strengthen the Deliverology Unit.
2. Establish and operationalize Project Management Team integrated with the Deliverology Unit.
3. Capacitate the Deliverology Unit and Project Management staff through training and
4. experience-sharing.
5. Develop a Project Management Guideline and tools.
6. Develop and implement projects that facilitate supply chain operations.
7. Map donors and partners, and coordinate their activities aligned with planned activities.
8. Support, facilitate and follow-up implementation of key strategic initiatives.
9. Monitor and evaluate performance.

Initiative P7.4: Build up Local Manufacturing Capacity

Description: Strengthening the national pharmaceutical manufacturing sector is a priority for the Ethiopian government. EPSA, as the largest procurer and supplier of healthcare products in the country, has a key role to play in boosting local manufacturing through import substitution. The Agency has targets for procurement from local producers and offers financial incentives for local manufacturers through discounting their responses to tenders. Strengthening local manufacturing capacity through identifying potential areas for gap filling will be done to strengthen local manufacturing performance and thereby increase procurement of pharmaceuticals from local sources.

Activities:

1. Identify potential support areas (such as importing APIs in bulk...etc) through discussion
   with local manufacturers and develop joint implementation plans.
2. Implement the joint plan.
3. Monitor and evaluate performance, and take the necessary corrective action.

CB1: Strengthen Leadership, Governance and Human Resource Management

Performance measures and targets:
- Increase the percentage of competent workforce in the Agency from_____ to 75% by 2025, and to 100% by 2030.
- Increase staff satisfaction rate from 57.8% to 85% by 2025, and to 95% by 2030.
- Increase the good governance index from___% to _____% by 2025, and to___by 2030.

- Increase the number of women in Leadership from 14% to 50% by 2025

Initiative CB1.1: Leadership Development and Good Governance

Description: Strong leadership is essential to set strategic direction, ensure plans are developed and implemented and to motivate and inspire staff. Strong governance, by establishing structures and norms for an organization, supports leadership while leaders in turn promote good governance. With the new 10 year strategic vision of, "*To be the most responsive and efficient pharmaceuticals supply chain organization in Africa by 2030,*" it is critical that the Agency transforms from a functionally driven approach to a process driven supply chain organization with the goal of satisfying the customer through high levels of product availability. This will require the leadership to provide strong supply chain skill and work as a cross functional team, sharing common supply chain processes and targets. This will require support to manage the transition and support the senior leadership to work in a process orientated way.

Activities:

1. Develop and implement internal communication strategy.
2. Assess current leadership capacity and skill gaps, and develop capacity building programs.
3. Instill the five leadership styles in the Agency (Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart).
4. Conduct management and staff consultative forums.
5. Develop mentoring program to identify and mentor future leaders from within EPSA (Succession Planning).
6. Automate management meetings virtually and create online access to all relevant information and decision points.
7. Ensure implementation of the five components of good governance (rule of law, transparency, responsiveness, consensus oriented, equity and inclusiveness, effectiveness and efficiency, accountability and participation).

Initiative CB1.2: Revise and Implement HR Strategy of the Agency

Description: The availability of a competent workforce is key for supply chain management. This requires developing and implementing human resource management strategy. A Human Resource strategy is a business's overall plan for managing its human capital to align it with its business activities. The Human Resource strategy sets the direction for all the key areas of HR,

including hiring, performance appraisal, development, and compensation. The HR strategy is thus a long-term plan that dictates HR practices throughout the organization.

Activities:

1. Revise the human resource management strategy in light of the current developments in the Agency.
2. Undertake job analysis to determine human resource needs.
3. Digitalize the human resource management system (HRIS).
4. Implement the revised human resource management strategy.
5. Monitor and evaluate performance and take corrective actions.

Initiative CB1.3: Operationalize SCM Training and Resource Center

Description: EPSA has identified the need to develop an in-house SCM training center, which will utilize external training resources such as universities in Ethiopia till it organizes its own training center. Aim of the center is to design and provide standard supply chain courses to develop the capacity of its own staff, and of the supply chain workforce based in Ethiopia as well as those working in supply chain organizations across Africa. The center will have a dual purpose of supply chain workforce development and income generation.

Activities:

1. Develop Memorandum of Understanding with recognized universities, Ministry of Education and other stakeholders
2. Develop guidelines that will govern operations of the SCM training and Resource Center.
3. Develop program/business plan for the TRC, addressing the internal and external SC workforce.
4. Develop curricula for the identified training courses.
5. Prepare modules for each course as per the competency framework.
6. Identify human and material requirements and operationalize the center.
7. Provide training based on the competency gap.
8. Evaluate progress and plan for scale-up as per the business plan.
9. Undertake needs assessment, and develop additional curricula for the external SC workforce.
10. Undertake operational research to improve performance of the Agency.
11. Provide consultancy services on priority SC areas.
12. Monitor and evaluate performance against the business plan.

Initiative CB1.4: Build Organizational Culture

Description: An organization's culture defines the proper way to behave within the organization. This culture consists of shared beliefs and values established by leaders and then communicated and reinforced through various methods, ultimately shaping employee perceptions, behaviors and understanding. Organizational culture sets the context for everything an enterprise does.

Activities:

1. Undertake assessment on organizational culture to identify gaps.
2. Set the desired organizational culture (organizational culture standards).
3. Develop and implement strategy to build the desired organizational culture.
4. Assign culture ambassadors at head office and hubs
5. Monitor adherence to the set standards and take corrective measures.

Initiative CB1.5: Create Conducive Work Environment

Description: Employees are the life behind an organization as they are there day in and day out doing all of those things that help the organization to grow and exist. What they do in those days at work will dictate the future of the organization. So, being able to provide them with a conducive work environment can help to make sure that their work hours are as productive and effective as possible. The work environment has a significant effect on employee motivation, job satisfaction and team morale. Employees are enthusiastic about reporting to work every day if the work environment is a positive one. The work environment includes a company's location, facilities, culture, interactions between employees and employers, and growth opportunities, to name but a few. Creating a conducive work environment will motivate employees to live a balanced life. Helping employees achieve the work-life balance improves their job satisfaction.

Activities:

1. Establish a taskforce to coordinate implementation of this initiative.
2. Assess the existing work environment and identify areas for intervention.
3. Develop a detailed proposal to address the identified intervention areas, prepare an action plan and secure the necessary resources.
4. Implement the action plan, monitor and evaluate and take corrective actions.

Initiative CB1.6: Increase Level of Autonomy of the Agency

Description: EPSA is a government organization established by Proclamation No. 553/2007 and is accountable to the Ministry of Health. Currently, the proclamation 553/2007 is revised and is awaiting approval by the parliament. However, the revised proclamation is still expected to pose certain limits on the Agency's autonomy thereby potentially impacting EPSA's ability to become a world class healthcare supply chain organization. Therefore, this objective focuses on increasing autonomy of the Agency to the level EPSA becomes a corporate organization and thereby become fully autonomous.

Activities:

1. Undertake detailed analysis on bottlenecks that affect the Agency's performance and come up with concrete recommendations.
2. Present findings of the analysis to higher officials to get buy-in on the necessary change.
3. Amend the Proclamation as per the recommendations and consensus to bring about the required autonomy.
4. Reorganize the Agency as per the Proclamation.
5. Revise directives/working manuals/SOPs, etc. as per the new Proclamation.
6. Advocate the organization and its roles.

Initiative CB1.7: Gender Mainstreaming

Description: As with other sectors, the health sector in general and the pharmaceuticals supply service in particular cannot be gender-neutral in their operation or in their programmes.To enhance the gender-responsiveness, the Ethiopian Pharmaceutical Supplies Agency (EPSA), will work towards the recommendations of the Gender Audit report done by the Admas Programme – in collaboration with the Women's Strategic Development Centre (WSDC) in February 2020. To this end, gender policy, balanced representation of men and women in senior management positions, committee memberships, and strategic planning process of EPSA, recruitment (proactively recruiting and promoting women in the Agency), awareness of staff regarding gender issues, budget allocations for executing gender issues, zero tolerance for sexual harassment, and gender based violence, gender-disaggregated presentations and related concerns will be part of the implementation of this strategy.

Activities:
1. Develop a gender policy
2. Develop and implement gender equality strategy
3. Develop and implement gender capacity development programme
4. Monitor and evaluate the gender mainstreaming into the supply chain workforce

CB2: Transform the SCM Information System

Performance measures and targets:
- Increase percentage of processes supported with supply chain technologies from_____ to 100% by 2025.
- Increase percentage of system functionality from ___% to 100% by 2025.

Initiative CB2.1: Procure and Implement Enterprise Resource Planning (ERP) and Other Related Information Technologies

Description: As per the recommendation of PSTP mid review, EPSA has undertaken a Business Process Transformation (BPT) exercise, which aims at identifying and eliminating non-value adding activities for current business processes and subsequently defining transformed processes which can be computerized through commercial off-the-shelf (COTS) Enterprise Resource Planning (ERP) system.

ERP software is a modularized suite of business applications that are seamlessly integrated to provide automated interactions and common sources of data. ERP systems are built around a large database with shared access to data and include a number of transactional modules (for example, planning, manufacturing, purchasing, human resources, finance, sales, logistics). EPSA's ERP system could either be constructed by purchasing all modules as a package from one vendor or "best of breed" modules like WMS, TMS, CRM, and SRM can be brought from other specialized vendors. The decision solely depends on user requirement and ROI of the different investment options as both have their own merit and demerit.

Activities:
1. Develop phase based implementation plan.
2. Resource mobilization for ERP procurement and implementation.
3. Develop SLA with the vendor to manage the contract.
4. Acquire the ERP software and/or "best of breed" for WMS/TMS/Forecasting/CRM/ SRM/APS to be installed at EPSA.
5. Recruit appropriately skilled staff to populate as per the proposed revised organogram (phase based approach based on the road map).
6. Capacitate staff to understand and appropriately utilize new systems and technologies.
7. Plan for smooth transition from the legacy system by meticulously applying appropriate change management strategy.
8. Conduct pre and post implementation technology audits.
9. Acquire and implement automatic identification devices (RFID, bar coding, etc.).
10. Develop and implement solutions to enable EPSA staff work away from office in real-time (*telecommuting, mobile computing, etc.*).

11. Procure and utilize drone and robot technology for emergency product delivery and warehouse operations, respectively.

Initiative CB2.2: Establish End-to-End Supply Chain Data Integration and Visibility

Description: EPSA needs to select and implement a comprehensive management information system that will provide with the data visibility it will need to manage and control a $1 billion supply chain organization. The recent Visibility and Analytics Network (VAN), often referred to as a 'Control Tower', which has the aim of leveraging "Private Sector design approaches and leading practices to improve end-to-end visibility of the most relevant public health supply chain information, and enable this information to be used in a way that improves beneficiary outcomes, by using integrated and closed loop Supply Chain Management practices." Ensuring end-to-end data visibility within and between the Agency and health facilities is very critical for proper inventory management and realizing the central ordering system.

Activities:
1. Establish cross-functional teams to develop functional requirements for visibility and analytic dashboard and decision support system.
2. Develop user and functional requirements for the visibility and analytic dashboard and decision support system.
3. Acquire a system allowing data exchange, end-to-end visibility, analytics, and decision support.
4. Take the necessary steps to ensure that the Internet band-width within EPSA is sufficient to support the anticipated internet volumes associated with the Central Ordering processes and the fully integrated system as part of pre-implementation technology audit.
5. Establish Virtual Private Networks (VPN) that allows protected data transmission networks to prevent external access to confidential information passing from one site to another.
6. Continuously monitor progress and take appropriate measures.

Initiative CB2.3: Develop and Implement Data Management Strategy and IT Policy

Description: The growing volume of data in managing operational systems within EPSA, proliferation of redundant data, poorly defined and misunderstood data, data that is not usable for decision-making, are some of the challenges with respect to data data use in EPSA. These problems can be corrected by developing an enterprise data management strategy and implementing the plans that result from the strategy. Data management strategy is a single,

enterprise plan for the use of organizational data as an essential asset for strategic and operational decision-making. It defines the approach the enterprise will take to manage and use its data and information to achieve its business and technology goals, and to realize a competitive advantage using this asset. Understanding of the current state of data management across all the disciplines of data management such as strengths, areas of improvement, persistent challenges and important opportunities are important preliminary activities in the process. This current state assessment should lead to recommendations based on the organization's business and technical goals.

Activities:

1. Carry out situational analysis on EPSA's current data management practices, by data management domain, and develop recommendations for EPSA data strategy by data management domain.
2. Develop IT Policy and data management strategy.
3. Implement the strategy.
4. Monitor and evaluate performance, and take appropriate measures.

Initiative CB2.4: Establish Appropriate Network Infrastructure and Systems

Description: A significant part of EPSA's strategy is strengthening information systems and acquiring new systems. These systems will require IT infrastructure, including hardware and networks, to support them. The existing network infrastructure at EPSA is almost certainly inadequate and will require significant investments. There will also need to be a commensurate investment in human capacity and systems to manage this infrastructure.

Activities:

1. Review existing hardware and network infrastructure.
2. Mobilize resources for IT infrastructure.
3. Acquire appropriate hardware.
4. Install the necessary infrastructure at all levels as per the findings.
5. Test and implement the system (interoperability and compatibility).
6. Monitor and evaluate performance, and take appropriate measures.

