the dr&pw

Department:
Roads and Public Works
NORTHERN CAPE PROVINCE
**REPUBLIC OF SOUTH AFRICA**

# DEPARTMENTAL INVENTORY MANAGEMENT POLICY

# AND

# STANDARD OPERATING PROCEDURES

## MAY 2018

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# VOLUME 1: INTRODUCTION

# CHAPTER 1: APPLICATION, DEFINITIONS AND PURPOSE

## 1.1 APPLICATION

1.1.1 The Policies and Standard Operating Procedures contained in this document will apply to all Northern Cape Provincial Government Department of Roads and Public works and it's Districts offices listed in Schedule 3C of the Public Finance Management Act (PFMA), Act No. 1 of 1999.

## 1.2 APPLICABLE ACCOUNTING STANDARDS

1.2.1 Accounting conventions and reporting obligations influence all phases of the Asset life cycle.

1.2.2 Government currently uses two main systems of recording income and expenditure. One system is the modified cash based system that has historically been used by most departments for accounting in the past, and the other is the accrual based system.

1.2.3 Under the cash based system there is a tendency to focus on whether or not to spend on new assets rather than measuring the full and most effective and efficient use of assets available. In addition maintenance of assets on hand is frequently ignored or postponed in favour of other pressing needs.

1.2.4 On the other hand, under an accrual based system, the focus can extend further on whether to retain and upgrade existing assets as opposed to only the purchase of new assets by providing information for continued measurement of actual cost against benefits derived. Decision-makers are thus able to focus on the broader range of options available in managing assets.

1.2.5 The Public Finance Management Act (PFMA) Act No 1 of 1999, requires the public sector to prepare financial statements for each year in accordance with the generally recognized accounting practice.

1.2.6 There has been a steady move towards the use of an accrual based system with public entities already transitioned to the accrual basis of accounting. The Departmental Financial Reporting Framework Guide has been enhanced to facilitate the cash-to-accrual process. The Departmental Financial Reporting Framework Guide has been split into the Departmental Financial Reporting Framework and the Departmental Financial Reporting Guide. The former document focuses on modified cash principles while the latter will provide guidance as stated in the Departmental Financial Reporting Framework.

1.2.7 Having due regard for the aforementioned different accounting conventions applied within departments and public entities, this standard operating procedure has been developed based on compliance with Standards of Generally Recognized Accounting Practice (GRAP) to ensure that procedures are aligned with future strategy.

1.2.8 It must be noted that provisions in terms of Treasury Instructions referenced in this standard operating procedure are not dependent on or in contradiction of an accounting system in use, but rather based on the need for decision-making information due to the current lack of such available information and towards assisting with the improvement of asset management in the Public Sector at large, as required by the Public Finance Management Act (PFMA), Act No 1 of 1999.

## 1.3 DEFINITIONS

1.3.1 In this document, unless the context otherwise indicates, a word or expression to which a meaning has been assigned in the Act or Provincial Treasury Instruction has the same meaning as in the Act, and-

(a) "Act" means the Public Finance Management Act (PFMA) Act No 1 of 1999;

(b) "Institution" means a department, or public entity listed in Section 3C of the Act;

(c) "Employee/Practitioner" means a person employed by the provincial department or public entity listed in Schedule 3C of the Act;

(d) "Asset" or "stock" means an item of inventory classified as a current asset of an institution;

(e) "Systems" refers to manual and or computerized systems;

(f) "Warehouse" or "storeroom" means the physical location where inventory is kept before distribution.

1.3.2 The following acronyms and terms have been used throughout the Chapters:

**Table 1: Acronyms**

| ACRONYMS | | |
|---|---|---|
| **ITEM NO** | **ACRONYM** | **DESCRIPTION** |
| 1 | AA | Accounting Authority |
| 2 | AFS | Annual Financial Statements |
| 3 | AO | Accounting Officer |
| 4 | BOM | Bill of Material |
| 5 | CRC | Current Replacement Cost |
| 6 | EOQ | Economic Order Quantity |
| 7 | GRAP | Generally Recognized Accounting Practices |
| 8 | IMG | Inventory Management Guide |
| 9 | IMF | Inventory Management Framework |
| 10 | IPS | Integrated Procurement System |

| | | |
|---|---|---|
| 11 | IT | Information Technology |
| 12 | MRP | Material Requirements Planning |
| 13 | NRV | Net Realizable Value |
| 14 | PT | Provincial Treasury |
| 15 | PTR | Provincial Treasury Regulation |
| 16 | PFMA | Public Finance Management Act, 1999 |
| 17 | SCM | Supply Chain Management |

| ITEM NO | ACRONYM | DESCRIPTION |
|---|---|---|
| 19 | SCOA | Standard Chart of Accounts |
| 20 | SKU | Stock Keeping Unit |
| 21 | SOP | Standard Operating Procedure |
| 22 | WMS | Warehouse Management System |

1.3.3 The following terms have been used throughout the Chapters.

**Table 2: Terms and Definitions**

| TERMS AND DEFINITIONS | | |
|---|---|---|
| **ITEM NO** | **TERM** | **DEFINITION** |
| 23 | ABC Analysis | Method of Inventory Control used to determine how inventory must be controlled. |
| 24 | A-Items | Items which reflected a minimum consumption of six during the last two – three consecutive financial years, and in respect of which, the average annual consumption value is equal to or greater than the classification sum. |

| | | |
|---|---|---|
| 25 | Accounting Officers System (AOS) | The recorded supply chain management system required in terms of paragraph 3.1 (Chapter 16A Part3) of the Provincial Treasury Instruction. |
| 26 | Accounting Officer (AO) | A person mentioned in section 36 of the Act. |
| 27 | Accounting Authority (AA) | A body or person mentioned in section 49 of the Act. |
| 28 | Analytical Technique | This technique primarily determines which stock items are kept in stock and in what quantities. This technique must be applied to all stock items. |
| 29 | B-Items | Items which reflected a minimum consumption of six during the last two/three consecutive financial years, and in respect of which, the average annual consumption value is less than the classification sum. |
| 30 | Batch Items | Items with an expiry date supplied by the manufacturer indicating the date on which the item is no longer fit to be issued. ( e.g. medicine, ammunition etc) |
| 31 | Bin Cards | A card assigned to each bin in a warehouse identifying the item and location of the item. All movement on the relevant item is recorded on this card. |
| 32 | Bin Location | The physical location where the item of inventory is stored in the warehouse e.g. row, shelf. |
| **ITEM NO** | **TERM** | **DEFINITION** |
| 33 | Bin Numbering System | Warehouses are organized according to this system (10 digit system). This is a simple yet effective system that primarily assists the warehousemen in locating items in the warehouse. 10/10/10/01/27 = number of stores/type of store/row/shelve/bin |
| 34 | Chief User | A person in control of an organizational entity, consisting of a number of functionaries, who exercises physical and financial control over all requisitions of stores and services before being submitted to the provisioning section. |
| 35 | C-Items | Items which reflected a consumption of less than six during any of the last two consecutive financial years, as well as all new items |

| | | |
|---|---|---|
| | | which are purchased directly for a specific purpose. |
| 36 | Classification Sum | The classification sum is the total of the average yearly consumption of all A- and B- classification items divided by the total number of A- and B-items. This result minus 20% is the classification sum. If the average yearly consumption of an item is equal to or greater than the classification sum, the item is classified as an A-item. If it is less than the classification sum it is classified as B-item. |
| 37 | Consumption | Accumulated quantity of issues per item within a given financial period. |
| 38 | Current Asset | A current asset is an asset which is expected to be sold or otherwise used up in the near future, usually within one (1) year. These items constantly flow into and out of the institution. |
| 39 | Current Replacement Cost | The amount that the institution can be expected to pay should it need to replace the item. |
| 40 | D-Items | All items which comply with the definition of a C-item, but which, of necessity, must be available immediately, on demand. |
| 41 | Discrepancy | The difference discovered during a stock-take, where the inventory / assets physically counted is more or less than the quantity reflected on the relevant item record / tally card of asset record. |

| ITEM NO | TERM | DEFINITION |
|---|---|---|
| 42 | Disposal | The process of decision making regarding the doing away with, or the cannibalizing of, an item which is no longer needed in Government context, administered in terms of the disposal policy. The action of disposal was introduced to dispose of redundant, obsolete, unserviceable and damaged stock / equipment and livestock. |
| 43 | Economic Order Quantity | The order quantity at which inventory costs is at its minimum. |
| 44 | Fair value | The amount for which an item could be exchanged, or a liability settled between knowledgeable, willing parties in an arm's length transaction. |

| | | |
|---|---|---|
| 45 | Issue | The physical handling with the handing over of stock upon the presentation of a requisition (request) which has been signed by an authorized person (chief user). |
| 46 | | Issue Voucher |
| 47 | Inventory | Inventories are assets:<br>(a) in the form of materials or supplies to be consumed in the production process;<br>(b) in the form of materials or supplies to be consumed or distributed in the rendering of services;<br>(c) held for sale or distribution in the ordinary course of operations, or<br>(d) in the process of production for sale or distribution. |
| 48 | Inventory Holding cost | Inventory holding costs can be viewed as the opportunity costs of the investment in inventory including the cost associated with operating a warehouse or storing inventories and costs associated with the loss of inventory. |

| ITEM NO | TERM | DEFINITION |
|---|---|---|
| 49 | Inventory Initial Measurement Cost | The Initial cost of the inventory taking into consideration all the cost involved in bringing the item into the books of the institution. |
| 50 | Inventory Valuation | Inventory valuation refers to the measurement of inventory at cost for recording in the accounting system of the institution. |
| 51 | Just-in-time Inventory Control (JIT) | The practice of keeping minimum quantities of stock on hand and planning to replenish items only when needed; |
| 52 | Lead Time | The time interval between the ordering (or reordering) of fresh inventory and the time on its receipt. |
| 53 | Loss | The result as an investigation into a deficiency/ shortage, irrespective of whether or not the cause of the deficiency can be determined. Losses are divided into two categories, i.e. irrecoverable and recoverable. |

| | | |
|---|---|---|
| 54 | Maximum Level | The maximum level is the maximum quantity which is normally purchased when the precautionary factor quantity (on the item record) is reached. When the balance drops to below the minimum level, the maximum quantity plus the difference between the balance and the minimum quantity can be requisitioned / purchased, provided that the approved budget is not exceeded. |
| 55 | Minimum Level | The minimum level is that quantity which is necessary to satisfy requisitions during the delivery period ex contract, or, from past experience when items are delivered by provisioning depots, the period between the date of order and the date of delivery. |
| 56 | Net realizable value | The estimated selling price in the ordinary course of operations less the estimated costs of completion and the estimated costs necessary to make the sale, exchange or distribution. |
| 57 | Non-current asset | Non-current assets have an extended useful life greater than one year and are expected to be used during more than one reporting period. |

| ITEM NO | TERM | DEFINITION |
|---|---|---|
| 58 | Obsolete | An item of inventory becomes obsolete when it is no longer appropriate for the purpose it was obtained due either to the availability of better alternatives or change in user requirements. |
| 59 | Quantity Discount Model | The order quantity at which inventory costs is at its minimum including the consideration for supplier discounts. |
| 60 | Quotation | A written offer, of any official supplier document, and which is requested and handled in any manner. Quotations must be obtained by functionaries for all items for which there is a budget for, but no contract exist. |
| 61 | Receipts | All stores, services and livestock received, irrespective of the means by which they are purchased, transferred, produced, manufactured, bred, donated or acquired. |
| 62 | Redundant | Redundant inventory are no longer essential to the ongoing operations of the institution but may still generate income or be of economic benefit if sold.. |
| 63 | Reporting Level | Segment in terms of the Standard Chart of Account (SCOA). |
| 64 | Requisition | The approved institution request form used by employees/practitioners to request items of inventory directly from stores |
| 65 | Standard Chart of Accounts (SCOA) | SCOA comprises the coding of items used for classification, recording, reporting and budgeting purposes. For example<br>Machinery and Equipment > Other Machinery> Medical Equipment |
| 66 | Standard Operating Procedure (SOP) | Means a method of functioning that has been established over a period of time in order to execute a specific task or react to a specific set of circumstances or situation or process. SOP's document the normal or accepted methodology and help form the basis for conformance evaluation. |
| 67 | Stock Take Certificate | A certificate in accordance with the Public Finance Management Act stating that an annual stock was conducted by the department. |

| ITEM NO | TERM | DEFINITION |
|---|---|---|
| 68 | Supplier | A supplier is a person or instance whose task it is to provide items and or services to a user, on demand. The requires items and / or services are provided mainly by means of purchases per official order form, in accordance with Government Tender Board contracts / instructions, if ordering from a person or instance outside the context of the Government / Self accountable store, e.g. CAN, per requisition form, if ordering from another government institution e.g. Government Printer. |
| 69 | Supplier Master | It is a database that stores the supplier data. Data such as name, address, telephone numbers etc. |
| 70 | Supply Chain Management (SCM) | Means the design, planning, execution, control and monitoring of supply chain activities in the delivery of goods or services, with the objective of creating net value and providing oversight and co-ordination of information and finances within the supply chain. |
| 71 | Surplus | Stores items in respect of which the quantity of a particular item which has been physically counted during stocktaking, exceeds the quantity of that particular item as reflected in the item record / asset record. |
| 72 | Transit Area | A flow point through which all incoming and outgoing items pass, for control of accuracy, quality and quantity |
| 73 | Unit Of Issue | The unit of issue of an item, as a specific stores section. Items are issued in the most appropriate units, which aid not only accounting but also transit and the warehouse. An accounting unit could comprise one box of paper clips (which has a price to it) as against 200 paper clips (each paper clip does not have a price attached to it as this would not be practical). The unit of issue is to be reflected in the smallest yet most practical denomination e.g. coal is procured in tons, but is accounted for and issued per kilogram. |
| 74 | Unit Cost | Current value of the item. |

| ITEM NO | TERM | DEFINITION |
|---|---|---|
| 75 | Unserviceable Items | Items, which, as a result of normal wear and tear have outlived their period of serviceability and are no longer suitable for the purpose for which they were originally purchased. |
| 76 | VEN Analysis | A method of categorizing inventory into Vital, Essential and Nonessential in order to determine appropriate inventory control. |
| 77 | Warehouse | A place in which goods may be stored before their distribution. |
| 78 | Weighted average | The weighted average cost formula calculates the cost of each item issued as a weighted average of all of the items received into the store. Weighted average is recalculated every time a new item of inventory is received. |

## 1.4 PURPOSE

1.4.1 This document aims to support implementation of the Provincial Treasury Instruction Chapter 16A Part 8. Whilst the Provincial Treasury Instructions sets out the requirements for inventory accounting and management practices, the policies speak to the institutional aspects of Inventory Management and the standard operating procedures provide the method to execute specific tasks.

1.4.2 The policies and standard operating procedures contained in this document and are consistent with other frameworks such as the National Treasury Inventory Management Framework (IMF) which sets out at a high level, the requirements for inventory accounting and management practices while guidance on application of the framework is contained in the Inventory Management Guide (IMG).

1.4.3 Adherence to the policies and standard operating procedures set out in this document will provide substantive compliance with Provincial Treasury Instructions but also enhance the institution's coverage of all aspects pertaining to management of inventory.

1.4.4 It is a further intention of these policies and standard operating procedures that it will also serve as a reference tool for educational purposes that will train the next generation of practitioners.

# CHAPTER 2: MAINTENANCE OF THE DOCUMENT

## 2.1 DOCUMENT FORMAT

2.1.1 The following must be noted:

(a) The areas contained in the table outlined in **red** contain information that may be customized in the table as indicated, in order to define institutional specific requirements. However, existing content may not be changed or deleted;

| Customize content to accommodate institutional specific requirement. |
|---|

(b) Institutional specific Policy provisions are required where indicated by the table outlined in the colour **blue**. These institutional policies may be added in additional Annexures, however, existing policy may not be changed or deleted;

| **Additional Institutional specific policy provisions required.** |
|---|

(c) Additional relevant information can be provided at the institution's discretion in additional annexures;

(d) Where necessary, pictures, graphs and diagrams can be added to enhance information;

(e) The existing content of the checklists and templates may not be changed by the institution although additional information may be provided;

(f) Where no colour coding is applied the section of the document may not be altered in any way;

(g) Where the policy provision is a direct requirement related to a specific GRAP standard and it Is not directly quoted, the applicable GRAP standard is indicated in the right hand column;

(h) **Explanatory Notes** are provided in the column to the right of the text with the corresponding number reference; and

(i) All changes, other than those provided for in (a)-(e) above, will be subject to the Change and Version Control procedure as prescribed in 2.2 below.

2.1.2 Format of the Standard Operating Procedures (Chapters 7-11)

(a) The main body of this document is dedicated to the actual tasks required to develop the various asset plans accurately and to the necessary standard required. The SOP's are structured in tabular format with referencing columns that indicate relevant prerequisites, responsible employee/practitioner and applicable templates for each activity;

(b) The operating procedure makes reference to the following information:

i. Purpose - The purpose summarizes the specific goals of the procedure;

ii. Prerequisites - Describes any documentation/information required in order for employees/practitioners to complete the task, in other words, without the prerequisites it will not be possible to complete the task to the standard required;

iii. Responsible Employee/Practitioner – Identifies the individual responsible for executing the task assigned by the accounting officer or accounting authority to perform specific powers or duties as contemplated in terms of section 44 and 56 of the Act;

iv. Templates - The mandatory templates that must be used in order to complete the task to the standard required; and

v. Annexures - List of all annexures applicable to this standard operating procedure including templates and checklists.

## 2.2 CHANGE AND VERSION CONTROL

2.2.1 The following institutional arrangements will ensure that changes to the SOP are introduced in a controlled and coordinated manner. It reduces the possibility that unnecessary changes will be introduced without forethought for the impact on the institution's operational environment and the resources involved in implementing change.

**Institutional Provision**

2.2.2 This Procedure Manual will be maintained by the Division: _____ and will be regularly updated with newly issued Supplementary Circulars. For clarification and requests for changes of any matter contained in this procedure manual, please address queries to:

Division:

Contact Person:

e-mail:

## 2.3. FORM CONTROL

**Institutional Provision**

2.3.1 The Division: _____must maintain Form Control over the relevant forms and templates and capture same in the Form Register and re-file on the Enterprise Content Management system.

2.3.2 The forms/templates referred to in this procedure manual can be accessed through the enterprise content management system in the following manner:

_____

# CHAPTER 3: BACKGROUND, SCOPE AND REGULATORY FRAMEWORK

## 3.1 BACKGROUND

3.1.1 An institution involved in the production of goods or delivery of services may require certain materials, supplies or finished goods in order to carry out its function. In certain cases these items may be ordered in as needed and be applied immediately to their purpose. In other cases these items may need to be held for a period of time in a warehouse, stock rooms or on the job site.

3.1.2 Like any asset, decisions need to be made whether inventory should be held, and how much to hold, and inventory needs to be efficiently managed. The dilemma facing institution's seeking to develop sound inventory management policies is simply that keeping stock has both advantages and disadvantages. Some of the advantages and disadvantages of keeping inventory are discussed below.

3.1.3 Advantages and Disadvantages of keeping inventory

**Table 3: Advantages and Disadvantages of keeping inventory**

| 1. Advantages | 2. Disadvantages |
|---|---|
| 1.1 Keeping inventory may be required to mitigate risks to service delivery as it allows operations to meet unexpected surges in demand. | 2.1 Items can deteriorate while they are being kept. Clearly this is significant for the items that have a limited life. However, it is also an issue for any inventory item as stock could be accidentally damaged while it is being stored. |
| 1.2 When buying in bulk, which is usually cheaper, the institution may save costs associated with purchase price fluctuations and discounts. | 2.2 It is expensive. There is the cost of keeping the stock in warehouses or containers and applying resources to manage and safeguard inventory. |
| 1.3 Keeping inventory of critical items can also mitigate risks of an unexpected interruption in supply from outside the operation or within the operation. | 2.3 Inventory can become obsolete while they are being stored. |

| 1. Advantages | 2. Disadvantages |
|---|---|
| 1.4 Inventory allows supply and demand operations to be 'decoupled'. This means that they can operate | 2.4 Stock is confusing. Large piles of inventory around the place need to be managed. It needs to be |

| | |
|---|---|
| independently to suit their own constraints and convenience while the stock of items absorbs short-term differences between supply and demand. | counted, looked after, and accounted for. |
| 1.5 Improved service delivery. Inventory allows customers to be served quickly and conveniently (as and when needed). | |

3.1.4 Inventory policies must in particular address the disadvantages of keeping stock and provide strategies and techniques to prevent inventory from becoming too high, or dwindling to levels that could put the operations of the institution at risk.

3.1.5 The importance of Inventory Management

(a) Public Sector institutions should manage inventory in such a way that they are able to maximize a return on their investment in order to deliver more services or a higher level of service to the communities they serve. Where services are paid for by rates and taxes the question of accountability for public funds arises. The importance of inventory management in the public sector is therefore based on the need to:

i. demonstrate accountability for public resources;

ii. improve transparency and credibility of information used for making policy choices; and

iii. improve efficiency.

(b) Improving inventory management can lead to:

i. increases in investment revenue or freeing up of resources to be used elsewhere due to a reduction in stock held in inventory; and

ii. a reduction in losses due to theft, wastage, damage, spoilage or misuse.

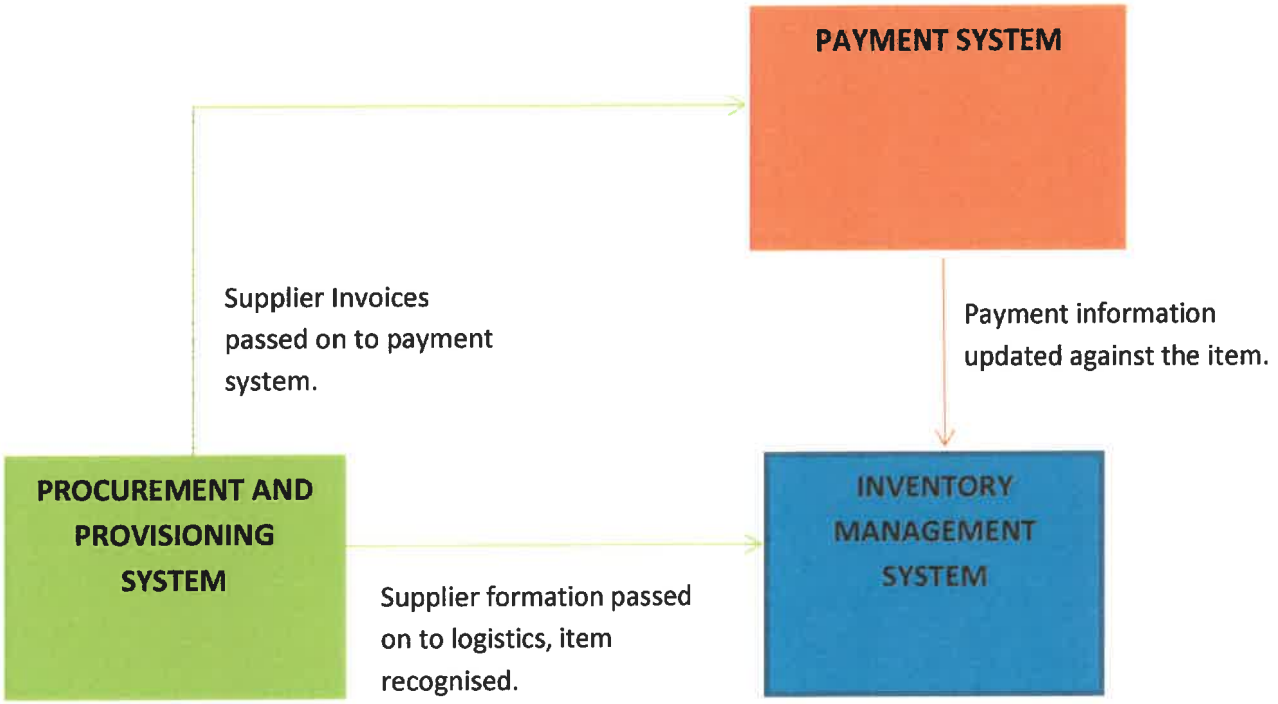
(c) In an environment of limited resources it is natural for managers to forgo Inventory Management efforts in lieu of more pressing needs. However, any institution irrespective of the size of its inventory will gain from Inventory Management which can mean lower purchasing and inventory holding costs, better quality of products while a reduction in losses or otherwise freeing up resources to be utilized in other areas may lead to increasing the rate of delivery of basic services.

3.1.6 Systems environment

(a) A computerized integrated Supply Chain Management System is at the heart of effective implementation of logistics management. The LOGIS system is currently used as the approved Logistics system used by most institutions while the Basic Accounting System (BAS) system is used for effecting payments to suppliers. It is acknowledged that a number of disparate systems exist both within and between institutions.

(b) A diagrammatic representation of dataflow between disparate systems is depicted below:

**Figure 1: Dataflow between disparate SCM systems**




(c) Having due regard for the aforementioned state of electronic systems, it must be noted that information and data requirements specified in the SOP's contained in Volume 3 constitute critical information required (irrespective of the system in use, whether manual or electronic) in order for institutions to define adequate inventory management strategies.

(d) The absence of an integrated financial management system may pose a challenge to efficient warehouse organization and inventory control as information is contained in various systems. Sufficient information, if properly coordinated, however exists within institutions which will enable them to over time gather such information.

## 3.2 SCOPE

3.2.1 The National Treasury issued the Inventory Management Framework (IMF) and Inventory Management Guide (IMG), which is applicable to all national and provincial department and public entities. It is a generic framework which enables institutions to approve their own policies and procedures relating to inventory management.

3.2.3 Although inventory management practices are diverse across institutions there are many similarities with regard to approaches. The Policies and SOP's contained in this document have therefore been developed to provide for a level of generality and ensure that specific institutional needs can be accommodated.

3.2.4 The Inventory Management Life-Cycle

(a) Inventory management is the process of efficiently and effectively overseeing and managing the constant flow of inventory units to prevent inventory from becoming too high, or dwindling to levels that could put the operations of the institution at risk.

(b) Material requirement planning assists Demand Management to ensure that the operational requirement of the institution is broken down into its lowest level of units required. Various inputs are required to fulfill this function for example defining stock holding policies, bill of materials, procurement and production lead times. These inputs are defined and quantified using various inventory strategies and techniques.

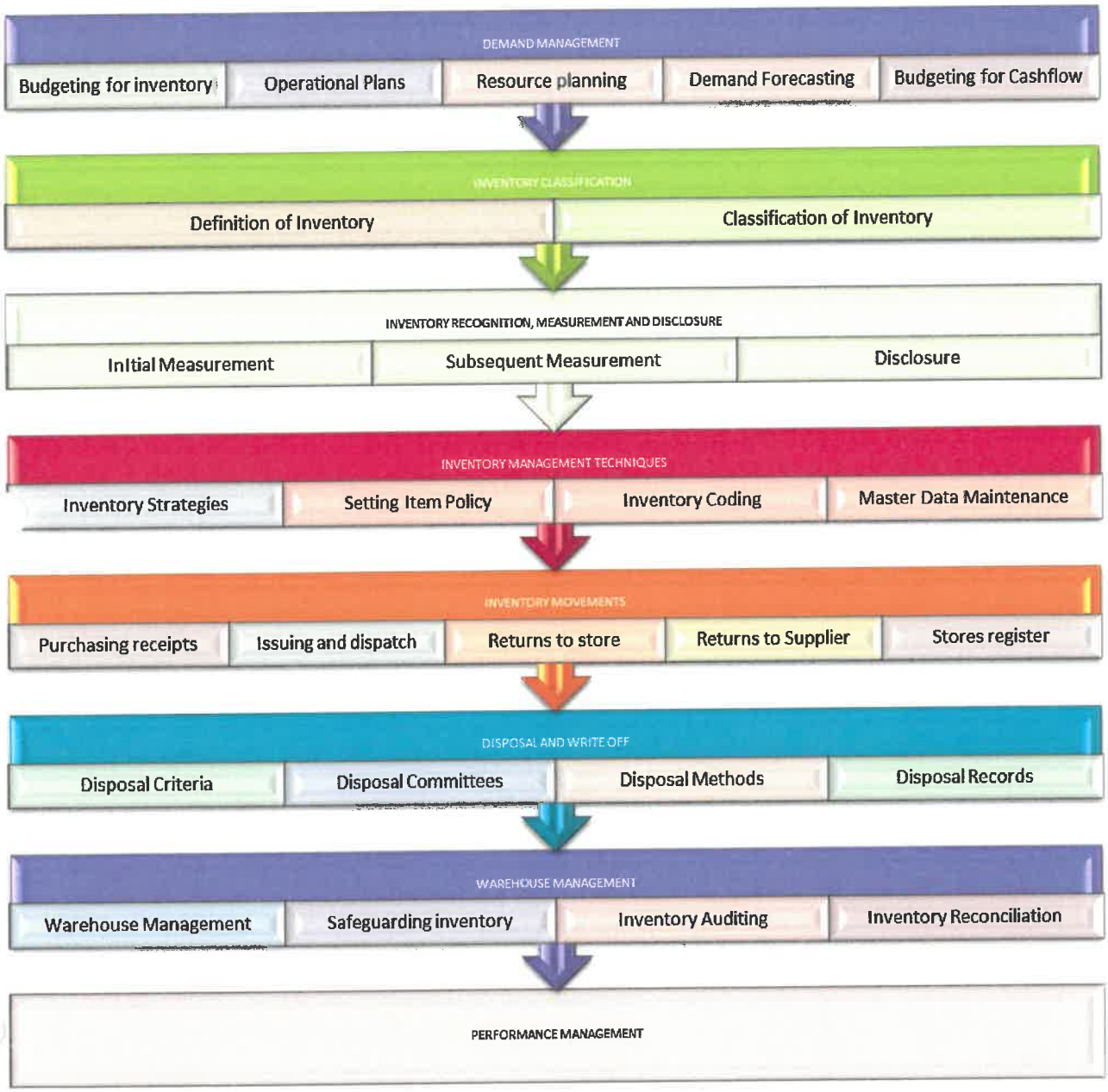
(c) The process of Inventory Classification results in items being classified as assets and inventory after evaluating it against asset and Inventory classification criteria. The quantification of cost forms part of Periodic Financial Maintenance which includes the initial measurement of costs. Recognition and Measurement ensures that all the costs associated with the inventory item is identified and recognized in the books of the institution.

(d) As the life cycle of the item continues various actions could be required for example, Reconciliations, Disposals or write off. The Movement of inventory as they go through the various stages of the operation is critical. Tracking materials as they are used to execute a service also helps to identify the need to adjust reordering quantities before the inventory approach minimum order quantities.

