INVENTORY

IPSAS 12

Presentation by: CPA Dr. Elizabeth Kalunda

Presentation Overview

- Measurement of Inventories
- Cost Formulas
- Net Realizable Value
- Recognition as an expense
- Disclosures requirements

Training Objectives

- Understand how Inventories are measured
- Apply inventory cost Formulas
- Appreciate the concept of net realizable value
- Classify situations on when to expense inventory
- Identify disclosures requirements related to Inventory

Introduction

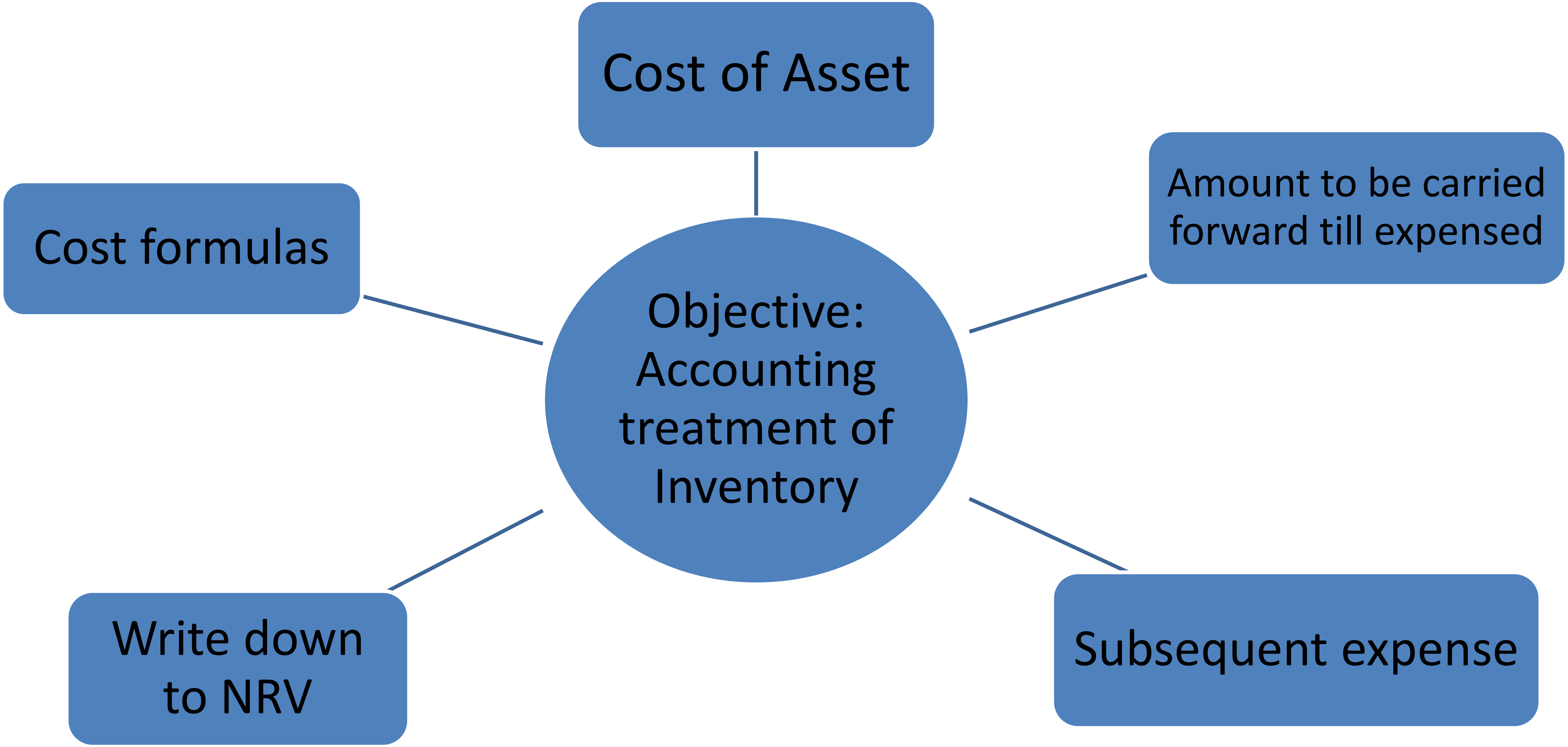
Significance of Inventories

- They determine the bottom line of an entity
- Has been the subject of window dressing and manipulation by management of financial results.
- Prone to misappropriation
- High degree of obsolescence