CB3: Strengthen Monitoring & Evaluation, and Knowledge Management

Performance measures and targets:

- Increase number of processes implemented as per the operational research recommendations from_____ to 100% by 2025.
- Increase the percentage of supportive supervision from 49% to 100% by 2025.

Initiative CB3.1: Strengthen the M&E System

Description: Monitoring and Evaluation is a critical activity for EPSA. The M&E program establishes Key Performance Indicators (KPIs) for the organization and the supply chain, ensures definitions and data sources are clear and understood by all, ensures data is collected and recorded, maintains data integrity and that managers have access to data for decision making. The monitoring function enables continuous tracking of key indicators (outputs and outcomes) throughout implementation. The evaluation part focuses on periodic and impartial assessment of the performance of EPSA's projects, activities, operations, strategies and policies.

Activities:

1. Review the current M&E system.
2. Implement the findings of the review and institutionalize it.
3. Develop / locate M&E tools and software.
4. Capacitate the M&E staff.
5. Review and update the M&E framework and train the management and staff on the framework and indicators.
6. Monitor and evaluate performance at all levels using the framework.
7. Improve report quality through establishing verification and feedback system.

Initiative CB3.2: Streamline Data Quality and Use across the Agency

Description: Data on supply and demand is the life blood of a supply chain organization like EPSA. Without data visibility performance cannot improve. Digitization work is done primarily to increase data visibility and quality. However, by itself, data does not improve performance. Organizations must build their capacity to use data, they must change their business processes to support and allow for data use, and they must build an organizational culture that values and allows for data use.

Activities:

1. Review the flow of data and information across the Agency.
2. Review current status of data quality and use.
3. Develop intervention plans to improve data quality and use.
4. Strengthen existing data use teams (QCSSTs).
5. Capacitate the management and staff on data quality and use.
6. Monitor and evaluate performance and take corrective actions.

Initiative CB3.3: Develop and Implement Knowledge Management System

Description: Closely related to data use is knowledge management, the process of creating, sharing, using and managing organizational knowledge. This includes managerial, cultural, and technical components.

Activities:

1. Review current knowledge management practices, systems and tools.
2. Prepare a strategy to strengthen knowledge management.
3. Develop a central knowledge management repository.
4. Develop SOPs to ensure knowledge is retained and shared to all.
5. Monitor and evaluate performance and take corrective actions.

Initiative CB3.4: Implement Performance Management System at all Levels

Description: Performance management (PM) is a continuous process of setting objectives, assessing progress and providing on-going coaching and feedback to ensure that employees are meeting their objectives and career goals. PM is a process by which Managers and employees work together to plan, monitor and review an employee's work objectives and overall contribution to the Organization.

It is a tool that can be used to track the execution of activities and to monitor performance over time. EPSA, in alignment with the FMOH, has adopted a BSC approach to their planning and operations improvement activities. By standardizing approaches, according to best practices, BSC should improve the quality of planning and execution of activities.

Activities:

1. Develop a governance framework for Balanced Scorecard.
2. Adopt a standardized and automated performance management system.
3. Train all EPSA staff on performance management.
4. Review existing strategies and plans and make sure they are aligned with the selected permanence management system.
5. Hold regular metrics reviews and reporting forums.
6. Continuously monitor and evaluate performance.
7. Develop and implement reward and recognition.

Initiative CB3.5: Strengthen Operations Research on Supply Chain Functions

Description: Applying operations research (OR), including a variety of techniques such as network optimization, route planning, supply chain design, volumetric analysis, distribution planning, inventory optimization, supply chain simulation, supply chain costing - can help

EPSA improve supply chain performance and efficiency. To successfully apply these tools, EPSA needs a clear understanding of various tools and their potential, the capacity to deploy them either directly or through outside experts, and a clear understanding of the problems they are trying to resolve.

Activities:

1. Develop an ordered list of priority areas to apply operational research.
2. Define the scope of each prioritized area, and develop a proposal.
3. Secure funds.
4. Undertake operational research by internal staff or external experts.
5. Monitor progress of each study.
6. Prepare reports.
7. Disseminate findings of the studies to all concerned.
8. Apply recommendations of the studies to improve supply chain performance.
9. Document implementation and results.

5. COSTING AND FINANCING

5.1. Costing

This Transformation Plan has a ten-year timeframe, starting in 2020 G.C. and is estimated to cost USD **64,318,772.31** Over half of this estimate (USD 32,000,000) is scheduled within the first three years of the plan. Notably, from the twelve strategic objectives, two of them: P3: Enabling Warehousing, Order Management and Distribution Processes, and CB2: ERP - Transforming Supply Chain Information System, account for roughly 75% of the total implementation budget required to commence the transformation.

Table 7: The draft estimated cost of the initiatives

No.	Initiatives	Total Cost(in USD)	Remark
1	Redesign a Customer Relationship Management (CRM) system	916,450.00	Support secured as part of ERP and other supports/support by the Global Fund/
2	Develop and implement comprehensive financial management measures	285,250. 00	budget is not yet secured
3	Develop and implement demand based forecasting and supply planning	464,550.00	""
4	Design and implement Sales and Operations Planning process	8,550.00	""
5	Create data analytics capability within the planning function for decision making	46.450.00	""
6	Strengthen Market Intelligence and Shaping Activities	808,00.00	budget secured from BMGF
7	Strengthen strategic Procurement	239,300.00	Support secured from USAID and UNFPA
8	Develop and implement a Supplier Relationship Management system	86,300. 00	Support secured from USAID and UNFPA
9	Design and implement Medical Equipment Management system	50,550.00	budget is not yet secured
10	Sustain implementation of the Warehouse Center of Excellence	74,450. 00	Support secured from USAID
11	Build Receiving mega warehouse near Modjo dry port	25,000,000. 00	budget is not yet secured
12	Implement immunization supply chain management strategy of the Agency	10,500,000. 00	Support secured from GAVI
13	Establish central order management system	104,050. 00	budget is not yet secured
14	Optimize the receiving and distribution network	--	
15	Optimize distribution planning and fleet management	700,000. 00	""

Therefore, there has to be an active resource hunting to secure the 38 million USD needed for the implementation of the strategy.

Estimated Transformation Plan Implementation Costs for Projects

This section outlines an estimate of both the total cost/ the expenditure required over the ten-year period. From total of $64.31m, around $ 57.7m is planned to be implemented at project level and the remaining will actually be implemented as part of the existing functional structure

The total estimated costs are summarized in the following table:

Table 8: Total Estimated Implementation Costs

	No.	Name of the Project	Total Cost(USD)	Remark
	1	Customer Relationship Management (CRM) project	$.92m	budget/support secured
	2	Financial Sustainability project	$ 0.05m	
	3	Supply Chain Planning project	$0.52m	
	4	Market Shaping project	$0.81m	budget/support secured
	5	Strategic procurement project	$0.41m	budget/support secured
	6	Medical Equipment Management project	$ 0.05m	
	7	Mega Warehouse project	$25.m	
	8	Central Ordering project	$0.10m	
	9	Immunization Supply Chain project	$10.50m	support secured
	10	Last Mile Delivery project	$2.8m	
	11	Supply chain Center of Excellence project	$0.60m	budget/support secured
	12	Risk Management project	$1.25m	budget/support secured
	13	Strategic Partnerships project	$0.75m	
	14.	Training and Resource Centre (TRC) Project	$3.96m	budget/support Partially secured
	15.	ERP (Enterprise Resource Planning) project	$9.8m	budget/support secured
		Total Cost of the projects' implementation	**$57.7m**	
		Total cost of '' budget/support secured	**$24.54m**	

16	Reinforce Integrated Pharmaceuticals Logistics System	500,000. 00	""
17	Scale up Last Mile Delivery	2,848,367.31	""
18	Establish and Integrate Reverse Logistics System and Waste Disposal System	1,000,000. 00	""
19	Implement appropriate costing system that allows financial control and performance measurement	86,000. 00	""
20	Develop and implement long-term financial sustainability plan	32,000. 00	""
21	Develop and implement Quality Management system	170,000. 00	""
22	Reinforce internal auditing	89,250.00	""
23	Develop and Implement internal product quality control system	1,534,000.00	""
24	Develop and implement occupational health and safety system	537,250. 00	""
25	Develop and Implement risk management strategy	1,250,000. 00	Support secured from the GF
26	Implement communication strategy and strengthen collaboration and cooperation with stakeholders	55,050. 00	budget is not yet secured
27	Develop and implement Public Private Partnership strategy	41,825. 00	""
28	Build up Project Management Capacity	650,000. 00	""
29	Leadership development and good governance	345,000. 00	""
30	Revise and implement HR strategy of the Agency	6,525.00	-
31	Operationalize training and resource center for SCM	1,550,000.00	Support secured from BMGF
32	Build organizational culture	51,750. 00	""
33	Create conducive work environment	2,000,000. 00	""
34	Procure, and implement Enterprise Resource Planning (ERP) and other related information technologies as per the BPT (Business Process Transformation)	10,310,000.00	Support secured from GF
35	Strengthen the M&E System	386,855. 00	budget is not yet secured
36	Implement performance management system at all levels	1,441,000. 00	""
37	Strengthen operations research on supply chain functions	150,000. 00	""
	Total Cost the strategic plan implementation	$64 ,318,772.31m	
	Total budget secured so far	$25, 741, 025.00m	
	Total budget ''not yet secured''	$38,577,747.31m	**including the cost for mega warehouse construction**
	Total budget to be secured for capacity building, process/operation optimization	$13,577,747.31m	**excluding the cost for mega warehouse construction**

1. Customer Relationship Management (CRM) project

The estimated total cost of $0.92m includes establishing a CRM unit, developing CRM strategy, staffing, annual customer satisfaction survey and dissemination. The cost for CRM software planned to be implemented in the third year is included under the ERP project.

2. Financial sustainability project

This project is all about new business development and sustainability plans to ensure the Agency's self-reliance. Identifying income generating and cost reduction interventions/projects to foster financial sustainability, developing financial sustainability plan by incorporating income generating and cost reduction projects, implementing the plan and continuously monitoring performance, establishing appropriate asset management system, and developing and implementing comprehensive maintenance and replacement/disposal strategy are key activities planned under this project. The estimated total projected cost over the period is $0.05m.

3. Supply chain planning Project

The project is aimed at enhancing SCM approach in managing resources. It is about enabling EPSA to utilize SC data end to end leveraging skills and knowledge of SCM professionals supported by analytical capability. The plan is to establish and maintain end to end SCM planning and S&OP unit fully staffed with skilled professionals and empowered with Advanced Planning and Scheduling (APS). The total sum is estimated to be $0.52m spread over the ten years of the transformation plan's implementation. The cost for APS software planned to be implemented in the third year is part of the ERP project.

4. Market Shaping Project

The estimated total cost of $0.81m of the project include; perform market intelligence by gathering information surrounding the markets, observe the market shortcomings through the five measurable market characteristics (availability, affordability, assured quality, appropriate design and awareness), diagnose root causes to design successful and sustainable market shaping interventions, develop Market Shaping Options, implement Customized Intervention, monitor and evaluate the intervention's impact.

5. Strategic Procurement Project

This project is the one that holds the long-range plan to ensure a timely supply of products and services that are critical to EPSA's ability to meet its core objectives. The project encompasses all the major activities in the process of advancing the pharmaceuticals procurement process. The project is estimated to cost about $0.41m over the implementation period.

6. Medical equipment management project

This project was considered strategic considering the resource, complexity, and gaps in HR capacity as it requires specialized skill end to end. The plan is to design and optimize the process in the first year. Staff LOEs and annual evaluations will continue to be part of the annual budget going forward. The total sum is estimated to be $0.05m spread over the ten years of the transformation plan's implementation.

7. Mega Warehouse Project

Mega Warehouse Project is the biggest capital project with an estimated cost of $25m. The state-of- the art warehouse will be built and equipped to 'best practice' international standards including pallet racking, security cages, mechanical handling equipment, heating, ventilation and air conditioning, a cold room, loading and unloading area dock levellers and a Warehouse Management System(WMS) RFiD installation. The plan is to have the construction, kitting, and staffing completed in the first two years. Overhead and Level of effort in the remaining years will still be there to run the warehouse.

8. Central ordering project

Activities Costed under Central Ordering initiative are all process optimization and standardization efforts needed along with staffing. The cost for Order Management software or system planned to be implemented as part of the inventory management module of ERP is included under the ERP project. The total sum is estimated to be $0.1m spread over the ten years of the transformation plan's implementation. Optimization of the whole distribution network after thorough analysis to refine the whole network design (stockholding vs. Stockless hubs) is also a highly interrelated big initiative under this project.

9. Immunization Supply Chain project

The project encompasses capital items like cold chain vehicles and vans and expands last mile vaccine direct delivery to hospitals and health centers. The project is estimated to cost $10.50m over the implementation period. The budget for this initiative implementation is secured by the Global Alliance for Vaccine Initiative (GAVI).