(e) As with every valuable asset item control needs to be in place to ensure that the item is Physically Safeguarded against theft and against physical deterioration. Therefore strict physical control and Warehouse management policies need to be in place. Warehouse management also include the efficient management of a warehouse to maximize efficiency and minimize cost.

(f) As all processes needs improvement, Inventory management needs to be monitored through Performance Measurement, to measure the effectiveness of the processes and to identify improvement areas. Figure 2 below illustrates the Inventory Management life cycle.

**Figure 2 Inventory Management Life Cycle**



## 3.3 REGULATORY FRAMEWORK FOR INVENTORY MANAGEMENT

3.3.1 The legislative framework provided by the Act, regulations and guidelines focuses on improving financial management and service delivery.

(a) Section 38 of the Act confers general responsibilities on the Accounting Officer. It determines at Section 38 (1) (d) that the Accounting Officer of a department:

*"..is responsible for the management, including the safe-guarding and the maintenance of the assets, and for the management of the liabilities, of the Institution, trading entity or constitutional institution; "*

(b) Section 51 (1)(c) of the Act confers general responsibilities on the accounting authority for a public entity as follows:

*"..is responsible for the management, including the safe-guarding of the assets, and for the management of the revenue, expenditure and liabilities, of the public entity; ".*

3.3.2 To facilitate the identification, tracking and interpretation of the host of legislation, regulations, rules and instructions that practitioners are responsible for, Table 5 provides specific reference to legislation relevant to the particular chapters of the policy.

3.3.3 Should there be a conflict between legislation, regulations, instructions and policy referred to the following priority of the framework will prevail:

(a) Public Finance Management Act, 1999 (Act 1 of 1999);
(b) National Treasury Regulations;
(c) National Treasury Instructions;
(d) Provincial Treasury Instructions;
(e) Departmental supply chain management system; and
(f) Standard operating procedures

**Table 5: Reference to Regulatory Framework**

| NO | APPLICABLE REFERENCE | PROVISION | Demand Management | Inventory Classification | Inventory Recognition, Measurement and Disclosure | Inventory Management Techniques | Inventory Movement | Disposal and Write-off | Warehouse Management | Performance Measurement |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFMA, Act 1 of 1999 | 38 (1) "The accounting officer for a department, trading entity or constitutional institution –<br><br>(a) must ensure that the department, trading entity or constitutional institution has and maintains an appropriate procurement and provisioning system which is fair, equitable, transparent, competitive and cost-effective; ..." | X | X | X | | X | X | X | |
| | | 38(1)(a)(i) the department, trading entity or constitutional institution has and maintains an effective, efficient and transparent system of financial and risk management and internal control; | X | X | X | | X | X | X | |
| | | 38(1)(b) is responsible for the effective, efficient, economical and transparent use of the department, trading entity or constitutional institution's resources; and, in particular, | X | X | X | | X | X | X | |
| | | (38(1)(d) is responsible for the management, including the safeguarding and maintenance of its assets. | X | X | X | | X | X | X | |

| NO | APPLICABLE REFERENCE | DEFINITION | Demand Management | Inventory Classification | Inventory Recognition, Measurement and Disclosure | Inventory Management Techniques | Inventory Movement | Disposal and Write-off | Warehouse Management | Performance Measurement |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | PFMA, Act 1 of 1999 | 51 (1) an accounting authority for a public entity –<br>(a) Must ensure that the public entity has and maintains<br>i. Effective, efficient and transparent systems of financial and risk management and internal control | X | X | X | | X | X | X | |
| | | 51 (1) (a) an accounting authority for a public entity must ensure that the public entity has and maintains –<br>(iii) an appropriate procurement and provisioning system which is fair, equitable ,transparent, competitive and cost effective. | X | X | X | | X | X | X | |
| | | 51 (1) (c) "..is responsible for the management, including the safe-guarding of the assets, and for the management of the revenue, expenditure and liabilities, of the public entity; " | X | X | X | X | X | X | X | |

| NO | APPLICABLE REFERENCE | DEFINITION | Demand Management | Inventory Classification | Inventory Recognition, Measurement and Disclosure | Inventory Management Techniques | Inventory Movement | Disposal and Write-off | Warehouse Management | Performance Measurement |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | Provincial Treasury Instructions 16A at Part 8.1.1 | "The accounting officer or accounting authority must ensure that the supply chain management system of the institution provides for an effective and efficient system of logistics management to ensure that:<br>(a) processes, whether manual or electronic, and procedures are in place for the effective, efficient, economical and transparent use of the institution's resources; | X | X | X | | X | X | X | X |
| | | (b) a proper record of all the applicable assets and groups of assets under the control of the institution is maintained; | | X | | | | | | X |
| | | (c) proper control systems exists for assets and that:<br>I. preventative mechanisms are in place to eliminate theft, losses, wastage and misuse; and<br>II. stock levels are at an optimum and economic level | | | | | | X | X | X |
| | | (d) the reliability of suppliers in terms of delivery periods, quantity and quality is monitored and underperforming suppliers are reported and acted upon; and | X | | | | | | | X |

| NO | APPLICABLE REFERENCE | DEFINITION | Demand Management | Inventory Classification | Inventory Recognition, Measurement and Disclosure | Inventory Management Techniques | Inventory Movement | Disposal and Write-off | Warehouse Management | Performance Measurement |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | Provincial Treasury Instructions 16A at Part 8.1.1 | (e) full record of all procurement transactions is kept and maintained " | X | X | X | | X | X | X | X |
| 4 | Provincial Treasury Instruction16 A Part 8 at 8.2.1 | "The accounting officer or accounting authority must ensure that the logistics management system of the institution provides for the following policies and standard operating procedures, including the checklists and templates referred to in paragraph 6.2:<br>(f) reconciliation of asset records with financial accounts" | | | X | | | | | |
| 5 | Provincial Treasury Instruction16 A Part 8 at 8.3.1 | " The logistics management system of an institution must provide for the following policies and standard operating procedures in relation to inventory management:<br>Policies<br>(a) Measurement of inventory for reporting in the annual financial statements and associated disclosures; | | | X | | | | | |

| NO | APPLICABLE REFERENCE | DEFINITION | Demand Management | Inventory Classification | Inventory Recognition, Measurement and Disclosure | Inventory Management Techniques | Inventory Movement | Disposal and Write-off | Warehouse Management | Performance Measurement |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | Provincial Treasury Instruction16 A Part 8 at 8.3.1 | (b) Coding system for the recording of inventory items: | | X | | X | | | | |
| | | (c) Systems in place, whether computerized or manual, for demand forecasting and material requirement planning; | X | | | | | | | |
| | | (d) Approaches for inventory control; | | | | X | | | | |
| | | (e) Stock levels for the different levels of inventory items; | | X | | X | | | | |
| | | (f) Quality and re-order point models to be sued for categories of inventory items; | | X | | X | | | | |
| | | (g) Warehouse and stockroom organization; and | | | | | | | X | |
| | | (h) Systems in place, whether manual or computerized, for recording of inventory transactions. | | | | | X | | | |

| NO | APPLICABLE REFERENCE | DEFINITION | Demand Management | Inventory Classification | Inventory Recognition, Measurement and Disclosure | Inventory Management Techniques | Inventory Movement | Disposal and Write-off | Warehouse Management | Performance Measurement |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | Provincial Treasury Instruction16 A Part 8 at 8.3.1 | Procedures<br>(a) Demand forecasting and resource planning for stock items; | X | | | X | | | | X |
| | | (b) Calculation of stock levels, safety stock, reorder quantities ad reorder points; | X | | | X | | | X | X |
| | | (c) Stock take; | | | | | X | | X | X |
| | | (d) Restricted access areas; | | | | | | | X | X |
| | | (e) Disposal of damaged, spoiled or obsolete items; | | | | | | X | X | X |
| | | (f) Losses and misuse of inventory items; | | | | | | X | X | X |
| | | (g) Production of inventory management reports; and | | | | | | | | X |
| | | (h) Reconciliation of inventory records with financial accounts | | | X | | | | | |
| 7 | Provincial Treasury Instruction16 A Part 8 at 8.4.1 | "The accounting officer or accounting authority must ensure that the logistics management system of the institution provides for the establishment, composition and functioning of a stock take committee to oversee the stock take processes within the institution | | | | | | | X | |

# VOLUME 2: INVENTORY MANAGEMENT POLICIES

## CHAPTER 4: DEMAND MANAGEMENT

### 4.1 INTRODUCTION

4.1.1 Inventory demand management is the process through which the strategic and operational commitments of the institution are translated to its future requirements (both dependent and independent demand). This process must ensure the correct quantity, quality, and specification of the correct inventory item is planned for, supplied to the correct location at the correct time and within the allocated budget.

Demand is generally classified as either dependent or independent demand. The terminology can be slightly confusing if one considers that all demand is dependent on something, however the terminology is used consistently in the field of supply chain management.

4.1.1 **Dependent Demand** is where the demand for input materials or supplies is driven by the demand for the final product or service.

4.1.2 **Independent Demand** is the demand for the final product or service, in the public sector independent demand may largely be driven by the approved budget to deliver approved service delivery levels.

### 4.2 THE OPERATIONAL PLAN

4.2.1 Demand planning involves determining the exact inputs of materials and consumables required to meet specific service delivery objectives. **Provincial Treasury Instruction 4.3.1** identifies the Operational Plan as the primary tool for achieving this:

*"The accounting officer or accounting authority must develop and implement an annual operational plan for his or her supply chain management unit"*

4.2.2 **Provincial Treasury Instruction 4.3.3** further describes the contents of the operational plan as follows:

*"The annual operational plan must consist of at least the following information:*

*(a) Goods and services to be procured;*

*(b) Method of procurement;*

*(c) Times to execute the procurement action;*

*(d) Estimated value (including applicable taxes);*

*(e) Confirmation that funds are available;*

*(f) Responsible office or regional office."*

4.2.3 From the aforementioned requirement it is clear that an operational plan will consist of a number of plans including service delivery schedules, cash flow and resource plans.

## 4.3 BUDGETING

4.3.1 Governments are charged with delivering services according to constitutional objectives while being responsible for the efficient management of public funds. Budgets play a role in achieving fiscal discipline and operational efficiency by:

(a) contributing to the credibility of expenditure and cash requirement targets for purchases of materials and supplies and in this way supports aggregate fiscal discipline;

(b) providing valuable cost information to decision makers to consider policy options for service delivery; and

(c) providing information which can be used to assess the efficiency of inventory processes as well as whether holding inventory is appropriate at all.

4.3.2 Operational plans must be developed as part of the budgeting process which has been set through a review of the strategic objectives of the institution. During this process, programme managers should pay special attention to ensuring that service delivery or project implementation can be delivered according to plan.

## 4.4 RESOURCE PLANNING TECHNIQUES

4.4.1 Determining the inputs required to meet service delivery objectives is referred to as resource planning. It is critical that forecasts of demand and resources available are as accurate as possible and there are several techniques available to assist programme managers with determining and managing their inventory needs. Some of these methods are described below:

4.4.2 Material Requirements Planning

(a) MRP is an abbreviation of Material Requirements Planning and is the definition given to a process that calculates the Material needs of the institution in order for it to achieve its service delivery objectives. It allows those responsible for managing inventory to monitor material and product levels, helping them to plan purchasing, manufacturing and delivery schedules. An MRP system is intended to simultaneously meet three objectives:

i. Ensure materials are available for production and items are available for delivery to end users;

ii. Maintain the lowest possible level of inventory; and

iii. Plan manufacturing activities, delivery schedules and purchasing activities.

(b) When used properly MRP can be a great decision making aid, providing answers to questions such as what items are needed, how many of them are needed, the dates they are required by and when they must be ordered from Suppliers.

(c) The benefits of MRP solution:

i. Ensure Purchase Orders and Works Orders are raised in time to meet demand;

ii. Reduce the cost of holding stock;

iii. Increase productivity of Direct Labour;

iv. Reduce Lead times;

v. Reduce need for crisis management and enable the focus to be shifted to Process Control; and

vi. Ultimately ensure customers' delivery requirements are met

4.4.3 Bill of materials [1]

(a) A bill of materials is a document which shows all of the components required to complete one unit of a particular project, product or service.

(b) The Material Requirements Planning process is designed to take the production schedule or requirement replenishment quantities, "explode" those quantities through the bill of materials to create component requirements which are netted against on-hand and on-order quantities, level by level. It is a time-phased process whereby the planned orders are driven by actual requirements, by date, using posted average lead times. Once the requirement has been established, replenishment can be completed either by:

i. Production: This is the process of replenishing stock levels by planning and then manufacturing a material within the warehouses own plant, or

ii. Procurement: This is the process of procuring materials from a vendor or supplier to meet production requirements.

4.4.4 Demand Forecasting

(a) There are qualitative and quantitative aspects to forecasting. Qualitative methods for forecasting are based on educated judgment and opinion while quantitative methods are based on mathematical models using historical data. Often both aspects are used together. For example a forecast model may use historical data and then apply opinion and expert knowledge regarding future trends to vary MRP parameters.

4.4.5 The availability of systems to determine material requirements

(a) Prior to MRP and before computers dominated the industry, reorder-point/reorder-quantity type methods like Economic Order Quantity (EOQ) had been used in inventory management. These methods are still used and highly effective in paper-based environments and where an integrated SCM platform does not exist. Although the manual environment is more resource intensive the thought processes to determine information required is the same for both manual and computerized environments and

models can be implemented and phased in to suit the capability and maturity of the environment.

## 4.5 POLICY STATEMENT

4.5.1 To ensure proper Demand Planning for inventory, the institution will:

(a) Prepare a multi-year Demand Management Plan containing:

i. an operational plan evolved from the strategic objectives and service delivery goals of the institution. These aspects must be used to establish a demand schedule of services or goods and must include both dependent and independent demand;

ii. a resource plan that breaks down operational requirements into materials and supplies required to deliver the schedule of services detailed in the operational plan; and

iii. an assessment of cash flow implications for holding inventory.

(b) Establish an Inventory Operations and Planning Committee to review and determine inventory requirements and develop the Planned Independent Inventory Requirement Schedule;

(c) The accounting officer or accounting authority for the institution will appoint the chairperson and members of the committing in writing;

(d) The committee appointed in (c) must consist of programme managers and representatives from Logistics and Operations;

(e) The committee indicated in (c) can be incorporated into existing Operations and need not constitute a new committee; and

(f) Institute procedures for regular reviews to confirm requirements from all programme managers.

4.5.2 Operational Plan

(a) The institution is required to develop a multi-year strategic plan and budgets which are underpinned by detailed operational plans. Regardless of the service being provided and materials and services required to deliver the service, a detailed operational plan must be prepared as part of the budget process.

(b) The operational plan will detail the demand schedule of services or goods, aligned to the strategic objectives of the institution and will indicate:

i. what inventory must be delivered;

ii. where the inventory must be delivered;

iii. when the inventory must be delivered;

iv. how the inventory will be delivered;

v. the cash flow impact on holding inventory to deliver goods and services; and

vi. the cost of holding the inventory.

(c) The Cost of holding inventory is related to:

i. the opportunity cost of holding inventory;

ii. the costs associated with operating a warehouse or storing inventories; and

iii. costs associated with the loss of inventory.

(d) Warehouse managers must undertake their own evaluation of items kept in store on an annual basis.

4.5.3 Resource Planning

(a) To ensure the correct item is procured to support the strategic and operational commitments of the institution the following will be determined for each item of inventory:

i. item specifications must be determined and aligned with the requirement;

ii. potential suppliers analyzed to ensure that inventory is sourced at the best price and available at the right place and at the right time.

(b) Resource Planning Techniques

i. Programme Managers should understand the need for demand forecasting during strategic planning and medium-term budgeting processes and be aware of forecasting techniques;

4.5.4 Budgeting

(a) Approved budgets will be within the framework of the approved Strategic Plan and Annual Performance Plan of the institution. Budgets should be prepared in accordance with the following principles:

i. Realistic and Quantifiable

Generally in the public sector demand is set when the budget is approved to deliver services in line with the strategic plan of the institution. In a world of limited resources, the public sector is particularly strained to ration its own resources by setting goals and objectives which are reasonably attainable. Strategic plans must evaluate each activity to determine those that will result in the most appropriate resource allocation.

ii. Historical

The budget reflects a clear understanding of past results and a keen sense of expected future changes. While past results cannot be a perfect predictor, they flag important events and benchmarks.

**Additional Institutional Policy Provision Required.**

ii. The accounting officer or accounting authority of the institution will define the institutional policy with regard to resource techniques and systems in use (whether manual or computerized) to enable resource planning.

iii. Period Specific

The length of the MTEF budget period dictates the time limitations for introducing effective modifications. Although plans and projects differ in length and scope, establishing the need and planning for demand for inventory is a key activity for budgeting and needs to be considered in terms of multi-year planning and budgeting for inventory aligned with the 5 year Strategic Plan of the institution.

iv. Standardized

To facilitate the budget process, managers should use standardized forms, formulas, and research techniques. This increases the efficiency and consistency of the input and the quality of the planning.

v. Inclusive

Those responsible for the results must take part in the development of their budgets. Programme Managers from both Logistics and Operations should meet to exchange ideas and objectives and to minimize redundancies and counterproductive programs. In this way, those accountable buy into the process, cooperate more, work harder, and therefore have more potential for success. During the budget preparation period, programme managers will prepare their operational plans based on the strategic direction of the institution and inputs derived from the Demand Management Plan referred to in paragraph 4.2.2 (a) above;

vi. Successfully Reviewed

Decentralization does not exclude the thorough review of budget proposals at successive management levels. Programme Managers are responsible for the reviewing of their operational plans and inventory needs in line with the budget cycles.

4.5.5 Budgeting for cash flow

(a) The institution will construct a direct-materials budget to determine the amount of additional materials needed to deliver targeted service levels. The materials budget will contain:

i. the number of units to be purchased and the cost for these purchases (this will have been established during the resource planning process);

ii. a schedule of the expected cash distributions to suppliers of materials; and

iii. an indication of how the costs will be funded.

## 4.6 STANDARD OPERATING PROCEDURES

4.6.1 The following activities are covered in the Standard Operating Procedure for Demand Planning:

- Aligning services to be delivered to the institution's strategic plan.
- Revise preliminary planned independent inventory requirements for finished goods.
- Revise planned independent requirements for manufactured goods.
- Revise Schedule of Planned Independent Inventory Requirements.
- Reviewing the prior period's consumption data and identifying any anomalies.
- Define Item specifications
- Preparing the budget estimates
- Conducting an Operations Planning meeting with all relevant stakeholders to reach consensus on the proposed Planned Independent Requirements.
- Adjusting the inventory management system.

# CHAPTER 5: INVENTORY CLASSIFICATION

## 5.1 THE CONCEPT OF ASSETS

5.5.1 Assets are generally classified as either **Current** or **Non-current**.

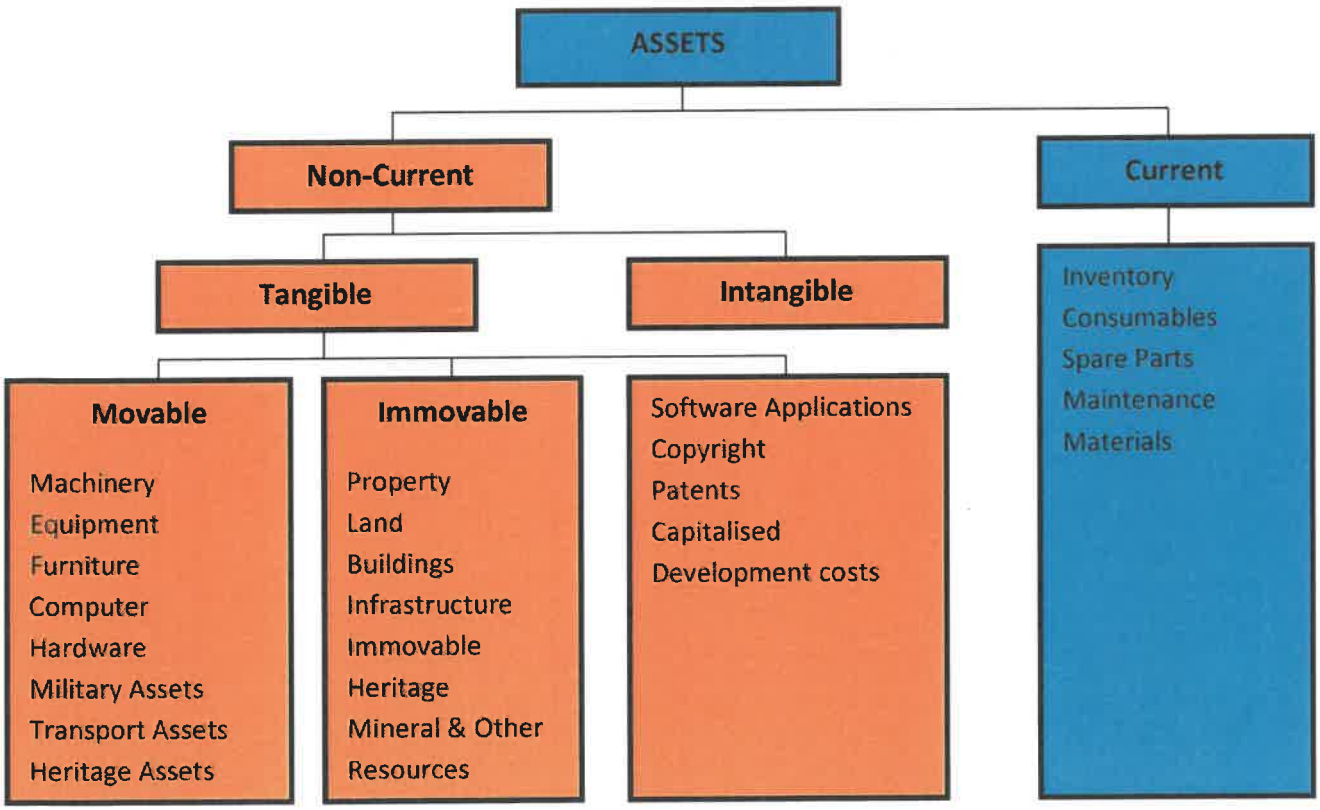
5.1.2 Current assets have an expected short life due to their inherent nature i.e. they are either perishable, they will be consumed in the production process or be converted into cash within a short time frame. These assets are referred to as "current" in accounting terms because they can be consumed or converted into something else within the next financial reporting period.

5.1.3 Non-current assets have an extended useful life beyond one year and are used repeatedly during more than one financial reporting period.

5.1.4 The Asset Tree below describes the classification of assets hierarchy.

**Figure 3: Asset Tree**

= Assets covered by these policies and standard operating procedure.



## 5.2 THE DEFINITION OF INVENTORY

5.2.1 Assets classified as inventories are current assets which are often stored in warehouses or storerooms and are issued/used as and when required.

5.2.2 **GRAP 12.9** defines inventory as follows:

Inventories are assets:

(a) in the form of materials or supplies to be consumed in the production process;

(b) **in the form of materials or supplies to be consumed or distributed in the rendering of services;**

(c) held for sale or distribution in the ordinary course of operations; or

(d) in the process of production for sale or distribution.

Inventories include:

(a) goods purchased and held for resale;

(b) finished goods produced or work-in-progress being produced by the institution;

(c) materials and supplies awaiting use in the production process;

(d) goods purchased or produced by an entity, which are for distribution for no charge or for a nominal charge; and

(e) inventories relating to provision of services rather than goods purchased and held for resale or goods manufactured for sale.

5.2.3 **GRAP 12.10** provides examples of inventory in the public sector:

(a) Ammunition held by the SAPS or the Defence Force.
(b) Consumable stores.
(c) Medical supplies held by the Department of Health.
(d) Licensing stationery held by the Department of Transport.
(e) Fuel.
(f) Oil and gas.
(g) Maintenance materials.
(h) Spare parts for plant and equipment that qualifies as inventory.
(i) Water held by a municipality.
(j) Work-in-progress.
(k) Land or property held for sale.

5.2.4 While GRAP 12 applies to institutions applying accrual accounting, the definition of inventory is relevant to all inventory operations.

## 5.3 CLASSIFICATION OF ASSETS AS INVENTORY [2]

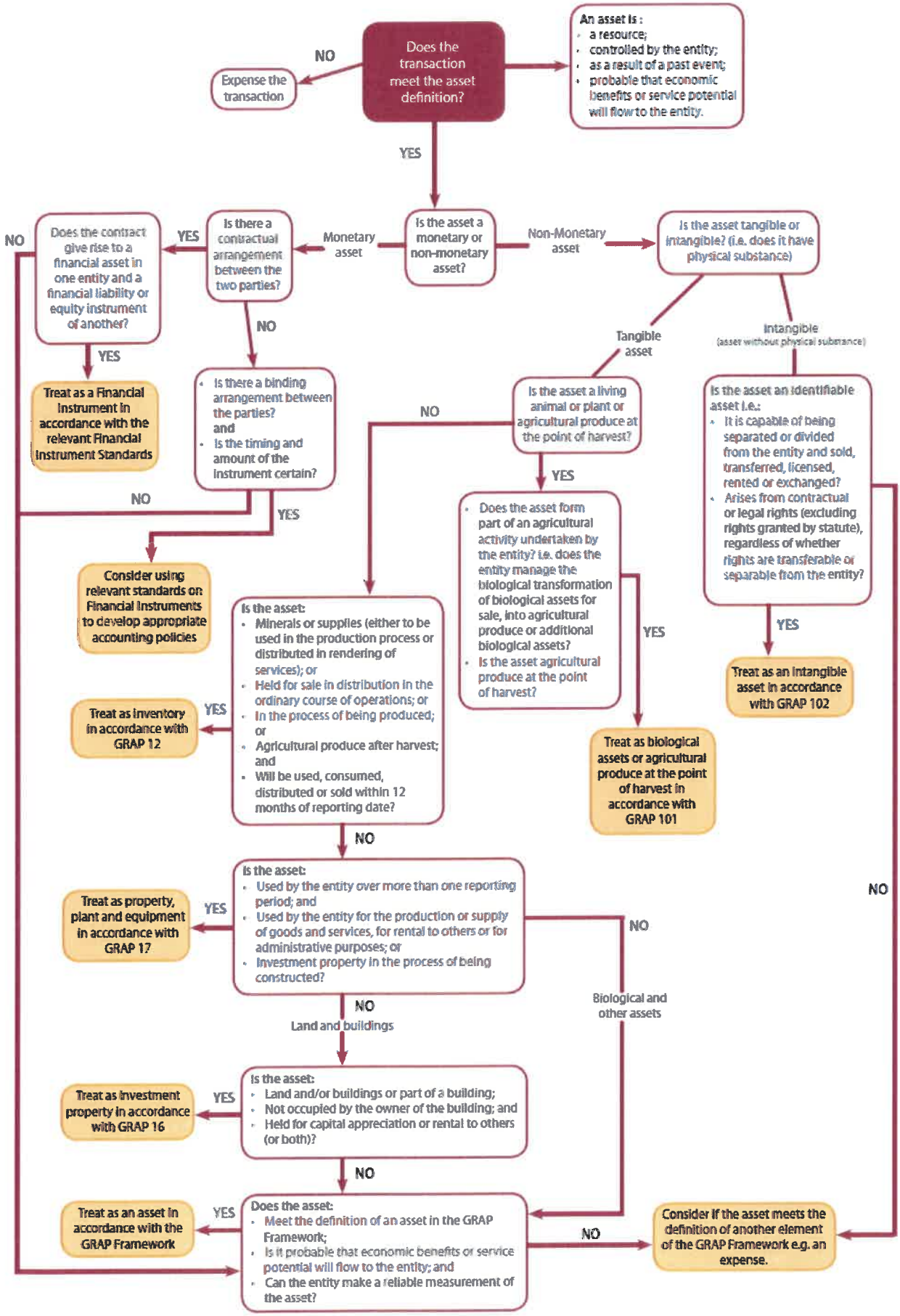
5.3.1 Classification of inventory is the process that is followed to evaluate procured/received items against the Inventory Classification Decision Tree, firstly as assets and secondly as inventory, where after classifying it in its various Inventory categories.

5.3.2 In identifying whether an item constitutes a separate item of property, plant and equipment or whether it constitutes inventory, judgment is required in applying the criteria in the definition of property, plant and equipment (see the Standard of GRAP on Property, Plant and Equipment, GRAP17) and Inventory (GRAP 12), to specific circumstances or specific types of entities.

5.3.3 Inventory Classification Decision Tree.

5.3.4 The decision tree below is a useful tool for determining if an item is an asset and how to classify it.

**Figure 4: Asset Recognition and Classification decision Tree**



## 5.4 POLICY STATEMENT

5.4.1 All items that are procured, donated or received as a result of transfers from other institutions must be evaluated against the Inventory Classification Decision Tree described in the Figure 4: Asset Recognition and Classification Decision Tree. If the criteria are met, it should be classified as inventory and must be grouped in the appropriate inventory category;

5.4.2 When an item meets the definition of inventory, the item must be grouped in the appropriate inventory category as defined below:

(a) Consumable items. When the institution purchases consumable items that will be utilized in a period less than a year, these items are treated as inventory and recognized as an expense when consumed;

(b) Maintenance materials. When the institution purchases materials that will be utilized in maintenance projects in a period less than a year, these items are treated as inventory and recognized as an expense when consumed;

(c) Spare parts. When a spare part is kept in stock and will be utilized in a period less than a year, these items are treated as inventory and recognized as an expense when consumed;

(d) Strategic stock piles. When the institution maintains strategic stockpiles of various reserves, these stocks are treated as inventory;

(e) Produced work-in-progress. Inventories can encompass goods that are in the process of being produced by the institution; and

(f) Produced finished goods. Inventories also encompass finished goods produced by the institution.

(g) The following must not be classified as inventories:

i. Construction contracts (GRAP 11);

ii. Financial instruments;

iii. Biological assets at the point of harvest (GRAP 101); and

iv. Work in progress of services for no or nominal consideration.

(h) The inventory classification checklist will be completed for all items classified as inventory;

(i) The inventory classification checklist will be reviewed and authorized by the delegated employee/practitioner;

(j) A copy of the inventory classification checklist will be submitted to the relevant procurement unit to ensure that the correct SCOA allocation is applied during the procurement process.

## 5.5 STANDARD OPERATING PROCEDURES

5.5.1 The following standard operating procedures define the method to be applied when classifying inventory:

- Identify assets as Inventory
- Classifying items into the correct inventory grouping
- Review and authorize inventory classification
- Submit inventory classification to relevant unit to ensure correct SCOA allocation during procurement process

# CHAPTER 6: INVENTORY RECOGNITION, MEASUREMENT AND DISCLOSURE

## 6.1 INTRODUCTION

6.1.1 The process of inventory recognition and measurement is the process followed to bring the already identified and classified inventory item into the inventory system and into financial records.

