"Pioneers in Professional Education"

CL-25-1 | Corporate Financial Reporting

Corporate Level (2025 – Curriculum)

- LKAS 2 – Inventories

Chandima Prabhath

B.Sc. Accounting (special) First Class (USJ) | ACA | CMA Passed Finalist | MAAT | ICAEW Finalist | ACCA Finalist | CA, CMA and AAT Merit and Subject Prize winner | Certification in Forensic Accounting (CASL) | ABR Prize Winner in CA Strategic Level

LKAS 2
Inventories

LKAS 2 Inventories provides guidance on the determination of cost and its subsequent recognition as an expense, including any write-down to net realizable value. It also provides guidance on the cost formulas that are used to assign costs to inventories.

Definition of Inventories (Para 06)

Inventories are assets:

- Held for sale in the ordinary course of business;
- In the process of production for such sale; or
- In the form of materials or supplies to be consumed in the production process or in the rendering of services.

Scope of LKAS 2

The following items are excluded from the scope of the standard. **(Para 02)**

- Financial instruments (covered by LKAS 32 Financial Instruments: Presentation and SLFRS 9 Financial Instruments: Recognition)
- Biological assets (covered by LKAS 41 Agriculture)

Certain inventories are exempt from the standard's measurement rules, i.e. those held by: **(Para 03)**

- Producers of agricultural and forest products
- Commodity broker-traders

1.1 Inventory Valuation

This section describes a structured and systematic approach to applying inventory valuation techniques to ensure accuracy, compliance with relevant standards, and professional supportability.

Measurement (Para 09)

Inventories are measured at the lower of cost and net realisable value (NRV). Where NRV is less than cost, the carrying amount of inventories is written down.

Cost of Inventories

Determining inventory cost involves more than just the purchase price. According to **LKAS 2**, the cost of inventory comprises all **costs of purchase, costs of conversion, and other costs** incurred in bringing the inventories to their present location and condition. **(Para 10)**

Costs of Purchase (Para 11)	Costs of Conversion (Para 12)	Other Costs (Para 15)
These include the purchase price, import duties, non-recoverable taxes, and transport and handling costs directly attributable to acquiring finished goods, materials, and services. Trade discounts, rebates and other similar items are deducted.	Primarily relevant for manufacturing entities, these are the costs directly related to the units of production. They include direct costs like direct materials and direct labour, as well as a systematic allocation of fixed and variable production overheads.	Only costs directly incurred to bring inventory to its current location and condition are included. For instance, non-production overheads or product design costs for a specific customer order may be included.

Inventory costs exclude (Para 16)

However, abnormal waste, storage costs not essential to production, general administrative overheads, and selling expenses are **excluded** from inventory cost.

Question 01 – Total Cost of Purchased Goods

Trident Logic Ltd., a company based in Colombo, imports electronic components from Japan. On 15 January 2024, the company purchased a consignment of 1,000 units. The supplier's invoice indicates a price of Rs. 500 per unit.

Given Information

Units purchased	1,000
Purchase price per unit	Rs. 500
Import duties and taxes	Rs. 75,000
Shipping and handling (Japan to Colombo port)	Rs. 40,000
Transport (port to warehouse)	Rs. 15,000
Trade discount received	2%
Administrative overheads (procurement dept.)	Rs. 50,000
Abnormal waste (handling accident)	10 units

Required:

Determine the total cost of Inventory to be recognised and the cost per unit according to LKAS 2.

Cost Formulas/Identification of Inventory Costs

The cost of inventories of items that are not ordinarily interchangeable and goods or services produced and segregated for specific projects shall be assigned by using **specific identification** of their individual costs **(Para 23)**.

The cost of inventories, other than which are identified using Specific Identification, are identified using a cost formula. An entity shall use the same cost formula for all inventories having a similar nature and use to the entity The choice of formula depends on the **nature** of the inventory. LKAS 2 prescribes the following methods: **(Para 24)**

1. First-In, First-Out (FIFO)
2. Weighted Average Cost (WAC)

Specific Identification	First-In, First-Out (FIFO)	Weighted Average Cost (WAC)
This method is used for items that are not ordinarily interchangeable, or for goods and services produced and segregated for specific projects. The cost of each specific item is tracked and assigned directly. • **e.g.,** Used when items are unique and individually identifiable such as **cars, machinery, custom equipment.**	This formula assumes that the first units purchased are the first ones sold. Consequently, the items remaining in inventory at the end of a period are assumed to be those most recently purchased or produced.	Under this method, the cost of each item is determined from the weighted average of the cost of similar items at the beginning of a period and the cost of similar items purchased or produced during the period.