10. Last Mile Delivery Project

The project is another mega project expected to last the whole 10 years of PSTP with an estimated cost of $2.8m. It mainly includes implementation of the last mile delivery in phased approach to all hubs based on findings and recommendations from Hawassa Last Mile Delivery Project pilot

11. Supply chain COE Project

The estimated total cost of $0.6m of the project include; develop a strategy to maintain existing warehouse COE and extend it across the organization, optimize inventory management to increase velocity of throughput, provide on-the- job training to the staff to enhance operational and management skills, introduce process audit to drive performance through compliance and visibility, and review and update KPIs, SOPs, and staff JDs to meet GDP standards. The cost estimate is based on the assumption that, average unit cost to help graduate one primary and secondary hub to maturity level 5 is $40m and $20m respectively,

12. Risk Management project

The risk management project includes two big initiatives with a total cost of $1.25m is aimed at developing and implementing risk management strategy and emergency supply chain management strategy. The initial kick off including the strategy, risk register, capacity building, and budget for unknown risk is all budgeted under first year. The strategy could be revised in the sixth year and the implicit assumption here is there won't be additional HR requirements as the activity is expected to be done with the existing staff. The emergency supply chain management initiative includes: assessment, developing and implementing risk prevention and mitigation plan, SOP development, and training.

13. Public Private Partnership project

Creation of a well-designed and executed coordination platform to addressing some of the issues that EPSA is facing through engagement with several players including EPSA themselves, galvanizing partners and stakeholders to work towards the Agency's mission and vision, review current experience in PPP to identify barriers and opportunities, identify potential supply chain activities that can be outsourced to the private sector, capacitating the local manufacturing related tasks are part of this project. The total sum is estimated to be $0.75m and planned to be executed in the first four years of the transformation plan's implementation.

14. Training and Resource Centre (TRC) Project

The project with estimated cost of $3.96m is one among the big resource intensive projects in PSTP II expected to bring significant impact on the Agency's image. It includes big initiatives like; Leadership development and good governance (LMG), HR strategy of the Agency, Operationalizing training and resource center for SCM, building organizational culture, and creating a conducive work environment.

15. ERP Project

The project encompasses procurement and implementation of Enterprise Resource Planning (ERP) and other related information technologies as per the BPT (Business Process Transformation). Budget estimates have been obtained for; acquiring and implementing the ERP software and/or "best of breed" for WMS/TMS/Forecasting/CRM/SRM/APS, staffing, implementation support including user training, the network hardware and the user hardware.

The total for those elements has been estimated at $9.80m. The projected cost breakdown by year depends on implementation road map (modular approach), that is: finance module in the first year, Procurements & Inventory management in the second year, the remaining in the third year. Furthermore, other related technologies such as; RFID/Barcoding and Telecommuting are also part of this cost breakdown.

5.2. FINANCING

As the PSTP II formulation process follows the BSC approach, the budgeting process is driven by funding "favorites," or day-to-day operations. The BSC system improves the budget process because strategic initiatives have been identified through the scorecard building process, and it is practical and even essential to set aside a portion of the budget for these strategic projects.

This approach helps to drive the budget results in a "strategic," or "performance budget." day-to-day activities can be separately funded, but linked, in an "operating budget." A Performance Budget is a budget formulated by activities and programs, as opposed to organizational units.

The required budget will be generated from the sales of RDF pharmaceuticals, donors and revenue generation activities. Given the complexity and volume of the operations, the Agency is undertaking and the advancements planned to be achieved, financing the implementation will require more commitment from the government as well as development partners. It will require the Agency to operate more efficiently by reducing unnecessary costs without compromising the quality of the service it provides. An estimated total amount of 64,318,772.31.will be required for implementation of the 10 years PSTP II. The details of the costs are attached in annex four.

6. MONITORING AND EVALUATION

6.1. Overview

PSTP II set ambitious goals and target to be realized in the coming 10 years. The Agency aspires to achieve excellence in customer service, financial sustainability, operational excellence; and excellence in human resource management, leadership, and governance. As an integral part of the PSTP II, this monitoring and evaluation (M&E) plan serves two purposes. First, it provides detailed principles, concepts, and methodologies to inform the strategic plan. That means, the (M&E) plan layout guidance to produce data, information, and evidence to inform/ influence decision making of key stakeholders, primarily for planning, resource allocation, taking corrective action, cultivating accountability, and facilitating collaboration, learning, and adaptation. Second, it sets policy and direction to transform the existing M&E system for efficiently supporting the first purpose by adapting to international best practices in the context of the Ethiopian supply chain and health system. The transformed M&E system is characterized by the paradigm shift as shown in the table below.

Table 9: The key characteristics of the transformed EPSA M&E system

Paradigm lenses	The existing M&E system	The transformed M&E system
Reporting	Primarily reporting of activities to the parliament	Primarily use of data for learning, collaboration, and adaptation with stakeholders. The report includes informative reports, policy briefs, fact sheets, statistical bulletin, and dashboards.
Data management	Unstandardized, fragmented and with no-visibility	End to end visibility and integrated system.
Data quality	Quality is costly. Untimely, unstandardized, and fragmented data.	Quality has no cost. The data reflects reality. Zero tolerance for false data. Apply techniques to measure all dimensions (Integrity, Validity, Accuracy, Precision, Completeness, Timeliness, and Reliability) of data. Measure data confidence and data risk with the underlying source document and data management process.

Data Analytics	Descriptive analysis. Often backward-looking.	Forward-looking. Apply predictive analytics techniques using lead and lag indicators. Process all possible sources of data to inform strategic and day to day operations. It includes introducing real-time monitoring systems
Data Use	Gives a single or partial picture of the complex supply chain management.	Holistic view. Connect the dots to create the whole story. Apply techniques to link corporate, process, and individual KPIs; balance performance with system capability indicators; measure maturity level and sustainability; and link supply chain with health system outcomes. The key initiative project description (Logic Model) is at the heart of data use. Key initiatives will have a clear logic model and/or theory of change to guide planning, monitoring, and evaluation.
Data Ownership	Management and M&E own the data.	All engaged own the data. Definition of an initial research agenda to address technical matters pertaining to questions raised in this report. Engaging with different stakeholder groups (Staff and management, MOH, Partners, and suppliers) during the process of overall monitoring and evaluations
Data Democratization	Only a few management members have access to data. The data is interpreted mostly with their internal bias and experience.	**Everyone shall use data. Implement** user-friendly M&E system to value, demand, and act upon data. Demonstrate the contribution of data use to improve performance, improve accountability, for performance management, and enhance autonomy/ control of once action. Increase accessibility of data up to the public.

The M&E plan has three sections; the monitoring and evaluation framework (including KPIs), the data cycle and, policy and governance environment for the M&E system.

6.2. Monitoring and evaluation framework

This M&E framework will be used as a guide to monitor and evaluate the performance of the PSTP II implementation. It builds upon the existing M&E framework of the agency, and the health sector monitoring and evaluation guidance. The logic model is adapted from the SCOR model, the PSTP II strategic map, and the PSTP I logic model. It includes the logical relationship from inputs to outputs to outcomes and then ultimately to long term outcomes.

6.2.1. Key Performance Indicators

A total of 26 key performance indicators (KPIs) are selected to monitor and evaluate PSTP II. Most of the indicators have been used during PSTP I. Out of the total 26 indicators, 16 are not changed, and 10 are newly introduced. Eight indicators measure corporate performance, while the remaining 18 measure process-level performance. Attempts are made to balance the measurement of the Agency performance to customers with measuring the agency internal efficiency. Most of the indicators measure an individual event while some indicators are designed as index/composite. In addition to these strategic level indicators, units might have specific indicators related to their unique monitoring and evaluation requirements.

Moreover, these corporate and process level indicators will further be cascaded or decomposed to individual-level key performance indicators. The individual-level KPIs aggregate to inform process level indicators. At the same time, the process level indicators aggregate to inform corporate level indicators.

The current M&E indicators of the agency will be revised based on the PSTP II requirements. EPSA will refine the existing more than 200 individual KPIs to fit the PSTP II. The list of indicators and their matrix is detailed in the annex section.

6.2.2. Composite indicators

EPSA has indicated composite indicators/ indexes to measure complex supply chain performance or supply chain management efforts. The composite indicators help to understand the progress to realize high-level results and to monitor the contribution or Agency (sub-system) towards the higher health system results and principles. The PSTP II selected five composite indicators such as customer satisfaction rate, stakeholder satisfaction rate, financial performance, staff satisfaction rate, and strategic partners' satisfaction rate. Additional composite indicators

will be developed to measure the system maturity for each strategic objective and to measure the contribution of the agency to universal health coverage (health system).

Translating strategy into action: Data, Information, Knowledge and Wisdom Model

PSTP II identified strengthening monitoring and evaluation, and knowledge management as one of the strategic objectives to transform the use of information in decision making in the sector, including the M&E system. The model includes how data is gathered, analyzed, interpreted, reported, shared, and used in decision-making. It includes the model that translates data, to information, to knowledge, and then to wisdom.

6.2.3.1 Data source

The common data sources used to measure and inform PSTP II include Routine supply chain management information systems, administrative reports, and non-routine information sources.

6.2.3.2 10.3.2 Routine supply chain management information system

This is data collected regularly to measure progress on input, process, output, and outcome-related indicators. The data sources include HCMIS, Hub requesting and reporting forms, electronic financial system, and trackers to monitor the progress of procurement, pipeline, contract management, human resource management, etc. The implementation of ERP will provide a range of transactional data to routinely monitor key indicators.

6.2.3.   Administrative reports

Administrative reports primarily show the status of initiative/ project implementations. The Agency receives these reports from Units, EPSA branches, partners, and other organizations. Administrative reports provide information on project status, supervision results, audit reports, internal operations, and expenditures that are not tracked through routine logistic management information systems.

6.2.4.   Non-routine information sources

As a non-routine data source provides information to measure supply chain performance, identify key determinant factors, and predict the effect of variables/initiatives. The following data sources are categorized under non-routine information sources.

- Surveys and assessments
- Data quality assessments and audits
- Operation researches and estimations/ Modeling

- Maturity level assessments
- Evaluations and health system surveys

6.2.5. Data quality assurance

The Ethiopian Pharmaceuticals Supply Agency (EPSA) will implement the following key initiatives to improve data quality for M&E.

- Develop data quality assurance framework and enforce to cultivate accountability towards "Zero tolerance to data quality"
- Conduct regular data quality assessment and audit (independent review),
- Establish an inbuilt data quality checking mechanism (including lot-quality assurance sampling),
- Provide regular report review and feedback based on SOPs,
- Conduct regular RRF data quality analysis and jointly work with RHBs and HFs to improve it,
- Capacity buildings activities (training, supportive supervision, mentoring, job aids, and data review sessions),
- Integrate data verification/ data quality with recognition of best performance, research undertakings, planning and performance verifications,
- Conduct data triangulation (Logistic data with other health system data, and surveys) and
- Document and scale-up best practices and innovative approaches to improve data quality (such as electronic data quality checker, visual scanner, stakeholder verification etc…)

6.2.6. Use of information for action (Analysis and interpretation)

Transforming data use practice of an organization necessitates working on prompting value for data, data demand, and data use. PSTP II will implement interventions to increase the capacity to change data into meaningful information and use it for action. All units and EPSA branches will be supported to perform simple analysis and interpretation of the meaning behind the results for their own operational decision making, learning, and performance management. At the management level, EPSA will apply advanced data analytics to produce estimation, projections, and modeling to make strategic decisions, for planning, to set business rules, to optimize operations, and to develop improvement initiatives.

EPSA will employ early warning indicators, data demand mappings, and decision tracking matrix for systematic follow-up of decisions and action items from performance reviews, management decisions, coordination platform minutes, and recommendations of supervisions/ assessments.

The agency information system will support M&E activities by simplifying data analysis, summarization, visualization, and progress tracking. The development and use of custom-based dashboards for each level will support the decision-making process.

Data use could primarily be promoted by the functionality of data use and governance platforms. The agency performance review team will be empowered to lead the design and implementation of data use interventions and will oversee the practice of other data use platforms. Data use platforms include board meetings, management meetings, data review sessions, performance review meetings, technical working groups, quality circles, health system strengthening and quality team meetings, catchment meetings, planning sessions, etc.

Interpretation of data is at the center data use and decision making. EPSA will engage all staff and key stakeholders to better understand and interpret data. The performance review team will assess organizational, technical, and behavioral barriers to data use to develop appropriate interventions tailored to categories of staff. The following data use interventions will be designed and implemented in the PSTP II period:

- Develop information user manual and job aids,
- Build capacity of staff on data visualization and interpretation techniques
- Develop data sharing policy
- Publish documents that promote information use (factsheets, statistical bulletin, updates, and briefs)
- Establish a system to apply advanced data analytic technics (data mining, optimization etc….)
- Employ system thinking to link corporate, process and individual level KPIs analysis and interpretation
- Develop a theory of change for new high impact interventions
- Apply SCOR model practices

6.2.7.   Reporting

EPSA will work with key stakeholders to adhere to harmonization and alignment principles of "one plan- one budget-one report". The "one report" values the application of a common set of indicators that are reported using standard reporting template within the same reporting calendar by all institutions and stakeholders. EPSA will enforce all units and branches will adhere to the standard recording and reporting formats/ procedures as per ISO 9001:2015 document management. For example, EPSA branches shall report the same tracer products, period and cut point to report refill rate, and availability indicators

Similarly, EPSA operations are significantly dependent on the reporting and requesting form (RRF) submitted by health facilities. The agency will work with MOH, RHBs, Lower level administrative units, and health facilities to get the required logistic data on time as per standard template.   Moreover, EPSA will contribute to Government, Board, MOH, EPHI, and Donors requirements to produce reports, statistical publications, and assessments as an input for decision making, cultivating accountability, and promoting learning.