Objective

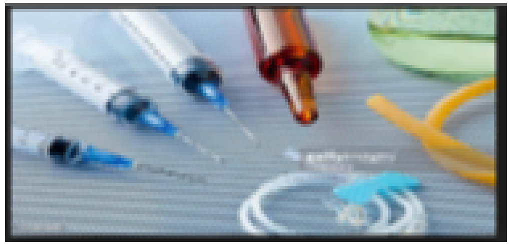
- Prescribe the accounting treatment for inventories.
- A primary issue in accounting for inventories is the amount of cost to be recognized as an asset and carried forward until the related revenues are recognized.
- This standard provides guidance on the determination of cost and its subsequent recognition 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.
- Based on IAS 2, Inventories

Objective..summary



Definitions: Inventories are assets:

In the form of materials/supplies to be consumed in the production process



In the form of materials/ supplies to be consumed or distributed in the rendering of services

Held for sale or distribution in the ordinary course of operations

In the process of production for sale or distribution

Assets are resources controlled by an entity as a result of past events and from which future economic benefits or service potential are expected to flow to the entity

Inventories in Public Service

- Ammunition
- Consumable stores
- Maintenance materials
- Spare parts for plant & equipment, other than those dealt with in standards on PPE
- Strategic stockpiles (eg energy reserves)
- Stocks of unissued currency
- Postal service supplies held for sale (for example, stamps);
- Work-in-progress, including:

(i) Educational/training course materials; and

(ii) Client services (for example, auditing services), where those services are sold at arm's length prices; and

- Land/property held for sale

Scope

All inventories except

- Work in progress or services with no or nominal consideration
- Work in progress under construction costs IPSAS11
- Biological assets and agricultural produce IPSAS 27
- Financial instruments IPSAS 28 and 29
- Commodity brokers-traders (measured at fair value)
- Producers of agricultural products and harvest or minerals and mineral products (measured at fair value)

Definitions: IPSAS 12

Measurement basis of Inventories

*Initial recognition

1) **Cost basis:** Purchase, conversion and other costs allowed*
2) **Current replacement cost:** Cost the entity would incur to acquire the asset on the reporting date.
3) **Net realisable value:** Estimated selling price in the ordinary course of operations, less estimated costs of completion and estimated costs necessary to make the sale, exchange, or distribution.
4) **Fair value:** Amount for which the same inventory could be exchanged between knowledgeable and willing buyers and sellers in the marketplace.*

Measurement of Inventory…Cost

Cost of purchase:

- Purchase price
- Import duties & other taxes
- Transport
- Handling and other costs directly attributable to the acquisition of finished goods, materials and services.
- Trade discounts, rebates and other similar items are deducted in determining the cost of purchase.

Conversion cost:

- Include costs directly related to the units of production such as:
- Direct labour
- Fixed & variable production overheads incurred in converting materials into finished goods.
- FOVHDs based on the normal production capacity.

Excluded costs:

- Abnormal amounts of wasted materials, labor or other production costs
- Storage costs, unless those costs are necessary in the production process
- Administrative overheads
- Selling costs

Measurement of Inventory: Subsequent

Inventory cost: Lower of:

Except if acquired in a non-exchange transaction
* Use Fair Value

Cost

Cost of Purchases	X
Cost of Conversion	X
Other cost to bring inventory to:	
Present location	X
Present condition	X
Inventory Cost	**XX**

NB:
Done on a line by line basis and individually

Net realizable Value

Est. Selling Price	x
Discounts	(x)
Est. completion cost	(x)
Selling costs	(x)
NRV	**XX**

Measurement of Inventory: Subsequent

Inventory 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.