Question 02 – Cost Formulas (FIFO & WAC)

The following information pertains to the product "Alpha" at Mango Holdings for the month of March.

Inventory Transactions for Product 'Alpha'

March 01: Opening Inventory- 100 units	Rs. 200/unit
March 10: Purchase- 150 units	Rs. 210/unit
March 15: Sale	180 units
March 25: Purchase- 120 units	Rs. 220/unit
March 30: Sale	100 units

Required:

1. **Calculate** the closing inventory (units).
2. **Calculate** the value of the closing inventory for Mango Holdings as at March 31 using the FIFO method
3. **Calculate** the value of the closing inventory for Mango Holdings as at March 31 using the WAC method, assuming a periodic weighted average is calculated at the end of the month.

Question 03 – Cost Formulas (Specific Identification Method)

Taprobane Finance deals in high-value, unique gems as part of its investment portfolio. At the start of the year, they had two specific gems in inventory: Gem A (Cost: Rs. 500,000) and Gem B (Cost: Rs. 750,000). During the year, they purchased Gem C for Rs. 600,000. By year-end, they had sold Gem B.

Required:

Calculate the value of the closing inventory.

The Lower of Cost and Net Realisable Value (NRV)

Inventory costs may not be recoverable if items are damaged, obsolete, or if their selling prices decline. They may also be unrecoverable if completion or selling costs increase. Therefore, inventory should be written down to net realizable value to ensure it is not carried at more than the amount expected to be realized from its sale or use.

Net Realisable Value (NRV) **(Para 06)**	The estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale

Inventory is reported in the financial statements at **whichever amount is lower** between the **cost and NRV**. This approach prevents overstatement of inventory and ensures that any expected losses are recorded in the period in which they arise.

The amount of any write-down of inventories to NRV and all losses of inventories are recognised as an **expense** in the period the write-down or loss occurs **(Para 34)**.

Question 04 – NRV and Inventory Write-Down

Blue Gem Textiles holds three product lines of finished goods at the end of its financial year. The company must value its inventory at the lower of cost and NRV.

Product Line	Cost (Rs.)	Estimated Selling Price (Rs.)	Estimated Selling Costs (Rs.)
A- Formal Shirts	200,000	250,000	20,000
B- Casual T-Shirts	150,000	160,000	15,000
C- Winter Jackets	300,000	320,000	30,000

Required:

1. **Calculate** the closing inventory value of each product line.
2. **Calculate** the Inventory write-down value of each product line (If required)

Reversals of write-downs (Para 33)

NRV must be reassessed at the end of each period and compared again with cost. If the NRV has risen for inventories held over the end of more than one period, then the previous write down is reversed to the extent that the inventory is then valued at the lower of cost and the new NRV. This may be possible when selling prices have fallen in the past and then risen again.

The amount of any reversal of any write-down of inventories, arising from an increase in NRV, is recognised as a **reduction in the amount of inventories recognised as an expense (Para 34)** in the period in which the reversal occurs.

Recognition as an expense (Para 34)

- When inventories are **sold**, the carrying amount of those inventories shall be recognised as an expense in the period in which the related revenue is recognised.

- The amount of **any write-down of inventories** to net realisable value and all losses of inventories shall be recognised as an expense in the period the write-down or loss occurs.

Disclosures (Para 36)

The financial statements should disclose the following.

a) **Accounting policies** adopted in measuring inventories, including the cost formula used;
b) **Total carrying amount of inventories** and the carrying amount in classifications appropriate to the entity;
c) **Carrying amount** of inventories carried at NRV;
d) The amount of inventories recognised as an **expense** in the period;
e) The amount of any **write down** of inventories recognised as an expense in the period;

f) The amount of any **reversal of write down** recognised in profit or loss in the period;
g) The **circumstances** that led to the reversal of a write down of inventories; and
h) The carrying amount of inventories pledged as security for liabilities.

1.3 Automation Tools for Inventory Reporting

The focus shifts from performing manual calculations to supervising automated systems that ensure accuracy and provide timely data for decision-making. For organizations handling large and complex inventory volumes—such as manufacturing and logistics entities—manual application of costing methods and the lower of cost and NRV principle is inefficient and prone to error. Automation integrates LKAS 2 requirements directly into software systems, ensuring consistent application while allowing management to concentrate on analysis and strategic oversight.