EPSA is committed to cultivating accountability by creating an environment in which leadership and management actions are trustworthy, fair, inclusive, and effective. EPSA will implement M&E interventions that influence the accountability of the governance system. All reports will be produced with accountability lens, including activities such as using KPI for managing performance, sharing information to all stakeholders, facilitating smart oversight of board and higher officials, facilitating independent reviews and engaging social groups and professional associations in the planning, monitoring, review, audit, and evaluation of the agency activities.

The agency will set thresholds to determine the level of performance as poor, good, and very good. The agency follows the general cut point for most of the KPIs (50% and 80% marginal increment). That means an increment of performance from the base line up to less than 50% is determined as poor performance, an increment between 50% and 80% as on track and performance above 80% increment from the baseline to target is determined as very good performance. KPIs or measurements having a standard or scientifically set threshold will be judged based on the standards in consultation with management.

6.2.8. Evaluation

Evaluation of the PSTP II will be undertaken at mid-term (2023) and end-term (2025) to assess the attainment of set objectives and targets. The mid-term evaluation will assess progress towards the achievement of results and generate lessons learned, while the end-term will inform the development of the subsequent strategic plan. In addition, EPSA will initiate the Joint EPSA-Stakeholder Review Mission (JSRM), every year to enhance harmonization and alignment of the agency strategy and operational plan. The agency will include participants from the Government (MOH, RHBs, MOFED, and Custom office), Donors/ Partners, Health facilities, suppliers, professional associations, and societies representing patients.

EPSA will conduct an impact evaluation for selected interventions that are strategically relevant, and their results could be used to inform key policy decisions. Focus will be given to impact evaluation methods that fit into the operational context of EPSA.

6.2.9. Dissemination and Communications

EPSA will regularly disseminate M&E findings and routine KPIs to stakeholders using different channels. The agency will develop a research agenda-setting and result in dissemination protocol. EPSA collaboration with partners will map the information demand, information sources, and dissemination schedule. Based on the protocols and the information dissemination map, the Agency will regularly disseminate and communicate reports, data, research findings, and documented best practices. Reports, M&E digest, supply chain indicator bulletins, newsletters, and fact sheets will be produced as per established schedules. The agency uses electronic outlets, such as the website and social media, for the dissemination of results. Furthermore, documentation of best practices and dissemination of results will also be promoted at the international level through participation in international conferences, contribution to the debate on national and regional supply chain management issues, and publication of scientific articles in international journals.

6.2.10. Policy and Governance for M&E

EPSA, Plan, M&E Directorate is responsible for the overall coordination of M&E activities in the Agency. In FY2020/21 the Agency will assess the current functionality of the M&E system and revisit the M&E organizational structure to be capable for PSTP II M&E.

The PSTP II promotes the engagement of key stakeholders in the planning, implementation, review, and process of PSTP II M&E. The agency will establish mechanisms to engage health facilities, MOH, partners, suppliers, and others in the M&E. The agency will develop a scorecard to measure the responsiveness of the supply chain system to the needs of key stakeholders.

The agency will develop policy documents related to the M&E system in line with the guidance of the MOH policies and regulations. The documents include Data Quality Assurance Framework, Data Sharing Policy, Agenda setting/ information mapping, and reporting protocols, information use manual, etc

7. SUMMARY OF PSTP II FORMULATION

Mission: "We sustainably supply affordable and quality assured essential pharmaceuticals to our customers through advancing supply chain management systems to enhance the health of society." "
Vision: "To be the most responsive and efficient pharmaceuticals supply chain organization in Africa by 2030"

Themes: 1. Customer Service Excellence 2. Financial Sustainability 3. Operational Excellence

Perspectives	Objectives	Indicators	Targets		Initiatives
			2025	**2030**	
Customer	C1: Enhance customer and stakeholder satisfaction	Customer satisfaction rate	85%	90%	• Redesign a Customer Relationship Management (CRM) system • Develop and implement comprehensive financial management measures • Develop and implement demand based forecasting and supply planning • Design and implement Sales and Operations Planning process • Create data analytics capability within the planning function for decision making • Strengthen Market Intelligence and Shaping Activities • Strengthen strategic Procurement • Develop and implement a Supplier Relationship Management system • Design and implement Medical Equipment Management system • Sustain implementation of the Warehouse Center of Excellence • Build Receiving mega warehouse near dry port • Implement immunization supply chain management strategy of the Agency • Establish central order management system • Optimize the receiving and distribution network • Optimize distribution planning and fleet management • Reinforce Integrated Pharmaceuticals Logistics System • Scale up Last Mile Delivery • Establish and Integrate Reverse Logistics System and Waste Disposal System • Implement appropriate costing system that allows financial control and performance measurement • Develop and implement long-term financial sustainability plan • Develop and implement Quality Management system • Reinforce internal auditing • Develop and Implement internal product quality control system • Develop and implement occupational health and safety system • Develop and Implement risk management strategy • Implement communication strategy and strengthen collaboration and cooperation with stakeholders • Develop and implement Public Private Partnership strategy • Build up Project Management Capacity • Leadership development and good governance • Revise and implement HR strategy of the Agency • Operationalize training and resource center for SCM • Build organizational culture • Create conducive work environment • Increase level of autonomy of the Agency • Procure, and implement Enterprise Resource Planning (ERP) and other related information technologies as per the BPT • Strengthen the M&E System • Implement performance management system at all levels • Strengthen operations research on supply chain functions
		Stakeholder satisfaction rate	85%	95%	
Finance	F1.Enhance financial performance	Cash to cash cycle time(in days)	180	90	
		Cost to income ratio	17	10	
		Return on asset,%	7	12	
Internal Process	P1: Enhance the supply chain planning and analytics	Forecasting accuracy(RDF)	80%	90%	
	P2: Advance the procurement process	Procurement lead time	120	90	
		Local suppliers percentage share	60%	80%	
		Supplier fill rate	100%	100%	
	P3: Enhance warehousing, order management and distribution processes	Stocked According to Plan(SAP)	90%	100%	
		On Time and In Full /OTIF/	80%	95%	
		Inventory turnover rate at EPSA	2.20	3.	
		Pharmaceuticals wastage rate (%) at EPSA	1.5	1	
	P4: Enhance financial efficiency	Percentage of credit sales collected during the reporting period	100	100	
		Fund utilization rate	100	100	
	P5: Enhance compliance	Percentage of ISO certified processes per entity (hub or head office)	50	100	
	P6:Strengthen risk management system	Number of processes with active risk register	100	100	
	P7: Strengthen strategic partnership	Percentage of effective partnerships established	100%	100%	
		Strategic partners' satisfaction rate	90%	100%	
Learning and growth	CB1: Strengthen Leadership, Governance and human resource management	Percentage of competent experts in the Agency	75	100	
		Staff satisfaction rate	85	90	
		Good governance index			
	CB2: Transform the SCM information system	Percentage of processes supported with supply chain technologies	100%	100%	
		Percent of system functionality	100%	100%	
	CB3: Strengthen monitoring & evaluation and knowledge management	Number of processes implemented as per the operational research recommendations	100%	100%	
		Percentage of supportive supervision conducted	100%	100%	

8. **Annexes:**

1. Performance Measures and Target

2. PSTP II Implementation Timeline

3. PSTP II projects Cost detail / year of implementation

4. Methodology for Implementing the BSC Strategy Management System

5. Visioning Activity

Annex 1: Summary of Performance Measure and Targets

PERSPECTIVES	OBJECTIVES	INDICATORS	BASELINE	TARGETS									
				2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Customer	C1: Enhance customer and stakeholder satisfaction	Customer satisfaction rate	TBD	65%	70%	75%	80%	85%	87%	88%		89%	90%
		Stakeholder satisfaction rate	TBD	65%	70%	75%	80%	85%	87%	88%	89%	90%	90%
Finance	F1.Enhance financial performance	Cash to cash cycle time(in days)	TBD	300	270	240	210	180	150	120	100	90	90
		Cost to income ratio	26%	25	23	21	19	17	15	13	11	10	10
		Return on asset,%	1.89%	3	4	5	6	7	8	9	10	11	12
Internal Process	P1: Enhance the supply chain planning and analytics	Forecasting accuracy(RDF)	60.12%(to be verified)	62%	65%	70%	75%	80%	82%	84%	86%	88%	90%
	P2: Advance the procurement process	Procurement lead time	296.5 days	250	200	160	140	120	115	110	100	95	90
		Local suppliers percentage share	22.30%	25%	30%	40%	50%	60%	70%	75%	80%	80%	80%
		Supplier fill rate	TBD	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

P3: Enhance warehousing, order management and distribution processes	Stocked According to Plan(SAP)	19.30%	50%	60%	70%	80%	90%	100%	100%	100%	100%	100%
	On Time and In Full /OTIF/	TBD	65%	68%	70%	75%	80%	85%	87%	89%	91%	95%
	Inventory turnover rate at EPSA	1.12	1.30	1.60	1.80	2.	2.20	2.40	2.60	2.80	2.90	3.
	Pharmaceuticals wastage rate (%) at EPSA	1.9	1.8	1.7	1.6	1.5	1.5	1.4	1.3	1.2	1.1	1
P4: Enhance financial efficiency	Percentage of credit sales collected during the reporting period	70	80	85	90	95	100	100	100	100	100	100
	Fund utilization rate	66.34	80	90	95	98	100	100	100	100	100	100
P5: Enhance compliance	Percentage of ISO certified processes per entity (hub or Head Office)	0	10	30	35	45	50	70	80	100	100	100
P6:Strengthen risk management system	Number of processes with active risk register	0	20	40	60	80	100	100	100	100	100	100
	No of active risk register assessments/follow ups done	0	100	100	100	100	100	100	100	100	100	100
P7: Strengthen strategic partnership	Percentage of effective partnerships established	N/A	80%	90%	100%	100%	100%	100%	100%	100%	100%	100%

		Strategic partners' satisfaction rate	N/A	70%	75%	80%	85%	90%	95%	100%	100%	100%	100%
Learning and growth	CB1: Strengthen Leadership, Governance and human resource management	Percentage of competent experts in the Agency	TBD	20	30	40	50	75	80	90	95	100	100
		Staff satisfaction rate	57.80	70	75	80	83	85	88	90	95	95	95
		Good governance index	TBD										
		Percentage of women in leadership	14	30	35	40	45	50	50	50	50	50	50
	CB2: Transform the SCM information system	Percentage of processes supported with supply chain technologies	TBD	25%	40%	50%	100%	100%	100%	100%	100%	100%	100%
		Percent of system functionality	TBD	80%	90%	100%	100%	100%	100%	100%	100%	100%	100%
	CB3: Strengthen monitoring & evaluation and knowledge management	Number of processes implemented as per the operational research recommendations	N/A	80%	90%	100%	100%	100%	100%	100%	100%	100%	100%
		Percentage of supportive supervision conducted	49%	60%	70%	80%	90%	100%	100%	100%	100%	100%	100%

Annex 2: PSTP II Implementation Timeframe

The PSTP II implementation time table is presented in the following table.