6.1.3 As such, inventory recognition and measurement relates directly to the accounting treatment of inventory and how institutions disclose inventory in the financial statements.

6.1.4 The accurate measurement of inventory also has a direct impact on inventory valuation, which plays a vital role in understanding the costs of inputs to a product or service and decision making processes to minimize resources tied up in inventory.

## 6.2 TYPES OF MEASUREMENT

6.2.1 Two types of measurement exists namely **Initial Measurement** also known as inventory take on value and **Subsequent Measurement**.

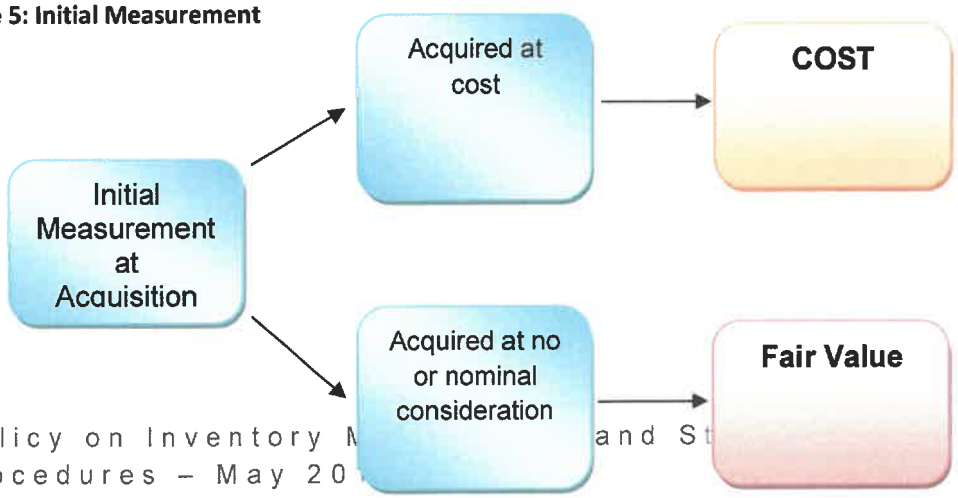
## 6.3 INITIAL MEASUREMENT

6.3.1 When first recognizing inventories, GRAP 12 provides the following:

*".15 Inventories that qualify for recognition as assets shall initially be recognized at **cost**.*

*.16 Where inventories are acquired at no cost, or for nominal consideration, their cost shall be their **fair value** as at the date of acquisition."*

**Figure 5: Initial Measurement**



6.3.2 Acquired at Cost

(a) For inventories that are to be measured at Cost, GRAP 12 states that the cost of inventories shall comprise:

(b) All costs of purchase. Costs of purchase where applicable comprise:

i. purchase price;
ii. import duties;
iii. other taxes except those recoverable from taxing authorities;
iv. transport and handling costs; and
v. other costs directly attributable to the acquisition.

(c) Costs of conversion. Conversion costs are mainly incurred in a manufacturing environment where raw materials are brought together and transformed through the manufacturing process into finished goods. Conversion costs include:

i. costs directly related to the unit of production such as direct labour; and
ii. a systematic allocation of fixed and variable production overheads incurred in converting materials into finished goods.

(d) Other costs incurred in bringing the inventories to their present location and condition:

i. Other costs are included in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition.

(e) Less trade discounts:

i. rebates; and
ii. other similar items which would reduce the cost of acquisition.

6.3.3 Cost Exclusions

(a) GRAP 12 paragraphs .26 through .28 provide examples of costs excluded from the value of inventories and expensed in the period in which they are incurred as follows:

*i. abnormal amounts of wasted materials, labour, or other production costs;*

*ii. storage costs, unless those costs are necessary in the production process before a further production stage;*

*iii. administrative overheads that do not contribute to bringing inventories to their present location and condition;*

iv. *selling costs;*

v. *borrowing costs except where they meet certain requirements set out in GRAP 5; and*

vi. *financing costs (represented by the difference between a higher purchase price paid for a deferred settlement in excess of normal credit terms).*

6.3.4 Acquired at no or nominal value – Fair Value

(a) Fair value is used as an approximation of cost where there was no actual cost incurred in acquiring the inventories. GRAP 12 at paragraph .16 stipulates:

*"the cost at acquisition of inventories acquired at no cost or for nominal consideration shall be their fair value as at the date of acquisition. Fair value is therefore used as an approximation of cost"*

(b) Paragraph .07 defines fair value as follows:

i. *Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.*

ii. *Fair value is the estimated cost in situations where no cost was incurred to obtain the inventory.*

iii. *Fair value is determined by obtaining values from reputable sources for similar inventory items in the same condition.*

6.3.5 Inventory Valuation - Calculations of Cost (cost formulas):

(a) GRAP 12 provides that the same cost formula can be used for all inventories having a similar nature and use i.e. items are interchangeable.

(b) Where items are interchangeable, there are two cost formulas to choose from as follows:

I. *First in First Out (FIFO); or*

II. *Weighted average cost*

6.3.6 FIFO

First in first out (FIFO) assumes that those items received into inventory first are used or issued first. The value of inventory remaining is then calculated as the sum of the costs of the items still remaining.

6.3.7 Weighted average cost

The weighted average cost formula calculates the cost of each item issued as a weighted average of all of the items received into the store. Each time a new batch of the inventory item is received into the store the weighted average cost per unit is recalculated taking into account the unit cost of the new items and the weighted average cost per unit before the new receipt.

## 6.4 SUBSEQUENT MEASUREMENT

6.4.1 In the event where inventories are measured subsequent to initial recognition (for example, at the end of the financial year, GRAP 12 provides the following:

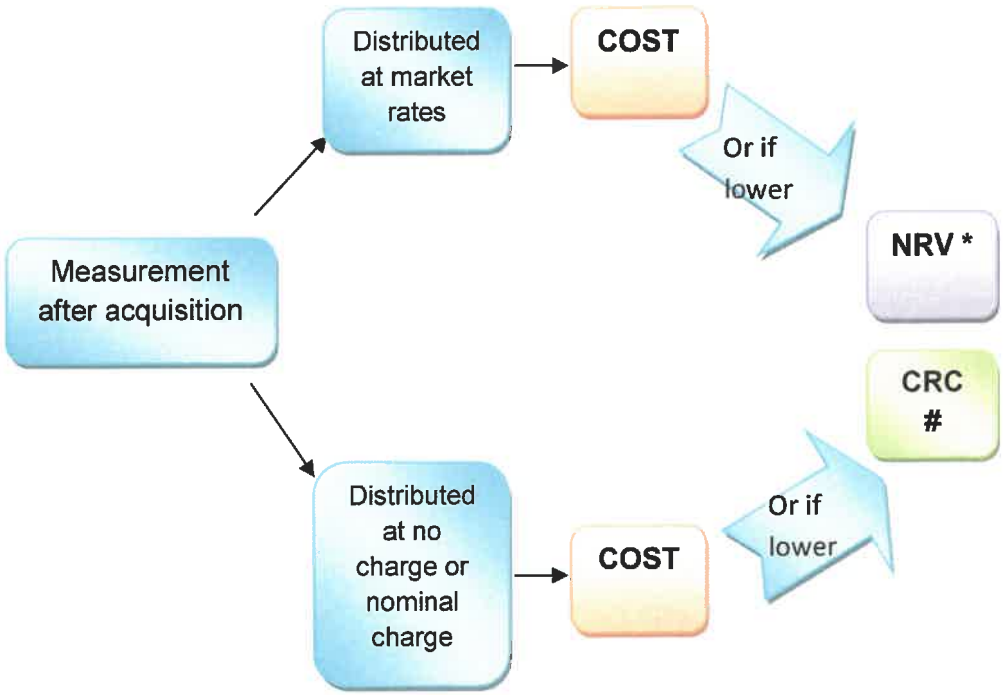
*.17 Inventories shall be measured at the lower of cost and net realisable value, except where paragraph .18 applies.*

*.18 Inventories shall be measured at the lower of cost and current replacement cost where they are held for:*

*a) distribution at no charge or for a nominal charge, or*

*b) consumption in the production process of goods to be distributed at no charge or for a nominal charge.*

**Figure 6: Subsequent Measurement**



6.4.1 The intent of the above provision is that inventories should not be carried on the Statement of Financial Position at a value greater than their worth. At acquisition, worth is measured by cost, or fair value. At a later date, the worth of the inventories may have decreased.

6.4.3 Net Realizable value

(a) When inventories are valued subsequent to acquisition their value may have declined. Hence, when valuing inventories after acquisition and when they are held for distribution at a market price they are measured at the lower of cost and net realizable value.

(b) Paragraph .07 of GRAP 12 defines net realizable value as follows:

i. *Net realizable value is the estimated selling price in the ordinary course of operations less the estimated costs of completion and the estimated costs necessary to make the sale, exchange or distribution.*

ii. *Net realizable value refers to the net amount that an institution expects to realize from the sale on inventory in the ordinary course of operations. Fair value reflects the amount for which the same inventory could be exchanged between knowledgeable and willing buyers and sellers in the marketplace. The former is an institution specific value; the latter is not.*

iii. *Net realizable value for inventories may not equal fair value less costs to sell.*

6.4.4 Current replacement cost

(a) When measuring the value of inventories subsequent to acquisition and the inventories are to be distributed at no charge or for nominal value, their value is recorded at current replacement cost. Current replacement cost is used instead of net realizable value in situations where the net realizable value is not easy to determine.

6.4.5 Paragraph .07 of GRAP 12 defines current replacement cost as follows:

(a) Current replacement cost is the cost the institution would incur to acquire the asset on the reporting date.

6.4.6 Current replacement cost is a good estimation for net realizable value in this instance, because the future economic benefits or service potential of the inventories can be assumed to be the amount that the institution would need to pay to replace those inventories should they be deprived of them.

## 6.5 POLICY STATEMENT

6.5.1 All items of inventory that are procured, produced, donated or received as a result of transfers from other institutions must be recognized in the accounting records of the institution as per GRAP 12.14 as follows:

*".14 Inventories shall be recognized as an asset, if and only if,*

*a) it is possible that future economic benefits or service potential associated with the item will flow to the institution; and*

*b) the cost of the inventories can be measured reliably.*

6.5.2 The value of the inventory must be measured against the appropriate measurement criteria defined by GRAP 12 as follows:

*".15 Inventories that qualify for recognition as assets shall initially be recognized at cost.*

*.16 Where inventories are acquired at no cost, or for nominal consideration, their cost shall be their fair value as at the date of acquisition."*

6.5.3 Where items of inventory are interchangeable inventory items at year-end are reflected using either the weighted average cost or FIFO cost formulas;

6.5.4 Where items of inventory are not ordinarily interchangeable, specific identification of individual costs shall be used;

6.5.5 Only unissued stock in bulk stores are to be counted and recognized while stock issued to sub stores e.g. offices, wards in hospitals, etc. should be considered issued stock and not disclosed.

**Additional Institutional Policy Provision Required.**

6.5.6 Institutions need to identify locations considered bulk as stores.

6.5.7 When an item of inventory has been included in the accounting records, it must be disclosed in the annual financial statements according to the appropriate accounting policies:

(a) Institutions that present their financial statements on an accrual basis must apply the standards of GRAP 12; and

(b) Institutions that are not yet preparing financial statements on an accrual basis must comply with the guidance provided in the Preparation Guide to the Annual Financial Statements.

6.5.8 Any changes to the format for reporting of inventory in the Annual Financial Statements will be indicated in the Departmental Financial Reporting Framework and the Departmental Financial Reporting Framework Guide as issued annually by the National Treasury;

6.5.9 Inventory will be disclosed in Annexure 6 to the Annual Financial Statements (AFS);

6.5.10 The Opening Balance for a specific reporting year must be represented by the closing balance as at 31 March of the previous reporting year. This amount must agree to the amount disclosed in the Annexure 6 to the AFS of the previous year;

6.5.11 Adjustments to prior year balances: This represents adjustments to prior year inventory which were only corrected in the current year. The following can give rise to adjustments:

(a) Surpluses and shortages identified during the last stock take for the previous year which was not corrected on the balances before the end of the previous year. The surpluses and shortages therefor represent the difference between recorded inventory amounts and actual inventory levels;

(b) Reclassification of inventory to assets after the previous year end. All assets previously classified as inventory need to be accounted for and transferred from Inventory to either the major or minor assets register; and

(c) Reclassification of Assets to Inventory after the previous year end. All inventory that were previously classified as assets need to be accounted for and transferred from the asset register to the inventory register.

6.5.12 Additions/ Purchases-Cash: All cash additions for the year must be reflected. The cash additions as per the Inventory system should reconcile with the amount reflected for inventories in goods and services in the Statement of Financial Performance;

6.5.13 Additions- Non-cash: The fair value or cost price, if supplied, of inventory received in kind or as donations from sources outside of the government or as transfers without costs from other institutions during the reporting year is disclosed here. Adequate supporting documentation of such receipts should be kept;

6.5.14 Disposals: All approved disposals of inventory must be disclosed here. This would include obsolete, damaged or lost inventory that are not available for distribution or production;

6.5.15 Issues/transfers: All inventory issued to cost centers or external stores for production, distribution or consumption must be recorded;

6.5.16 Adjustments: This represents correction of errors that occurred in the current financial year that relate to inventory. It includes the difference between the initial recognition amount (cost of inventory purchased) and weighted average;

6.5.17 Closing Balance: This will be the value of the inventory as at 31 March of the accounting year after a stock take has been undertaken, the physical quantities compared to the system quantities, corrections made to the system and any movements between the counting date and 31 March of the reporting year affected.

## 6.6 STANDARD OPERATING PROCEDURES

6.6.1 The following standard operating procedures define the methods applied when recognising and measuring the cost of inventory in the books of the institution:

- Initial Measurement
- Subsequent Measurement
- Disclosure

# CHAPTER 7: INVENTORY MANAGEMENT TECHNIQUES

## 7.1 INTRODUCTION

7.1.1 For institutions that deal with thousands of inventory items, it is difficult to devote equal attention in terms of personnel and financial resources to each of the inventory items, hence, the need for selective control.

7.1.2 Analytical techniques are regarded as the "foundation" of the logistical system, because it primarily determines what stock items and quantities thereof should be kept in stock.

7.1.3 Applying analytical techniques have the following advantages:

- facilitate the purchasing of stock, where practical and economical, directly for use according to the need.
- prevents the unnecessary storing of items,
- limits the risk of losses,
- manages required of storage place,
- saving of manpower in terms of stock management,
- control is promoted; and
- available capital for stock purchases can be used more effectively.

7.1.4 The common practice is to measure the significance of inventories in terms of its value, however it is more useful to take into consideration a range of factors including:

- annual rand usage;
- item shelf life;
- risk to service delivery associated with non-availability; and
- item availability and reorder lead times.

## 7.2 DEFINING AN INVENTORY MANAGEMENT STRATEGY

### 7.2.1 Introduction

(a) Defining the Inventory Management Strategy is a formal, analytical process to identify, analyze, and define an inventory management strategy for the institution. The inventory management strategy is unique to each institution and will assist in defining management techniques for different types of materials in order to optimize stock levels and meet programme delivery objectives.

(b) The Inventory Management Strategy is the output of selecting and defining segmentation criteria and analytical techniques based on institutional programme requirements and strategic objectives.

(c) The objective is to create meaningful and unique categories that will provide operational insights and facilitate determining the correct material management strategies.

(d) Segmenting materials according to their strategic value drive the decision rules for the material management strategies. The following Analytical Techniques may be used to define material segments.

### 7.2.3 ABC Inventory control

(a) With ABC inventory control, items of inventory are split into groups based on their need to be managed more closely. ABC analysis demands knowledge of each item value, price, usage and lead-time, as well as problems which can be encountered during procurement.

(b) The simplest form provides for three classifications, hence the term ABC Analysis. However there is no impediment on the number of classifications used and an institution could decide to split items into more or less groups.

(c) To be meaningful the ABC analysis is also further broken down into categories of fast (F) and slow (S) and no movement (N). This method is referred to as the ABC/FS system.

(d) Sufficient historical data will need to be accumulated to determine accurate parameters.

### 7.2.4 VEN Analysis

(a) The VEN system is another method of categorizing inventory. Items are categorized as vital(V), essential (E) or nonessential (N). The VEN analysis is often used to priorities procurement and is therefore highly relevant in an environment where there are competing demands for Government resources. VEN analysis does not require the accumulation of historical data but an understanding of the service delivery objectives of the institution in relation to the inventory that it needs to hold.

### 7.2.5 Just-in-time inventory control

(a) Stock holding literally translates into "money on the shelf" and "dead stock" (inventory not needed) represents cash flow that could have been used in other areas. Just-in-time (JIT) inventory control refers to the practice of keeping minimal levels of inventory and planning for stock to arrive just before it is needed.

(b) The following are the advantages and disadvantages of JIT inventory control

**Table 6: Advantages and Disadvantages of JIT inventory control**

| 1. Advantages | 2. Disadvantages |
|---|---|
| 1.1 Minimizes holding costs. Most items are delivered directly to end users or warehousing is limited to in transit provisions required to distribute the item to the point where it is needed. | 2.1 Where items are delivered directly to the end user SCM cannot confirm whether delivery matches what has been ordered. This may have an impact the ability to return faulty goods to the suppliers. |
| 1.2 No opportunity costs associated with cash tied up in inventory. Cash flow is optimized. | 2.2 Suppliers may fail to deliver on time. This could be costly in terms of service delivery, and operations that could lead to other costs. |
| | 2.3 JIT is often used to disguise poor planning. |

### 7.2.6 Selecting suitable analytical techniques[3]

(a) Although establishing one inventory control model for all items may be the simplest form of management perspective, it may not be the most cost-effective solution. Using a

mixed model could provide more meaningful insight into operational requirements and have the most effect on inventory costs.

(b)The information required for analytical purposes can be obtained from the inventory management systems or manual records, operational plans and strategic objectives of the institution. It is not a simple task to perform these calculations and the flexibility of SCM systems will determine the extent to which analytical techniques are used.

7.2.7 Setting Item Policy

(a) Once decisions have been made to control inventory, effective and efficient inventory management must result in optimum levels of inventory. To achieve this objective programme managers must make informed decisions on how much of an inventory item should be ordered and when should it be ordered. This is referred to as setting item policy.

(b) Determining and setting item policy cannot be possible without the application of sound models. Some of the models are discussed under paragraphs 7.2.8 to 7.2.10 below.

(c) The decision to use models should take into account the availability of information required for the model, the cost to perform the modeling and the importance of the inventory items being modeled.[4]

7.2.8 Economic Order Quantity (EOQ)

(a) Economic Order Quantity defines the most economic cost efficient order quantity i.e. the order quantity at which the total cost of inventory is minimized. The model is simple and is based on the principle that as order size increases order frequency decreases which leads to a reduction in order costs (this model does not take quantity discounts into account). However, the increased order size results in higher levels of stocks resulting in increased inventory holding costs. EOQ recognizes the trade-off between holding cost and ordering costs and EOQ is the point at which holding cost and ordering cost is at a minimum.

7.2.9 Quantity Discount Model

(a) This model makes provision for quantity discounts not considered in EOQ above. Some suppliers will offer discounts associated with volume or quantity ordered. Depending on holding and order costs it may be more economical to buy larger quantities.

7.2.10 Reorder Point

(a) Defining stock levels amongst others ensures rapid movement of capital, prevents stock becoming obsolete, enables the best utilization of storage room/space, ensures that stock is not depleted and that demand can be satisfied immediately at all times. For this reason minimum and maximum stock levels are determined.

(b) The minimum stock level is the level below which stocks should not be normally allowed to fall. If stocks go below this level, there is the danger of stock out which can lead to service delivery failure. Minimum stock level is also known as the reorder point. This concept also introduces the concept of safety stock levels. Safety stock is the minimum or buffer inventory as cushion against unforeseen circumstances (expected increased usage and / or delay in delivery time).

(c) The next stock level that is necessary to be computed is the maximum stock level. Maximum stock level is the level above which stock should not normally be allowed to rise. It is desirable that the level should be as low as possible, but it must allow fairest usage of materials and time delays in delivery.

## 7.3 INVENTORY CODING

7.3.1 Inventory coding is an important control system in any inventory environment but more so in inventory intensive institutions. Inventory coding serves two very distinct purposes; firstly identification through the application of unified nomenclature for inventory items and secondly to facilitate inventory control through the use of bar coding techniques.

7.3.2 Unified Nomenclature

(a) A unified nomenclature or naming convention is a standard description that is given to items of inventory to facilitate identification, reporting and record keeping. The nomenclature will consist of a unique code and description for a specific type of inventory item.

7.3.3 Inventory Bar Coding

(a) Inventory codes are also referred to as Stock Keeping Units (SKU's). SKU's are a code number, typically used as a machine-readable bar code generated for a group of items (based on the nomenclature coding system) and attached to a single item of inventory. As part of a system for inventory control, the SKU represents the smallest unit of a product that can be sold from inventory, purchased, or added to inventory.

(b) Bar coding offers many benefits. The technology:

- accurately records all aspects of every transaction;
- eliminates time-consuming data-transcription errors common with paper records;
- eliminates manual data entry and mistakes for parts checkout, return, receipt, and reorder;
- is popular among inventory/warehouse managers because of the ease and speed with which they can check out inventory, compared with written transactions;
- enhances inventory checkout and their timely reordering;
- updates on-hand quantities automatically;
- uses transaction histories to help determine minimum levels and reorder quantities;
- records transaction histories for parts movement, cost, and charge-back;
- streamlines receiving practices;

7.3.4 Lot traceability

(a) A Lot tracking system is a system that records information associated with a batch of product. It could be as simple as knowing what raw material went into a particular batch of product. Lot tracking allows the institution to track several units of a stock item using the same lot or batch no.

(b) The Importance of Lot Tracking

i. Any safety program for food or pharmaceuticals requires a comprehensive system of traceability so that targeted and accurate withdrawals can be undertaken and information given to consumers or regulators, thereby avoiding the potential for unnecessary wider disruption in the event of food or pharmaceutical safety problems. It is necessary to ensure that the institution can identify the sources from which the goods have been supplied.

ii. Lot Tracking is a very simple concept and is used for both purchased items and manufactured items.

## 7.4 POLICY STATEMENT

(a) Irrespective of whether the institution makes use of a computerized modeling system, inventory items/group will at a minimum identify the following class of items/group:

i. Vital

The institution cannot do without these items as they are core to the institution's mandate. No out of stock incidence is allowed and irrespective of the value or rate of consumption these items must be controlled, e.g. Medical Products in the Department of Health.

ii. Essential

Essential items are frequently used and incidental to the institutions core mandate, e.g. printing paper. Controlling these items will ensure efficient utilization of resources and improve efficiency.

iii. Nonessential (stock levels do not need to be managed)

**Additional Institutional Policy Provision Required.**

**(c)** Each institution must develop policies on the use of mathematical models to assist in determining minimum, maximum and safety stock levels, order size and order frequency;

(b) Management strategies whether manual or computerized must be defined for all items/groups classified as Vital and Essential;

(d) The Inventory Management Strategy defining the analytical technique mathematical models and item policies must be formally approved by the delegated official/s, before the framework is published and implemented;

(e) The Inventory Management Strategy must be reviewed at least annually to determine the validity of the material management strategies;

(f) The item policy variables must be loaded onto the system (whether electronic or manual for all materials;

(g) Where used, specific procedures must be instituted for Managing modification and adjustments to item policy;

(h) Prior to the modification and adjustment of any item policy the delegated official must agree and sign-off on those changes;

(i) Where used, specific procedures must be instituted for Managing BOM Master Data changes when a BOM Master is identified for creation or amendment by a requestor (engineer, planner, logistics manager requesting BOM master creation or amendment);

(j) Where an inventory bar coding system is used by an institution, the institution must:

i. clearly define to which items/category of items coding applies;

ii. state which coding system is being used for the recording of inventories; and

iii. indicate whether the coding system is compatible with other institutions within government;

(k) Where no inventory bar coding system is used by an institution, the institution must at a minimum apply a unified nomenclature for the recording and identification of inventory items;

(l) Where inventory coding, including bar coding is used, specific procedures must be instituted to manage coding changes;

(m) Prior to the modification and adjustment of any item code referred to in (k) and (l) above, the delegated official must agree and sign-off on those changes;

(n) The institution must evaluate all inventory to establish suitability for lot traceability;

(o) At a minimum, the following items must provide for lot traceability:

i. Food and beverages; and

ii. Pharmaceuticals

(p) The traceability of items classified in (o) and (p) must be:

i. established at all stages of production, processing and distribution;

ii. Each batch produced or procured must be part of a single lot; and

iii. Each product within a batch produced or procured must be marked with a code that indicates which batch it came from.

## 7.5 STANDARD OPERATING PROCEDURES

7.5.1 The following standard operating procedures define the procedures for determining inventory management strategies and setting item policy:

(a) Collecting and extracting the defined strategic planning data for the inventory management strategy (Categorizing items without consumption history)

(b) Building, analyzing and validating the inventory management strategy

- Define inventory segments for special items
- Define inventory segments for items with consumption

(c) Setting Item Policy

(d) Inventory Coding

(e) Inventory Master Records

# CHAPTER 8: INVENTORY MOVEMENTS

## 8.1 INTRODUCTION

8.1.1 Logistics is the process within Supply Chain Management of strategically managing the movement and storage of inventory through the institutions supply chain.

8.1.2 Inventory Movement is the term used for the collective process of controlling and recording orders, receipts, issues and returns on warehouse, storeroom or any other inventory operation through the supply chain.

8.1.3 The following Movements are covered by this policy:

1) Purchasing receipts
2) Request to stores
3) Issuing and Dispatch
4) Returns to store
5) Store to supplier

## 8.2 POLICY STATEMENT

8.2.1 The following general principles apply to all Movements:

(a) The receiving function accepts goods from suppliers and acknowledges receipt thereof. This is the responsibility of the budget holder (program manager) of the program requesting the goods/ services for directly delivered items or the Store Manager in the case of stock items. The responsibility in this regard in respect of non-store items delivered to transit areas rests with both the Store Manager and the End-user;

(b) All goods not delivered directly to the end user must be received at the various transit areas. The transit areas are responsible for accepting goods from suppliers, acknowledge receipt, confirmation of delivery against purchase order, physical inspection of goods delivered;

(c) The goods received note made out at the transit area must be signed by the store manager or the relevant delegated authority and a copy kept for record purposes;

(d) Goods received at the stores are stored until requested by an end-user. The relevant unit is responsible for the management of the stores function within the institution;

(e) The stores function includes the physical safeguarding of stock, control over movements, keeping stock records, stocktaking and storage of stock;

(f) No movement of stock will take place without a written documented authority, e.g. a duly authorized requisition. These documents are collectively known as transfer documents and include requisitions; goods received notes and issue vouchers;

(g) All transactions, including, recording orders, receipts, issues and returns must be recorded on a computerized or manual system;

(h) If a manual system is used all signatures of authorized officials must be affixed to the source documentation in the various areas of operation;

(i) If a computerized system is used the system must make adequate provision for electronic signatures through official password protected approval;

(j) The Inventory recording system, being manual or automated, must be reconciled to the financial records at least at the end of each month;

(k) Store items required by end users are to be requested (by requisition) from the relevant store. An issue voucher must be generated for all goods issued from the store;

(l) Wherever there is a movement of stock both the deliverer and the receiver must sign the transfer document after having checked the description and quantity of the items being transferred against the source documents;

(m) Transfer documents must be filed numerically;

(n) Documents must be regularly reviewed by an independent person for authorization;

(o) Documents must be sequence checked and missing documents investigated;

(p) Inventory items are considered consumed after having been issued to the end-user and the SCM unit does not keep further record of it.

8.2.2 Further, to successfully execute the above mentioned policy provisions, the following will apply:

8.2.3 Distribution Channels

(a) The relevant manager must identify the optimum distribution channel throughout the supply chain to ensure that goods are moved or transported effective and efficiently between the supply and demand locations;

(b) When the relevant manager decides on the type of distribution channel he/she must consider the following criteria:

i. Identify Intermediaries (i.e. transit, stores) as they can increase the efficiency of the distribution channel by creating time, place and possession benefit to the end user (i.e. at the right time and right place). Intermediaries reduces some or all of the following costs:

ii. Transportation costs (fewer but larger volume shipments);

iii. Inventory carrying costs;

- Storage costs; and
- Order processing costs.

8.2.4 Purchasing receipts

(a) No shipments will be accepted into any warehouse/store without a delivery note/invoice and a purchase order number reference;

(b) No over deliveries will be accepted into any warehouse if the delivered quantity exceeds the Over Delivery Tolerance Limit of the respective purchase order;

(c) No packaging or material that displays any visible damage / fault must be receipted into any warehouse unless approved by the warehouse manager. Should there be an emergency requirement or the driver cannot remain, the delivery note will be noted

"Received pending investigation" and the damage described or a picture taken of the damages where possible;

(d) All items being received must be confirmed against a valid purchase order;

(e) The receiver must confirm the following information on the purchase order against the actual delivery:

- Supplier:
- Description of item being delivered; and
- Quantity of Items being delivered

(f) Material that does not conform to the specifications and description issued by the buyer on the purchase order must not be accepted and receiving based on the visual inspection;

(g) The goods receipt procedure must be completed within 24 hours and balanced, i.e. the quantity of delivery notes vs. the quantity of goods receipt slips must balance;

(h) All receipted material that must be Quality Inspected, must be stored in the designated inspection staging area of the store pending the Quality Inspection ("QI") procedure;

(i) All deliveries require the signature of a receiving department official and deliverer which is kept on file in the warehouse office as prescribed;

- The completed goods received note and signed delivery note must be sent to the SCM Unit to initiate payment;
- All scheduled deliveries have their relevant order information located at the receiving area;
- Appropriate segregation of duties must exist between receiving/issuing, and approval of stock adjustments;
- The transit area is not to be treated, as a warehouse. Store items received in the transit area must not, if practical be left there for longer than 48 hours; and
- Stock items are transferred from the transit area into the storeroom and both the inventory system and the relevant bin cards updated.

8.2.5 Recording of receipts

(a) Manual or computerized records for purchasing and receiving items must include at least the following:

- Order date;
- Order number;
- Supplier code and name;
- Inventory operation (name of warehouse, stockroom or other);
- Item code (must be unique for "the same" items);
- Item description (will be linked to the item code);
- Item location (shelf, bin, etc.);
- Quantity ordered;
- Authorization no. and dated signature or electronic authorization of ordering officer;
- Delivery date;
- Delivery note number;
- Quantity delivered;
- Quantity still to be delivered;
- Notes (any comments regarding the status of the order);
- Authorization no. and dated signature or electronic authorization of receiving officer; and
- Authorization no. and dated signature or electronic authorization of binning officer.