Implementing automation involves;

- Evaluating **real-time** inventory tracking
- Embedded **compliance controls**
- **Exception reporting** for NRV adjustments
- Seamless **ERP integration** with financial ledgers

Digital Platform Implementation for Inventory Valuation

Implementing a digital platform involves **selecting, configuring, and deploying** software that aligns with organisational requirements and financial reporting standards. Moving away from manual spreadsheet-based processes to structured automated systems reduces the risk of material misstatements and non-compliance with LKAS 2.

A thorough evaluation of these platforms promotes **accurate valuation**, strengthens **audit transparency**, and delivers **real-time information** to support effective strategic decision-making.

Automated Valuation System Capabilities

Contemporary inventory systems streamline complex valuation processes through **perpetual monitoring** and **integrated accounting controls**. However, improper configuration can result in recurring errors that impact the accuracy of financial statements. It is therefore essential to ensure that the system is properly set up to reflect the organisation's specific valuation policies and to generate reliable, real-time information.

Key areas to examine include:

- Verify the system automates cost calculations using First-In, First-Out (FIFO) or weighted average methods
- Test automated Net Realisable Value calculations against market data feeds
- Confirm real-time tracking updates inventory balances after each transaction

Example: Perpetual Inventory System - A system that continuously updates inventory records for receipts and issues of inventory.

Question 05 – Perpetual Inventory System Transactions

Zenith Logistics uses a perpetual inventory system with RFID tracking. The system records transactions in real-time. On 15th November 2025, the following events occurred:

- Received a shipment of 100 units of 'Product A' from a supplier. The purchase cost per unit is Rs. 6,500.
- Sold 80 units of 'Product A' to a customer on credit for a price of Rs. 9,000 per unit.

Required:

Prepare the journal entries to record these transactions.

1. To record the purchase of inventory
2. To record the sale of inventory
3. To record the cost of inventory sold

Compliance Integration Features

Digital platforms embed accounting standards directly into operational workflows to ensure consistent policy application. Non-compliance with LKAS 2 requirements exposes organisations to audit qualifications and financial penalties. You are responsible for confirming the system produces complete, unalterable records that satisfy regulatory requirements.

Follow these **steps**:

- Confirm the system maintains an **immutable log of all transactions** with user identification and timestamps
- Review **exception reporting capabilities** for flagging deviations from standard costs or NRV breaches
- Test **user access controls** to prevent unauthorised valuation method changes

Report Generation Functionality

Stakeholders across the organisation require different levels of inventory information for operational and strategic decisions. Raw transactional data without proper presentation tools obscures critical insights and delays decision-making. It is therefore essential that the system produces accurate, well-structured, and customizable reports tailored to meet the varied needs of stakeholders.

The required **procedures** are:

- Design **standard valuation reports** meeting LKAS disclosure requirements
- Create **custom dashboards** showing inventory turnover, ageing analysis, and value by category
- Configure **automated distribution schedules** for weekly operational reports and monthly management summaries

System Integration Architecture

Inventory platforms must seamlessly exchange data with other enterprise systems to **maintain a single source of truth**. Data silos between warehouse, sales, and financial systems create reconciliation errors and undermine reporting accuracy. You must evaluate the platform's ability to integrate with your existing technology infrastructure.

Areas to consider include:

- Mapdata flows between the inventory platform and Enterprise Resource Planning system
- Verify Application Programming Interface compatibility with warehouse management systems
- Test automated journal entry posting from inventory movements to the general ledger

1.3.1 AI Enhancement for Inventory Management

While automation ensures consistent application of rules and accurate historical reporting, it cannot forecast future trends or detect subtle patterns in large datasets. AI leverages real-time, integrated data to provide forward-looking insights, enabling organisations to anticipate demand changes, identify potential risks, and make proactive, data-driven decisions that safeguard assets and support profitability.

The following 03 technologies can support organizations in effectively utilizing **AI** for inventory management.

Predictive Modeling	Anomaly Detection	Dynamic Cost Allocation
Using historical data and market trends to forecast future demand and estimate Net Realisable Value with greater accuracy.	Identifying unusual patterns in inventory data that may indicate fraud, error, or obsolescence before they result in material losses.	Applying machine learning to assign costs more accurately in complex production environments based on real-time consumption of resources.