1. Enhance customer and stakeholder satisfaction

Initiative	Activity	1	2	3	4	5	6	7	8	9	10	Responsible body
Redesign a Customer Relationship Management (CRM) system	1. Establish CRM Unit including structures and positions	x										Executive committee, HRM
	2. Develop JDs and fill staff positions	x										HRM,CS
	3. Develop CRM strategy	x				X						Customer service (CS) unit
	4. Identify key accounts and develop service standards	x										CS
	5. Develop detailed processes and SOPs for for CRM	x										CS
	6. Train the leadership and staff on CRM		X		X		X		X		X	HRM,CS
	7. Automate the CRM using appropriate technology						x					MIS, CS
	8. Conduct customers' and stakeholders' satisfaction survey		X		x		x		x		x	CS, Operational Research
	9. Put in place a system to regularly measure, disseminate and incorporate satisfaction survey findings into business planning						x					CS, Operational Research

2. Enhance financial performance

Initiative	Activity	1	2	3	4	5	6	7	8	9	10	Responsible body
	1. Identify financial performance strategies and activities	x		x		x		x		x	x	RDF and Program Directorates
	2. Develop performance measures for each and overall financial	x	x	x	x	x	x	x	x	x	x	RDF and Program Directorates

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	management											

3. Enhance supply chain planning and analysis

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
P1.1- Develop and implement demand based forecasting and supply planning	1. Assess the existing demand and supply planning processes.	x										Quantification & Market Shaping Directorate (QMSD) with consultant
	2. Build a business case of the benefits and resources required to implement new redesigned planning processes.	x										QMSD with consultants
	3. Reorganize the demand and supply planning process in a way that makes continuous inventory analysis and decision-making for central ordering part of the process	x										QMSD with consultants
	4. Reorganize the demand and supply planning teams for product and customer segmentation	x										QMSD with consultants
	5. Design the new planning process, the planning organisation and the interfaces with the other supply chain functions.	x										QMSD with consultants
	6. Develop JDs and SOPs based on the new process	x					x				x	QMSD & HRM
	7. Develop and implement stock-holding policy	x					x					QMSD & EC
	8. Update and maintain historical demand data (monthly)											
		x	x	x	x	x	x	x	x	x	x	QMSD

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	9. Prepare short- and long-term demand and supply plan	x	x	x	x	x	x	x	x	x	x	QMSD
	10. Revise the Agency's Pharmaceuticals Procurement List every two years			x		x		x		x		QMSD
	11. Undertake stock status analysis, and update demand and supply plans (monthly)	x	x	x	x	x	x	x	x	x	x	QMSD
P1.2 -Design and implement Sales and Operations Planning process	1. Create Sales and Operations Planning Team and Forum	x										EC, QMSD, RDF Finance, Program Finance, WIM,
	2. Develop SOPs for the Sales & Operations (S&OP) process	x										QMSD, RDF Finance, Program Finance, WIM,
	3. Prepare annual work plan for the S&OP activities	x	x	x	x	x	x	x	x	x	x	QMSD, RDF Finance, Program Finance, WIM,
	4. Review demand (gather forecast data and develop demand plan) (monthly)	x	x	x	x	x	x	x	x	x	x	QMSD, WIM,
	5. Review supply (adjust supply, shape demand, prepare balanced supply and demand plan) (monthly)	x	x	x	x	x	x	x	x	x	x	QMSD, WIM,
	6. Review financial capacity	x	x	x	x	x	x	x	x	x	x	RDF Finance, Program Finance
	7. Hold pre-S&OP Meeting to balance demand with budget (monthly)	x	x	x	x	x	x	x	x	x	x	QMSD, RDF Finance, Program Finance, WIM,
	8. Hold Executive S&OP Meeting to get top management's approval and execute decisions (monthly)	x	x	x	x	x	x	x	x	x	x	EC, QMSD, RDF Finance, Program Finance, WIM,
P1.3 -Create data analytics capability within the planning function for decision making	1. Build analytics capability in planning organization through training and external benchmarking.	x	x	x	x	x	x	x	x	x	x	QMSD & HRM
	2. Implement Advanced Planning and Scheduling (APS) system			x								QMSD & MIS

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	3. Undertake demand planning , resource management, resource requirement optimization and allocation through the use of advanced planning and scheduling (APS)			x	x	x	x	x	x	x	x	QMSD
	4. Use analytics data for strategic and operational decision making			x	x	x	x	x	x	x	x	QMSD
P1.4: Strengthen Market Intelligence and Shaping	1. Perform Market intelligence by gathering information surrounding the markets	x	x	x	x	x	x	x	x	x	x	QMSD
	2. Observe the market shortcomings through the five measurable market characteristics (availability, affordability, assured quality, appropriate design and awareness)	x	x	x	x	x	x	x	x	x	x	QMSD
	3. Diagnose root causes to design successful and sustainable market shaping interventions.	x	x	x	x	x	x	x	x	x	x	QMSD
	4. Develop Market Shaping Options	x	x	x	x	x	x	x	x	x	x	QMSD & EC
	5. Implement Customized Intervention	x	x	x	x	x	x	x	x	x	x	QMSD & EC
	6. Monitor and evaluate the intervention's impact	x	x	x	x	x	x	x	x	x	x	QMSD & EC

4. **Advance the procurement process**

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
P2.1-Strengthen strategic Procurement	1. Develop annual procurement plans	x	x	x	x	x	x	x	x	x	x	Tender Management Directorate (TMD)

Subprocess	Activity	1	2	3	4	5	6	7	8	9	10	Responsible
	2. Categorize products as critical, leverage, strategic and nuisance, and suppliers as core, developmental, exploitable and nuisance	x	x	x	x	x	x	x	x	x	x	TMD
	3. Implement supply strategies for each product category	x	x	x	x	x	x	x	x	x	x	TMD
	4. Prequalify suppliers	x	x	x	x	x	x	x	x	x	x	TMD
	5. Strengthen procurement through long-term agreements and placement scheme for additional products	x	x	x	x	x	x	x	x	x	x	TMD
	6. Implement e-procurement	x	x									TMD
P2.2-Develop and implement a Supplier Relationship Management system	1. Establish SRM Team	x										TMD &CMD
	2. Develop SRM strategy	x										TMD &CMD
	3. Identify key suppliers	x										TMD &CMD
	4. Develop SRM SOPs, Job Descriptions and KPIs with targets to measure performance	x										TMD &CMD
	5. Measure supplier performance using the KPIs and use results for supplier related decisions	x	x	x	x	x	x	x	x	x	x	TMD &CMD
	6. Implement supplier collaboration meetings with major suppliers of key products	x	x	x	x	x	x	x	x	x	x	TMD &CMD
	7.Automate the SRM using appropriate technology		x									TMD, CMD & MIS
P2.3-Design and implement Medical Equipment Management system	1. A cross functional team of planning, procurement and warehousing is created to manage Medical Equipment.	x										QMSD, TMD, CMD & WIM

		1	2	3	4	5	6	7	8	9	10	
	2. Undertake assessment to identify the major bottlenecks and issues in the management of medical equipment throughout the SC system	x	x	x	x	x	x	x	x	x	x	QMSD, TMD, CMD & WIM
	3. Design and implement a new supply chain system and KPIs to manage Medical Equipment.	x										QMSD, TMD, CMD & WIM
	4. Introduce strategic procurement considering special characteristics of medical equipment	x										QMSD, TMD, CMD & WIM
	5. Implement proper end to end track and trace system to monitor the whole process	x										QMSD, TMD, CMD & WIM
	6. Develop SOPs and guidelines for proper management of medical equipments	x										QMSD, TMD, CMD & WIM
	7. Establish the necessary system and manage medical equipments as per the guideline	x										QMSD, TMD, CMD & WIM

5. Enhance warehouse, order management and distribution

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
P3.1- Sustain implementation of the Warehouse Center of Excellence	1. Develop a strategy to maintain existing warehouse COE and extend it across the organization	x										WIM
	2. Optimize inventory management to increase velocity of throughput	x										WIM
	3. Provide on-the- job training to the staff to enhance operational and management skills	x										WIM
	4. Introduce process audit to drive performance through compliance and visibility	x										WIM & QMS

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	5. Review and update KPIs, SOPs, and staff JDs to meet GDP standards	x	x	x	x	x	x	x	x	x	x	WIM
P3.2-Build Receiving mega warehouse near dry port	1. Develop investment case proposal	x										General Service Directorate
	2. Resource mobilization to secure fund for construction and kitting	x										EC
	3. Securing land for construction	x										EC
	4. Construction and kitting		x	x								GS directorate
	5. Deploying process best practices that are aligned with other strategic initiatives like cross docking and COE	x	x	x	x	x	x	x	x	x	x	WIM
	6. Develop appropriate organizational structure	x										EC
	7. Develop SOPs, JDs and fulfill the staff requirement	x										WIM & HRM
P3.3-Implement immunization supply chain management strategy of the Agency	1. Develop annual action plans based on the strategy	x										WIM
	2. Procure all relevant cold chain equipments (cold chain vehicles, MHEs, etc)	x	x									General Service Directorate
	3. Assess and implement options for vaccine direct delivery to public hospitals and health centers	x										WIM & DFM
	4. Expand last mile direct delivery to all hospitals and health centers	x	x	x	x							DFM
	5. Undertake segmentation and distribution/network analysis to ensure better supply chain performance	x										DFM
	6. Implement as per the findings	x	x									EC
	7. Develop and implement maintenance strategy for cold chain equipment and MHEs, leveraging public private partnership (PPP)	x										General Service Directorate (GS)

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	8. Implement stock management using mobile applications for visibility and improved inventory in all public hospitals and health centres	x	x									MIS & WIM
	9. Improve analytical skill and data use culture at all levels	x	x	x	x	x	x	x	x	x	x	M&E, WIM & MIS
	10. Capacity building to promote learning and continuous improvement	x	x	x	x	x	x	x	x	x	x	WIM & HRM
	11. Pilot innovative technologies like Drone Technology for last mile delivery & scale up	x	x	x	x	x	x	x	x	x	x	WIM, DFM & GS
P3.4-Establish central order management system	1. Establish cross functional team to facilitate the project	x										WIM & DFM
	2. Develop business case for the system	x										WIM & DFM
	3. Define the end to end business process requirements	x										WIM & DFM
	4. Organize central ordering team	x										WIM & DFM
	5. Develop guidelines, SOPs and tools	x										WIM & DFM
	6. Develop user and functional requirement for Central Order Management System within the ERP	x		x								WIM & DFM
	7. Align with other initiatives like cross docking and ERP	x		x								WIM & DFM
	8. Develop phased implementation and change management plan	x		x								WIM & DFM
P3.5-Optimize the receiving and distribution network	1. Establish cross functional teams responsible to work on the initiatives	x										EC
	2. Conduct quantitative network analysis to refine the proposed distribution network design (hub restructuring)	x										DU & Consultants
	3. Refine processes for stock holding and stockless hubs, their interrelation, and alignment with other initiatives like central order processing and ERP	x										DU & Consultants
	4. Undertake segmentation analysis to propose	x										DU & Consultants

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	differentiated inventory policy for health facilities (considering volume/demand) that will in turn help to determine delivery frequency - differentiated)											
P3.6-Optimize distribution planning and fleet management	1. Assess the current distribution and fleet management practice, performance and identify areas for improvement	x										WIM & DFM
	2. Implement the identified intervention areas	x										WIM & DFM
	3. Establish vehicles, cold chain equipment and MHE maintenance garage at the Agency's head office	x	x									GS & DFM
	4. Monitor the maintenance time taken for each vehicle to evaluate performance against KPI's set and intervention for improvement	x	x									GS & DFM
	5. Build fuel tanker at head office for emergency	x	x									GS
	6. Implement transport management system (TMS) that can interface with the GPS and WMS	x		x								IT & DFM
	7. Introduce dynamic route scheduling system	x		x								DFM
	8. Develop phased implementation and change management plan	x		x								DFM
P3.7-Reinforce Integrated Pharmaceuticals Logistics System	1. Establish cross functional/organizational teams responsible to work on the initiatives	x										EC
	2. Undertake quantitative distribution optimization analysis to properly map hubs with facilities for resupply/direct delivery	x										WIM & DFM

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	3. Design and define processes, relationships, and roles and responsibilities of health facilities for reporting to and resupply from affiliated stock holding or stockless hubs.	x										QMSD, WIM & DFM
	4. Conduct segmentation analysis to propose differentiated inventory policy for health facilities (considering volume/demand) including, reporting schedule and min-max.	x										QMSD, WIM & DFM
	5. Develop and implement electronic data interchange (EDI) system to link priority public health facilities' inventory management system with EPSA's Central Ordering System			x	x	x	x	x	x	x	x	MIT
	1. Evaluate the performance of Hawasa hub's last mile delivery pilot test and take relevant decisions	x										EC, WIM & DFM
	2. Mobilize resources for the scale up of last mile delivery	x										EC, WIM & DFM
	3. Develop implementation plans and undertake the last mile delivery to all hubs based on the decisions made	x	x	x	x	x	x	x	x	x	x	EC, WIM & DFM
P3.9-Establish and Integrate Reverse Logistics System and Waste Disposal System	1. Develop investment/business case for the reverse logistics and waste management system project (for kitting and feasibility and profitability as income generating activity)	x										EC, Reverse Logistics Directorate, WIM & DFM
	2. Resource mobilization	x										EC
	3. Define the process, regulatory, and service requirement	x										Reverse Logistics Directorate & DFM

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	4. Procure appropriate capital equipment and equip the facilities		x									GS
	5. Design and implement the integrated reverse logistics and waste disposal systems		x	x	x	x	x	x	x	x	x	Reverse Logistics Directorate & DFM

6. Enhance financial efficiency

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
P4.1- Implement appropriate costing system that allows financial control and performance measurement	1. Establish task force to assess activity based costing	x										EC, RDF & Program Directorates
	2. Train the task force on ABC	x										RDF & Program Directorates
	3. Identify supply chain activities that need to be costed and their major cost drivers	x										RDF & Program Directorates
	4. Cost the identified activities by reviewing relevant resource documents	x										RDF & Program Directorates
	5. Develop ABC policy and guidelines based on the assessment findings and implement it	x										RDF & Program Directorates
	6. Set product prices with appropriate mark-ups and establish a basis for future benchmarking of performance.	x	x	x	x	x	x	x	x	x	x	RDF & Program Directorates
	7. Monitor and evaluate implementation of the guideline and take corrective measures timely.	x	x	x	x	x	x	x	x	x	x	RDF & Program Directorates
P4.2 Design and implement cost reduction projects	1. Identify cost centers	x										RDF & Program Directorates