8.2.6 Requests to Stores

(a) All requestors must complete the requisition form to request items from the store;

(b) User requests must be completed accurately and be duly authorized:

(c) No items will be issued to a user with an approved request form;

(d) The request form must contain at least the following information:

i. Cost Centre code

ii. Cost Centre Description

iii. Item code

iv. Item Description

v. Quantity requested

vi. Date Requested

(e) All requestors must sign for material received from the warehouse, which will be kept on file in the warehouse office until the next audit.

8.2.7 Issuing and Dispatch

(a) Only duly appointed officials will complete the issuing / dispatch function;

(b) The system must be updated immediately upon the physical issue of inventory from the warehouse and the relevant expense must be posted;

(c) All relevant issuing documentation must be generated and completed as required;

(d) All requestors must sign for material received from the warehouse, which will be kept on file in the warehouse office until the next audit; and

(e) Stock transfers will only be completed between like storage facilities within the same operating division.

8.2.8 Recording of issues

(a) Manual or computerized records for issues from store must include at least the following:

- Issue date;
- Issue number;
- Inventory operation (name of warehouse, stockroom or other);

- Item code (must be unique for "the same" items);
- Item description (will be linked to the item code);
- Item location (shelf, bin, etc.);
- Quantity issued;
- Issued to code (organization, project or job code);
- Notes (any comments regarding the issue);
- Authorization no. and dated signature or electronic authorization of receiving officer;
- Authorization no. and dated signature or electronic authorization of issuing officer.

8.2.9 Returns to store

(a) All material returned to stock must be correctly prepared and packaged by the end-user;

(b) A goods return transaction is completed accurately on the system within the allowable goods receipt processing time of 48 hours or immediately upon return from inspection; and

(c) All material returned to stock must be returned against the cost center it was issued to.

8.2.10 Recording of returns to store

(a) Manual or computerized records for returns to store must include at least the following:

- Return date
- Return number
- Inventory operation (name of warehouse, stockroom or other)
- Item code (must be unique for "the same" items)
- Item description (will be linked to the item code)
- Item location (shelf, bin, etc.)
- Quantity returned
- Returned from code (cost center, project or job code)

- Notes (any comments regarding the return)
- Authorization no. and dated signature or electronic authorization of receiving officer
- Authorization no. and dated signature or electronic authorization of issuing officer.

8.2.11 Store to supplier

(a) Material and equipment destined to be returned to a supplier must be assessed and resolved speedily;

(b) Materials to be returned to a supplier will be coordinated and managed by the respective buyer;

(c) The buyer will be responsible for following-up with the respective supplier;

(d) Returns generated as the result of some fault on the supplier's part, will be processed with associated fees assumed by the supplier;

(e) The supplier will be responsible for uplifting the materials from the warehouse;

(f) The 3rd Party Security will check and confirm that all returns are accompanied by a valid Gate Removal Permit; and

(g) No materials will be physically issued out of the warehouse without:

i. all required documentation completed accurately and authorized;

ii. all required system transactions completed accurately and authorized; and

8.2.12 Stores Register

(a) Manual or computerized records for each item of inventory should include at least:

- Name of warehouse/store
- Item code, must be unique for the same item
- Item description linked to the item code
- Inventory control classification
- Item location (bin or shelf)

- Authorized person responsible for the item
- Purchasing unit of measure
- Unit of issue
- Alternative units of measure
- Consumption history for each financial year both quantity and value
- Suppliers both one-time vendors as well as contracted suppliers
- Lead time in days between order and delivery
- Safe stock level
- Minimum stock level
- Maximum Stock level
- Reorder level
- Economic re-order quantity
- Quantity on hand
- Unit price of quantity on hand
- Quantity on order (purchased not received)
- Quantity reserved (ordered by user not issued)
- Status (item on hold/damaged)
- Shelf-life and expiry indicator

## 8.3 STANDARD OPERATING PROCEDURES

8.3.1 The following standard operating procedures define the methods and procedures to be applied when performing inventory movements:

- Purchasing receipts
- Requests to Stores
- Issuing and Dispatch
- Returns to store
- Store to supplier

## CHAPTER 9: DISPOSAL AND WRITE-OFF

### 9.1 INTRODUCTION

9.1.1 **GRAP 12.14** requires inventory to be recorded in the financial records of an institution as follows:

*".14 Inventories shall be recognized as an asset, if and only if,*

*a) it is possible that future economic benefits or service potential associated with the item will flow to the institution; and*

*b) the cost of the inventories can be measured reliably.*

9.1.2 It is clear from the above that an institution may not recognize i.e. account for and physical hold, items of inventory that have no future economic benefit to the institution.

9.1.3 **Provincial Treasury Instruction Chapter 16A at Part 10** gives effect to the requirement of GRAP 12.14 as follows:

*"the accounting officer or accounting authority of an institution must ensure that the supply chain management system of the institution provides for an effective and efficient disposal management system which must minimize the holding of surplus and under-performing assets."*

### 9.2 THE NEED FOR AN EFFICIENT AND EFFECTIVE DISPOSAL MANAGEMENT SYSTEM

9.2.1. While an effective and efficient system of disposal management is required to *"minimize the holding of surplus and underperforming assets"*, it should be understood that the need to dispose of inventory is a direct indicator of the inability of management to plan adequately to achieve programme delivery objectives and the manner in which inventory is being managed.

9.2.2 Notwithstanding the above, there is a need to ensure that items that have no future economic benefit for the institution are identified and disposed of in a timely manner to minimize holding costs and that such items are disposed of in the most efficient manner and to the best economic advantage of the institution.

9.2.3 A key outcome of inventory management is maintaining optimal levels of inventory and minimizing inventory holding costs. Inventory holding costs are an important consideration when looking at the efficient use of resources. Inventory items stop providing economic value to an institution if they become obsolete, redundant or damaged. Among other adverse effects, it uses

valuable storage space, results in the inefficient utilization of resources because of the need to manage these items and ultimately inflates inventory for as long as the items are recognized in the accounting records of the institution.

## 9.3 REASONS FOR DISPOSAL

9.3.1 Inventory items are considered to have no future economic benefit when they become redundant, obsolete or damaged.

9.3.1.1 Redundant/Surplus stock

(a) Redundant stock is the term used to define inventory that has become surplus to the programme delivery objectives of the institution but may still generate income or be of economic benefit if sold.

(b) A critical inventory management decision arises when the institution finds itself with an excess of stock on hand. Stock holding literally translates into "money on the shelf" and "dead stock" (inventory not needed) represents cash flow that could have been used in other areas.

(c) The best way to eliminate the cost of surplus inventory is to avoid it all together. Ultimately inadequate materials planning and execution systems is central to the problem of surplus or excess stock. Chapter 7: Inventory Management Techniques, deals extensively with the various methods and systems available to improve efficiencies and Inventory Managers must have adequate knowledge and be capable of implementing these techniques to ensure that the institution is able to achieve programme delivery objectives.

(d) Where surplus inventory is identified, their disposal creates benefits in at least two ways; namely, the salvage revenue obtained from surplus unit disposal, and the savings in inventory holding costs since less stock is being held.

(e) However, careful consideration of both the quantity and timing of disposal of surplus stock is required. Due to ongoing operational usage of an item identified as surplus, the institution may eventually be required to repurchase units of this item. Eliminating too much of this item may thus force the institution into making repurchasing arrangements which increase the cost of ordering. As a result, a cost tradeoff exists between salvage revenue and reduced inventory holding costs versus ordering costs. Inventory managers must fully analyze inventory detail when making decisions to dispose of surplus stock.

9.3.1.2 Identifying redundant stock

(a) Given the aforementioned adverse impact on operational efficiency and cash flow, surplus stock must be identified and dealt with as quickly as possible.

(b) Identifying surplus can sometimes be a challenge. Some of the most obvious indications that the institution is potentially holding surplus stock is when the store runs out of physical space to store items or consumption analysis indicates that the item is not "moving". Although such simple decision rules can provide a quick basis for identifying surplus stock, analytical models can consider a variety of specific inventory details.

(c) The outcome of modeling efforts is not only identifying the quantity of surplus stock but also helps manage the tradeoff between disposing of surplus stock and order costs resulting from future need for the item.

9.3.1.3 Obsolete stock

(a) An item of inventory becomes obsolete when it is no longer appropriate for the purpose it was obtained due either to the availability of better alternatives or a change in user requirements. Obsolete inventory must be written-off as soon as it is identified.

(b) Obsolete items can create huge losses and in a more intuitive sense, obsolete inventory is a sign that the institution may have "fallen behind the times," because the demand for the item has clearly fallen. Alternatively, obsolete inventory might also indicate poor management practices, in that programme managers may have ordered too much of an item due to poor planning, poor inventory management, and inflexible operations or too much wishful thinking. "Hope" is not a strategy and programme managers must ensure that Resource Planning is performed by knowledgeable individuals supported by accurate and reliable information relating to product specifications.

9.3.1.4 Damaged Items

(a) Damaged items can be defined as items which are impaired or inadequate, flawed or spoilt and are not in the original state in which it was initially procured. Damaged items are usually identified through scheduled or spot checks on inventory or user intervention.

(b) Inventory could be damaged due to incorrect handling, wrong storage conditions or misuse. Damaged stock results in a direct financial loss for the institution and could adversely affect programme delivery.

(c) A key responsibility of warehouse managers is to safeguard inventory against theft and damages and the incidence of damaged stock is also a direct indication of the failure to safeguard inventory.

Additional Institutional Policy Provision required

(a) The institution must define methods to be used to determine surplus stock.

## .4 POLICY STATEMENT

9.4.1 Identification of Inventory for Disposal

(b) The relevant unit is responsible for the identification of redundant or obsolete (disposable) inventories / stock.

(c) The relevant unit must notify program managers of all items identified as redundant or obsolete (disposable) inventories / stock within their programs.

(d) Once disposable inventory / stock has been identified, the relevant program manager must notify, in writing, the relevant unit;

(e) The relevant unit must assess all inventory items for disposal and determine the appropriate quantity and timing for disposing of obsolete and surplus stock by considering both inventory holding and ordering cost and an analysis of usage;

(f) Should the analysis performed in (b) indicate a required change in item policy to prevent future surplus e.g. changes to minimum and maximum stock levels, the relevant programme manager must initiate the appropriate change control procedure to have the item policy amended in the inventory management system;

(g) Where item codes are used, the item codes of inventory identified as obsolete must be suspended in the inventory management system to prevent users from mistakenly selecting these item codes with future requests;

(h) All items of inventory approved for disposal must be removed to a dedicated and secured disposal area;

(i) In the case of damaged inventory items, these items must be physical removed to the disposal locations to prevent damaged inventory items from being issued to users;

(j) The inventory system must be updated to reflect the disposal storage bin number of all items as and when items are moved to the disposal location;

(k) In the case of redundant/obsolete items, the relevant unit must prepare a report with reasons as to why the item had become redundant/obsolete as well as possible options for utilizing such items to the best advantage of the state; and

(l) The relevant unit must submit the report mentioned in (k) above to the Disposal Committee;

9.4.2 The Disposal Committee

(a) The accounting officer or accounting authority or his/her delegate must appoint the members of the disposal committee;

(b) These members must be appointed in writing and must consist of a chair person and at least two additional members of whom one may be an official within the SCM unit;

(c) The members of the disposal committee will have a duty sheet and must be familiar with the policies and prescripts with regard to assets and inventory management;

(d) Any person that is in direct control of the inventory items cannot form part of the disposal committee;

(e) The Chairperson of the disposal committee must issue a Disposal Schedule indicating predetermined dates for the specific financial year when the committee will meet and evaluate identified disposals;

(f) The appointed chairperson of the disposal committee must formalize the predetermined dates and times of the disposal meetings for the financial year and this will be communicated to all parties;

(g) Ad hoc dates can be arranged should there be an urgent need for any ad-hoc disposal requests;

(h) Disposals must be performed on a quarterly basis during the financial year. The exact dates will be communicated in terms of the disposal schedule;

1st Quarter – April – June

2nd Quarter – July – September

3rd Quarter – October – December

4th Quarter – January – March

(i) If the disposal Committee is of the opinion that the item(s) which has been earmarked for disposal had become unusable due to possible negligence, an indication must be made on the schedule that the incident be investigated and possible action be taken against the implicated employee/practitioner. This incident should be isolated and noted in the minutes of the disposal committee meeting and dealt with as part of the loss control procedure;

(j) If the disposal committee is satisfied with the item on the disposal schedule, they must decide on a method of disposal which must be noted on the disposal register;

(k) Detailed records must be kept of all the activities of the disposal committee. These records should consist of at least, but are not limited to the:

- Agenda of the meeting
- Minutes of the meeting
- Appointment Letters, Inventory Stock Count Sheets indicating items for disposal and possible reasons for disposal
- Quarterly disposal schedules
- Attendance list and declaration of interest.

(l) The chairperson and all the members of the disposal committee must sign the disposal report and forward it to the delegated employee/practitioner responsible for authorization;

(m) System authorization can only be performed once the committee has recommended and the delegated employee/practitioner has approved and signed the disposal register.

9.4.3 Disposal Options

If disposal of any asset is approved, one of the following disposal options must be followed:

(a) Transfer to another institution at market related value

Market related value is the Rand value to be received from a third party in the open market.

(b) Transfer to another institution free of charge

This method entails transferring items to another institution free of charge. Should this method be chosen, the reasons for disposing of the item free of charge must be recorded and motivated by the Disposal Committee and specifically approved by the Accounting Officer or his/her delegate. The best interests of the State should be the deciding factor in all such cases.

(c) Selling

This is the process by which stock that is identified as redundant / scrap / obsolete is removed from stock and sold or issued to other institutions or to external vendors in an attempt to recoup some or all of the cost / value of the material;

i. The SCM manages the sale of the inventory and issues the tender or arranges an auction;

ii. The selling of items must at all times be done in a fair/competitive and scrupulous manner;

iii. Notice of the selling of items must be given in advance (At least 14 days prior to the actual selling date and all possible buyers must be informed);

iv. Items can be sold in one of the following categories:

- As a lot,
- As an individual item,
- As scrap. (If selling the items as scrap the correct SCOA item code should be used.)

v. In all cases, lot numbers must be allocated to each lot/item and a date and time must be stipulated on the notice of selling as to when potential buyers can view the items;

vi. The notice of selling must contain the following information:

- Closing time and date for bids,
- Date and time and place when and where the items can be viewed by potential buyers,
- The conditions of sale,

- Any other important information to protect the state against claims derived from the selling of state property.

(d) Selling per price quotation / competitive bid

Under this method advertisements are either placed in at least two local newspapers or the institution may use the Integrated Procurement System (IPS) as approved by the Provincial Treasury. Factors to be considered when deciding whether to offer the goods for quotations or competitive bids include:

i. The value of the asset to be disposed of;

ii. The age of the asset;

iii. The general attractiveness to the wider group of buyers; and

iv. The prospect of increasing the net sale value compared to an alternate method of sale.

(e) Selling per auction

Selling per auction is an option when:

i. A contract for auctioneering services exists;

ii. It is cost effective to procure the services of a private auctioneer;

iii. It is cost effective to auction the items to be disposed of.

(f) Selling as scrap

In cases where assets have no use or sales value in its original form but the material it is made of is of value e.g. wood, metal, etc. such material should be offered for sale in accordance with the delegations depending on the expected revenue to be made from the material. The sale of scrap must always be cost effective.

(g) Destruction of inventory

Destruction of inventory is undertaken when it is considered uneconomical to proceed with disposal by any other means. Destruction may be appropriate for items, which no longer have a sale value. Factors to be considered when deciding whether to offer the goods for destruction include-

i. the items are not fit to be used anymore e.g. it is a health risk;

ii. the items are valued at less than the cost of disposing of it through bids or price quotations or auctioning;

iii. neither the controlling institution nor any other institution can use the asset in its current form;

iv. the institution was unsuccessful in selling the items via price quotation / competitive bidding/ auctioning; and

v. it is reasonable to believe the items will not attract bids.

vi. Destroying can either be by incineration, burying, dumping in an allocated dumpsite or any other means that has been proven to not adversely affect the environment and is not contrary to any law, bylaw or regulation. Inventory identified as hazardous should be disposed of in such a manner as to satisfy the requirements of the relevant acts, regulations and Municipal by-laws.

(h) Trade-In

If appropriate, inventory items may be traded in on purchase of new store (inventory) items. In such cases the highest possible trade-in price is to be negotiated with the preferred supplier by the SCM Unit. Details of the trade-in should also be noted on the purchase requisition, which must be prepared for the new item to be purchased. The order placed should be for the net amount, as charged against the vote. The actual value of the new item should, however, be reflected on the relevant inventory system.

9.4.4 The disposal committee must decide on the method of disposal. The Chairperson and all the members must sign the disposal schedule as well as supporting documentation and forward it to the SCM Unit for authorization on the designated system in use;

9.4.5 The disposal committee must take into account the following before deciding on the method of disposal:

i. The physical condition of the item,

ii. The reasons as to why the must be disposed of,

iii. The most cost effective manner method of disposal;

9.4.6 Reporting

(a) The Disposal report must be available listing all Disposals reported and authorized by the Disposal Committee to date. The report must contain the following information;

- Item Code
- Item Description
- Quantity
- Reason for Disposal

- Method of Disposal
- Submission Date
- Approval Date
- Authorization Number
- Authorized Signature Name
- Average Price / Value

(b) A Monthly / Annual Report listing all Disposals for the current financial year should be available. The report must include the following:

- Item Code
- Item Description
- Quantity
- Reason for Disposal
- Method of Disposal
- Submission Date
- Approval Date
- Authorization Number
- Authorized Signature Name
- Average Price / Value
- Total Disposals for Financial Year

9.4.7 Segregation of duties

(a) There must be appropriate segregation of duties for disposal and scrapping for individuals between:

- The identification of goods to be disposed or scrapped;
- Assessing and approving the disposal and scrapping;
- The receipt of the proceeds; and
- The access to the accounting records.

9.4.8 Revenue from disposal of State assets

(a) All monies received from the sale of inventories must be paid into the Provincial Revenue Fund in terms of section 22(1) of the PFMA, Act 1 of 1999. When inventory are sold as scrap the correct SCOA codes needs to be applied to ensure that the value of inventory disposed of as scrap can be accurately accounted for in the Annual Financial Statements.

9.4.9 Disposal records

(a) Manual or computerized records for disposals should include at least the following:

- Disposal date;
- Disposal number;
- Disposal method (sale, etc.)
- Inventory operation (name of warehouse, stockroom or other);
- Item code (must be unique for "the same" items);
- Item description (will be linked to the item code);
- Item location (shelf, bin, etc.);
- Quantity disposed;
- Value disposed;
- Disposal cost (cost of arranging the disposal);
- Disposal revenues;
- Disposal profit / loss;
- Disposal reason code (obsolete, expired, slow moving, transfer);
- Notes (any comments regarding the disposal);
- Authorization no. and dated signature or electronic authorization of disposal officer;
- Authorization no. and dated signature or electronic authorization of higher authority.

## 9.5 STANDARD OPERATING PROCEDURES

9.5.1 The following standard operating procedures define the activities required for the identification of redundant, obsolete and damaged items and associated disposal procedures to be followed:

- Identifying redundant/obsolete items

- Preparing Disposal/Write off submission for the Disposal Committee
- Actions of Disposal Committee
- Updating Disposal Records
- Disposal Reports

# CHAPTER 10: WAREHOUSE MANAGEMENT

## 10.1 INTRODUCTION

10.1.1 Warehouse management is a critical component of an effective overall supply chain management system, ensuring that the correct product is delivered in the right quantity, in good condition, at the required time, and at minimal cost.

10.1.2 The effective management of warehouses is vital in minimizing costs and involves stock room organization, provides for the appropriate safeguarding of inventory while it is being stored against theft and damages and monitors the progress of inventory through the warehouse.

## 10.2 WAREHOUSE ORGANISATION

10.2.1 Warehouse organization on its own can greatly improve efficiencies and it is not necessary to have the latest and greatest warehouse layout, shelving, and lifting equipment. Simply keeping the warehouse neatly organized will improve productivity in replenishing inventory and locating and preventing items from getting misplaced or damaged. The goal should be to have a clear, visible space for all categories of inventory.

10.2.2 The use of the following warehouse organization methods are proven to have an impact on efficiency and overall warehouse operations:

10.2.2.1 Bins & Bin Labels

(a) Using bins to identify various things is a clean, organized way of keeping a store from getting cluttered. Identifying these bins with labels, helps control the chaos of inventory just piling up without a place to go.

(b) A bin can be a space in the warehouse created for specific purposes such as "returns" "damaged items", "return to supplier", and "disposal.

(c) The use of Bins is intended to assist in storeroom organization and item storage. While the Bin can be used to assist in locating the place where a particular class of item is stored it must not be confused with the inventory record of the item. Unless seamless integration between the bin location and the inventory system, whether manual or computerized exists, there will always be a delay between the removal or storage of an item in its bin location and the updating of the inventory record.

10.2.2.2 Shelving

(a) Where the size of the warehouse allows, shelves could be combined with bins to provide greater efficiency in warehouse organization. These shelves should be neatly organized with categories of product that are easily recognized by signs and clear, clutter free organization.

10.2.2.3 Hanging Racks

(a) Not everything will be suited for shelves or bins. Having hanging racks in the warehouse area can greatly contribute to the optimal utilization of space.

## 10.3 WAREHOUSE MANAGEMENT SYSTEMS (WMS)

10.3.1 A warehouse management system or WMS is a software platform that helps improve operational processes and track the storage and processing of inventory. The objective of a warehouse management system is to provide a set of computerized procedures for management of warehouse inventory with the goal of minimizing cost and fulfillment times.

10.3.2 There are many inherent advantages of implementing an automated inventory and warehouse management system. The greatest benefit of warehouse management systems being in operational performance which can be enhanced through integration with material handling automation to reduce the labor required and reduce the cycle time to process items. Benefits of WMS include:

(a) Increase in productivity and efficiency without adding labour;
(b) Reduce operating costs;
(c) Increase in inventory control and accuracy;
(d) More visibility within the warehouse;
(e) Improved order fulfillment accuracy;
(f) Reduced order pick times;
(g) Improved order fulfillment speed; and
(h) Increase capability to meet future business requirements.

10.3.3 The delegated authority of the institution is responsible for providing policy on warehouse management and stock room organization and ensuring that systems for inventory control, whether manual or computerized are in place.

10.3.4 The decision to invest in a WMS solution must consider the size of inventory operations (how much inventory is managed), type of inventory being held, the required resources and available funds.

## 10.4 SAFEGUARDING INVENTORY

10.4.1 Warehouse management also involves safeguarding inventory while it is being stored, against theft and damages.

10.4.2 Inventory could be damaged due to incorrect handling, wrong storage conditions or misuse. Manufacturers may provide specific instructions for the storage and handling of items. Particular attention should be paid to identifying and classifying inventory requiring special storage and handling to ensure that adequate provision is made to preserve the shelf life and integrity of the item.

10.4.3 Inventory must also be safeguarded against theft. Physical counts are detective controls but do not prevent theft. Safeguarding inventory should also include security measures to prevent unauthorized access to and removal of inventory from stores.

10.4.3 Failing or neglecting to safeguard inventory from theft and damages will result in a direct financial loss for the institution and could adversely affect programme delivery.

10.4.4 Inventory Audits

10.4.4.1 Effective controls reduce the risk of loss and help ensure that information is complete and accurate and financial statements are reliable. Assurance must exist that transactions related to inventory have been properly processed and that appropriate physical handling and control over inventory exist.

10.4.5 Physical Counts

10.4.5.1 A Physical Count is the process of verifying and counting inventory in an effort to ensure and improve inventory accuracy. The objective of physical counts is to guard against loss of inventory because of theft, accidental destruction, and errors. Physical counts can take place either Annually, Cyclical or on an Ad Hoc Basis.

(a) Annual physical counts ensure that by the end of the financial year, depending on internal financial / audit requirements, everything in inventory will have been counted;

(b) Cycle Counts is the process of continually counting inventory in an effort to ensure and improve inventory accuracy. Cycle counting involves setting up a predefined route and number of items to count per scheduled period per material category. By the end of the financial year, depending on internal financial / audit requirements, everything in inventory will have been counted;

(c) Ad Hoc Counts is the process that is followed when any documented inventory discrepancies found during normal binning and picking operations triggers a priority cycle count for that item or location.

10.4.6 Stock Verification & Adjustment

(a) Stock Verification & Adjustment is the process that is performed in conjunction with the Cycle Counts / Ad Hoc Counts or Physical Inventory Count process. A Recount process flows into the Ad Hoc Count process from the Stock Verification process to facilitate the counting of materials that were flagged for recount due to inventory discrepancies or on instruction from the warehouse supervisor.

(b) The purpose of a stock verification and adjustment is to maintain current, accurate inventory records. Stock adjustments ensure:

i. physical stock quantities reflect system inventory reports and records;

ii. that the correct approval process is followed when making any stock adjustments;

iii. the effective measurement and management of stock accuracy of the System; and

iv. variances are identified in a count and investigated and applicable remedial actions put into place.

(c) The Stock Verification & Adjustment process entails:

i. capturing the results of the count;

ii. identifying and investigating the reason for any count variances;

iii. approving and performing an adjustment to produce an accurate record; and

iv. posting and publishing the results of the count.

10.4.7 Inventory Tolerance Levels

(a) Inventory accuracy is a critical and highly sensitive area affecting inventory control. It is not unrealistic to expect that the physical count and the record will not exactly match for every item, nor is it practical. Specific items may naturally reduce in measure (shrinkage) for example, liquids and gases or items that typically are weighed. There is also often a difference in the order quantity/unit and the quantity/unit received. Setting item tolerance levels is a common inventory management practice used to accommodate these differences and to avoid unnecessary discrepancies during physical counts.

(b) On the other hand when tolerance limits are set too high or do not exist an excessive difference value may be posted that is inconsistent with management's intentions.

## 10.5 POLICY STATEMENT

10.5.1 The accounting officer or accounting authority of an institution will ensure that the logistics management system of the institution provides for the following:

(a) Systems for recording inventory transaction:-

i. A system whether manual or computerized for each warehouse, storeroom or inventory operation to record orders, receipts, issues and returns;

ii. Procedure manuals will be maintained for systems whether manual or computerized:

(b) Warehouse organization:-

i. Adequate institutional arrangements for inventory holding must include the following:

- a large enough space to ensure all required items can be received, stored and issued efficiently but without too much unused space;
- a layout which supports efficient receipt, storage and issues including storing faster moving items closer to access points;
- shelving and other storage facilities suited to the layout and the storage requirements for inventory items; and
- appropriate equipment for moving and lifting and otherwise storing and retrieving items.

(c) Safeguarding Inventory:-

i. Preventive controls to safeguard inventory against theft and damages:

- Physical safeguarding of inventory through controlling movements and safeguarding in storage or daily operational activities; and
- Physical protection systems can be in the form of procedures and actual devices or equipment;

ii. To detect if any theft and damages occurred the following control measures must be implemented:

- Inventory Cycle Counts of total inventory per quarter and an annual complete stock take on year-end;

10.5.2 The following general rules apply:-

(a) No unauthorized person shall obtain entry to premises, buildings or containers where goods are kept, unless accompanied by the responsible official;

(b) A key register must be instituted for effective control over keys for daily use by delegated employee/practitioner. The delegated employee/practitioner must keep a duplicate key of all cabinets, cupboards, padlocks and other storage places, separately in a secure place;

(c) Inventory items must be grouped in terms of the level of physical protection required e.g. Hazardous or perishable;

(d) Hazardous goods must be handled in a manner that conforms to policies, the manufacturer's instructions and to legislative requirements as defined in the Occupational Health and Safety Act;

(e) Hazardous materials must only be handled / moved by delegated / trained employee/practitioner;

(f) All Hazardous Materials must be stored in appropriate facilities / containers – and these must be clearly marked / labeled;

(g) Personal Protective Equipment ("PPE") must be used at all times when handling / moving hazardous materials (as required);

(h) Breakable items must be stored in such a manner that breakages are limited to the absolute minimum;

(i) Fire extinguishing equipment must be available in all stores. Such apparatus shall be serviced regularly and the date of service indicated thereon;

(j) Access to warehouses where valuable articles are stored, must be restricted to the absolute minimum and the necessary safety measures must be taken with the receiving and issuing inventory;

(k) Shelf utilization must be effective and shelves must not be overloaded, whilst injudicious high stacking exceeding the fire and safety regulations, is forbidden;

(l) Smokers are forbidden to smoke inside any rooms where stock is kept. Notices to this effect must be affixed at a conspicuous place at each such storage area. This notice must consist of a white background with red letters on it;

(m) Continuous attention must be paid to the possible presence of rodents and insects, which can damage stores. Warehouses must be rodent-proof;

(n) Items of inventory identified for disposal:-

i. Obsolete/redundant or damaged stock must be relocated to the disposal location pending the physical disposal of the product from the storage facility.

(o) Quality Inspection:-

i. The institution must define categories of items that are subject to quality control;

ii. Only duly appointed and knowledgeable officials may complete the inspection function.

iii. No unauthorized employees/practitioners are allowed in the Inspection department / area except the delegated employees/practitioners.

iv. A quality control plan will define standards for quality control including but not limited to:

- Items subject to quality inspection
- Inspection standard i.e. 100%, sample size
- Inspection officer
- Turn-around times

v. SCM must provide the delegated employee/practitioner in the quality inspection unit with delivery schedules to facilitate planning for quality inspection;

- Materials identified through inspection as non-conforming to quality criteria and engineering specifications will be stored in the designated quarantine area of the store;

- All materials that have failed quality inspection must be quarantined immediately pending a decision on the most appropriate disposal route;

- The delegated employee/practitioner will inspect materials utilizing engineering drawings / specification documents and the contract, generated per material, as a reference at all times;

- The correct sample of products per supplier must be assessed per shipment of product requiring inspection. This is determined per supplier and is specified by the delegated quality inspection employee/practitioner;

- Quality control plans must be updated with the results of the quality inspection to confirm that quality inspection takes place according to the required standard.

(p) Binning

i. Only duly appointed employees/practitioners will determine / authorize changes of the binning location;

ii. All materials must be stored within a recognized bin within the warehouse, and this must be reflected on the corresponding location on the system whether manual or electronic;

iii. The delegated employee/practitioner completing the binning procedure must bin the material correctly, in the indicated bin location, as per the binning transfer order or Goods Receipt Slip presented per material;

iv. Bin locations which are found to be full, or have a different material located therein, must be brought to the attention of the delegated employee/practitioner who must suggest an alternative bin location;

i. Under no circumstances will the delegated employee/practitioner allocate an alternate bin location for the material unless otherwise instructed by the system or delegated employee/practitioner authorized to do so; and

ii. For any binning exceptions that occur, corrections must be authorized by the delegated employee/practitioner.