Inventory cost:
Lower of

cost

Current replacement cost

Cost the entity would incur to acquire the asset on the reporting date.

Measurement of Inventory…contd

Inventory cost:
service provider

- -Direct labour costs
- -Direct Personnel costs
- -Supervisory costs
- -Attributable overheads

- ~~-Other overheads~~
- ~~-Indirect labour/cost~~
- ~~-Profit margins~~

Cost Formulas –IPSAS 12

	Cost Formula	When to be used
1.	Standard cost method or retail method *	Convenience if the results approximate cost
2.	Specific identification	For specific projects; Easy to identify the inventory; Not ordinarily interchangeable
3.	The First-in, First out (FIFO)	Remaining inventory at the end of the period are those most recently purchased/produced
4.	Weighted average cost	No order of consumption/use

- An entity shall use the same cost formula for all inventories having a similar nature and use to the entity.
- For inventories with a different nature or use, different cost formulas may be justified
- *To be reviewed regularly

Subsequent Measurement – IPSAS 12

Net realizable Value

- Cost incurred may become irrecoverable if those inventories are damaged, obsolete, selling prices declined due to market conditions, or the estimated costs incurred to complete has increased.
- Write down inventories to NRV.

DR: SF Performance

CR: Inventory/allowance for WD to NRV

Reversal of inventory write-down

At each subsequent period, a review is made of the NRV

- If the conditions that previously resulted in a write down no longer applicable, or there are new circumstances that results in an increase of the NRV, the write-down be reversed to reflect the new carrying amount at the lower of cost and NRV.

- The reversal of the write-down be limited to the original amount of the write-down

Recognition of Inventory as Expense

Write down and reversals:

A government unit had inventory records as follows;

a) On 30/1/2015 Cost = Ksh 80M; 30/6/2015 realizable value = KSh 50M.

b) On 30/6/2016 NRV = Ksh 100M.

Show the accounting entries:

a)On 30/6/2015 write down

Dr Loss of Inventory to NRV …..Ksh 30M

  Cr Allowance for decline of Inventory to NRV…..Ksh 30M

b) On 30/6/2016 Write up limited to max. of write down

Dr Allowance for decline of Inventory to NRV…..Ksh 30M

Recognition of Inventory as Expense

	Event	When to recognition as an Expense
1	On sale, Exchange or distribution	Same period in which the corresponding revenue is recognized.
2	On distribution or service rendering with no related revenue	Period when the goods are distributed, or related services are rendered.
3	Write down	Period in which the write-down or loss occurs
4	*Write-down reversal	*Period in which the write-up/ recovery occurs
	NB: Service provider: recognized as expenses when services are rendered, or upon billing for chargeable services.	

Recognition as an Expense

NB

Capitalization

- Inventories may be included in other asset accounts, for example inventory used as a component of PPE .
- Such inventory is recognised as an expense over the useful life of that asset.

Disclosures

(a) Accounting policies adopted in measuring inventories and the cost formula used;

(b) Total carrying amount and the amount in classifications appropriate to the entity;

(c) Carrying amount of inventories carried at fair value less costs to sell;

(d) Amount of inventories recognized as an expense during the period;

(e) Amount of any write-down of inventories recognized as an expense in the period

(f) Amount of any reversal of write-down recognized in the SF performance in the period

(g) Circumstances or events that led to the reversal of a write down of inventories

(h) Carrying amount of inventories pledged as security for liabilities.

Disclosures …sample

2.2 Summary of significant accounting policies *continued*

m) Inventories

Inventory is measured at cost upon initial recognition. To the extent that inventory was received through non-exchange transactions (for no cost or for a nominal cost), the cost of the inventory is its fair value at the date of acquisition.