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	2. Identify activities with potential for cost reduction by function (procurement, warehouse management etc.)	x										RDF & Program Directorates
	3. Track costs over time and identify activities that are inefficient	x	x	x	x	x	x	x	x	x	x	RDF & Program Directorates
	4. Develop and implement appropriate interventions to optimize operational costs	x	x	x	x	x	x	x	x	x	x	RDF & Program Directorates
	5. Revise policies and procedures as deemed necessary to accommodate changes			x			x			x		RDF & Program Directorates
P4.3 Strengthen Financial Planning, Budget Control and Management	1. Review the current performance and structure of the management accounting team of the Agency	x										RDF & Program Directorates
	2. Reorganize and staff the management accounting team of the Agency as per findings of the review	x										RDF & Program Directorates
	3. Train the management accounting team of the Agency as per the competency framework	x										RDF & Program Directorates
	4. Prepare a long term rolling plan and update it annually and create specific General Ledger codes for each key EPSA functional area, including: procurement, distribution, warehousing, management information systems and administration	x	x	x	x	x	x	x	x	x	x	RDF & Program Directorates
	5. Design and implement appropriate budget control system	X	X	X	X	X	X	X	X	X	X	RDF & Program Directorates
P4.4 Strengthen the management of financial receivables	1. Assess current status of financial receivables	x										RDF & Program Directorates
	2. Take the necessary modifications by reviewing implementation of the financial guideline related with receivable and its bottlenecks	x										RDF & Program Directorates
	3. Develop & implement short term plan as per the revised guideline	x	x	x	x	x	x	x	x	x	x	RDF & Program Directorates

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	4. Monitor and evaluate performance, and take appropriate measures	x	x	x	x	x	x	x	x	x	x	RDF & Program Directorates
P4.5 Develop and implement long-term financial sustainability plan	1. Establish task force to coordinate the financial sustainability plan development	x										EC
	2. In collaboration with stakeholders, identify income generating and cost reduction interventions/projects to foster financial sustainability	x										RDF & Program Directorates
	3. Develop income generating and cost reduction projects	x										RDF & Program Directorates
	4. Develop financial sustainability plan by incorporating income generating and cost reduction projects	x										RDF & Program Directorates
	5. Implement the plan and continuously monitor performance	x	x	x	x	x	x	x	x	x	x	RDF & Program Directorates
	6. Revise the plan as deemed necessary based on performance		x			x			x			RDF & Program Directorates
	7. Establish appropriate asset management system	x										RDF & Program Directorates
	8. Develop and implement comprehensive maintenance and replacement/disposal strategy	x	x	x	x	x	x	x	x	x	x	RDF & Program Directorates
	9. Monitor and evaluate performance.	x	x	x	x	x	x	x	x	x	x	RDF & Program Directorates

7. Enhance compliance

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
P5.1- Develop and implement Quality Management	1. Raise awareness of management and staff onISO certification and its requirements	x										QMS
	2. Strengthen the Quality Management Unit	x										QMS & HRM

Initiative	Activity	year 1	2	3	4	5	6	7	8	9	10	Responsible body
system	3. Develop plan to obtain ISO certification for key processes within the coming 3 years	x										QMS
	4. Implement the plan	x	x	x	x	x	x	x	x	x	X	QMS
	5. Monitor & evaluate the progress and take corrective actions	x	x	x	x	x	x	x	x	x	X	QMS
P5.2-Reinforce internal auditing	1. Review current structure of the audit team and reorganize with appropriate mix of professionals to strengthen the unit	x										Internal Audit Directorate & HRM
	2. Review existing internal audit policies and procedures, and strengthen to appropriately carry out financial and system audit activities	x										Internal Audit Directorate
	3. Train team of internal auditors on agreed supply chain processes that should be audit, auditing standard operating	x										Internal Audit Directorate & HRM
	4. Develop a plan to audit key processes of the supply chain based on risk level and business benefit	x										Internal Audit Directorate
	5. Implement the plan using a team of trained internal auditors and expert practitioners.	x	x	x	x	x	x	x	x	x	x	Internal Audit Directorate
P5.3-Develop and Implement internal product quality control system	1. Appoint a multidisciplinary taskforce to establish the system	x										EC
	2 Identify the key processes and activities that influence product quality (e.g. specifications, storage conditions, handling conditions, equipment standardisation, measurement devices)	x										QMS
	3. In collaboration with stakeholders, develop working manual that governs operations of the QC laboratory;	x										QMS
	4. Build capacity of the QC team and the QC laboratory through collaborating with Public Schools of Pharmacy, EFDA and donors/partners;	x	x									QMS & HRM
	5. Equip the QC laboratory;	x	x									EC & QMS

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	6. Develop internal quality control plan and implement	x	x	x	x	x	x	x	x	x	x	QMS
	7. Monitor and evaluate performance and take corrective actions	x	x	x	x	x	x	x	x	x	x	QMS
P5.4-Develop and implement occupational health and safety system	1. Identify and prioritize risky areas and develop Guideline and working manual for the Occupational Health and Safety Process;	x										HRM
	2. Establish team to coordinate the Occupational Health and Safety activities;	x										HRM
	3. Train the team on occupational health and safety, and equip with the necessary resources	x										HRM
	4. Create awareness of the Agency's management and staff on occupational health and safety	x	x	x	x	x	x	x	x	x	x	HRM
	5. Develop and implement occupational health and safety plan based on the guidelines and SOPs;	x	x	x	x	x	x	x	x	x	x	HRM
	6. Monitor and evaluate performance and take corrective actions	x	x	x	x	x	x	x	x	x	x	HRM

8. Strengthen risk management system

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
P6.1:Develop and Implement risk management strategy	1. Establish a cross-functional Task force to organize a risk management system, and capacitate it	x										EC
	2. Develop risk management strategy and SOPs	x				x						QMS, Audit & GG
	3. Increase awareness of the management and staff on risk management	x										QMS, Audit & GG
	4. Develop and implement risk register in all functions to identify and mitigate risks	x										QMS, Audit & GG
	5. Continuously identify, analyze, prioritize risks and design appropriate interventions	x	x	x	x	x	x	x	x	x	x	QMS, Audit & GG
	6. Develop and implement risk mitigation plan to apply the interventions	x	x	x	x	x	x	x	x	x	x	QMS, Audit & GG
	7. Monitor and Evaluate performance, and take corrective measures	x	x	x	x	x	x	x	x	x	x	QMS, Audit & GG

Initiative	Activity	year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
P6.2:Develop and implement emergency supply chain management system	1. Revitalize the already established emergency supply chain TWG	x										EC
	2. Assess the existing emergency supply chain system and reorganize appropriately	x										QMSD,TMD, CMD, WIM & DFM
	3. Develop working manual/guideline that governs emergency supply chain management	x	x	x	x	x	x	x	x	x	x	QMSD,TMD, CMD, WIM & DFM
	4. Develop and implement emergency supply chain preparedness and response plan	x	x	x	x	x	x	x	x	x	x	EPHS, QMSD,TMD, CMD, WIM & DFM
	5. Train the management and staff on emergency supply chain management	x	x	x	x	x	x	x	x	x	x	HRM, QMSD,TMD, CMD, WIM & DFM
	6. Undertake process optimization allowing flexibility needed to maintain resilience during the event	x	x	x	x	x	x	x	x	x	x	QMSD,TMD, CMD, WIM & DFM
	7.. Integrate emergency supply chain activities within each function by incorporating in annual plan	x	x	x	x	x	x	x	x	x	x	QMSD,TMD, CMD, WIM & DFM
	8. Establish basic visibility into inventory and transactions to better establish demand, determine requirements, fill orders faster, and discourage pilferage	x	x	x	x	x	x	x	x	x	x	QMSD,TMD, CMD, WIM & DFM

9. Strengthen strategic partnership

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
P7.1- Implement communication strategy and strengthen collaboration and	1. Assess the existing status of communication, collaboration and cooperation	x										PR & DU
	2. Develop and implement a comprehensive communication, collaboration and cooperation strategy	x				x						PR & DU

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
cooperation with stakeholders	3. Develop working manual that guides the Agency's communication, collaboration and cooperation with internal and external stakeholders	x										PR & DU
	4. Develop a tool of appraising strategic partners	x				x						DU
	5. Develop joint plans	x	x	x	x	x	x	x	x	x	x	DU, Plan, M&E
	6. Implement joint plans	x	x	x	x	x	x	x	x	x	x	DU, Plan, M&E
	7. Hold regular partner forums and evaluate progress performances	x	x	x	x	x	x	x	x	x	x	DU, Plan, M&E
	8. Publicize EPSA and its operations through various media outlets.	x	x	x	x	x	x	x	x	x	x	PR & DU
P7.2-Develop and implement Public Private Partnership strategy	1. Review current experience in PPP to identify barriers and opportunities	x										EC & DU
	2. Identify potential supply chain activities that can be outsourced to the private sector	x										EC & DU
	3. Undertake feasibility study on applicability of the identified areas for PPP and benchmark best practices	x										EC & DU
	4. Develop PPP guideline/Directive	x										EC & DU
	5. Pilot the PPP on selected areas and take lessons		x									EC & DU
	6. Apply PPP for the identified areas as per the guideline		x	x	x	x	x	x	x	x	x	EC & DU
	7. Monitor and evaluate performance		x	x	x	x	x	x	x	x	x	EC & DU
P7.3-Build up Project Management Capacity	1. Develop and implement working manual to strengthen the Deliverology Unit	x										DU
	2. Establish and operationalize Project Management Team integrated with the Deliverology Unit	x										EC, HRM & DU
	3. Capacitate the Deliverology Unit and Project Management staff through training and experience-sharing	x										EC, HRM & DU
	4. Develop a Project Management Guideline and tools.	x										EC & DU
	5. Develop and implement projects that facilitate supply chain operations	x	x	x	x	x	x	x	x	x	x	Project Office & DU
	6. Map donors and partners, and coordinate their activities aligned with planned activities	x	x	x	x	x	x	x	x	x	x	DU

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	7. Support, facilitate and follow-up implementation of key strategic initiatives	x	x	x	x	x	x	x	x	x	x	DU
	8. Monitor and evaluate performance and take the necessary corrective actions	x	x	x	x	x	x	x	x	x	x	DU
P7.4-Build up local manufacturing capacity	1. Identify potential support areas (such as importing APIs in bulk etc...) through discussion with local manufacturers and develop joint implementation plan	x										EC & QMSD
	2. Implement the joint plan	x	x	x	x	x	x	x	x	x	x	EC & QMSD
	3. Monitor and evaluate performance, and take the necessary actions timely	x	x	x	x	x	x	x	x	x	x	EC & QMSD

10. Strengthen leadership, governance and HRM

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
CB1.1-Leadership development and good governance	1. Develop and implement internal communication strategy	x										EC,HRM & GG&Reform
	2. Assess leadership capacity and skill gaps, and develop capacity building programs	x	x	x	x	x	x	x	x	x	x	EC,HRM & GG&Reform
	3. Instill the five leadership styles in the Agency (Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart)	x	x	x	x	x	x	x	x	x	x	EC,HRM & GG&Reform
	4. Conduct management and staff consultative forums	x	x	x	x	x	x	x	x	x	x	EC,HRM & GG&Reform
	5. Develop mentoring program to identify and mentor future leaders from within EPSA (Succession Planning)	x	x	x	x	x	x	x	x	x	x	EC,HRM & GG&Reform
	6. Automate management meeting virtually and create online access to all relevant informations and decision points	x	x	x	x	x	x	x	x	x	x	IT

Initiative	Activity	Year 1	2	3	4	5	6	7	8	9	10	Responsible body
	7. Ensure implementation of the five components of good governance (rule of law, transparency, responsiveness, consensus oriented, equity and inclusiveness, effectiveness and efficiency, accountability and participation)	x	x	x	x	x	x	x	x	x	x	EC,HRM & GG&Reform
CB1.2- Revise and implement HR strategy of the Agency	1. Revise the human resource management strategy in light of the developments in the Agency	x				x						HRM
	2. Undertake job analysis to determine human resource need	x				x						HRM
	3. Digitalize the human resource management system (HRIS)	x										IT
	4. Implement the revised human resource management strategy	x	x	x	x	x	x	x	x	x	x	HRM
	5. Monitor and evaluate and take corrective actions	x	x	x	x	x	x	x	x	x	x	HRM
CB1.3- Operationalize training and resource center for SCM	1. Develop guideline that governs operations of the SCM training and Resource Center	x										EC, HRM & OR
	2. Develop/revise project/business plan for the TRC, addressing internal and external SC workforce	x										HRM, OR & DU
	3. Develop curricula for the identified training courses	x										HRM, OR & DU
	4. Prepare modules for each course as per the competency framework	x										HRM, OR & DU
	5. Identify human and material requirements and operationalize the center	x										HRM, OR & DU
	6. Provide training based on the competency gap	x										OR
	7. Evaluate progress and plan for scale-up as per the business plan		x	x	x	x	x	x	x	x	x	OR
	8. Undertake needs assessment and develop additional curricula for external SC workforce				x	x	x	x	x	x	x	OR