(q) Picking and Packing

i. Only duly appointed employees/practitioners must complete the picking function;

ii. Picking activities must be planned and controlled by storage location;

iii. Variances must be immediately escalated and audited and must lead to corrective action to ensure that the variances are not repeated;

iv. The system must be updated immediately to reflect the successful completion of the picking task;

v. Each order must be prepared and packaged as per the end-users instructions / requirements or as required by the transporters.

(r) Cycle Counts / Ad Hoc Counts

i. Cycle counts must be performed timeously as per the cycle count schedule by the appropriate and delegated employees/practitioners;

ii. A Recount process must be initiated from the Stock Verification process to facilitate the counting of materials that were flagged for recount due to inventory discrepancies or on instruction from the delegated employee/practitioner;

iii. Appropriate segregation of duties must exist between initial counting and the recount process;

iv. Cycle counts must be completed as per the formal Cycle Count / Ad Hoc Count procedure document;

v. Explanation / reasons must be investigated / determined independently for all variances; and

vi. The System must updated timeously and accurately on completion of the count.

(s) Annual complete stock take

i. At least one stock take per annum must be conducted by independent counters (staff not employed in the warehouse or stockroom being counted);

ii. The Auditor-General (AG) must be provided with the scheduled dates of all stock takes at least one calendar month in advance to allow them to observe the stock take if necessary. Written acknowledgement by the AG must be kept for auditing purposes;

iii. Physical Inventory Counts must be performed timeously as per the Physical Inventory Count Schedule by the delegated employee/practitioner;

iv. The delegated authority must appoint, in writing, competent persons to take stock and to report their findings. To ensure proper segregation of duties, the person appointed must not directly be in charge of the store;

v. Physical Inventory Counts must be completed as per the formal Physical Inventory Count Procedure document;

vi. Explanation / reasons must be investigated / determined independently for all variances;

vii. The System must be updated timeously and accurately on completion of the count;

viii. The following officials must sign the stock take certificate:

- The Chairperson of the stock take committee

- The relevant store manager
- The head of the SCM Unit
- Cost Centre Manager

(t) Minimum Requirements for stock take.

i. When conducting stock take, information about the stock take must be recorded either manually or electronically. At least the following must be recorded:

- Inventory operation (name of warehouse, stockroom or other);
- Stock take name (e.g. quarterly count of A items for quarter ended June 2013);
- Date and time of count;
- Authorization number and dated signature or electronic authorization of counter;
- Authorization number and dated signature or electronic authorization of supervisor;
- Item code (must be unique for "the same" items);
- Item description (will be linked to the item code);
- Item location (shelf, bin, etc.);
- Quantity on hand as per inventory records (manual or computerized system);
- Quantity on hand as per count in good condition;
- Quantity on hand as per count in poor condition (expired, obsolete, unserviceable etc.);
- Variance (adjustment required to manual or computerized records);
- Second count carried out (indicate y/n); and
- Variance reason

(u) Inventory loss control

i. This is the process that results from a loss/discrepancy usually as a result of theft. Items that cannot be verified must not be accounted for in the books of the institution;

ii. When discrepancies are identified and subsequent investigation confirms the loss, the normal loss control procedure must be instituted as the continued recognition of the

item in the inventory will distort both financial data and impact on inventory management procedures;

iii. The disjuncture between the requirement to remove these items from the inventory and the time it takes to conclude the loss control procedure is acknowledged, nevertheless the following will apply:

- An item of inventory that cannot be verified or accounted for must be placed into suspense allowing for the item to be excluded from inventory valuation and future inventory counts and to prevent the item from being included in resource planning techniques such as materials requirement planning;

- The item is removed from the inventory records when the loss control procedures is finalized.

(v) Item Tolerance Levels

i. The institution will assess all categories of inventory and define items for which tolerance limits may be defined;

ii. It may be necessary to accumulate sufficient historical data to determine the acceptable tolerance limits;

iii. Transactions above the limits require further approval processing;

iv. Management will ensure monitoring for changes to the configuration of these tolerances;

(w) Stock verification adjustment

i. Appropriate segregation of duties must exist between the counting and the stock verification & adjustments process;

ii. Inventory accounting adjustments may not be carried out unless the correct procedure has been followed and all the delegated powers of authority have been adhered to;

iii. Explanation / reasons must be investigated / determined independently by the Logistics Manager and the Warehouse Supervisor for all variances;

iv. The following additional information must be recorded for each adjustment:

- Date and time of adjustment;
- Authorization number and signature or electronic authorization of adjuster;
- Adjustment;
- Reason for adjustment; and
- Action required to follow up discrepancy.

(x) Organization of responsibilities for stock taking

i. Stock take officer - A knowledgeable employee/practitioner must be appointed as the stock take officer. The functions of the stock take officer include inter alia the following:

- Determine a stock take programme;
- Ensure that all accounting transactions have been finalized;
- Appoint stock take teams;
- Coordinate stock take activities at storerooms and inventories at all levels;
- Deal with discrepancies by ensuring investigation of the causes; and
- Submit reports.

ii. Stock take teams - Teams must be appointed to do stock take at storerooms and on inventories. The functions of the stock take team include inter alia the following:

- Execute stock take programme;
- Investigating discrepancies;
- Prepare Adjustment Vouchers for authorization;

## 10.6 STANDARD OPERATING PROCEDURES

10.6.1 The following standard operating procedures define the activities required to implement warehouse management strategies to control and safeguard inventory:

- Primary Warehouse Operations
- Physical Counts

# CHAPTER 11: PERFORMANCE MEASUREMENT

## 11.1 INTRODUCTION

11.1.1 Inventory is an asset. As such, it must be managed with respect to several criteria. When the institution looks to measure performance with respect to inventory management, it must establish key performance indicators, commonly referred to as KPI's. These key performance indicators allow the institution to not only better manage inventory, but to better establish the priorities within inventory management practices. In addition, these performance indicators are also used to measure how well inventory managers isolate costs and mitigate their effects.

## 11.2 POLICY STATEMENT

11.2.1 Inventory key performance indicators must be identified and agreed upon by the relevant stakeholders;

11.2.2 These KPI's must be monitored periodically and compared to an agreed benchmark;

11.2.3 If any variations occurs a root cause analysis must be done and action be implemented and followed up;

11.2.2 The following represent the minimum KPI's that must be monitored:

(a) Monthly Inventory Value

The value of inventory at the end of the month is a strong indicator of the institution's ability to match its inventory levels to its operational needs. The institution must adhere to stringent limits on the value of inventory within a given month. This must be extended to analyzing the inventory value over a quarter. This requires set limits on inventory value relative to the fluctuating demands.

(b) Value of Part Consumption

One of the key performance indicators must include the ability to match part consumption with operational requirements. In this case the approach is to measure the continued supply of these materials and parts and to ensure no operational delays occur because of a lack of supply. The KPI in this case measures the incidence and duration of a delay caused by a lack of available materials & parts.

(c) Incidence of Out of Stock

The incidence of "stock-outs" is also a key performance indicator. However, in this case, it's the measurement of the lack of finished product inventory needed for operations. Understanding this KPI involves measuring the length of time of the stock-out and its impact on costs and service delivery for example:

- Costs incurred to expedite freight to rush parts and materials in: and
- Any service delivery delays resulting from the non-availability of materials.

(d) The Value of Obsolete & Damaged Inventory

This KPI measures the costs relative to obsolete and damaged inventory. The institution must set goals and objectives predicated on controlling the incidence of damaged inventory caused by poor handling and ensuring proper item specification and demand planning is defined to prevent obsolescence. Reducing the impact of obsolete & damaged inventory will allow Institution's to reduce inventory costs. In most cases, damaged and obsolete inventory can only be sold as scrap.

(e) Incidence of Product Returns

This key performance indicator measures the incidence of products returned to suppliers and the impact on costs and service delivery. These include:

- The original cost to purchase parts and materials;
- The cost to take these products back; and
- Impact on service delivery (delays)

## 11.3 STANDARD OPERATING PROCEDURES

11.3.1 The following standard operating procedures define the activities required to define key performance areas:

- Define KPI's
- Monitor KPI's

# CHAPTER 12: RISK AND INTERNAL CONTROL FRAMEWORK

## 12.1 INTRODUCTION

12.1.1 **Provincial Treasury Instruction 16A at Part 13.1.1** prescribes the following with regard to risk management:

*"The accounting officer or accounting authority must ensure that the supply chain management system of the institution provides for an effective and efficient system of risk management."*

12.1.2 In particular, **PTI 16A at Part 13.2.2** further prescribes that the format of the internal control framework must provide for:

*(a) The entire virtuous cycle of supply chain management;*
*(b) Identify risks;*
*(c) Control activities;*
*(d) Type of control activity (management, administrative and accounting);*
*(e) Preventative, detective and corrective control activities;*
*(f) Responsible employee; and*
*(g) Management assessment.*

12.1.3 Integration with Supply Chain Management.
Inventory Management is an integral component of supply chain management and the inventory management policies will be contained within the Supply Chain Management System of the institution.

12.1.4 The life cycle of supply chain covers the following areas:

- Demand Management
- Acquisition
- Logistics Management
- Disposal Management
- Risk Management
- Regular Assessment of supply chain performance

12.1.5 Effective controls reduce the risk of loss and help ensure that information is complete and accurate and financial statements are reliable. The Risk and Control Framework detailed in Table 7 provides assurance that the institution's policies adequately set out the procedural requirements for inventory management, identified the risk and necessary controls to mitigate against risk.

12.1.6 The risks and controls to mitigate against risks are detailed for each element in the inventory management life cycle, which is as follows:-

- Planning and Budgeting for Inventory
- Inventory Classification
- Inventory Recognition, Measurement and Disclosure
- Inventory Management Techniques
- Inventory Movements
- Disposal and write off
- Warehouse Management
- Performance Measurement

## 12.2 FORMAT OF THE RISK AND CONTROL FRAMEWORK

12.2.1 The Risk and Internal Control Framework must be reviewed to provide for institutional specific identified risks and control measures.

12.2.2 Each table begins with a description of the particular chapter (lifecycle phase) covered in this Policy, identifies the major risks and defines the control measures to mitigate these risks and indicates whether the control is a preventative detective or corrective measure.

12.2.3 Classification of Controls

(a) In order to understand the wide scope of internal control, the following classification of internal controls provided below is used to define the risk and control framework:

i. Management Controls (M)

These exist to ensure that the organization, structure and systems support the policies, plans and objectives of the institutions responsible for the provision of public services and also operate within the laws and regulations.

ii. Administrative Controls (A)

These should be in place to ensure that policies and objectives are delivered in an efficient and effective manner and that losses due to waste, theft, error, extravagance or misappropriation etc. are minimized.

iii. Accounting Controls (AC)

These are required to ensure that resources allocated to institutions are accounted for fully and transparently and documented properly.

iv. Information Technology Controls (IT)

Operations are heavily reliant on IT systems and it is essential that these operate in a reliable and secure manner.

(b) Each control type can be preventative, detective or corrective in nature:-

i. Preventative controls (P)

Prevent errors and irregularities and if properly enforced, are usually the most effective type of control. There is an old saying that "prevention is better than cure" and indeed this is true.

ii. Detective controls (D)

Designed and implemented to uncover or detect errors and irregularities after they have occurred. Another old saying, which is also true, is "it is no use closing the stable door after the horse has bolted." However at least you will have detected that the horse has bolted, and closing the stable door will prevent other horses from bolting.

iii. Corrective controls (C)

Operate together with detective controls. It is clearly no use detecting an error or irregularity without correcting the error/irregularity.

## 12.3 RISK AND CONTROL FRAMEWORK FOR INVENTORY MANAGEMENT POLICIES

12.3.1 The inventory management life cycle, associated risks and controls are to be read in conjunction with Chapter 16A of the Provincial Treasury Instructions, 2012 issued in terms of section 18(1)(c) of the Public Finance Management Act (PFMA), 1999.

**Table 7: Risk and control Framework**

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 1 | Integration with Supply Chain Management. Inventory Management is an integral component of supply chain management | 1.1 Inventory Management Policies are outdated and not aligned to SCM policies. | 1.1.1 Inventory Management Policies must be reviewed annually and adjusted as necessary with a view to continuous improvement in inventory management | | P | | | | |
| 2 | Planning and budgeting for Inventory | 2.1 Plans to acquire goods or services are not linked to the institution's strategic plan and budget | 2.1.1 Supply chain strategy exists for five years to support expenditure for goods and services included in the strategic plan and budget of the institution. | | P | | | | |
| | | | 2.1.2 Annual operations plan (demand plan) are scrutinised by a delegated official to ensure that acquisition plans are realistic. | | | | | | |
| | | | 2.1.3 Appropriate demand forecasting and materials requirements planning is carried out. | | | P | | | |
| | | 2.2 Service delivery is interrupted as essential goods or services are not available when required | 2.2.1 A delegated official reviews the annual procurement plan to confirm that appropriate lead times have been incorporated. | | | P | | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 2 | Planning and budgeting for Inventory | 2.3 Goods or services are acquired which were not planned or budgeted for | 2.3.1 A delegated official verifies the acquisition of goods or services against operational plan (demand plan) prior to the order being placed. | | | P | | | |
| | | | 2.3.2 Materials Requirements Planning and Demand Forecast Parameters are reviewed monthly by programme managers | | | D | | | |
| 3 | Inventory Classification | 3.1 Assets are incorrectly classified as current or noncurrent assets | 3.1.1 All Inventory Items will be assessed against the criteria and definition of inventory as stated in GRAP 12 | | | | P | | |
| 4 | Inventory recognition, measurement and disclosure | 4.1 Incorrect Calculation of inventory costs result in incorrect financial disclosure and reporting. | 4.1.1 Inventories costs will be recognised accordance with GRAP 12.14 | | | | P | | |
| | | 4.2 Inventories are incorrectly disclosed in the annual financial statements and associated disclosure. | 4.2.1 Inventories will be measured for reporting purposes according to accrual accounting concepts or according to the Preparation Guide to Annual Financial Statements | | | | P | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 5 | Inventory Management Techniques | 5.1 Inventory Management inefficiencies resulting in increased inventory holding costs | 5.1.1 The institution will determine the appropriate inventory management approach, whether manual or computerised for each category of inventory item. | | P | | | | |
| | | 5.2 Non availability of stock resulting in failure to deliver service | 5.2.1 Inventory Management Approaches will include stock levels, reorder quantities and timing and safety stock levels. | | P | | | | |
| | | 5.3 Optimum stock levels are not determined | 5.3.1 Minimum and maximum stock levels and lead times are fixed, regularly reviewed and approved by a delegated official | | | P | | | |
| | | 5.4 Inventory is procured that does not meet with specifications | 5.4.1 Supplier Performance Measurement will be performed with regards to:<br>Timeliness<br>Accuracy of quantity and quality delivered to order | | | P | | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 6 | Inventory Movements | 6.1 Inaccurate inventory data resulting Non availability of inventories and failure to deliver services. | 6.1.1 Inventory systems must be in place whether manual or computerised for each warehouse or operation to record orders, receipts and returns and issues. | | P | | | | |
| | | | 6.1.2 All inventory movements will be updated as and when movement occurs. | | | P | | | |
| | | | 6.1.3 Inventory management policies define requirements for controlling all movement into, from and between stores including:<br>• Purchase Receipts<br>• Inventory Issues<br>• Inventory returns to Store | | P | | | | |
| | | | 6.1.4 Periodic physical inventory counts are performed | | | D | | | |
| | | 6.2 Inventories that have no future economic benefit are not identified and inventory holding costs are inflated | 6.2.1 All Items will be identified against the appropriate criteria for disposal | | | P | | | |
| | | | 6.2.2 Periodic physical inventory counts are performed that identify redundant/obsolete and damaged goods. | | | D | | | |
| | | | 6.2.3 Regular assessments of consumption will be performed to determine necessary stock levels to prevent redundancy | | | D | | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 7 | Disposal | 7.1 Items identified for disposal are not disposed of to the best financial advantage of the institution | 7.1.1 All items identified for disposal will be disposed of in accordance with the approved methods of disposal | | | P | | | |
| | | 7.2 Obsolete/redundant assets are not disposed of within the financial year | 7.2.1 Disposal Policies will provide for the establishment of disposal committees and will include:<br>• Members to be appointed<br>• Duties and responsibilities of members<br>• Frequency of meetings<br>• Disposal Schedules | | P | | | | |
| 8 | Warehouse Organisation | 8.1 Warehouse organisation does not adequately safeguard inventory | 8.1.1 Mechanism to prevent theft, damage, wastage and misuse must be defined for each group of inventory in each warehouse or operation. | | P | | | | |
| | | 8.2 Inadequate warehouse organisation results in operational inefficiencies | 8.2.1 The requirements for inventory operations will be reviewed annually and consider:<br>• Warehouse size compared to space required<br>• Warehouse layout<br>• Storage facilities such as bins and shelves<br>• Safety requirements<br>• Plant and equipment require for storing and retrieving stock | | P | | | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 9 | Performance Measurement | 9.1 Non-compliance with policies and procedures | 9.1.1 As part of the annual review of inventory policies the performance of each warehouse, stock room or operation will be reviewed in terms of:<br>• Efficiencies achieved in reducing total annual inventory costs<br>• Obsolete, damaged or spoiled items<br>• Stock outs during the year<br>• Service disruptions resulting from stock outs<br>• Stock take discrepancies<br>• Inventory holding costs<br>• Losses incurred<br>• Safety breaches<br>• Accuracy and timelines of recording transactions<br>• Record keeping<br>• Accuracy and timeliness of reports<br>• Compliance with procedures<br>• Training and retention of staff | | | D | | | |

# VOLUME 3: INVENTORY STANDARD OPERATING PROCEDURES

## CHAPTER 13: DEMAND PLANNING

### 13.1 INTRODUCTION

13.1.1 Institutions are required to produce multi-year strategic plans and budgets which are underpinned by detailed operational plans. Inventory demand management is the process through which the strategic and operational commitments of the institution are translated to its future requirements. During this process, programme managers ensure that service delivery or project implementation can be delivered according to plan by determining the exact inputs of materials and consumables required to meet specific service delivery objectives.

### 13.2 DEMAND PLANNING PROCEDURES

13.2.1 It is critical that forecasts of demand and resources available consider both dependent and independent demand and are as accurate as possible. These aspects must be used to establish a resource plan that breaks down operational requirements into materials and supplies required to deliver the schedule of services detailed in the operational plan as well as an assessment of cash flow implications.

13.2.2 There are a number of factors which could affect the operational plan and hence demand requirements. These include capacity limitations, break downs, and unforeseen demand for services for example, an outbreak of disease or natural disasters. On a monthly basis both dependent and independent demand is monitored and adjusted where necessary to ensure that the institution can respond to the change in demand for inventory.

13.2.3 The following demand planning activities are covered in this standard operating procedure:

(a) Aligning services to be delivered to the institution's strategic plan.
(b) Revise preliminary planned independent inventory requirements for finished goods.
(c) Revise planned independent requirements for manufactured goods.
(d) Revise Schedule of Planned Independent Inventory Requirements.

(e) Reviewing the prior period's consumption data and identifying any anomalies.

(f) Define Item specifications.

(g) Preparing the budget and cash flow estimates.

(h) Conducting an Operations Planning meeting with all relevant stakeholders to reach consensus on the proposed Planned Independent Requirements.

(i) Monitoring and adjusting planned inventory requirement.

**Figure 7: Diagrammatic representation of the demand planning process.**

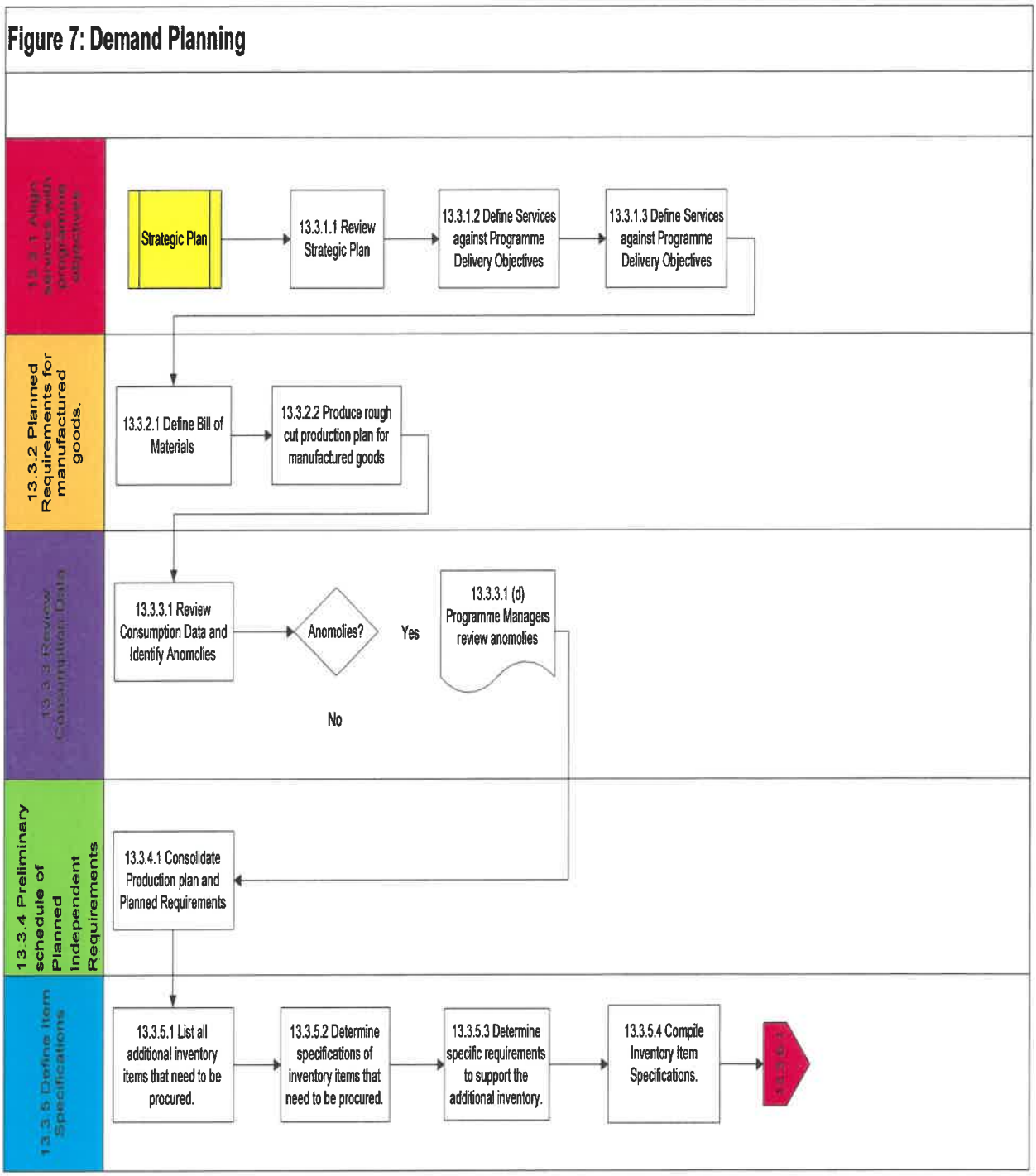
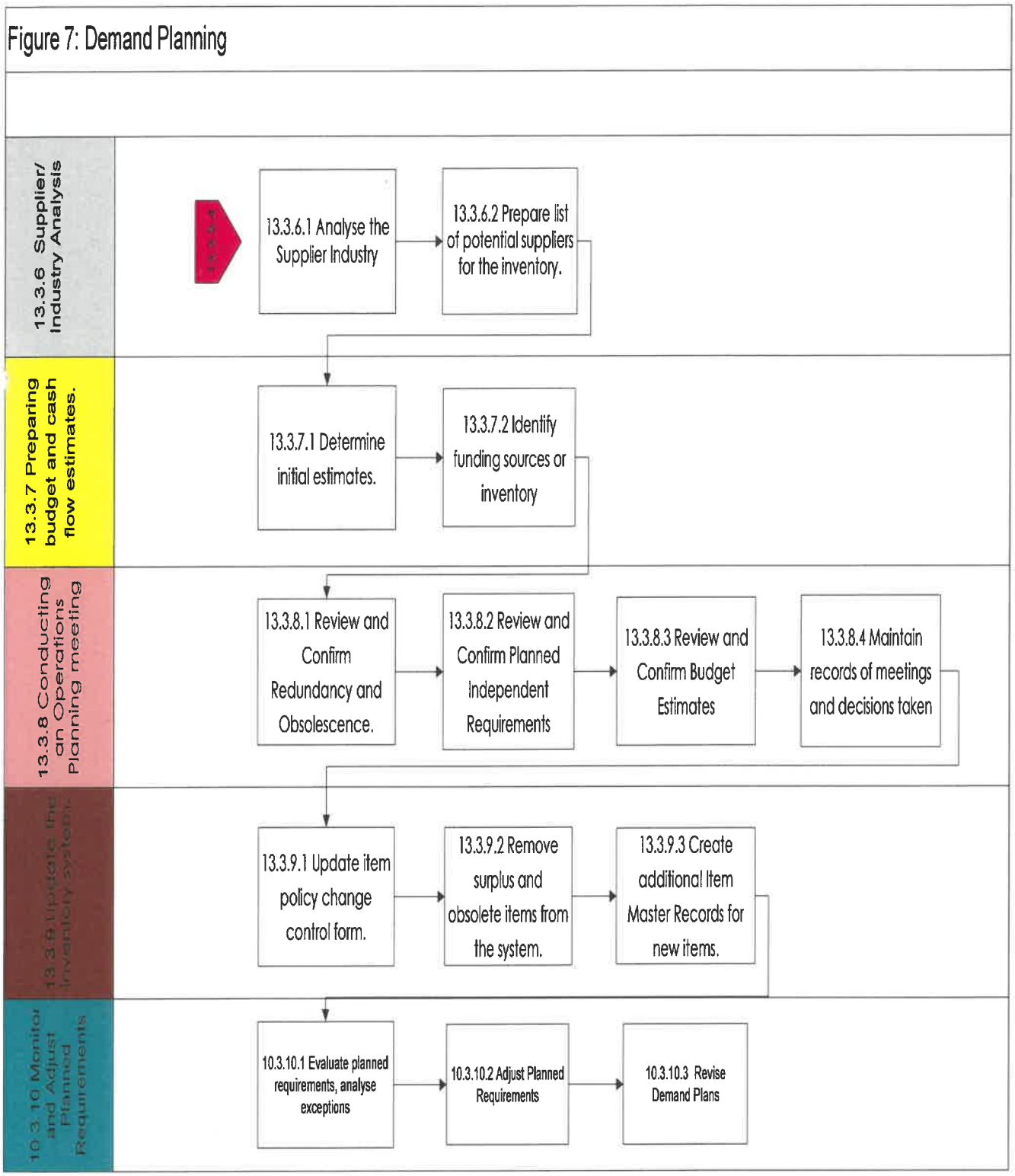


Figure 7: Demand Planning



## 13.3 PROCEDURES

The following section details the steps required to complete demand planning procedures as depicted in Figure 7.