Costs incurred in bringing each product to its present location and condition are accounted for, as follows:

- Raw materials: purchase cost using the weighted average cost method
- Finished goods and work in progress: cost of direct materials and labor and a proportion of manufacturing overheads based on the normal operating capacity, but excluding borrowing costs

IPSAS 12.15
IPSAS 12.17 (a)
IPSAS 12.16

After initial recognition, inventory is measured at the lower of cost and net realizable value. However, to the extent that a class of inventory is distributed or deployed at no charge or for a nominal charge, that class of inventory is measured at the lower of cost and current replacement cost.

IPSAS 12.18

IPSAS 12.35
IPSAS 12.20
IPSAS 12.21

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.

IPSAS 12.9

Inventories are recognized as an expense when deployed for utilization or consumption in the ordinary course of operations of the Group.

Disclosures….sample

29. Inventories

	2013	2012	
	€000	€000	*IPSAS 1.94 (c)*
Consumable stores	207,628	197,484	*IPSAS 12.47 (b)*
Medical supplies	310	492	*IPSAS 12.47 (b)*
Spare parts and meters	22,634	14,351	*IPSAS 12.47 (b)*
Water for distribution	15,070	18,293	*IPSAS 12.47 (b)*
Other goods held for resale	8,743	3,549	*IPSAS12.47 (b)*
Catering	-	2,465	
Total inventories at the lower of cost and net realizable value	254,385	236,634	*IPSAS 12.47 (b)*

At 31 December 2013, €52.300 million (2012: €42.300 million) of total inventory was carried at fair value less cost to sell. *IPSAS 12.47(c)*

The amount of write-down of inventories recognized as an expense is €5.400 billion (2012: €1.200 billion), which is recognized in general expenses. *IPSAS 12.47(e)*

IPSAS 12.47(h)

No inventory items were pledged as security during the current or prior financial year.

Thank you

Discussions

IPSAS 19- Provisions, Contingent Liabilities and Contingent Assets

Presentation by: CPA Dr. Elizabeth Kalunda

Introduction

Two applicants during their interview, were given a task to calculate the net profit figure based on available data. After some while, interviewer asked them a question:

"What result did you get as the net profit of this company?"

- The first accountant replied: the net profit is 150 mil. USD.
- And the second one asked: "What would you like it to be?"
- Now guess which one got the job!
- Uncertainties in the environment

Presentation Outline

- Definition of provision and related key terms
- Recognition criteria - concept of present legal or constructive (non-legal)
- Measurement of provisions
- Application of the recognition and measurement rules: Case study
- Key disclosure requirements
- Identification of main categories of provisions
- Discussion on practical implementation challenges (environmental provisions, etc.)

Introduction….contd

Provision

=liability of uncertain timing or amount

=Present Obligation from past event → outflow of economic benefits /service potential

Legal | Constructive

Concept of legal and constructive Obligations

Legal obligation

(a) A contract (through its explicit or implicit terms);

(b) Legislation; or

(c) Other operation of law

Constructive obligation

- Through established pattern of past practice, published policies or sufficiently specific current statement,
- The entity has indicated to other parties that it will accept certain responsibilities;
- the entity has created a valid expectation on the part of those other parties that it will discharge its responsibilities.