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	9. Undertake operational research to improve performance of the Agency	x	x	x	x	x	x	x	x	x	x	OR
	10. Provide consultancy services on priority SC areas				x	x	x	x	x	x	x	OR
	11. Monitor and evaluate performance against the business plan	x	x	x	x	x	x	x	x	x	x	OR
CB1.4- Build organizational culture	1. Undertake assessment on organizational culture to identify the gaps	x										EC
	2. Set the desired organizational culture (organizational culture standards)	x										EC
	3. Develop strategy to build the desired organizational culture	x										EC
	4. Raise awareness of the management and staff on the existing and desired organizational culture	x	x	x	x	x	x	x	x	x	x	EC
	5. Promote the new organizational culture throughout the organization through workshops, internal communication, etc.	x	x	x	x	x	x	x	x	x	x	EC
	6. Assign culture ambassadors at head office and hubs	x	x	x	x	x	x	x	x	x	x	EC
	7. Organize internal experience sharing events	x	x	x	x	x	x	x	x	x	x	EC
	8. Monitor adherence to the set standards and take corrective measures	x	x	x	x	x	x	x	x	x	x	EC
CB1.5- Create conducive work environment	1. Establish a taskforce to coordinate implementation of the initiative	x										EC,HRM,GS & GG
	2. Asses the existing work environment and identify areas for intervention	x										EC,HRM,GS & GG
	3. Develop detailed proposal for the identified intervention areas and prepare comprehensive plan	x										EC,HRM,GS & GG
	4. Secure the necessary resources	x	x	x	x	x	x	x	x	x	x	EC,HRM,GS & GG

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	5. Implement the action plan, monitor and evaluate and take corrective actions	x	x	x	x	x	x	x	x	x	x	EC,HRM,GS & GG
CB1.6- Increase level of autonomy of the Agency	1. Undertake detailed analysis on bottlenecks that affects the Agency's performance and come up with concrete recommendations					x						EC, Taskforce
	2. Present findings of the analysis to higher officials to get buy-in on the necessary change					x						EC
	3. Amend the Proclamation as per the recommendations and consensus to bring about the required autonomy					x						EC
	4. Reorganize the Agency as per the proclamation	x				x						EC
	5. Revise Directives/Working Manuals/SOPs, etc as per the new proclamation	x	x	x	x	x	x	x	x	x	x	EC
	6. Advocate the organization and its roles	x	x	x	x	x	x	x	x	x	x	EC
CB1.7- Gender mainstreaming	1. Develop a gender policy	x										HRM & WYAD
	3. Develop and implement gender equality strategy	x										
	4. Develop and implement gender capacity development programme	x	x	x	x	x	x	x	x	x	x	
	5. Monitor and evaluate the gender mainstreaming into the supply chain workforce	x	x	x	x	x	x	x	x	x	x	

11. Transform supply chain information

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
CB2.1-Procure, and implement Enterprise Resource Planning (ERP) and other related information technologies as per the BPT(Business Process Transformation)	1. Develop phase based implementation plan	x										EC, IT
	2. Resource mobilization for ERP procurement and implementation	x										EC, IT
	3. Develop SLA with the vendor to manage the contract	x										EC, IT
	4. Acquire and implement the ERP software and/or "best of breed" for WMS/TMS/Forecasting/CRM/SRM/APS to be installed at EPSA	x	x	x								EC, IT
	5. Recruit appropriately skilled staff to populate as per the revised organogram (phase based approach based on the road map)	x	x	x								EC, IT & HRM
	6. Capacitate staff to understand and appropriately utilize the system and technologies	x	x	x								EC, IT & HRM
	7. Plan for smooth transition from the legacy system by meticulously applying appropriate change management strategy		x									EC, IT
	8. Conduct pre and post implementation Technology audits			x								EC, IT
	9. Acquire and implement automatic identification devices (RFID, bar coding, etc)			x	x							EC, IT
	10. Develop and implement solutions to enable EPSA staff work away from office in real-time(*Telecommuting, mobile computing etc*)			x								EC, IT
	11. Drones will be procured and utilized for distribution in hard to reach areas	x	x									EC, IT
	12. Robot technology will be procured and utilized at the Agency's warehouses for picking, loading and unloading				x	x	x					EC, IT
	13. Conveyors will be procured and utilized at the Agency's warhouses for transporting stocks				x	x	x					EC, IT
CB2.2-Establish end to end supply chain data integration and visibility	1. Establish cross functional teams to develop functional requirements for visibility and analytic dashboard and decision support system.	x										EC, IT
	2. Develop user and functional requirements for the visibility and analytic dashboard and decision support system.	x										EC, IT
	3. Acquire a system allowing data exchange, end to end visibility,			x								EC, IT

Initiative	Activity	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	analytics, and decision support.											
	4. Take the necessary steps to ensure that the Internet band-width within EPSA is sufficient to support the anticipated internet volumes associated with the Central Ordering processes and the fully integrated system as part of pre implementation Technology audit			x									EC, IT
	5. Establish Virtual Private Networks (VPN) that allows protected data transmission to prevent external access to confidential information passing from one site to another			x									EC, IT
	6. Continuously monitor progress and take appropriate measures			x									EC, IT
CB2.3-Develop and implement Data Management Strategy and IT Policy	1. Carry out situational analysis on EPSA's current data management practices by data management domain and develop recommendations for EPSA Data Strategy by Data Management Domain	x										EC & IT
	2. Develop/revise IT Policy and data management strategy	x										EC & IT
	3. Implement the strategy	x	x	x	x	x	x	x	x	x	x	EC & IT
	4. Monitor and evaluate performance and take appropriate measures	x	x	x	x	x	x	x	x	x	x	EC & IT
CB2.4-Establish Appropriate Network infrastructure and system	1. Review existing hardware and network infrastructure	x										EC, IT
	2. Mobilize resources for IT infrastructure	x										EC, IT
	3. Acquire appropriate hardwares	x	x	x								EC, IT
	4. Install the necessary infrastructure at all levels as per the findings	x	x	x								EC, IT
	5. Test and implement the system (interoperability and compatibility)	x	x	x	x	x	x	x	x	x	x	EC, IT
	6. Monitor and evaluate performance and take appropriate measures	x	x	x	x	x	x	x	x	x	x	EC, IT

12. Strengthen M&E and knowledge management

Initiatives	Activities	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
CB3.1- Strengthen the M&E System	1. Review the current M&E system	x										Plan, M&E
	2. Implement the findings of the review and institutionalize it	x										Plan, M&E
	3. Develop M&E tool and software	x										Plan, M&E; IT
	4. Capacitate the M&E staff	x										HRM & Plan, M&E
	5. Review and update the M&E framework and train the management and staff on the framework	x				x				x		HRM & Plan, M&E
	6. Monitor and evaluate performance at all levels using the framework	x	x	x	x	x	x	x	x	x	x	Plan, M&E
	7. Improve report quality through establishing verification and feedback system	x	x	x	x	x	x	x	x	x	x	Plan, M&E
CB3.2- Streamline data quality and use across the agency	1. Review the flow of data and information across the Agency	x	x	x	x	x	x	x	x	x	x	Plan, M&E
	2. Review current status of data quality and use	x	x	x	x	x	x	x	x	x	x	Plan, M&E
	3. Develop intervention plan to improve data quality and use	x	x	x	x	x	x	x	x	x	x	Plan, M&E
	4. Strengthen existing data use teams (QCSSTs)	x	x	x	x	x	x	x	x	x	x	Plan, M&E
	5. Capacitate the management and staff on data quality and use	x	x	x	x	x	x	x	x	x	x	Plan, M&E
	6. Monitor and evaluate performance and take corrective actions	x	x	x	x	x	x	x	x	x	x	Plan, M&E
CB3.3- Develop and implement knowledge management system	1. Review current knowledge management practices, systems and tools	x										HRM, Plan, M&E; CB&OR
	2. Prepare a strategy to strengthen knowledge management	x										HRM, Plan, M&E; CB&OR

Initiatives	Activities	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	3. Develop a central knowledge management repository	x										HRM, Plan, M&E; CB&OR
	4. Develop SOPs to ensure knowledge is retained and shared to all	x										HRM, Plan, M&E; CB&OR
	5. Monitor and evaluate performance and take corrective actions	x										HRM, Plan, M&E; CB&OR
CB3.4- Implement performance management system at all levels	1. Develop a governance framework for Balanced scorecard	x										Plan, M&E
	2. Adopt standardized and automated performance management system	x										Plan, M&E & IT
	3. Train all EPSA staff on performance management	x	x	x	x	x	x	x	x	x	x	HRM & Plan, M&E
	4. Review existing strategies and plans and make sure they are aligned with the selected performance management system	x	x	x	x	x	x	x	x	x	x	Plan, M&E
	5. Hold regular metrics review and reporting forums	x	x	x	x	x	x	x	x	x	x	Plan, M&E
	6. Monitor and evaluate performance and take corrective actions	x	x	x	x	x	x	x	x	x	x	Plan, M&E
	7. Develop and Implement reward and recognition	x										CB&OR
CB3.5- Strengthen operations research on supply chain functions	1. Develop ordered list of priority areas to apply operational research	x										CB&OR
	2. Define scope of each prioritized area and develop proposal	x	x	x	x	x	x	x	x	x	x	CB&OR
	3. Secure fund	x	x	x	x	x	x	x	x	x	x	CB&OR
	4. Undertake the operational researches by internal staff or external experts	x	x	x	x	x	x	x	x	x	x	CB&OR
	5. Monitor progress of each study	x	x	x	x	x	x	x	x	x	x	CB&OR

Initiatives	Activities	Year										Responsible body
		1	2	3	4	5	6	7	8	9	10	
	6. Prepare reports	x	x	x	x	x	x	x	x	x	x	CB&OR
	7. Disseminate findings of the studies to all concerned	x	x	x	x	x	x	x	x	x	x	CB&OR
	8. Monitor and evaluate performance and take corrective actions	x	x	x	x	x	x	x	x	x	x	CB&OR
	9. Apply recommendations of the studies to improve supply chain performance	x	x	x	x	x	x	x	x	x	x	CB&OR
	10. Document the studies	x	x	x	x	x	x	x	x	x	x	CB&OR

Annex 3: PSTP II projects Cost detail by year of implementation

	Name of the project	1	2	3	4	5	6	7	8	9	10	Total Cost
						Implementation year						
1	Customer Relationship Management (CRM) project	153,250	129,200	79,250	79,250	79,250	79,250	79,250	79,250	79,250	79,250	916,450
2	Supply chain planning Project	284,000	284,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	-	778,000
3	Medical equipment management project	50,550	-	-	-	-	-	-	-	-	-	50,550
4	Mega Warehouse Project			12,500,000	12,500,000							25,000,000
5	Central ordering Project	-		-	104,050	-	-	-	-	-	104,050	104,050
6	Last mile delivery project	284,837	284,837	284,837	284,838	284,837	284,839	284,837	284,840	284,837	284,841	2,848,377
7	Market Shaping project	284,000	284,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	808,000
8	Strategic Procurement project	-	248,100	22,900	39,000	190,800	-	-	-	-	-	411,900
9	Supply Chain COE Project	74,450										74,450
10	Immunization Supply Chain project	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	10,500,000
11	Financial sustainability project	47,000										47,000
12	Risk Management project	1,000,000	-	-	-	-	250,000	-	-	-	-	1,250,000
13	Strategic Partnership project	215,350	126,000	126,000	126,000	153,525	-	-	-	-	-	746,875
14	TRC Project	1,451,375	1,434,500	444,850	84,500	94,850	84,500	94,850	84,500	94,850	84,500	3,953,275
15	ERP project	9,800,000	-	-	20,000	445,000	45,000	-	-	-	-	10,310,000
	Total cost	14,694,812	3,840,637	14,567,837	14,347,638	2,358,262	1,853,589	1,568,937	1,558,590	1,568,937	1,632,641	57,798,927
	Percentage	25.4%	6.6%	25.2%	24.8%	4.1%	3.2%	2.7%	2.7%	2.7%	2.8%	100%

Annex 4: Methodology for Implementing the BSC Strategy Management System

The decision to undertake development of a BSC system is a decision to undertake a journey, not work on a project. While there are discreet start and stop points along the way, one should not miss the point that the organization is in it for the long term, and that changing behavior is at least as important as measuring performance and the success of the strategy.

The BSC system journey has two phases:

1. Building the BSC system.
2. Implementing the BSC System.

The first Phase includes a seven-step process to build the BSC system while the second Phase will require an additional three steps to implement the BSC system throughout all levels of the organization.