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.1 Align services to be delivered with programme strategic objectives.<br><br>Objective:<br>(a) Aligning services to be delivered with the institutions programme strategic objectives.<br><br>Outcome:<br>(a) Identification of a service delivery program leading to specific actions to acquire inventory that is needed for programme delivery. | 13.3.1.1 Review all programme objectives of the institution for the planning period as set out in the strategic plan of the institution.<br><br>13.3.1.2 Establish which services will be executed to deliver the programme objectives.<br><br>13.3.1.3 Review the Planned Independent Inventory Requirements identified to execute services. | Technical Specialist/ Knowledgeable employee/ practitioner<br><br>Strategic Plan | | Programme Strategic Objectives |

| SUB PROCESSES | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.1.1 | Utilising the institution's Strategic Plan, review all programme strategic objectives of the entity for the next 5 years.<br><br>This will be done by Reviewing the T_IM_DM_01 Programme Strategic Objectives prepared for the planning period to the strategic plan of the institution. | Strategic Plan | | Programme Strategic Objectives |
| 13.3.1.2 | Review which services will be executed to deliver the strategic objectives per programme.<br><br>This task requires the identification and confirmation of specific functions/projects against the programme strategic objectives defined e.g. Vaccination drive aims to provide 500 free vaccines, 5km stretch of road maintenance required.<br><br>(a) Identify services/projects that are no longer planned;<br><br>(b) Identify new programme objectives; and<br><br>(c) Update template T_IM_DM_01 Programme Strategic Objectives | Strategic Plan | | Programme Strategic Objectives |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.1.3 | Review the Planned Independent Inventory Requirements identified to execute the services identified in 13.3.1.2 for accuracy and relevance.<br>(a) Identify inventory that will no longer be required;<br>(b) Identify additional inventory to be acquired; and<br>(c) Revise the Planned Independent Inventory Requirements indicating the following against each item of inventory:<br>• Item Required<br>• Quantity required<br>• When Required<br>• Where required<br>**Note:**<br>The above requirements are defined for finished goods whether internally manufactured or sourced externally. | Strategic Plan<br>Programme Strategic Objectives | | Planned Independent Inventory Requirements Finished Goods |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.1.4 | Analyse consumption/usage per item to determine whether items should be kept in stock.<br><br>Historical data should ideally be extracted electronically to facilitate analysis. At a minimum the following data will be required:<br><br>• Item Code<br>• Item Description<br>• Purchase price<br>• Quantity on Hand<br>• Consumption per month<br>• Warehouse or store<br><br>(a) Using Consumption Analysis analyze the consumption of each item of inventory per month for the prior period;<br><br>(b) Identify any anomalies. Identify peaks, stagnation or shortages that may have occurred during the period per item;<br><br>(c) Identify, redundant and surplus inventory;<br><br>(d) Submit the Consumption Analysis to programme Managers for review. | Inventory System – Historical Data | | Consumption Analysis |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.2 Supplier/Industry Analysis<br><br>Objectives:<br>(a) An analysis of the past expenditure may assist in determining the manner in which the institution fulfilled these needs in the past. Proper planning by line managers at this stage will ensure that items are acquired in a manner that is consistent with the institutions strategic objectives.<br><br>Outcomes:<br>(a) Improve the quality and timeliness of the delivery of items;<br><br>(b) Value for money | 13.3.2.1 Analyse the Supplier Industry and past expenditure by extracting/obtaining a list of suppliers that currently provide similar items and performing a supplier analysis per inventory.<br><br>13.3.2.2 Prepare list of potential suppliers for the inventory. | Technical Specialist/ Knowledgeable employee/ practitioner<br><br>Inventory System<br><br>Supplier Performance Data | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.2.1 | Analyse the Supplier Industry and past expenditure by extracting/obtaining a list of suppliers that currently provide similar items and performing a supplier analysis per item with specific reference to:<br>• Items procured<br>• Specifications<br>• Frequency<br>• Purchase price<br>• Delivery lead times<br>• Warrantees and guarantees<br>• Physical Location of supplier<br>• Supplier available distribution channels<br>• Return per supplier | SCM system<br>Purchasing Trend Analysis report<br>Supplier Database | | Supplier Performance Analysis |
| 13.3.2.2 | Using the Supplier Analysis, prepare list of potential suppliers that can best deliver value for money. | | | Supplier Performance Analysis |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.3 Preparing budget and cash flow estimates.<br><br>Objective:<br>(a) Providing valuable cost information to decision makers to consider policy options for service delivery.<br><br>Outcome:<br>(b) Additional inventory is only funded where the need has been identified, investigated, evaluated and thoroughly substantiated.<br><br>(c) Resource plans that clearly indicate the costs required to fund inventory acquisition, cash flow and how the funds will be sourced. | 13.3.3.1 Identify inventory required for the planning period to determine initial estimates.<br><br>13.3.3.2 Identify funding sources for inventory portfolio over the planning period. | Technical Specialist/ Knowledgeable employee/ practitioner | | |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.3.1 | Identify inventory requirements for the planning period to determine initial estimates.<br>(a) Obtain the Planned Independent Inventory Requirements Schedule, detailing inventory requirements.<br>(b) Calculate costs of inventory for the planning period.<br>(c) Define cash flow requirements for the next financial period. | Planned Independent Inventory Requirement Schedule | | Demand Management Plan |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.3.2 | Finalise the Budget Estimates utilising Demand Management plan and Funding Sources to project inventory budget estimates against funding sources. | | | Demand Management Plan |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.4 Conducting an Operations Planning meeting with all relevant stakeholders to reach consensus on the proposed Planned Independent Requirements.<br><br>Objective:<br>(a) The Operations Planning Meeting is held and the Planned Independent Requirements are discussed with all the relevant stake holders.<br><br>Outcomes:<br>(a) Any requirements and constraints are discussed and merged with the Planned Independent Requirements; and<br>(b) Inventory Management systems are updated to reflect Approved Independent Inventory Requirements Schedule. | 13.3.4.1 Review and Confirm Redundancy and Obsolescence.<br><br>13.3.4.2 Review and Confirm Planned Independent Requirements<br><br>13.3.4.3 Review and Confirm Budget Estimates<br><br>13.3.4.4 Maintain records of meetings and decisions taken | Programme Strategic Objectives<br><br>Bill of Material<br><br>Consumption Analysis<br><br>Planned Independent Inventory Requirement Schedule<br><br>Inventory Item Specifications<br><br>Supplier Performance Analysis<br><br>Demand management plan and Funding Source | | |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.5 Update the inventory system.<br>Objective:<br>(a) The inventory management system accurately reflects item policy to ensure that demand planning can be monitored and respond to changes in the demand for materials.<br>Outcome:<br>(a) Updated item policies;<br>(b) Additional item codes created;<br>(c) Obsolete item codes are suspended;<br>(d) Surplus and obsolete items identified for disposal are physical removed to appropriate holding areas pending disposal; and<br>(e) Surplus and obsolete items identified for disposal are physical removed from the inventory system. | 13.3.5.1 Update minimum and maximum and reorder point levels per item as per the approved item policy change control form.<br>13.3.5.2 Remove surplus and obsolete items from the system.<br>13.3.5.3 Create additional Item Master Records for new items. | Inventory Item Policy Change Control<br>Application for Disposal | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.5.1 | The item policy variables contain the requirements, constraints and criteria by which material requirements planning makes material recommendations.<br>(a) Update the item policy per item where applicable:<br>• Minimum stock level<br>• Maximum Stock Level<br>• Safety Stock Level<br>• Re-order Quantity<br>• Economic Re-order Quantity<br>(b) The delegated official reviews and authorizes system changes. | Inventory Item Policy Change Control | | |
| 13.3.5.2 | (a) Remove surplus and obsolete items from the system.<br>(b) The delegated official reviews and authorizes system changes. | Application for Disposal | | |
| 13.3.5.3 | (a) Create additional Item Master Records for new items.<br>(b) The delegated official reviews and authorizes system changes. | Inventory Create Master Change Control | | |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.6 Monitoring and adjusting planned requirements<br><br>Objective:<br><br>(a) Planned material requirements must be reviewed periodically to ensure that the institution responds timeously to changes in the demand for inventory;<br><br>(b) Ensure materials are available for production and items are available for delivery to end users;<br><br>(c) Maintain the lowest possible level of inventory.<br><br>(d) Plan manufacturing activities, delivery schedules and purchasing activities.<br><br>Outcome:<br><br>(a) Ensure Purchase Orders and Works Orders are raised in time to meet demand. | The following procedures provide minimum requirements for material requirements planning (MRP) in a manual environment. In an automated environment MRP will be executed in accordance with the computerised MRP functionality.<br><br>13.3.6.1 Evaluate orders against on hand quantities and delivery lead times and analyse exceptions.<br><br>13.3.6.2 Adjust planned requirements and initiated replenishment accordingly.<br><br>13.3.6.3 Monthly Operational Planning meetings are held to review planned requirements. | Inventory Management System for executing MRP | | |
| **SUB PROCESS** | | **PREREQUISITE** | **RESPONSIBLE EMPLOYEE/ PRACTITIONER** | **TEMPLATE** |

| | | | | |
|---|---|---|---|---|
| 13.3.6.1 | The stock levels need to be monitored on a daily basis to ensure that the items reaching the re-order level are identified and that the process for ordering of these items has been initiated.<br><br>(a) The MRP Planner must review and evaluate on hand quantities and lead times to determine the quantities and timing for purchase orders. The following is assessed:<br>• Quantities on hand not reserved by end users<br>• Quantities reserved not issued<br>• Quantities on order from supplier<br>• Supplier delivery lead times<br><br>(b) Review production plan:<br>• Identify changes to bills of materials<br><br>(c) Identify changes to production schedules The MRP / Planner must action or take into consideration any exceptions per material. Some Common Exception Codes are:<br>• Newly Created Order Proposal<br>• Stock Fallen Below Safety Stock Level<br>• Cancelled Orders | Technical Specialist/ Knowledgeable employee/ practitioner<br><br>Planned Independent Inventory Requirement Schedule<br><br>Demand Management Plan and Funding Source | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 13.3.6.1 | (d) The relevant unit will prepare a request for the replenishment of store items or if a computerized system is in use a system generated document should print indicating the advised purchase quantity.<br><br>(e) The relevant unit will request the warehouse to check the physical balance per item to ensure that the information is correct. | | | |
| 13.3.6.2 | Adjust planned requirements and initiated replenishment accordingly and amend work orders accordingly;<br>• Raise purchase orders<br>• Confirm Cancel Orders | | | |
| 13.3.6.3 | Monthly Operational Planning meetings are held to review planned requirements.<br>(a) The following documentation is reviewed:<br>• Planned Independent Inventory Requirement Schedule<br>• Demand Management Plan and Funding Source<br>(b) Changes are recorded in accordance with the meeting procedure referred to in procedure 13.3.8.4 | Planned Independent Inventory Requirement Schedule<br><br>Demand Management Plan and Funding Source | | |

## 13.4 ANNEXURES

| Document Type | Description |
|---|---|
| Book/Word document | Programme Strategic Objectives |
| Word document | Planned Independent Inventory Requirements_Finished Goods |
| Template | Consumption Analysis |
| Template | Planned Independent Inventory Requirement Schedule |
| Template | Inventory Item Specifications |
| Template | Inventory Item Specifications_ Operational Requirement |
| Template | Supplier Performance Analysis |
| Template/Word Document | Demand Management Plan and Funding Source |
| Template | Application for Disposal |

## CHAPTER 14: INVENTORY CLASSIFICATION

### 14.1 INTRODUCTION

14.1.1 This SOP will focus on the analytical process to evaluate, identify and define an item as Inventory. In identifying whether an asset constitutes a separate item of property, plant and equipment or whether it constitutes inventory, judgment is required in applying the criteria. The Inventory Classification Decision Tree issued by the Accounting Standards Board is used to assist in the evaluation process.

14.1.2 Once the item is classified as inventory, it must be grouped in the appropriate inventory category.

14.1.3 Inventory classification occurs when an item is procured for the first time. An item of inventory will be allocated a unified description and retain this information against its master file. When end users process subsequent requests for the item they will select the unified description to which the item category has already been linked.

14.1.4 The inventory classification checklist is reviewed and approved where after it is submitted to the relevant unit to ensure that the item is procured against the correct SCOA classification.

### 14.2 INVENTORY CLASSIFICATION PROCEDURES

14.2.1 The following standard operating procedure defines the methods to be applied when classifying inventory, benchmarking with National/Provincial Treasury:

(a) Determine whether the item is a current or non-current asset

(b) Classify the inventory item into the correct inventory category

(c) Review and authorize inventory classification

(d) Submit inventory classification to relevant unit for correct SCOA allocation during procurement process.

# CHAPTER 15: INVENTORY RECOGNITION, MEASUREMENT AND DISCLOSURE

## 15.1 INTRODUCTION

15.1.1 The process of inventory recognition and measurement is the process followed to bring the already identified and classified inventory item into the inventory system and into the financial records of the institution. The accurate measurement of inventory has a direct impact on inventory valuation, which plays a vital role in understanding the costs of inputs to a product or service and decision making processes to minimize resources tied up in inventory.

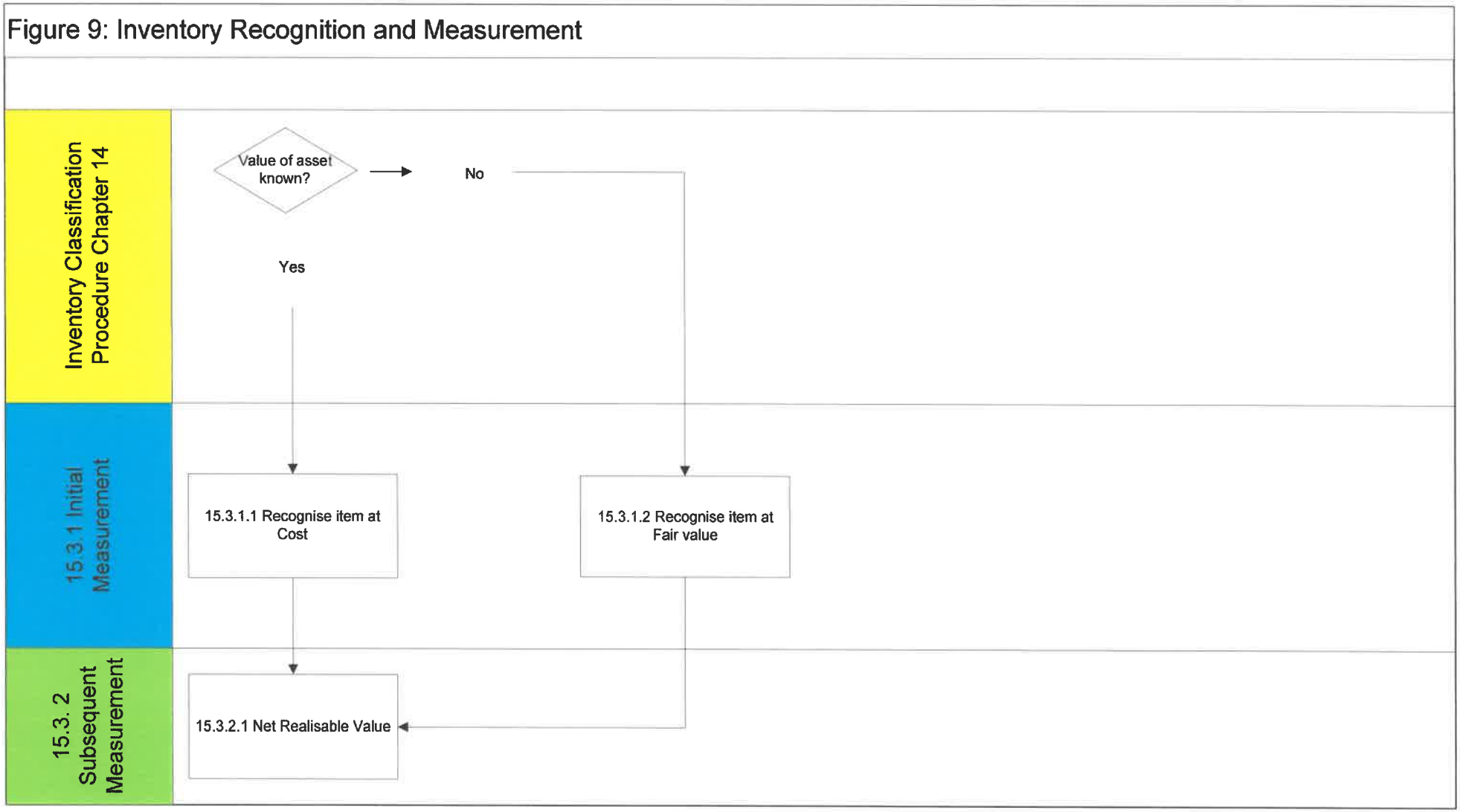
## 15.2 RECOGNITION, MEASUREMENT AND DEFINITION PROCEDURES

The following standard operating procedures define the methods applied when recognising and measuring the cost of inventory in the books of the institution:

(a) Initial Measurement

(b) Subsequent Measurement

**Figure 9: T_IM_MEASUREMENT_Visio3 Diagrammatic representation of the inventory recognition and measurement process.**



## 15.3 PROCEDURES

The following section details the steps required to recognize items of inventory in the accounting records of the institution as depicted in Figure 9.

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 15.3.1 Initial Measurement<br>Objective:<br>(a) All items of inventory must be recognized in the accounting records in accordance with the appropriate GRAP standard.<br>Outcome:<br>(a) Recognizing inventories in accordance with GRAP standards as follows:<br>*".15 Inventories that qualify for recognition as assets shall initially be recognized at **cost**.*<br>*.16 Where inventories are acquired at no cost, or for nominal consideration, their cost shall be their **fair value** as at the date of acquisition."* | **Note:**<br>The item has already been classified as inventory.<br>15.3.1.1 Calculate inventory at cost where costs is known.<br>15.3.1.2 Calculate inventory at fair value where cost is not known | Inventory Classification<br>Knowledgeable employee/ practitioner | | GRAP 12 Initial Measurement Checklist |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 15.3.1.1 | Calculate inventory initial cost<br>(a) All costs of purchase. Costs of purchase where applicable comprise:<br>vi. purchase price;<br>vii. import duties;<br>viii. other taxes except those recoverable from taxing authorities;<br>ix. transport and handling costs; and<br>x. other costs directly attributable to the acquisition.<br>(b) Costs of conversion. Conversion costs are mainly incurred in a manufacturing environment where raw materials are brought together and transformed through the manufacturing process into finished goods. Conversion costs include:<br>iii. costs directly related to the unit of production such as direct labour; and<br>iv. a systematic allocation of fixed and variable production overheads incurred in converting materials into finished goods.<br>(c) Other costs incurred in bringing the inventories to their present location and condition:<br>ii. Other costs are included in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition. | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 15.3.1.1 | (d) Less trade discounts:<br>iii. rebates; and<br>iv. other similar items which would reduce the cost of acquisition.<br><br>(e) Cost Exclusions<br>GRAP 12 paragraphs .26 through .28 provide examples of costs excluded from the value of inventories and expensed in the period in which they are incurred as follows:<br>i. abnormal amounts of wasted materials, labour, or other production costs;<br>ii. storage costs, unless those costs are necessary in the production process before a further production stage;<br>iii. administrative overheads that do not contribute to bringing inventories to their present location and condition;<br>iv. selling costs;<br>v. borrowing costs except where they meet certain requirements set out in GRAP 5; and<br>vi. financing costs (represented by the difference between a higher purchase price paid for a deferred settlement in excess of normal credit terms). | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 15.3.1.2 | Calculate fair value using the Inventory Fair Value. Items received from another institution by means of transfer or donation will be acquired at Fair Value as no actual expense took place.<br><br>(a) Fair value is used as an approximation of cost where there was no actual cost incurred in acquiring the inventories. GRAP 12 at paragraph .16 stipulates:<br><br>*"the cost at acquisition of inventories acquired at no cost or for nominal consideration shall be their fair value as at the date of acquisition"*<br><br>(b) Paragraph .07 defines fair value as follows:<br><br>• "Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.<br><br>• Fair value is the estimated cost in situations where no cost was incurred to obtain the inventory.<br><br>• Fair value is determined by obtaining values from reputable sources for similar inventory items in the same condition"<br><br>(c) To calculate fair value for Inventory items, quotes should be obtained from a reputable source for similar inventory items and in similar conditions. | | | |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 15.3.3 Subsequent Measurement<br>Objective:<br>(b) All items of inventory must be recognized in the accounting records in accordance with the appropriate GRAP standard.<br>Outcome:<br>(a) In the event where inventories are measured subsequent to initial recognition, GRAP 12 provides the following:<br>".17 Inventories shall be measured at the lower of cost and net realisable value, except where paragraph .18 applies. | 15.3.2.1 Subsequent measurement of Inventory | | | |
| 15.3.2.1 | (a) When inventories are valued subsequent to acquisition (for example at the end of the financial year) their value may have declined. Hence, when valuing inventories after acquisition and when they are held for distribution at a market price they are measured at the lower of cost and net realisable value. | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 15.3.2.1 | (b) Paragraph .07 of GRAP 12 defines net realisable value as follows:<br>• Net realisable value is the estimated selling price in the ordinary course of operations less the estimated costs of completion and the estimated costs necessary to make the sale, exchange or distribution.<br>• Net realisable value refers to the net amount that an institution expects to realise from the sale on inventory in the ordinary course of operations. Fair value reflects the amount for which the same inventory could be exchanged between knowledgeable and willing buyers and sellers in the marketplace. The former is an institution specific value; the latter is not.<br>• Net realisable value for inventories may not equal fair value less costs to sell.<br>The intent of the GRAP provision is that inventories should not be carried on the Statement of Financial Position at a value greater than their worth. At acquisition, worth is measured by cost, or fair value. At a later date, the worth of the inventories | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 15.3.2.1 | (c) Current replacement cost - When measuring the value of inventories subsequent to acquisition and the inventories are to be distributed at no charge or for nominal value, their value is recorded at current replacement cost. Current replacement cost is used instead of net realisable value in situations where the net realisable value is not easy to determine.<br><br>(d) Paragraph .07 of GRAP 12 defines current replacement cost as follows:<br><br>• Current replacement cost is the cost the institution would incur to acquire the asset on the reporting date.<br><br>(e) Current replacement cost is a good estimation for net realisable value in this instance, because the future economic benefits or service potential of the inventories can be assumed to be the amount that the institution would need to pay to replace those inventories should they be deprived of them. | | | |

## CHAPTER 16: INVENTORY MANAGEMENT STRATEGIES

### 16.1 INTRODUCTION

16.1.1 The Inventory Management Strategy is the output of selecting and defining segmentation criteria and analytical techniques based on institutional programme requirements and strategic objectives. The objective is to create meaningful and unique categories that will provide operational insights and facilitate determining the correct material management strategies.

### 16.2 INVENTORY MANAGEMENT STRATEGIES

16.2.2 The following standard operating procedures define the procedures for determining inventory management strategies and setting item policy:

(a) Collecting and extracting the defined strategic planning data for the inventory management strategy.

- Inventory Catalogue
- Defining inventory segments

(b) Building, analyzing and validating the inventory management strategy

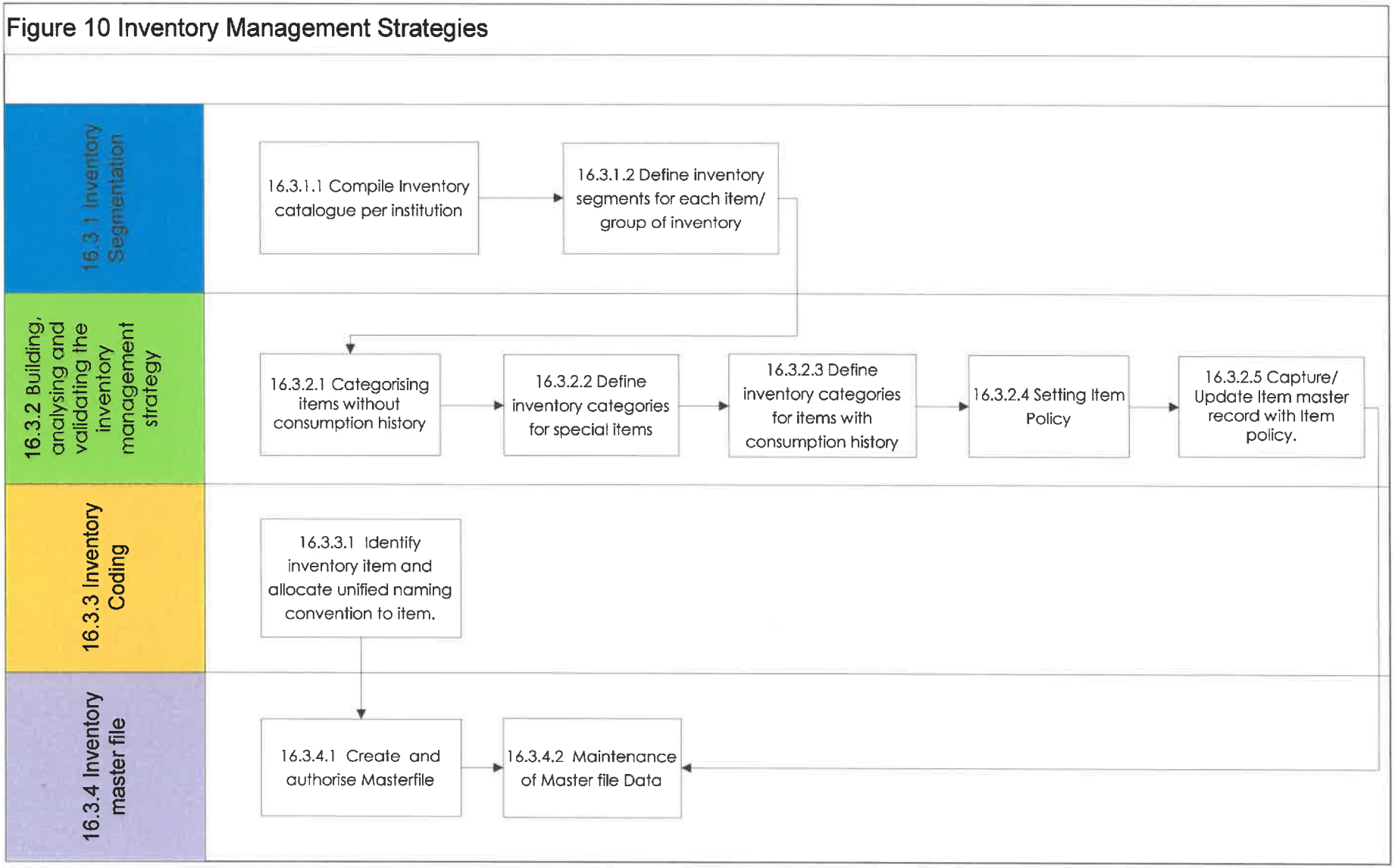
- Define inventory segments for special items
- Define inventory segments for items with consumption

(c) Setting/Updating Item Policy

(d) Inventory Coding

(e) Inventory Master Records

**Figure 10: T_IM_IMS_Visio3 Diagrammatic representation of defining and implementing and inventory management system.**



## 16.3 PROCEDURES

The following section details the steps required to define and implement a system of inventory management as depicted in Figure 10.

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 16.3.1 Collecting and extracting the defined strategic planning data for the inventory management strategy.<br><br>Objective:<br>(e) Creating meaningful and unique categories that will provide operational insights and facilitate determining the correct material management strategies.<br>Outcome:<br>(a) Define Inventory Catalogue; and<br>(b) Segmenting materials according to their strategic significance. | 16.3.1.1 Define Inventory catalogue per institution;<br><br>16.3.1.2 Define inventory segments for each item/group of inventory in relation to its strategic importance to service delivery.<br><br>**Note:**<br><br>Defining item segments is a consultative process that must include knowledgeable employees/practitioners from supply chain and logistics as well as end-users. | Knowledgeable employee/ practitioner | | Item Catalogue |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 16.3.1.1 | (a) Compile an inventory catalogue for items used by the institution. | | | Item Catalogue |

| | | | | |
|---|---|---|---|---|
| | i. List all items used by the institution<br><br>ii. Identify the following information to include in the catalogue:<br><br>• Item Number<br><br>• Item Description<br><br>• Unit of measure | | | |
| 16.3.1.2 | (a) Utilizing the institutions inventory catalogue, define inventory segments for each item/group of inventory as follows:<br><br>iii. Vital<br><br>The institution cannot do without these items as they are core to the institution's mandate. No out of stock incidence is allowed and irrespective of the value or rate of consumption these items must be controlled, e.g. Asphalt in the Department.<br><br>iv. Essential<br><br>Essential items are frequently used and incidental to the institutions core mandate, e.g. printing paper. Controlling these items will ensure efficient utilization of resources and improve efficiency.<br><br>v. Nonessential (stock levels do not need to be managed)<br><br>(b) The Operations and Planning Committee must review and approve the inventory segments. | Knowledgeable employee/ practitioner<br><br>Inventory Catalogue per institution | | |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 16.3.2 Building, analysing and validating the inventory management strategy.<br>Objective:<br>(a) Item segments and policies are defined that will inform management decisions about items and quantities thereof should be kept in stock.<br>Outcome:<br>(a) All items of inventory are assessed and minimum. maximum and reorder levels are defined;<br>(b) Item policy is reviewed and authorized; and<br>(c) Item policies are updated in the inventory management system. | 16.3.2.1 Categorising items without consumption history<br>16.3.2.2 Define inventory categories for special items<br>16.3.2.3 Define inventory categories for items with consumption history<br>16.3.2.4 Setting Item Policy<br>16.3.2.5 Capture/Update Item master record with Item policy. | Knowledgeable employee/ practitioner | | |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 16.3.2.1 | Categorising items without consumption history.<br>(a) Sufficient historical data will need to be accumulated to determine accurate parameters when defining inventory management strategies. However, in the event that no consumption history is available or inadequate consumption history prevents the institution from determining the appropriate inventory management strategy, these items will be allocated a classification to indicate that no consumption | Knowledgeable employee/ practitioner | | |

| | | | | |
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| | history exists.<br>(b) Items will remain classified as such for a period of 24 months and build up consumption history for this period after which items will be reclassified. | | | |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 16.3.2.2 | Define inventory segments for special items as follows:<br>(a) List items which will be items not held in store and will be issued directly to Cost Centres.<br>(b) List of all items which are not suitable for storage.<br>(c) List all items with a resale value. (I.e. bags, empty containers) | Knowledgeable employee/ practitioner | | |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 16.3.2.3 | Define inventory segments for items with consumption history.<br>(a) Calculate the annual consumption total of these items in relation to the consumption per year.<br>(b) Calculate the annual consumption value by multiplying the annual consumption with the weighted average price of the item. | | | ABC Analysis |

| | | | | |
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| | (c) Arrange the items in the inventory by cumulative annual consumption. | | | |
| 16.3.2.4 | Setting Item Policy<br><br>(a) Minimum stock levels<br><br>• Using the list of items with consumption figures, compare the consumption between the last two consecutive years.<br><br>• If there is a decrease or increase of 50 % or more apply weighting factors to the last two years.<br><br>• Multiply the consumption with 4 or 5 which will give you the total which must be divided by 9.<br><br>• If the decrease or increase was less than 50 % weighing factors 3, 4 and 5 must be used and divided by 12.<br><br>• The minimum level will be the average consumption divided by 356 x the delivery period. | | | Calculation of Min and Max reorder levels |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 16.3.2.4 | (b) Maximum Stock Levels<br><br>• List the delivery period for each item (e.g. 30 days / 60 days for A Items)<br><br>• Maximum Levels for A items must equal the minimum level. i.e. Min 6 and Max 6<br><br>• Maximum delivery days for B-Items is set to 182 and maximum quantity equal to 50 % of the annual | | | Calculation of Min and Max reorder levels |

| | | | | |
|---|---|---|---|---|
| | consumption.<br><br>(c) Re-order points<br><br>• Re-order level or Safety factor levels are calculated by using the minimum stock level and adding 20 % to the minimum quantity.<br><br>• If balance on hand is less than the minimum quantity, the difference between the minimum quantity and balance on hand plus the maximum quantity must be ordered. | | | |
| 16.3.2.5 | Capture/Update Item master record with Item policy.<br><br>(a) The Operations and Planning Committee must review and approve the inventory item policies.<br><br>(b) Item policy data is captured against each item in the inventory management system.<br><br>(c) The delegated employee/practitioner approves the Item Policy Record | Inventory Management System | | Item Policy |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 16.3.3 Inventory Coding<br><br>Objective:<br><br>(a) Inventory identification through the application of a unified nomenclature for inventory items will prevent the creation of duplicate inventory master records. | 16.3.3.1 Identify inventory item and allocate unified naming convention to item.<br><br>**Note:**<br><br>Bar coding of inventory will be defined based on the specific bar coding solutions used by each | Inventory Management Unified Naming Convention | | |

| | | | | |
|---|---|---|---|---|
| Outcome:<br><br>(a) All items of inventory are described according to a unified naming convention.<br><br>(b) Improved quality of reporting data; and<br><br>(c) Improved quality of material requirements planning. | institution. | | | |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 16.3.3.1 | Identify inventory item and allocate the correct unified description to the item.<br><br>(a) Select the correct Item Description from the Item Catalogue;<br><br>(b) Allocate item unified description to the item and complete template T_IM_IMS_06 Master Data Record; and<br><br>(c) The delegated employee/practitioner must review and approve the Item description | Knowledgeable employee/ practitioner<br><br>Item Catalogue | | Master Data Record |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 16.3.4 The Inventory Master File<br><br>Objective:<br><br>(a) Ensure that accurate and reliable information relating to inventory master data is recorded, reviewed, authorized in the inventory management system of the institution.<br><br>Outcome:<br><br>(a) An item master file is created for each item of inventory; and<br><br>(b) Item master file changes are subject to a changed control procedure that ensures that changes requests are reviewed and duly authorized. | 16.3.4.1 Create and authorise Master file<br><br>16.3.4.2 Maintenance of Master file Data<br><br>**Note:**<br><br>The following procedures provide minimum specifications for institutions that do not have an inventory management system. Where the institution has an inventory management system the procedures required by the system functionality will apply. | Inventory Management System | | |
| 16.3.4.1 | Master file records are created when the item is procured for the first time and a master file record is captured on the relevant system in use, or manual records are kept.<br><br>(a) Compile all the required information as per T_IM_IMS_06 Master Data Record Creation | Minimum Data Requirements | | Master Data Record |
| **SUB PROCESS** | | **PREREQUISITE** | **RESPONSIBLE EMPLOYEE/ PRACTITIONER** | **TEMPLATE** |
| 16.3.4.1 | (b) The following information is the minimum data that should be maintained in the master file for each item of inventory:<br><br>• Item unified code Item unified description | | | |

| | | | | |
|---|---|---|---|---|
| | • Warehouse or store where item is held<br>• Units of measure (stocking, ordering and issue unit of measure)<br>• Dimensions Capacity<br>• Make<br>• Purchase Price<br>• Unit Cost<br>• Minimum order quantity<br>• Maximum order quantity<br>• Re-order level<br>• Economic Order Quantity<br>• Safety Stock Level<br>• Quantity on hand<br>• Quantity on order<br>• Quantity reserved<br>• Item segmentation (Vital/Essential/Non-Essential) | | | |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 16.3.4.1 | • Item categorization (e.g. ABC Analysis)<br>• Item classification (consumable/spare part)<br>• MRP planner<br>• Bin location<br>• Shelf life<br>• Status (item on hold/damaged)<br>• Authorized person responsible for the item<br>• Supplier<br>• Lead times to delivery<br>• The master file record is verified and authorized by the delegated official. | | | |
| 16.3.4.2 | Maintaining the Master file data for inventories will be required on an on-going basis.<br>A Master file amendment request must be completed with any changes to the original Master file<br>(a) Request is received by the relevant unit responsible for master file maintenance. | | | |

| | | | | |
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| | (b) Request is reviewed and changes authorized on the Master Data Change Control Request form.<br><br>(c) Update the Master file Register with additions and amendments to the Master files by recording the information from the Master Data Record Creation and Master Data Change Control Request, on the master data register.<br><br>(d) Authorize amendments on the relevant system in use. | | | |

## CHAPTER 17: INVENTORY MOVEMENTS

### 17.1 INTRODUCTION

17.1.1 Logistics is the process within Supply Chain Management of strategically managing the movement and storage of inventory through the institutions supply chain. Inventory Movement is the term used for the collective process of controlling and recording orders, receipts, issues and returns on warehouse, storeroom or any other inventory operation through the supply chain. These movements are typically grouped into the following movement types:

(a) Goods Receipt

A goods receipt is posted when goods from a vendor or from production are received. A goods receipt leads to an increase in warehouse stock.