Concept of legal and constructive Obligations…contd

- Examples of legal obligations

- Examples of constructive obligations

Recognition of Criteria of a Provision

Present obligation (legal or constructive) as a result of a past event

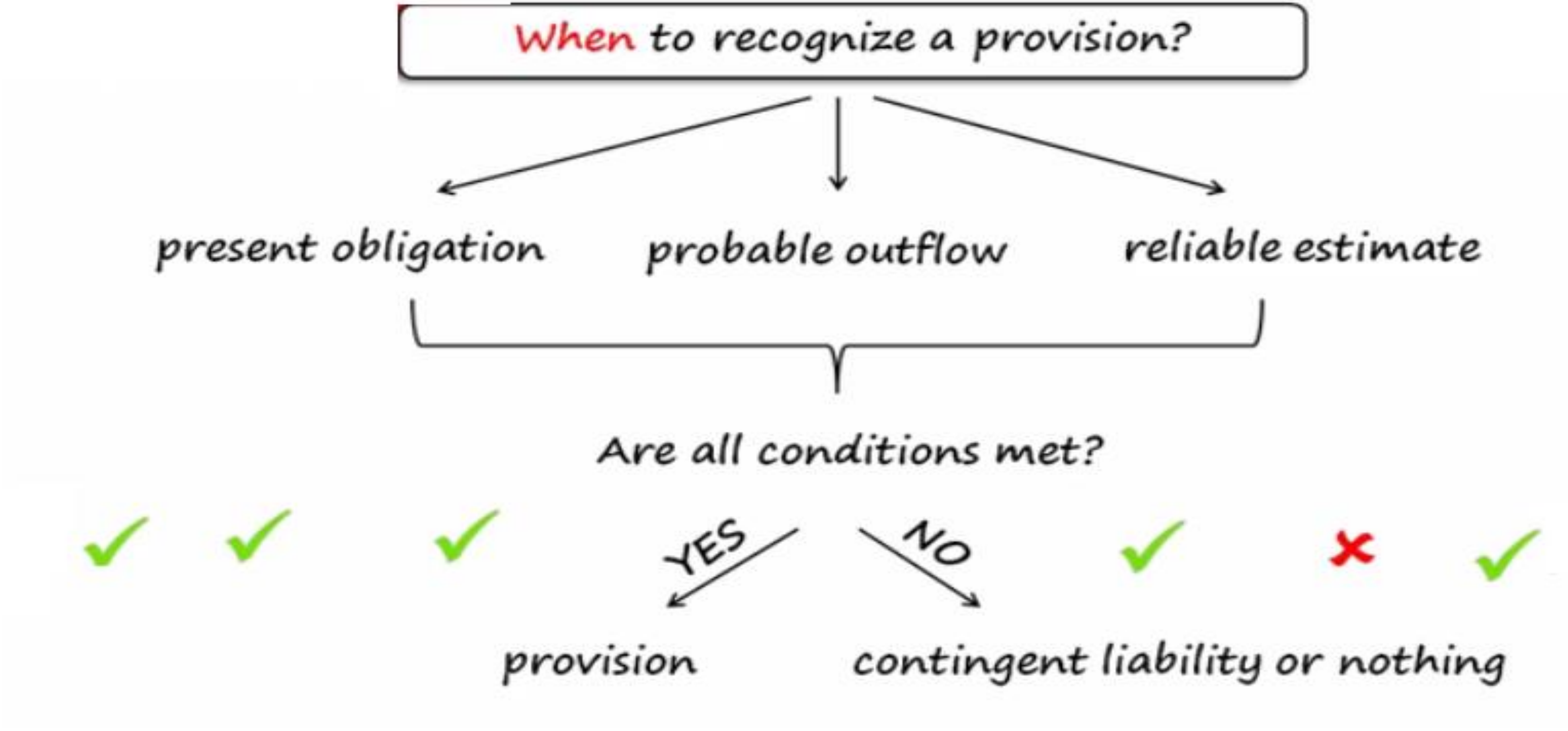
Provision

Probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation

A reliable estimate can be made of the amount of the obligation

If these conditions are not met a provision shall not be recognized

Recognition of a provision…summary



Measurement of Provision

- **Best estimate** at **balance sheet date** of **amount needed** to settle the **present obligation** at the **reporting date**

- Amount that an entity :

  - would rationally pay to settle the obligation at the reporting date
  - would rationally pay to transfer it to a third party at that time

Measurement of Provision

<u>Dealing with Uncertainties of Measurement</u>

- Judgment in measurement is circumstantial

- Leads to 2 common approaches:

  a) Expected value measurement

  a) Most likely outcome

Measurement of Provision

1. **Large population: Expected value measurement**

a) Weighting all possible outcomes by their associated probabilities Eg 60% or 90% of loss.

a) For continuous range of possible outcomes, and each point in that range is as likely as any other, the midpoint of the range is used.