1. BUILDING THE BSC SYSTEM

The steps of Phase 1 and their sequence are shown in figure -- below. At the end of the first seven steps, the high-level or Corporate BSC strategy is developed and it forms the basis for subsequent lower-level scorecards development for each strategic business units and support units.
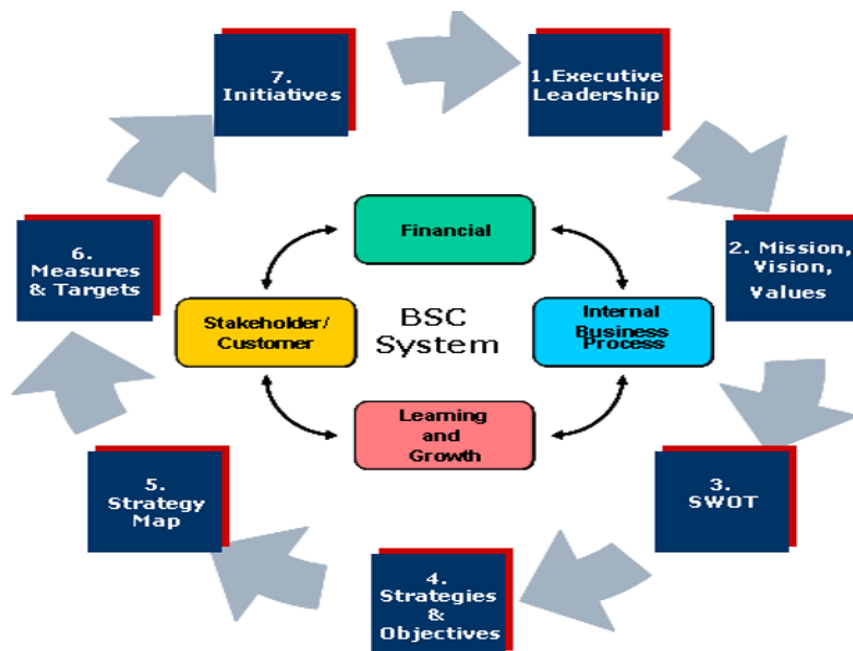
Step 1: Executive Leadership

This step, the most important condition for success, deals with the ownership and active involvement of the executive team. Developing and implementing a BSC system is transformational for an organization and requires engaged leadership, interactive communications and change management. It is about changing hearts and minds. Leaders who are engaged in the discovery process, communication via two-way dialogue, and planning and managing change are important first steps in the process. The EPSA Executive team involvement is required throughout the process, initially to mobilize and create momentum and further along to govern the implementation.

Another important aspect of this step is to choose a champion and the core BSC Building and Implementation Team, set a schedule for the development steps, secure resource commitments necessary to develop and sustain the BSC system, and develop a roll-out communications plan to build buy-in and support for the changes that will follow.

Communications planning should include internal and external information activities (Ministry, major partners and Customers) that will be used to spread the word about the new strategy initiative and what it means for the EPSA's managers and all employees.

Step 2: Articulating clear EAE's Corporate Mission, Vision and Values

Critical to an aligned organization are a well-defined mission, a shared vision, and organization values that are built on strong personal values. Most organizations have these components, but often there is no connecting tissue among the components that allow employees to "get it" easily. A compelling and clear "picture of the future" (the shared vision) is where the BSC development process really starts……employee buy-in follows as hearts and minds are engaged in creating and executing the organization's strategies.

The current EPSA's mission and vision statements and core values have been analyzed in this Strategy report.

Step 3: Assessment of the EPSA's Environment

Once the EPSA has established some clarity on what it does, for who and how, and what it hopes to achieve in the future, it will have to take a clear-eyed look at its current situation. This step will require assessing up-to-date information about the EPSA's internal strengths and

weaknesses, and its external opportunities and threats—assessments that will refine and possibly reshape the list of critical questions that the organization faces and that its strategy must address.

The EPSA's has completed this basic step as part of 10-Year planning exercise. The EPSA's internal strengths and weaknesses as well as external opportunities, and threats have been developed, discussed, and documented in previous chapters of this report. An integral part of this step is the assessment of the current EPSA's Customers and Stakeholders Analysis.

Step 4: Definition of Strategic theme and Objectives

To view strategy through different performance lenses (its balanced scorecard perspectives), the EPSA will need to define key corporate strategies. These strategies are to be the main focus areas or "pillars of excellence" that will translate the overall corporate strategy into operations, and make the overall strategy actionable to managers and employees of all levels. This step is also done in this strategy document.

Step 5: Drawing of Strategy Map

In this step, a Strategy Map of the organization's overall EPSA's strategy will be created. Using cause-effect linkages ("if-then" logic connections), the components (objectives) of strategy will be connected and placed in appropriate scorecard perspective categories. The relationship among strategy objectives will used to identify the key *performance drivers* of each strategy that, taken together, will chart the path to successful end *outcomes* as seen through the eyes of customers. It is with this intent that EPSA's strategy map is developed and included in the document.

Step 6: Identifying Performance Measures and Targets

In this step, performance measures (metrics) and the expected levels of performance (targets) will be developed to track both strategic and operational progress.

The strategy map developed in Step 5, and specifically the objectives, will be used to develop meaningful performance measures for each objective. Thus, the few measures (key performance drivers) that are critical to overall success will need to be identified.

Developing meaningful performance measures (metrics) and the expected levels of performance (targets) will be hard work if done correctly, and the development process could be fraught with challenges. One usual challenge is the tendency to hurry and identify many measures, hoping that a few good ones are in the group and will "stick". The problem with this approach is that the

value of information generated is limited, and the burden of data collection and reporting can quickly become overwhelming. The performance measure and target for EPSA is developed for each objective.

Step 7: Identifying New Initiatives, Milestones, Accountabilities, Resources

In this step, the EPSA will identify new Initiatives that need to be funded and implemented to ensure that its strategies are successful.

Initiatives developed at the end of the scorecard building process are more strategic than if they are developed in the abstract.

Judging from the 60 different initiatives which were identified in the 10-Year Strategic Plan, 38 initiatives were taken based strategic in nature and importance

2. IMPLEMENTING THE BSC SYSTEM

Implementing the BSC system means turning it into a true strategy management system and deploying, managing, and sustaining the newly created system. The three steps to implement the BSC system include:

1. Automating.
2. Cascading.
3. Evaluating.

Step 1: Automating the BSC system

Once EPSA will have created a robust set of strategies, objectives, performance measures, targets, initiatives, milestones, accountabilities and adequate resources allocated. a Performance Measurement information system will be needed to collect and report performance data and transform the data into performance information. The distinction between data and information is important, as raw performance data will be of little use to most people. Think of information as data with value added. The value comes in the form of context, visualization (reporting formats), trends, and benchmark comparisons to others' results.

This first step in the implementation phase of the BSC will involve automating the BSC system, and will consist in analyzing software options and user requirements to make the most cost-effective software choice for today and to meet the EPSA's performance information requirements in the future. Software options range from spreadsheets and databases, designed to

meet very simple enterprise reporting requirements, to full data warehouses, designed to link disparate information (performance and other) together in an integrated management system.

Considering the cost and the system compatibility and effectiveness, it is important to look for local source of automation that helps EPSA to automate its BSC. Accordingly, Ethiopian Airlines Group PMS system will be valuable to be adopted. This can be taken as best experience in automation or performance management system which was proven user friendly and easy to implement.

Step 2: Cascading the BSC throughout the organization

This second step of the implementation phase involves cascading the corporate scorecard throughout the organization to front-line service and support units, and ultimately to teams and individuals.

Cascading means translating the corporate scorecard into department and division scorecards that are aligned with the overall high-level corporate strategy. In other words, aligning and translating corporate strategy throughout the agency. The most effective way of cascading is to start with the strategies from the agency-wide (Tier 1) scorecard, and develop supporting objectives, measures and targets for front-line service and support units (Tier 2), and again for teams and individuals (Tier 3). In a typical organization, separate scorecards are developed for each major hubs and departments, and are linked to the corporate scorecard through objectives.

The challenge is to align all organizational units to the strategy and to motivate all their managers and staff to make strategy part of their every day job. For example, as shown by figure 3 below, the challenge would be to have all EPSA's HUBs and departments at Headquarters make part of their every day job the various hypothetical strategies or strategic themes chosen at the Corporate level.

Strategies developed during the corporate scorecard building process are the links that make the mission and vision of the corporate organization operational to operating front-line service and support units, such as IT and Human Resources. Starting with a corporate scorecard and cascading objectives down to front line services/hubs and support units/departments and then to teams and individuals assures that the work performed in all organization units is relevant and linked to organization mission, vision and strategy. Each front-line service and support unit can

"connect the dots" and trace the work that they do back up to the overall "big picture" direction of the organization.

Step 3: Evaluating the success of the Strategy

The third step of implementation of the BSC involves evaluating the success of the chosen strategy. The key question is: Were the expected results achieved? It should be remember that strategies developed in the previous phase are hypotheses of how the organization believes it creates value for customers and owner/stakeholder. Adjustments to strategy (and mission and vision, if necessary) are likely as performance information is analyzed and market competitive forces are considered. Creating an analysis feedback loop to test strategy assumptions is an important step and one that many organizations overlook in their strategic planning implementation. The evaluation step will have to include the following components:

- o Ensuring that organization learning and knowledge building are incorporated into planning.
- o Making adjustments to existing initiatives.
- o Adding new initiatives if they are more cost-effective.
- o Eliminating initiatives that are not delivering cost-effective services or meeting customer/stakeholder needs.
- o Linking strategy planning to budget.

The 2 phases and 10 steps BSC building and implementing process is a disciplined way to put together the pieces needed to build the EPSA strategy. The next phase will require to fit these pieces together into a strategic management system and start using the system to produce the results the EPSA's want to achieve and realize its vision.

Annex 5: Visioning Activity

As part of the PSTP planning, a survey was conducted of key stakeholders - EPSA senior staff, and key partners including the Ministry of Health, funders, and technical partners, to obtain input. A questionnaire was developed and administered, and followed on interviews done with key informants (senior EPSA leadership. The findings are below.

PSTP II Strategy Planning & Development Visioning Activity

Objectives and Findings

1. Articulate a vision for what a future "ideal" healthcare supply chain for Ethiopia would look like as part EPSA's Supply Transformation Plan support

   - Develop a vision
   - Identify priorities to attain the "vision"

2. Provide a means for various stakeholders to provide input to the PSTP II process

Mission

"Ensure sustainable supply of quality assured essential pharmaceuticals to health facilities at affordable price through establishment of pooled procurement, robust inventory management and distribution, effective financial management, integrated management information system, and attracting and retaining motivated and competent workforce."

Comments

   - Why is **pooled** procurement specified? Strategic sourcing, efficient procurement? Regional procurement?
   - Should align to business model of program + RDF
   - Should mention other technical areas (e.g. reverse logistics, forecasting)
   - Incorporate data use?
   - Replace affordability with "right price"
   - Should mention public service/serve the people, client centered
   - Mention working with the private sector?

Rating

Appropriate	Not
94%	6%

Vision

"To be the most responsive and efficient pharmaceuticals supply chain organization in Africa."

Comments

   - Several comments on geographic scope – Africa, world, regional (e.g. East), or why not just be the best you can be for Ethiopia?
   - How will you measure this?
   - Is it really only "pharmaceuticals"? What about devices? Supplies?

- Should vision speak to availability?

Rating

Appropriate	Not
81%	19%

Describe what for you the "ideal" healthcare supply chain in Ethiopia would look like in 2030?

- Visible, resilient, agile, adaptive, lean, efficient, responsive, seamless, end-to-end, integrated, optimized
- Zero stock-out, zero waste
- Direct delivery to all locations
- Fulfills people's needs, satisfied customers, filling community demand/need
- Public/private partnership, blend of public private, >role private sector, > 3PLs/4PLs; outsourced no strategic functions (e.g. transportation)
- Privatized
- Financially self-reliant, sustainable
- Automated with real time visibility
- Autonomous (EPSA)
- Continuous Improvement

What should EPSAs top priorities be over the next 10 years to achieve this ideal?

- HR, workforce, staff retention, staff capacity, incentives
- Capacity building of staff at health facilities
- Increase availability, decrease waste; last mile availability
- From forecasting to demand planning
- ERP, technology for visibility, information systems, automation
- Governance and organizational structure; decentralized decision making
- Legal frameworks, procurement policies, autonomy
- Integration (supply chain & organization)
- PPP, engage private sector; divest transport assets & outsource
- Reduce storage assets

- Bench marking v. other organizations

- Use of Evidence

- Financial sustainability, revenue generation; away from RDF towards health insurance

- > focus on customers: standardize customer feedback.

Imagine you are a "client/patient", what would the ideal supply chain look like in 2030?

- Availability, uninterrupted supply, quality

- Affordable (even if have to access through private); insurance,

- Quality pharmacy services; fast, quality service, quality pharmacy professionals

- Accessible services (within 5 km)

- Provision for poor

Awareness of PSTP I

Comments:

- Performance under PSTP I should be "audited"

- Current PSTP should be completed within 2 years

- Notable achievements in warehouse management (but a lot of work remains

- Legal and status issues around for example procurement hinder reform

Aware & familiar	Aware but not familiar	Not aware	Score (1-5, where 1 is poor)
88%	6%	6%	3.3

Public Private Partnership

	Score 1-5 where 1 is not important
Overall Importance	4.5
Outsourcing	
Transportation/Distribution	4.3
Warehousing	2.6
Information System	2.8
Procurement	1.9
Maintenance	4.4
Financial Management	2.2
Human Resources	3.3
EPSA Management	1.7
Make EPSA State Enterprise	3.4
Privatization of the healthcare supply chain	2.4
Reverse logistics (write in)	

Comments

Area	Comment
Human Resource Management & Development	Significant obstacle to improvement; needs reform
Occupational Safety and Security	Essential versus "not that important"
Product Quality	QA versus testing; need to combat counterfeits
Resource Mobilization (financial)	
Financial Management	
Quality Management Systems (processes)	ISO Certification
Risk Management	Strategy is under development
Waste Management & Reverse Logistics	Vehicles are empty when they return from facilities!
Sustainability (Environment & CSR)	
Product Availability	
Financial Capability, Affordability	Need to cost out our SC

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