(b) Goods Issue

A goods issue is posted when a material is withdrawn, issued to cost centres or consumed during the production process, or when material are returned to supplier. A goods issue leads to a decrease of warehouse stock.

(c) Transfers

A Transfer posting is used to describe stock transfers for example when a material is released from quality inspection into stock, or materials move to and from in-transit stores.

17.1.2 **Note:** Transfers to other institutions are deemed to be a method of disposal and dealt with as such.

## 17.2 INVENTORY MOVEMENT PROCEDURES

17.2.1 The following standard operating procedures define the methods and procedures to be applied when performing inventory movements:

a) Compiling a Warehouse Catalogue

b) Purchasing receipts

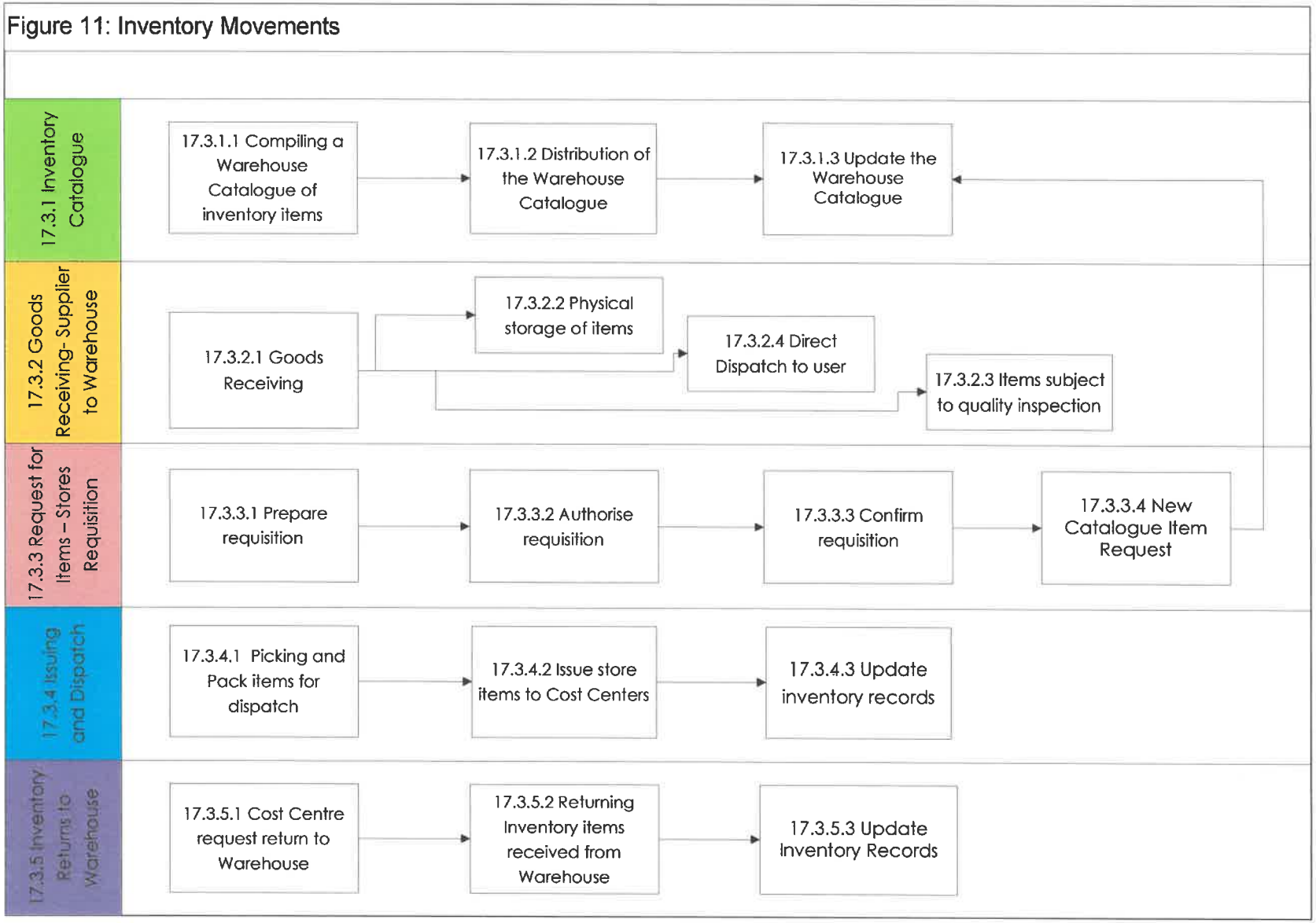
c) Request to Stores

d) Issuing and Dispatch

e) Returns to store

f) Store to supplier

**Figure 11: T_IM_MOVEMENT_Visio4 Diagrammatic representation of inventory movement**



## 17.3 PROCEDURES

The following section details the steps required to manage inventory movement throughout the institution's supply chain as depicted in Figure 11.

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.1 Inventory Catalogue<br><br>Objective:<br>(a) Inventory items are allocated to appropriate warehouses that provide for suitable storage, safeguarding and appropriate management of the item.<br>Outcome:<br>(a) Inventory items are allocated to the correct warehouse;<br>(b) The warehouse catalogues are communicated to all users; and<br>(c) Changes to the warehouse catalogue are subject to a change control procedure and are reviewed and duly authorized. | 17.3.1.1 Compiling a Warehouse Catalogue of inventory items<br><br>17.3.1.2 Distribution of the Warehouse Catalogue<br><br>17.3.1.3 Update the Warehouse Catalogue | Inventory Item Catalogue<br><br>List of Warehouses/Stores | | List of Warehouses/Stores |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 17.3.1.1 | Compile the warehouse catalogue for items stored in the warehouse. In this process inventory items are linked to the warehouse/s were the items are stored.<br>(a) List all items available in the warehouse per item classification e.g. Stationery; and<br>(b) Identify the following information to include in the catalogue:<br>• Item Number<br>• Item Description<br>• Unit of Issue<br>• Alternative units of measure | | | Warehouse Catalogue |
| 17.3.1.2 | Distribution of the Warehouse Catalogue.<br>(a) The warehouse catalogue must be distributed to all employees/practitioners or cost centres upon update;<br>(b) The catalogue must contain the date of review; and<br>(c) Cost Centres must ensure that they are in possession of the latest version of the catalogue. | | | |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 17.3.1.3 | Update the Warehouse Catalogue.<br><br>(a) The responsible employee/practitioner within the warehouse updates the catalogue on a monthly basis; and<br><br>(b) The catalogue will be updated for the following reasons:<br><br>• New items identified to be held in warehouse<br><br>• Items removed from warehouse | | | |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 17.3.2 Goods Receiving- Supplier to Warehouse<br><br>Objective:<br><br>(a) Goods receiving process results in the correct quantity of the correct item being received; and<br><br>(b) Items are allocated appropriate storage space/bin to safeguard the item whilst in storage.<br><br>Outcome:<br><br>(a) All items received are checked and reconciled to purchase orders;<br><br>(b) Inventory records accurately reflect the physical on hand quantities;<br><br>(c) Items are packed and stored in the correct bin locations. | 17.3.2.1 Goods Receiving<br><br>17.3.2.2 Physical storage of items<br><br>17.3.2.3 Items subject to quality inspection<br><br>17.3.2.4 Direct Dispatch to user | Inventory Management System<br><br>Minimum Data Requirements | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 17.3.2.1 | Receive inventory Items from suppliers for replenishment of items kept in the warehouse.<br><br>(a) The delegated employee/practitioner reviews the Deliveries by due date for the week. This will enable the delegated employee/practitioner to:<br><br>i. Prepare the receiving/transit area in preparation for deliveries;<br><br>ii. Ensure that bin locations are available for storing the received items; and<br><br>iii. Adequate resources are available to receive, check and pack items.<br><br>(b) The delegated employee/practitioner receives deliveries from the supplier as follows:<br><br>i. Verify that the delivery note and purchase order reference is correct;<br><br>ii. Ensure that the packaging of the items are not damaged. Items which are damaged shall be returned to the supplier and will not be accepted. The stores delegated employee/practitioner will receive only the quantity which is not damaged and mark the items which have not been accepted as 'to follow' on the Issue documentation as well as the delivery note from the supplier.<br><br>iii. Ensure that the material conforms to the specification and description on the purchase order; | Approved Purchase Order | | Logis Reports on Deliveries by due date<br><br>Invoice Register |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 17.3.2.1 | iv. Verify the quantity, quality and correctness of the received items by inspecting the physical items delivered against the Purchase order;<br>v. Complete the receipt documentation indicating:<br>• Quantity received<br>• Quantity to follow<br>• Quantity rejected<br>• Signs the documentation as receiver<br>vi. If the invoice was received with delivery, the invoice must be DATE STAMPED and SIGNED by the delegated employee/practitioner; and<br>vii. An Invoice Register must be in place where the receipts of invoices are noted. | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 17.3.2.1 | (c) The following documentation is kept for audit purposes:<br>• Invoice Register<br>• Purchase Order<br>• Supplier Delivery Note | | | |
| 17.3.2.2 | Physical storage of items and Update of Inventory Records<br>(a) The delegated employee/practitioner packs the items in the appropriate bin location; and<br>(b) The delegated employee/practitioner updates the bin cards and system in use. Manual or computerized records for purchasing and receiving items must include at least the following:<br>• Order date;<br>• Order number;<br>• Supplier code and name; | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
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| 17.3.2.2 | • Inventory operation (name of warehouse, stockroom or other);<br>• Item code (must be unique for "the same" items);<br>• Item description (will be linked to the item code);<br>• Item location (shelf, bin, etc.);<br>• Quantity ordered;<br>• Authorization no. and dated signature or electronic authorization of ordering officer;<br>• Delivery date;<br>• Delivery note number;<br>• Quantity delivered;<br>• Quantity still to be delivered;<br>• Notes (any comments regarding the status of the order);<br>• Authorization no. and dated signature or electronic authorization of receiving | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.2.2 | • officer; and<br>• Authorization no. and dated signature or electronic authorization of binning officer. | | | |
| 17.3.2.3 | Items subject to Quality Inspection.<br>(a) Where computerized inventory management systems are in use, items that are subject to quality inspections must be flagged as such on the system;<br>(b) For manual inventory management environment the items due for quality inspection items must be marked with a Quality Inspection tag/sticker and moved to the relevant in transit area;<br>(c) Inform the delegated QI employee/practitioner; and<br>(d) Procedure 17.3.2.2 will be followed when the item has successfully passed quality inspection.<br>**Note:** The Quality Inspection Procedure is not covered in this SOP. | Quality Inspection Procedure<br>Knowledgeable employee/ practitioner | | |

| SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 17.3.2.4 | Receiving inventory Items - direct issue to cost center / user.<br><br>(a) If the delivery takes place at the user and the user receives the invoice it must be date stamped and signed (by the user) and forwarded to the relevant unit for payment; and<br><br>(b) All procedures indicated in point 17.3.2.1 to 17.3.2.3 above must be performed by the end user.<br><br>**Note:** Items requiring quality inspection may not be delivered directly to end-users. | | | |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.3 Request for Items – Stores Requisition<br><br>Objective:<br><br>(a) An adequate system of controls exists to ensure that request for inventory are valid, is properly reviewed and authorized.<br><br>Outcome:<br><br>(a) Only authorized requisitions are processed;<br><br>(b) Segregation of duties between requestor and approver; and<br><br>(c) Changes to Item catalogues are subjected to the change control procedure; | 17.3.3.1 Prepare requisition<br><br>17.3.3.2 Authorize requisition<br><br>17.3.3.3 Confirm requisition<br><br>17.3.3.4 New Catalogue Item Request | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.3.1 | Cost Centre prepares request for inventory item:<br>(a) Delegated employee/practitioner selects items from the Inventory Catalogue;<br>(b) Delegated employee/practitioner completes a request form for inventory Items; and<br>(c) The request form should contain at least the following information:<br>i. Cost Centre Description (and Number if there is a system in use)<br>ii. Date of Request<br>iii. Item unified stock keeping code<br>iv. Item unified description<br>v. Quantity Required | Inventory Catalogue | | Request Form |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.3.2 | Authorise request for inventory item.<br>(a) The Delegated employee/practitioner will:<br>i. Verify the information to ensure that it is a valid request;<br>ii. Approves the request or captures the request form on the system in use; and<br>iii. If no system in use the delegated employee/practitioner will Register the request in a register to keep record of the requests from cost centers. | | | Requisition Register |
| 17.3.3.3 | Confirm Requisitions.<br>(a) The delegated employee/practitioner in the warehouse verifies and approves the request form;<br>(b) Check if the submitted documents are duly completed.<br>(c) Check if the Request is signed/approved by the delegated employee/practitioner.<br>(d) Check if item descriptions are complete;<br>(e) Verify that the item is on the Inventory Catalogue and can be issued from the warehouse; and<br>(f) Check the financial codes. | | | Request Form |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.3.4 | Request for New Item Code.<br><br>If the item is not on the warehouse catalogue a new record should be created. This process can be either manual or on the specified system in use.<br><br>(a) The Relevant Unit completes the Change Control Request form Master Data Record Change Control Request and submits to delegated employee/practitioner for inclusion;<br><br>(b) The Delegated employee/practitioner confirms that the item does not exist in the catalogue and updates the Item Master file records;<br><br>(c) The Change Control Request is reviewed and authorized by the delegated employee/practitioner;<br><br>(d) The following information is filed for audit purposes:<br><br>i. Master Data Record – Change Control Request | | | |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.4 Issuing and Dispatch<br><br>Objective:<br><br>(a) Demand for inventory items is met on time and accurately.<br><br>Outcome:<br><br>(a) No items are dispatched from the warehouse without an approved requisition;<br><br>(b) Items are picked, packed and issued according to the approved requisitions; and<br><br>(c) Inventory records are updated. | 17.3.4.1 Picking and Pack items for dispatch<br><br>17.3.4.2 Issue store items to Cost Centers<br><br>17.3.4.3 Update inventory records | Inventory Management System | | |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.4.1 | Pick and Pack Items for delivery.<br><br>(a) The delegated warehouse employee/practitioner receives approved requisition from the relevant unit and verifies the following:<br><br>i. Ensure that the documentation is approved and that it is a valid store request;<br><br>ii. Pick the items from the store or bin location for issuing and moves it to the Transit area; and<br><br>iii. Note the quantity issued on the Issue Form.<br><br>(b) Update Bin Cards and System in use for every item issued and record keeping purposes. | | | Issue Form<br><br>Bin Card (if any) |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| | (c) If no stock is available the warehouse will:<br><br>i. Notify the relevant unit responsible for procurement to commence with the procurement of the relevant items or request information regarding outstanding receipts for the specific item; and<br><br>ii. Notify the relevant cost center that items are out of stock.<br><br>iii. Record the incidence of stock out on the Exception Report, Inventory Exception Report.<br><br>**Note:**<br><br>In a computerized environment the system will indicate that there is a shortage of stock and the exception report will be an automated report. | | | Inventory Exception Report |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.4.2 | Issue Items to Cost Centre<br><br>(a) The delegated warehouse employee/practitioner informs the Cost Centre that the requested items are available for collection and the following procedures are executed:<br><br>i. The Issue Voucher is prepared in duplicate by the delegated warehouse employee/practitioner;<br><br>ii. User checks the items against the request;<br><br>iii. User signs the Issue documentation as proof of receipt and keeps a copy of the documentation for filing;<br><br>iv. User removes the items from the Transit area; | | | Issue Form |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.4.2 | v. The delegated warehouse employee/practitioner updates the manual bin cards or system in use with the details of the issue per item; and<br>vi. The delegated warehouse employee/practitioner files all issue documentation for audit purposes. The following documentation is filed:<br>• Issue Form<br>• Request Form<br>(b) In the event that the item is delivered to user procedures (i)to(iii) apply. | | | |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.4.3 | Update inventory records with movement. The inventory records should at least contain the following information:<br>• Issue date<br>• Issue number<br>• Inventory operation (name of warehouse, stockroom or other)<br>• Item code (must be unique for "the same" items)<br>• Item description (will be linked to the item code)<br>• Item location (shelf, bin, etc.)<br>• Quantity issued<br>• Issued to code (organization, project or job code)<br>• Notes (any comments regarding the issue)<br>• Authorization no. and dated signature or electronic authorization of receiver<br>• Authorization no. and dated signature or electronic authorization of the delegated warehouse employee/practitioner. | Inventory Management System | | |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.5 Inventory Returns to Warehouse<br><br>Objective:<br><br>(a) Items of inventory received from suppliers that do not meet with specifications are returned to the supplier and replenished or duly credited.<br><br>Outcome:<br><br>(a) Damaged items/items not meeting specifications are:<br><br>i. Identified and timeously replaced;<br><br>ii. Held in secure storage pending return to supplier;<br><br>iii. Inventory stock levels accurately reflect on hand and available quantities; and<br><br>iv. Supplier performance is updated. | 17.3.5.1 Cost Centre request return to Warehouse<br><br>17.3.5.2 Returning Inventory items received (Faulty Receipts) from Warehouse to Supplier<br><br>17.3.5.3 Update Inventory Records | Inventory Management System | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.5.1 | The cost center identifies damaged items/items not meeting specifications. The items must be returned to the warehouse to be uplifted by the supplier and for item records to be updated.<br>(a) Cost Centre informs the warehouse of damaged items/items not meeting specifications and delivers items to warehouse;<br>(b) The delegated warehouse employee/practitioner completes the relevant Inventory return form;<br>(c) Cost Centre and Warehouse delegated employees/practitioners sign form;<br>(d) Delegated warehouse employee/practitioner receives item into relevant bin location for damaged items on the system; and<br>(e) Damaged items are stored in a secure area pending return to the supplier. | | | Inventory Return |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.5.2 | (a) The delegated warehouse employee/practitioner contacts the supplier and state the reason for the return;<br>• Item not usable<br>• Item not according to specification<br>• Item broken / damaged<br>(b) The supplier uplifts items from the warehouse:<br>i. The supplier delegated official uplifting the items must sign Return Delivery Note Inventory Return<br>ii. Security checks Inventory Return to physical goods leaving the premises | | | Inventory Return |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.5.2 | (c) If a payment has been made against the original order the relevant unit must request a credit note from the supplier';<br><br>(d) If no payment was made against the order, the supplier must replace the item for the exact same item or;<br><br>(e) Cancel the original order and provide the supplier with an updated order with the correct/replacement item. | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 17.3.5.3 | (a) The delegated warehouse employee/practitioner adjusts of the stock levels manually or on the system in use. The following information must be recorded:<br>• Stock code of item being returned<br>• Quantity being returned<br>• Reason for return<br>• Supplier<br>• Date of adjustment<br>(b) The delegated warehouse employee/practitioner approves stock adjustment on the system or using manual Adjustment Form; and<br>(c) The following documentation is filed for audit purposes:<br>• Inventory Return<br>• Stock Adjustment | | | Inventory Return<br>Stock Adjustment |

## 17.4 ANNEXURES

| Document Type | Description |
|---|---|
| Template | List of Warehouses |
| Template | Warehouse Catalogue |
| Template | Deliveries by due date |
| Template | Invoice Register |
| Template | Request Form |
| Template | Issue Form |
| Template | Bin Card |
| Template | Inventory Exception Report |
| Template | Inventory Return |

## CHAPTER 18: DISPOSAL AND WRITE-OFF

### 18.1 INTRODUCTION

18.1.1 Inventory items stop providing economic value to an institution if they become obsolete, redundant or damaged. Among other adverse effects, it uses valuable storage space, results in the inefficient utilization of resources because of the need to manage these items and ultimately inflates inventory for as long as the items are recognized in the accounting records of the institution. Therefore, items that have no future economic benefit for the institution must be identified and disposed of in a timely manner to minimize holding costs and to ensure that such items are disposed of in the most efficient manner and to the best economic advantage of the institution.

### 18.2 DISPOSAL AND WRITE OFF PROCEDURES

18.2.1 The department will follow the current standard operating procedures for disposal of movable assets to dispose and write off inventory.

# CHAPTER 19: WAREHOUSE/STORES MANAGEMENT

## 19.1 INTRODUCTION

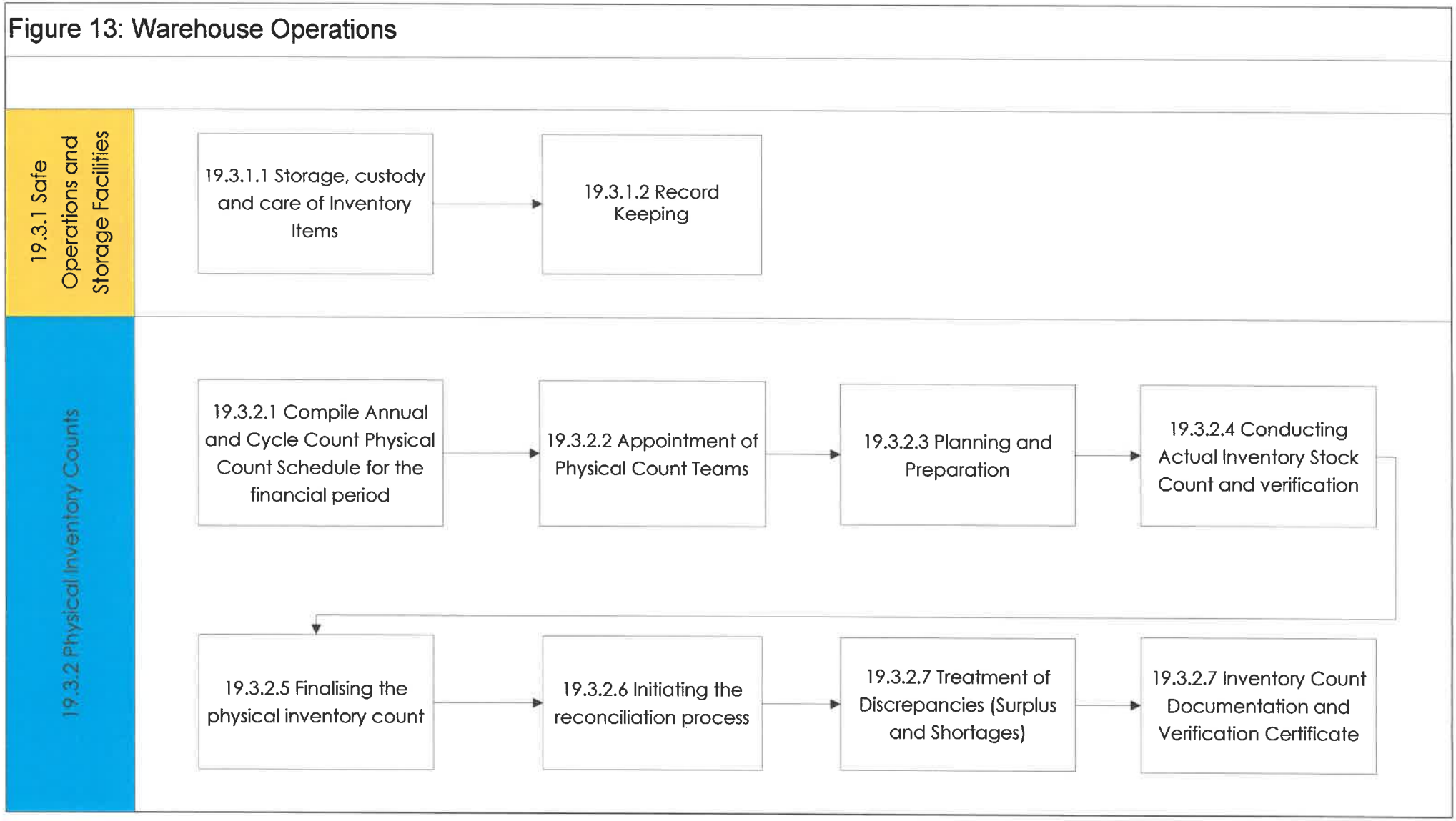
19.1.1 The effective management of warehouses is vital in minimizing costs and involves stock room organization, provides for the appropriate safeguarding of inventory while it is being stored against theft and damages and monitors the progress of inventory through the warehouse. Failing or neglecting to safeguard inventory from theft and damages will result in a direct financial loss for the institution and could adversely affect programme delivery.

## 19.2 WAREHOUSE/STORES MANAGEMENT PROCEDURES

19.2.1 The following standard operating procedures define the activities required to implement warehouse management strategies to control and safeguard inventory:

- Primary Warehouse Operations
    a. Safeguarding and storage of inventory
    b. Record Keeping
- Physical Counts

**Figure 13: T_AM_ASP_Visio7 Diagrammatic representation of warehouse management procedures**



## 19.3 PROCEDURES

The following section details the steps required to manage warehouse operations and safeguard inventory, as depicted in Figure 13.