Measurement of Provision....Examples

Expected Value

A university's fully owned trading subsidiary sells branded t-shirts and sports kits to students. All goods sold come with a 1 year warranty, and past experience has shown that 10% of items sold have a tendency to fade over time and hence have to be replaced with an identical item under the terms of the warranty. The total revenue earned from sales during the year was £990,000 and the cost of these goods was £790,000. Determine the amount to be recognized as warranty

Warranty provision for 10% of the goods sold therefore needs to be recognized. As the cost to the university is the cost of a replacement item, the expected value of the total cost is 10% x £790,000 = £79,000.

Measurement of Provision....Examples

Expected Value

A Government Medical Laboratory provides diagnostic ultrasound scanners to both public sector and private hospitals on a full cost recovery basis. The equipment is provided with a warranty under which hospitals are covered for the cost of defects that become apparent during the first year after purchase.

If minor defects were to occur in all scanners sold, repair costs of £1 million would be incurred. If major defects were to occur in all scanners sold, repair costs of £4 million would be incurred.

Past experience and future expectations indicate that 75% of scanners will have no defect, 20% will have minor defects and 5% will have major defects.

Requirement

What is the expected value of the cost repairs?

Measurement of Provision….contd

2. Single obligation: Individual most likely measurement

- The individual most likely outcome may be the best estimate of the liability.

<u>Example</u>

For a single obligation where the best estimate is Ksh 100M and there is a 55% chance of the expenditure being incurred, then the provision should be Ksh 100 not 55% of £100M.

Where there are a number of obligations all of the same type, the calculation could necessitate the use of probabilities and discounting