1.3.2 Artificial Intelligence Applications in Inventory Valuation

Predictive Analytics for Net Realisable Value Estimation

Market volatility and changing consumer preferences create constant risks that inventory values may exceed their recoverable amounts. Falling selling prices or rising completion costs may overstate inventory, so valuations must reflect current market conditions to ensure accurate financial reporting.

Key areas to examine include:

- Analyse historical price trends and current market data to forecast future selling prices
- Model the impact of seasonality, promotions, and market conditions on demand patterns
- Calculate estimated NRV by deducting predicted costs to complete and sell from forecasted prices

Question 06 – Predictive Analytics for NRV Estimation

BlueGem Textiles holds 5,000 units of a specific garment with a carrying cost of Rs. 1,200 per unit. An AI model, analysing market trends and historical data, provides the following forecasts for the upcoming sales period:

- Forecasted Selling Price: Rs. 1,500 per unit
- Predicted Costs to Complete (e.g., final packaging): Rs. 150 per unit
- Predicted Selling Costs (e.g., sales commission): Rs. 75 per unit

Required:

Calculate the estimated Net Realisable Value (NRV) per unit and **determine** if a write-down is necessary according to LKAS 2.

Machine Learning for Obsolescence Prediction

Slow-moving inventory ties up capital and may become unsellable, reducing profitability. Traditional approaches using fixed age limits often overlook product-specific factors. It is important to use advanced models that assess multiple variables to accurately estimate obsolescence provisions.

Follow these **steps**:

- Train classification models using historical data on sales velocity, returns, and product lifecycles
- Apply the model to current inventory to generate obsolescence probability scores for each SKU
- Calculate required provisions based on risk scores and carrying values, such as Rs. 650,000 for high-risk items

Example: Machine Learning - Computer systems that learn from experience without explicit programming.

Question 07 – Machine Learning for Obsolescence Provision

Trident Logic Ltd. uses a machine learning model to predict inventory obsolescence. The model assigns a probability score to each Stock Keeping Unit (SKU). For a high-value electronics category, the model produces the following risk assessment:

SKU	Description	Carrying Value (Rs.)	Obsolescence Risk
SKU-001	Model X Phone	650,000	High (80% probability)
SKU-002	Model Y Tablet	1,200,000	Medium (30% probability)
SKU-003	Model Z Laptop	2,500,000	Low (5% probability)

Required:

Calculate the required provision for inventory obsolescence based on the model's output.

Intelligent Reporting and Anomaly Detection

Building on automated reporting, intelligent systems can detect unusual patterns that may signal errors or fraud. Standard reports may overlook subtle irregularities in large transaction volumes. AI should be used to continuously monitor data accuracy and provide management with actionable insights.

The required **procedures** are:

- Configure AI models to establish baseline patterns for normal inventory movements and values
- Investigate all system-flagged anomalies such as unusual adjustments or negative quantities
- Generate automated narrative reports explaining variances and recommending corrective actions

Example: Anomaly Detection - Identification of rare events differing significantly from established patterns.

- AI flags a series of write-offs totaling Rs. 800,000, each just below the Rs. 150,000 approval thresholds. You investigate this pattern and uncover an employee theft scheme that manual reviews missed.

Dynamic Cost Allocation

Fixed overhead rates in traditional costing do not accurately reflect how resources are actually used. This can distort product profitability and inventory values, resulting in suboptimal pricing decisions. It is important to use dynamic models that allocate costs based on real-time operational data.

The **procedure** is as follows:

- Identify **primary cost** drivers using machine learning analysis of production data
- Build **models** that allocate overheads based on actual machine usage and activity levels
- Update **inventory costs** dynamically to reflect true resource consumption patterns

Advanced Valuation Techniques

AI goes beyond standard uses by supporting advanced valuation in complex situations. For example, **biological assets** under **LKAS 41** must be measured at fair value, taking into account growth, market conditions, and quality. Dynamic NRV models use real-time market data to keep valuations up to date. These techniques help ensure accurate reporting for specialised inventory types.

Common **techniques** include:

- Develop **valuation models** integrating growth data, market prices, and transport costs for biological assets
- Implement **real-time NRV calculations** using live market data feeds and competitor pricing
- Create **scenario models** to assess inventory value under different market condition.