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.1 Safe Operations and Storage Facilities<br><br>Objective:<br>(a) Adequate arrangements in place for storage, custody and care of inventory items through the supply chain<br>Outcome:<br>(a) Warehouse locations controlled and managed by delegated employees/practitioners;<br>(b) All items of inventory allocated appropriate storage space;<br>(c) Physical security of warehouse included access control;<br>(d) Regular reviews of warehouse organization through physical inspections and *adhoc* counts.<br>(e) A system internal control and record keeping for all movements per warehouse. | 19.3.1.1 Storage, custody and care of Inventory Items<br><br>19.3.1.2 Record Keeping | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.1.1 | Storage, custody and care of Inventory Items. The delegated warehouse manager or his or her delegate executes the following functions:<br><br>(a) Arranges the store in a manner which supports efficient receipt, storage and issues including storing faster moving items closer to access points;<br><br>i. Identify storage locations<br><br>ii. Allocate items to stores<br><br>iii. Where storage bins are in use, ensure cross references between the shelf and section where the items are kept and the bin card concerned;<br><br>iv.<br><br>(b) Ensure access is restricted to premises, buildings and containers where items are kept;<br><br>i. Implement a key register for effective key control;<br><br>ii. Arrange for duplicate keys and safeguarding of duplicate keys;<br><br>iii. Visibly display access control signage. | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.1.1 | (c) Store hazardous items separately and ensure compliance with local authority, manufacturer's requirements.<br><br>i. Fire extinguishing equipment must be available in each store where equipment or stores are kept.<br><br>Fire Extinguishers must be serviced regularly and the date of service indicated thereon.<br><br>ii. Visibly display no-smoking signs are in place and policy enforced.<br><br>iii. Issue Protective Clothing and shoes are available for all officials responsible for warehouse operations.<br><br>(d) Conduct regular inspections of the warehouse and complies with Occupational Health and Safety act.<br><br>(e) Conduct spot-checks on an ad-hoc basis.<br><br>(f) The following will determine when unscheduled stock takes must be done:<br><br>• Theft<br><br>• Damage store stock | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.1.1 | • Handover between users' e.g. new appointments, resignations, transfers of staff, promotions but not limited to the above.<br>• A spot check on inventory items can be done at any time by any employee/practitioner directly in control of the warehouse/store.<br>• If discrepancies are found, schedule a second count.<br>(g) Report any final discrepancies found during spot checks. | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.1.2 | (a) The following system of record keeping must be maintained for each warehouse/storage location:<br>i. Maintain a Register (the register can be in the form of a manual bin card or system register) that reflects full particulars of inventory items received, items issued and actual balance on hand.<br>ii. The register must be updated as soon as possible with all receipts and issues of inventory items and the balance on hand as per the register should at all times equal the actual balance on hand.<br>iii. At the end of each financial year, bin cards / system shall be closed off.<br>iv. Balances on bin cards shall be carried forward to new bin cards when necessary.<br>v. A dedicated file needs to be kept for all issue vouchers per financial year and filing will be done in Issue number sequence.<br>vi. A dedicated file needs to be kept for all receipts into the store per financial year and filing will be done in Receipt number sequence.<br>vii. A dedicated file needs to be kept for all inventory adjustments for the store per financial year and filing will be done in numerical order. | | | |

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.2 Physical Inventory Counts<br><br>Objective:<br>(a) Assurance that transactions related to inventory have been properly processed and that appropriate physical handling and control over inventory exist.<br><br>Outcome:<br>(a) Annual physical counts are conducted ensuring that by the end of the financial year, everything in inventory will have been counted;<br>(b) Cycle Counts are conducted on inventory in an effort to ensure and improve inventory accuracy;<br>(c) physical stock quantities reflect system inventory reports and records;<br>(d) Discrepancies are identified and thoroughly investigated;<br>(e) The correct approval process is followed when making any stock adjustments; | 19.3.2.1 Compile Annual and Cycle Count Physical Count Schedule for the financial period<br><br>19.3.2.2 Appointment of Physical Count Teams<br><br>19.3.2.3 Planning and Preparation<br><br>19.3.2.4 Conducting Actual Inventory Stock Count and verification<br><br>19.3.2.5 Finalising the physical inventory count<br><br>19.3.2.6 Initiating the reconciliation process<br><br>19.3.2.7 Treatment of Discrepancies (Surplus and Shortages)<br><br>19.3.2.7 Inventory Count Documentation and Verification Certificate | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.2.1 | The delegated employee/practitioner prepares an annual and cycle inventory stock-take programme for the year.<br><br>(a) Compile an annual inventory stock take and verification program outlining the dates and program for the financial year;<br><br>(b) Compile an annual cycle count program:<br><br>i. Compile an annual cycle count program with dates and program for the financial year.<br><br>ii. Setup predefined items and number of items for count per scheduled period and category.<br><br>iii. Cycle Count Program must be compiled to ensure that items are counted at least twice within a financial year.<br><br>(c) The program must be in line with the Inventory Policy of the Department which will outline the frequency of counts to be performed;<br><br>(d) Communicate the program to Warehouse and all identified storage facilities. | | | Annual Inventory Count Program |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.2.2 | Appointment of verification teams.<br>(a) The delegated authority within the institution appoints the verification team for each financial year;<br>i. All members must be appointed in writing.<br>(b) Submit the annual verification schedule to the Auditor-general (AG);<br>i. Keep written acknowledgement by the AG for auditing purposes. | | | Appointment_Letter Physical Verification |
| 19.3.2.3 | Planning and Preparation for physical counts.<br>(a) The physical count team assesses:<br>i. the quantity of stock, number of cycles and accessibility of items; and<br>ii. an estimate timeframe on how much time is needed to verify all the inventory items.<br>(b) The delegated authority:<br>i. Set dates for inventory stock count and verification process; | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| | ii. Complete an Inventory Stock Count and Verification Action Plan;<br>iii. Organize verification schedule with dates and timeframes;<br>iv. Assign verification teams to cycles that need to be verified;<br>v. Notify all Participating employees/practitioners of Inventory Stock count and verification process;<br>vi. Inform all users of the planned date and time of the verification process;<br>vii. Check that all issues and receipts are captured prior to the commencement of the physical count;<br>viii. Check that all stock is packed out and in correct quantities; and<br>ix. Check that all stock is in proper bins;<br>**Note:** No receipts or issues are allowed during stock take period. | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.2.4 | Conducting Actual Inventory Stock Count and verification<br><br>(a) Prepare the inventory count sheets for counting;<br><br>(b) Issue count sheets to officials to conduct the physical count;<br><br>(c) All count and verification information should be noted on the count sheets;<br><br>(d) Writing must be done indelible ink. (Ink – which cannot be erased);<br><br>(e) Mark all bins clearly after counting to indicate that the bin has been counted;<br><br>(f) During the physical count the delegated employees/practitioners must verify that the following information is correct and correspond with the stock:<br><br>i. Description of the Stock (including unit of measure)<br><br>ii. Quantity of the Stock | | | Inventory Count sheet |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.2.4 | iii. Bin number quantity checked<br><br>(g) All Physical stock in each bin must be counted and noted on inventory report.<br><br>(h) All delegated employees/practitioners involved in the actual verification process must initial and sign the inventory report stating his/her function.<br><br>(i) The delegated authority responsible for the count should sign the count sheets upon completion of the count. | | | |
| 19.3.2.5 | Finalising the physical inventory count.<br><br>(a) The Stock Take Team will perform the following procedures:<br><br>i. collates all count sheets per cycle<br><br>ii. ensure that all information has been recorded on the count sheets<br><br>iii. ensure that all count sheets have been signed and submitted<br><br>iv. ensures that the documentation is ready for the reconciliation process. | | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.2.6 | Initiating the reconciliation process.<br><br>(a) The reconciliation process commences once the count and verification phase has been completed and completed count reports are available from the Stock Take Team;<br><br>(b) The delegated employee/practitioner compares the count sheets to the stock sheets or bin cards or system to identify discrepancies which can either be a shortage or surplus;<br><br>(c) The delegated authority initiates recount where discrepancies are identified;<br><br>i. Recounts must be performed by a different count team to the initial count team.<br><br>(d) Utilizing Inventory Count Report, prepare inventory count report indicating the results of the final count including discrepancies;<br><br>(e) The delegate authority will review and sign the Inventory Count Report has been completed;<br><br>(f) The Inventory Count Report together with the signed count sheets are submitted to the delegated employee/practitioner to finalize reconciliation. | | | Inventory Count report |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.2.7 | Treatment of Discrepancies (Surplus and Shortages)<br>(a) Identify shortages / surpluses during the physical count as per the Inventory Count Report;<br>(b) Discrepancies (Surpluses, shortages) will, be adjusted on the stock balances or any system in use and be finalized only upon receipt of the approval of the delegated authority;<br>(c) Surpluses could be the result of:<br>i. A receipt not taken into account or captured but put into bin location<br>ii. An issue captured but not physically removed from bin location<br>iii. Incorrect issue of unit of issue<br>(d) Shortages could be the result of:<br>i. An issue physically removed from bin location but not captured.<br>ii. A receipt captured but not put into bin location.<br>iii. Incorrect issue of unit of issue.<br>iv. Shortages could be the result of theft. | | | Inventory Count Adjustment |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.2.7 | (e) Adjustments to Inventory on Hand<br><br>i. As soon as the outcome of the discrepancy (2nd count) investigation regarding discrepancies is complete and the Inventory Count Report has been authorized, the adjustments must be made to the inventory balances on hand;<br><br>ii. Adjustments should be listed on a report for approval by the delegated authority;<br><br>iii. Adjustments are made upon approval by the delegated official and stock balances are corrected on physical bin cards and system in use;<br><br>iv. Adjustments are made on the physical Bin Card and /or system in use to ensure that the balance on bin cards or system in use correspond to physical items;<br><br>v. The adjustment made must update the accounting records to ensure that year end values are correct;<br><br>vi. If the shortage is proven to be the official's negligence the cost of the stock must be recovered from responsible officials and the Loss control procedure needs to be followed. (Loss control procedure) | Loss Control Procedure | | |

| | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.2.8 | Inventory Count Documentation and Verification Certificate<br><br>(a) Upon finalising the inventory stock count and verification at the institution an inventory stock verification certificate must be completed by the delegated authority. The certificate should contain at least the following:<br><br>i. Stock Take Team had been appointed in writing;<br><br>ii. A complete inventory stock count has been conducted;<br><br>iii. The information as provided is a true reflection of inventory stock within the Department<br><br>(b) File all documentation per financial year for audit purposes which must include the following:<br><br>i. Annual Inventory Count Program<br><br>ii. Appointment Letter Physical Verification<br><br>iii. Inventory Count sheet | | | Inventory Physical Verification Certification |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 19.3.2.8 | iv. Inventory Count report<br>v. Inventory Count Adjustment<br>vi. Any other supporting documentation or loss control<br>vii. File documentation related to each count separately. | | | |

## 19.4 ANNEXURES

| Document Type | Description |
|---|---|
| Template | Annual Inventory Count Program |
| Template | Appointment Letter Physical Verification |
| Template | Inventory Count sheet |
| Template | Inventory Count report |
| Template | Inventory Count Adjustment |

# CHAPTER 20: PERFORMANCE MEASUREMENT

## 20.1 INTRODUCTION

20.1.1 When the institution looks to measure performance with respect to inventory management, it must establish key performance indicators, commonly referred to as KPI's. These key performance indicators allow the institution to not only better manage inventory, but to better establish the priorities within inventory management practices. In addition, these performance indicators are also used to measure how well inventory managers isolate costs and mitigate their effects.

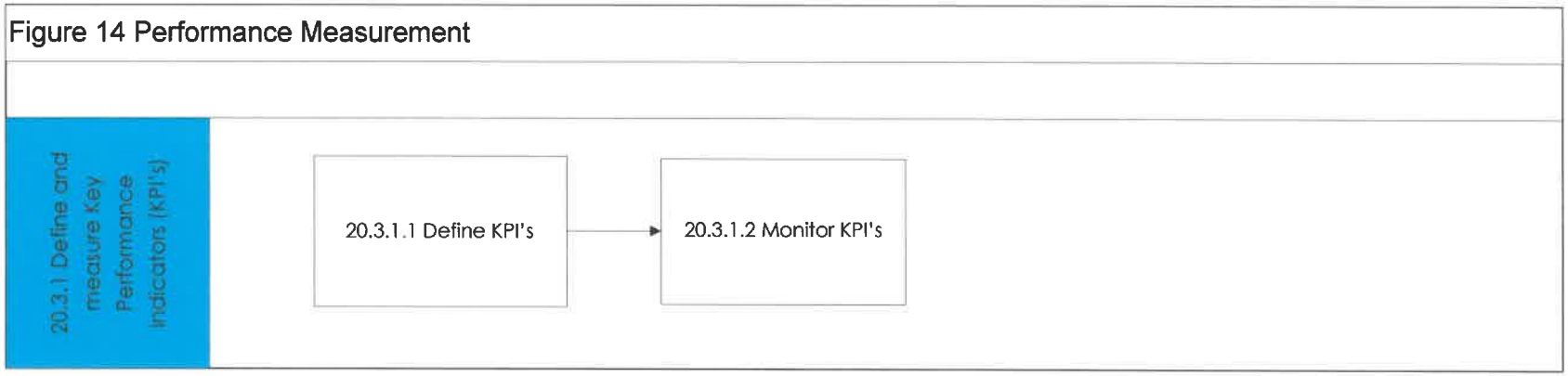
## 20.2 PERFORMANCE MANAGEMENT PROCEDURES

20.2.1 The following standard operating procedures define the activities required to define key performance areas:

(a) Define KPI's

(b) Measure KPI's

**Figure 14: Diagrammatic representation of performance measurement procedures**



## 20.3 PROCEDURES

The following section details the steps required to implement inventory performance measurement as depicted in Figure 13.

| PROCESS | SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 20.3.1 Define and measure Key Performance Indicators (KPI's)<br><br>Objective:<br>(a) Measure performance related to Inventory management.<br><br>Outcome:<br>(a) Inventory Management Key Performance Indicators identified; and<br>(b) Mechanisms to measure performance are identified. | 20.3.1.1 Define KPI's<br><br>20.3.1.2 Monitor KPI's | Knowledgeable employees/ practitioners | | |

| SUB PROCESS | PREREQUISITE | RESPONSIBLE EMPLOYEE/ | TEMPLATE |
|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| | | | **PRACTITIONER** | |
| 20.3.1.1 | The Institution must identify specific key performance indicators specific to inventory management.<br><br>(a) Operational Committee defines Key Performance Indicators in consultation with programme managers;<br><br>(b) Defined KPI's are recorded on the Key Performance Indicators template indicating:<br><br>i. KPI name<br><br>ii. Description of KPI (what it measures)<br><br>iii. How frequently the KPI will be monitored<br><br>iv. Who will monitor KPI<br><br>v. What tools (system or manual) will be used to monitor KPI | Inventory management system | | Key Performance Indicators |

| SUB PROCESS | | PREREQUISITE | RESPONSIBLE EMPLOYEE/ PRACTITIONER | TEMPLATE |
|---|---|---|---|---|
| 20.3.1.2 | Monitor KPI's<br>(c) The Operational Committee must ensure that the KPI's are monitored accordingly;<br>(d) All KPI reports will be reviewed by the Operational Committee as and when the committee meetings. This is will be a standing point on the Agenda of committee meetings.<br>(e) Minutes of the meeting will reflect:<br>vi. All KPI's have been reviewed<br>vii. All areas of concern have been identified<br>viii. Root cause identified<br>ix. Corrective measure determined and responsibility allocated to responsible employee/practitioner | | | Key Performance Indicators |

## 20.4 ANNEXURES

| Document Type | Description |
|---|---|
| Template | Key Performance Indicators |

## CHAPTER 21: INTERNAL CONTROL SCHEDULE

### 21.1 DEFINITION

21.1.1 Internal Control is defined as the whole system of controls, financial and otherwise, established in order to provide reasonable assurance of efficient and effective public services, reliable financial information and reporting, and compliance with applicable laws and regulations.

### 21.2 REQUIREMENT

21.2.1 Treasury Regulations 3.2.1 in conjunction with Section 38(1)(a)(i) and 76 (4) of the PFMA prescribes the following with regard to risk management:

*"The accounting officer must facilitate a risk assessment to determine the material risks to which the institution may be exposed and to evaluate the strategy for managing these risks".*

21.2.2 The format of the internal control schedule with regards to risk must provide for the entire virtuous cycle of supply chain management and must at least include;

(a) Identified risks;
(b) Control activities;
(c) Type of control activity (management, administrative and accounting);
(d) Preventative, detective and corrective control activities;
(e) Responsible employee; and
(f) Management assessment.

21.2.3 In compliance with the provisions of the abovementioned PTI, the following Internal Control Schedule identifies the most common risks associated with asset strategic planning and defines the control measures to mitigate these risks.

**21.3 FORMAT OF THE CONTROL SCHEDULE**

21.3.1 Each table begins with a description of the particular chapter (life cycle phase) covered in this SOP, identifies the major risks and defines the control measures to mitigate these risks and indicates whether the control is a preventative detective or corrective measure.

21.3.2 Classification of Controls

In order to understand the wide scope of internal control, the following classification of internal controls provided below is used to define the internal control schedule:

v. Management Controls (M)

These exist to ensure that the organization, structure and systems support the policies, plans and objectives of the institutions responsible for the provision of public services and also operate within the laws and regulations.

vi. Administrative Controls (A)

These should be in place to ensure that policies and objectives are delivered in an efficient and effective manner and that losses due to waste, theft, error, extravagance or misappropriation are minimized.

vii. Accounting Controls (AC)

These are required to ensure that resources allocated to institutions are accounted for fully and transparently and documented properly.

viii. Information Technology Controls (IT)

Operations are heavily reliant on IT systems and it is essential that these operate in a reliable and secure manner.

21.3.3 Each control type can be preventative, detective or corrective in nature:-

(a) Preventative controls (P)

Prevent errors and irregularities and if properly enforced, are usually the most effective type of control. There is an old saying that "prevention is better than cure" and indeed this is true.

(b) Detective controls (D)

Designed and implemented to uncover or detect errors and irregularities after they have occurred. Another old saying, which is also true, is "it is no use closing the stable door after the horse has bolted." However at least you will have detected that the horse has bolted, and closing the stable door will prevent other horses from bolting.

(c) Corrective controls (C)

Operate together with detective controls. It is clearly no use detecting an error or irregularity without correcting the error/irregularity.

## 21.4 INTERNAL CONTROL SCHEDULE

21.4.1 The Internal Control Schedule must be reviewed to provide for institutional specific identified risks and control measures.

**Table 8: Internal Control Schedule**

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 1 | **Demand Planning**<br><br>Inventory demand management is the process through which the strategic and operational commitments of the institution are translated to its future requirements (both dependent and independent demand). This process must ensure the correct quantity, quality, and specification of the correct inventory item is planned for, supplier to the correct location at the correct time and within the allocated budget. | 1.1 Lack of Demand Planning can result in situations where budget is not available for inventory which is critical to the Department. | 1.1.1 Proper Budget Planning in terms of ensuring that cost centres and departments have managed to identify all their needs. | | P | | | | |
| | | 1.2 Demand Planning can be done incorrectly and inventory items are acquired which are not needed. | 1.2.1 Demand Management Plan needs to be done taking into account the consumption and usage in prior financial years to determine the need. | | | P | | | |
| | | 1.3 Inventory Items are acquired that do not meet the minimum specifications. | 1.3.1 Specifications must be aligned to the plans to ensure that the correct inventory items are procured | | | | P | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 2 | **Inventory Classification**<br><br>The purpose of Inventory Classification is to conduct a formal, analytical process to identify, analyze, and define an inventory classification framework for the institution. The inventory classification framework is unique to each institution and will assist in defining guidelines for optimal replenishment strategies for different types of materials in order to optimize stock levels and meet programme delivery objectives | 2.1 Inventory Classification can be done incorrectly resulting inventory items not being linked to the correct classification and subsequently not being managed correctly | 2.1.1 Apply the correct technique in terms of classification and ensure that consumption history per item is available. | | P | | | | |
| | | 2.2 Minimum Maximum Levels are not maintained resulting in out of stock situations and inadequate stock holding | 2.2.1 A manual or computerized system should be maintained with master file records and should be updated upon movement against each item. | | | P | | | |
| | | | 2.2.2 Consumption history should be accurate and minimum and maximum levels should be reviewed on a regular basis. | | | P | | | |
| | | 2.3 Re-order levels not set correctly resulting in out of stock situations where the demand exceeds the ability to supply. | 2.2.3 Liaise with Cost Centres and demand points on a monthly basis to ensure that any anomalies are noted and amendments are made to the minimum and maximum levels. | | | P | | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 2 | **Inventory Classification**<br>The purpose of Inventory Classification is to conduct a formal, analytical process to identify, analyze, and define an inventory classification framework for the institution. The inventory classification framework is unique to each institution and will assist in defining guidelines for optimal replenishment strategies for different types of materials in order to optimize stock levels and meet programme delivery objectives | 2.4 Master file records not maintained resulting in inaccurate information. | 2.4.1 A dedicated official or section should be responsible for the maintenance of Master file information. | | P | | | | |
| | | | 2.4.2 Change Control procedures should be monitored closely to ensure that master file records are maintained and no changes are made to the classification of items or minimum and maximum levels without authorization. | | P | | | | |
| 3 | **Recognition and Initial Measurement**<br>Inventory Recognition and measurement is the process which is followed to bring the already identified and classified inventory item on the inventory system and into the financial records. | 3.1 Not all factors taken into account when recognizing an item at cost. (i.e. import duties, taxes etc. not included to determine total cost) resulting in incorrect disclosure in the Financial records | 3.1.1 Recognition at cost should include all factors and values. | | | | P | | |
| | | 3.2 Items received at no value or nominal values are included into the financial records without applying fair value. | 3.2.1 Ensure that all inventory items received without or at nominal cost are fair valued and quotes were obtained from reputable sources for similar items. | | | P | | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 3 | **Recognition and Initial Measurement**<br><br>Inventory Recognition and measurement is the process which is followed to bring the already identified and classified inventory item on the inventory system and into the financial records. | 3.3 Items are fair valued against items which are not similar to the item in question | 3.3.1 Ensure that comparison is made between similar items to ensure item is valued correctly. | | | P | | | |
| | | 3.4 Inventories are carried on balance sheet at value greater than their worth. Subsequent measurement after acquisition not done correctly. | 3.4.1 Review the inventory items annually to determine any deterioration in the inventory item and apply subsequent measurement technique as inventory worth may have decreased. | | | | P | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 4 | **Movement of Inventory Items**<br>The process of recording orders, receipts, issues and returns for inventory items kept in warehouses, stores or issued directly to the cost centre. | 4.1 Inventory Items kept in stores subject to out of stock situations. Unable to provide cost centres with the items requested from the warehouse. | 4.1.1 Receipts, issues and Orders for inventory items not recorded manually or on the relevant system in use causing incorrect stock levels. | | P | | | | |
| | | 4.2 Inventory movement transactions not updated on the system in use or manually resulting in items running out of stock. | 4.2.1 Receipts, issues and Orders for inventory items not recorded manually or on the relevant system in use causing incorrect stock levels. | | | C | | | |
| | | 4.3 Supplier Orders not placed according to re-order levels or as per identified need by cost centres. | 4.3.1 Orders must be placed with suppliers as soon as the request is received from the cost centre to ensure that the items are procured in the shortest possible time period. | | | P | | | |
| | | 4.4 Incorrect inventory items delivered to the warehouse / cost centre. | 4.4.1 Orders should be verified to ensure that the correct items are ordered for the warehouse / cost centre. | | | P | | | |
| | | | 4.4.2 Follow up on outstanding orders should be done on a daily basis and cost centre and warehouse should be kept informed of any issues. | | | P | | | |
| | | 4.5 Cost Centre not receiving inventory items on time. | 4.5.1 Warehouse must ensure that requests from the cost centre are attended to upon receipt of the request information and inventory items issued to the cost centre. | | | P | | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 4 | **Movement of Inventory Items**<br>The process of recording orders, receipts, issues and returns for inventory items kept in warehouses, stores or issued directly to the cost centre. | 4.6 Issues and Receipts not done according to prescripts resulting in incorrect inventory balance on hand | 4.6.1 Inventory issues and receipts must be done immediately upon receipt of any documentation to ensure that inventory balances are correct at all times and inventory register is updated. | | P | | | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 5. | **Disposals and Write-offs**<br>Inventory items stop providing economic value to a department and government as a whole if they become:<br>(a) Obsolete<br>(b) Redundant<br>(c) Damaged<br>Disposal is the final process when the institution needs to do away with redundant, obsolete or damaged inventory items. Inventory Disposal cannot be planned and is the result of a scheduled stock take or spot check. | 5.1 Damaged/ Expired / unusable inventory items are issued to the Cost Centre from the warehouse / stores. | 5.1.1 A Disposal Program should be in place on a quarterly basis to process any Disposals identified during a spot check, scheduled stock take or identified by the cost centre.<br>5.1.2 Damaged / Obsolete stock should be removed from the warehouse and stored separately. | | P | | | | |
| | | 5.2 Inventory can take up unnecessary space within the physical store. | 5.2.1 Complete Disposals within the relevant timeframes to ensure that items are removed from the warehouse immediately. | | | P | | | |
| | | 5.3 Expired or Damaged items could be issued to users by default resulting in returns to stores or delays | 5.3.1 Conduct regular stock takes and spot checks within the warehouse to identify expired or damaged items as soon as possible. | | | P | | | |
| | | 5.4 Overstatement of Financial Statements and unreliability of information within the departmental inventory registers. | 5.4.1 Items must be disposed according to a disposal program and regular spot checks should be done to ensure that the items are removed from the inventory registers. | | P | | | | |

| NO | LIFECYCLE PHASE | RISK | CONTROL | DELEGATED OFFICIAL | TYPE OF CONTROL | | | | MANAGEMENT ASSESSMENT *To be done by Management and linked to FCCMM* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | A | AC | IT | |
| 6 | **Physical Control and Periodic Maintenance**<br><br>The purpose of Physical Control is to safeguard inventory against theft and damages. Preventative controls must be in place which will include proper warehouse procedures and regular stock takes and spot checks. | 6.1 Items are damaged due to lack of proper storage and warehouse organization. | 6.1.1 Proper warehouse and Stock room organization should be in place at all times to eliminate damages to inventory items. This will include ensuring that items are stored as per requirement (i.e. cold storage, safes etc.). | | P | | | | |
| | | 6.2 Incorrect items issued to Cost Centres during the issue 1` | 6.2.1 Inventory items should be kept in bins and numbered accordingly. A list containing all items kept in warehouse should be kept with corresponding bin numbers to ensure that items can be easily issued. | | | P | | | |
| | | | 6.2.2 Warehouse manager must ensure that officials responsible for issuing are confident with the correct procedure for picking and issuing items to cost centres | | | P | | | |
| | | 6.3 Inventory Items are lost / stolen / damaged | 6.3.1 Regular spot checks / scheduled stock counts should be in place to eliminate theft. | | P | | | | |
| | | | 6.3.1 Warehouse manager must ensure that proper key control and safety mechanisms are in place within the warehouse / store room. | | P | | | | |

## POLICY REVIEW AND AMENDMENT

- This policy is effective from date of signature.
- The assessment to determine the effectiveness and appropriateness of this policy will be done two (2) years after its effective date and thereafter bi-annually. The assessment could be performed earlier than two years to accommodate any substantial structural or other organizational changes at the Department or any change required by law.
- If and when any provision of this policy is amended, the amended provision will supersede the previous one.
- Deviations from this policy must be approved by the Accounting Officer.

## APPROVAL OF THE POLICY AND DATE OF EFFECT

*This policy is Approved / Not Approved*

*Comments:*

.....

.....

.....

.....

**MR. K. NOGWILI**
**ACCOUNTING OFFICER**

**DATE**

the dr&pw

Department:
Roads and Public Works
NORTHERN CAPE PROVINCE
**REPUBLIC OF SOUTH AFRICA**

# INTERNAL MEMO

| | | | |
|---|---|---|---|
| **DATE:** | 01 JUNE 2018 | **REF. NO.** | |
| **TO:** | MS. B. BEKEBEKE<br>DIRECTOR: STRATEGIC PLANNING | | |
| **FROM:** | MR. T. FERREIRA<br>DEPUTY DIRECTOR: POLICY AND RESEARCH MANAGEMENT SERVICES | | |
| **SUBJECT:** | **SUBMISSION FOR APPROVAL OF THE REVIEWED DEPARTMENTAL INVENTORY MANAGEMENT POLICY AND STANDARD OPERATING PROCEDURES** | | |

Dear Ms. Bekebeke

Please find attached the departmental Inventory Management Policy and Standard Operating Prodedures, for your perusal and consideration, which have been circulated departmentally for inputs and which are hereby submitted for approval by the Head of Department (HOD).

Regards,

Mr. T. Ferreira
Manager: Policy and Research Management Services

the dr&pw

Department:
Roads and Public Works
NORTHERN CAPE PROVINCE
**REPUBLIC OF SOUTH AFRICA**

# INTERNAL MEMO

| | | | |
|---|---|---|---|
| **DATE:** | 01 JUNE 2018 | **REF. NO.** | |
| **TO:** | THE HEAD OF DEPARTMENT (HOD) | | |
| **FROM:** | THE DIRECTOR: STRATEGIC PLANNING | | |
| **COPY:** | THE CHIEF DIRECTOR: CORPORATE AND MANAGEMENT SERVICES | | |
| **SUBJECT:** | **SUBMISSION FOR APPROVAL OF THE DEPARTMENTAL INVENTORY MANAGEMENT POLICY AND STANDARD OPERATING PROCEDURES** | | |

**Purpose**

1. The purpose of this submission is to obtain approval from the Head of Department (HOD) for the operationalization within the Department of the Departmental Inventory Management Policy and Standard Operating Procedures.

**Recommendations**

1. The final draft of this policy has been circulated departmentally by the Communication Unit.

2. It is therefore recommended that the HOD approve this policy as Departmental policy.

3. Please see e-mail attached of the Evidence of Departmental Consultation.

MS. B. BEKEBEKE
DIRECTOR: STRATEGIC PLANNING
Recommended / Not Recommended

01 July 2018
DATE

MS. A. MPOTSANG
CHIEF DIRECTOR: CORPORATE AND MANAGEMENT SERVICES
Recommended / Not Recommended

17/7/2018
DATE

MR K. NOGWILI
HEAD OF DEPARTMENT
Policy Approved / Policy Not Approved

01·08·2018
DATE

# TFerreira - DR&PW Final Draft INVENTORY Management Policy and Procedures; DR&PW Draft SCM POLICY 2018

**From:** DRPW-Info

**To:** ABavasah; ABrand; AFanie; AFembers; AKula; ALesotho; ALKoopman; amaina@vodamail.co.za; AMasisi; AMkhize; AMoeti; AMofokeng; AMokwadi; AMotlagodisa; AMpotsang; andre.jooste17@gmail.com; AnthonyL; APulen; arpinm7@gmail.com; ARudman; ASwanepoel; Babalwa Bekebeke; BBarends; BBobeje; BChotelo; BCloete; BDamon; BGoba; BMazwi; BMeruti; BMontshiwa; BonoloMakoko; BosmanP; BPitso; BSedisho; BSemau; BSlingers; bslingers@vodamail.co.za; BValentine; c28robertson@gmail.com; CAbrahams; CAdams; CBailey; cbailey@vodamail.co.za; CDenysschen; CFourie; CGeweldt; ChristinaF; CKakora; CMrwebi; CRabaji; CRobertson; CValentine; CvanRooi; DBingwa; denicebingwane460@gmail.com; DGaehete; DKowa; DMaqutyana; DMokgatlhe; DMokoena; DMonyamane; DMwembo; DPetersen; DPhirisi; DRPW-Info; DRPW-Switchboard; DSwartz; DTsoai; DvdMerwe; EBlaauw; EBreytenbach; ed.simon19@gmail.com; EduPlessis; EJobe; EJonkers; EKhatwane; EKruger; ELecwedi; EMichaels; emodise@vodamail.co.za; EMoreothata; ENodoba; EPino; EricksenA; ESimon; esterhuysek133@gmail.com; FDooling; FMogoje; FPetoro; francesbaardmech@gmail.com; FvanVuuren; GAppels; GCloete; GJacobs; gkeyser@vodamail.co.za; GMeyer; GMoabi; GMolale; gobiditseonerobertmosang@gmail.com; GPietersen; GPino; GRiet; GSalimana; gstuurman17@gmail.com; GThupe; GTopkin; HenerydeWee@gmail.com; hermie@hantam.co.za; HPuley; HvanderMerwe; ICarolus; IFredericks; ILottering; innocentiamlambo@gmail.com; IOliphant; IRammutla; Isaacprins9@gmail.com; ITlhopile; JHanekom; JillianWilliams; JMarx; JMhlongo; JMolale; JMoncho; JMphole; JPienaar; JSehume; JSibiya; JSitler; JSpetember; JTawine; jtgmec@gmail.com; June Erasmus; KAaron; KatzS; KBeuzana; KBopape; KBritz@ncpg.gov.za; KChomi; KDennis; KEisang; kenneth.markman@vodamail.co.za; KEricksen; keysergarnett@gmail.com; KHenyekane; KKgomo; KKross; KLawrence; KLeserwane; KMaarman; KMatonkonyane; KMatthews(...)

**Date:** Tue, May 22, 2018 1:47 PM

**Subject:** DR&PW Final Draft INVENTORY Management Policy and Procedures; DR&PW Draft SCM POLICY 2018

**Attachments:** DR&PW Final Draft INVENTORY Management Policy and Procedures.docm; DR&PW Draft SCM POLICY 2018.docx

Good Day Colleagues

Hereby receive above mentioned policies attached for your urgent attention, comments, inputs and feedback. Please note that the due date for inputs is **Friday, 25 May 2018.**

For more information or any clarification regarding the above, please consult with Mr Tom Ferreira, Manager: Policy and Research Management Services.

Thank You

DRPW-info@ncpg.gov.za
COMMUNICATION AND MARKETING SERVICES

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***Trendsetters in infrastructure delivery to change the economic landscape of the province'***