Measurement of Provision

Adjusting for Uncertainties of Measurement

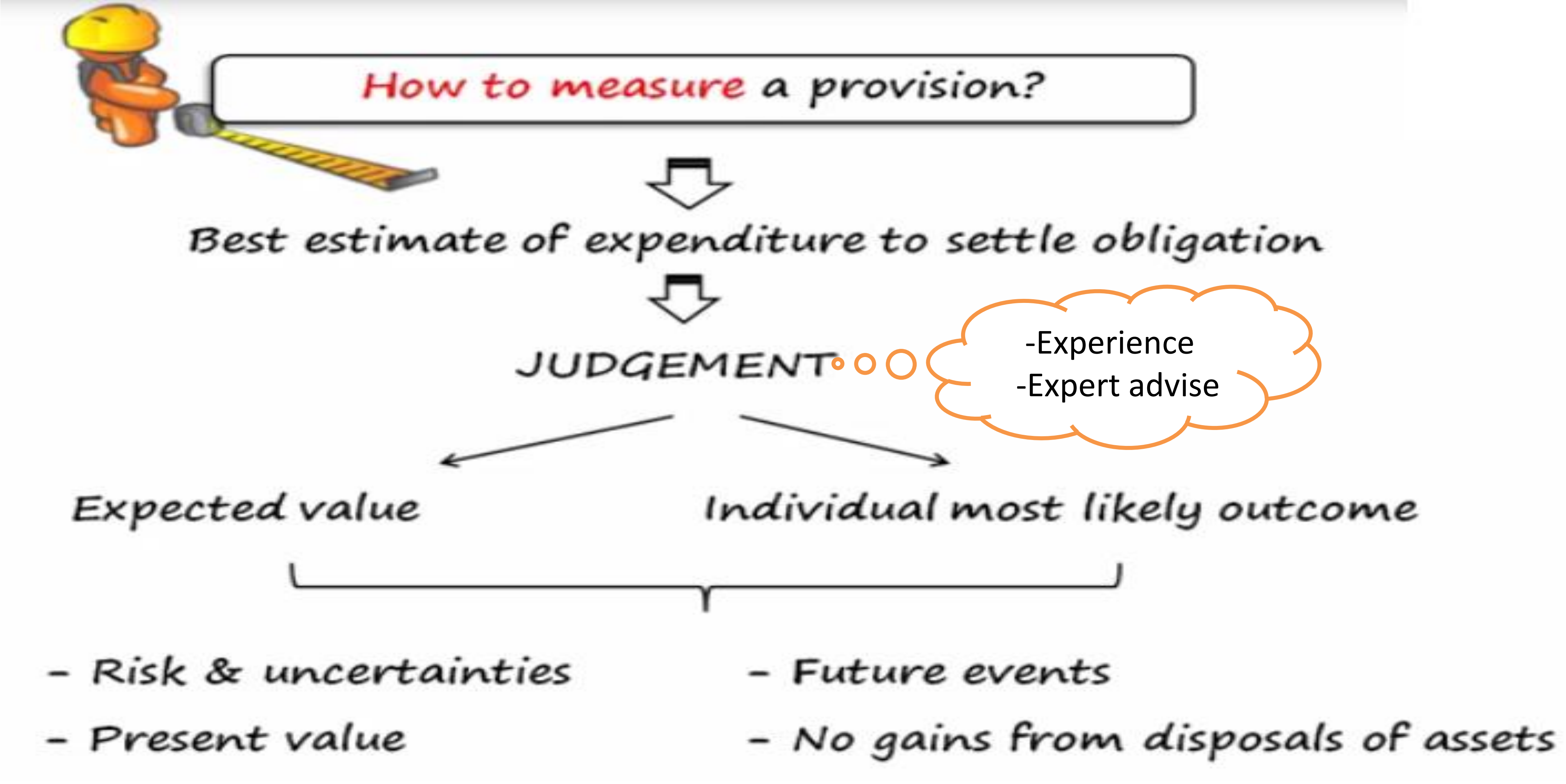
- Anticipated cash flows must be **discounted at risk free rate** where changing value of money over time is material

- **Future events** that can be supported by evidence and may affect the amount required to settle an obligation shall incorporated in the amount of a provision

NB:

- Gains from the expected disposal of assets shall not be taken into account in measuring a provision
- The provision is measured before tax or tax equivalents

Measurement of Provision: Summary



Measurement of Provision

Reimbursements by another party eg insurance company or a supplier under a warranty

- Recognized only when, it is virtually certain that reimbursement will be received if the entity settles the obligation.
- Treated as a separate asset in SF Position and not netted against any outstanding provision.
- The amount recognized shall not exceed the amount of the provision.
- In the SF performance, the expense relating to a provision may be presented net of the amount recognized for a reimbursement

Measurement of Provision

Changes in Provisions

- Because provisions are inherently uncertain amounts they should be reviewed at each reporting date, and adjusted to reflect the current best estimate.

- If it is no longer probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation, the provision shall be reversed.

- Where discounting is used, the carrying amount of a provision increases in each period to reflect the passage of time. This increase is recognized as an interest expense

Use of Provision

A provision should be used only for expenditures for which the provision was originally recognized

Summary on Accounting for Provisions

How to account for a provision

	DEBIT	CREDIT
Recognition of provision:	Expense / asset	Liability – provision
Unwinding the discount:	Finance cost	Liability – provision
Use of provision:	Liability – provision	Cash / bank etc.
Reimbursements:	Reimbursement asset	Expense

Application of the Recognition and Measurement Rules….Onerous Contract

Onerous Contract

Financial burden to firm

Recognize

Unavoidable costs

>

Economic benefits/service potential expected

Lower of:

Net cost of fulfilling it

&

Cost of termination

(Compensation /penalties)

Specific Applications of Recognition Criteria...contd

Present obligation (net of recoveries) under the contract shall be recognized and measured as a provision

- Unavoidable costs reflect the least net cost of exiting from the contract, which is the lower of:
  - The cost of fulfilling it; and
  - Any compensation or penalties arising from failure to fulfil it
- Should include all indirect benefits that are derived from the contract eg ???

Specific Applications of Recognition Criteria...contd

Onerous contracts:

Examples

- Excess vacant lease space because of project cancellations or restructuring/ downsizing exercises
- Original suppliers going out of business and thus forcing the client to source products from alternative suppliers at higher prices
- Being locked into unfavourable sales contracts when production is based overseas
- Being forced to enter into very competitive tendering bids

Specific Applications of Recognition Criteria...contd

A Public University (PU) entered into a 10 year lease of a building for its satellite campus. The annual rent under the lease agreement is £36,000. The PU has decided to close the campus with five years still to run on the original lease. The PU is permitted to sublet the building and believes that although market rentals have decreased it should be able to sublet the building for the full five years at an expected annual rental of £24,000.

How would this be accounted for in the entity's financial statements?

A provision should be recognized for the excess costs under the lease contract above the expected benefits to be received.

The obligating event was the signing of the lease agreement and £36,000 is required to be paid in each of the remaining five years.

A provision for the following amount should be recognized:

Annual outflow-Annual expected inflow=Excess annual outflow expected

£36,000- £24,000= £12,000

A provision with a gross value of £60,000 (£12,000 * 5 years) should be recognized.

Specific Applications of Recognition Criteria

Restructuring Program

This is a program that is planned and controlled by management, and materially changes either:

- the scope of an entity's activities; or
- the manner in which those activities are carried out.

A restructuring provision should only include direct expenditure arising from the restructuring.

Costs which relate to the future activities of the entity should not be provided for as part of the restructuring, for example relocating or retraining continuing staff.

Specific Applications of Recognition Criteria

Examples of Restructuring Programs

- Fundamental reorganization that has a material effect on the nature and focus of the entity’s operations
- Changes in the management structure*making all functional units autonomous
- Relocating the headquarters from one town, county or region to another
- Sale or termination of a line of business

Specific Applications of Recognition Criteria

Restructuring provisions…contd

- Two conditions need to be met to be recorded as provision:
  - ***Detailed plan*** identifying key features of program (about business, location, employees, time schedule and expenditures) and its implementation must exist as at balance sheet date
  - A ***valid expectation*** related to restructuring has been raised in the affected parties.

- Can only include direct expenses associated with restructuring program and cannot relate to ongoing operation of business

Specific Applications of Recognition Criteria

Restructuring

Program planned & controlled by management that changes scope

Detailed plan

Business location, employees, time schedule and expenditures

Valid Expectation

Has been raised in the affected parties.

Specific Applications of Recognition Criteria…contd

Future Operating Net Deficits

- Provisions shall not be recognized for net deficits from future operating activities.
- Net deficits from future operating activities do not meet the definition of liabilities and the general recognition criteria set out for provisions.
- An expectation of net deficits from future operating activities is an indication that certain assets used in these activities may be impaired.
- An entity tests these assets for impairment.

Specific Applications of Recognition Criteria...contd

Provision – specific situations

Future operating losses

~~LIABILITY~~

No provision

+

Impairment of assets?

Onerous contracts

Unavoidable costs > economic benefits

Provision

Net cost of fulfilling | Penalty

$\underbrace{\text{Net cost of fulfilling} \quad \text{Penalty}}_{\text{lower of}}$

Restructuring

Program planned and controlled by management that changes scope or manner of business

Detailed plan | Valid expectation

Disclosure for a provision:

- A full reconciliation should be presented, clearly identifying movements during the period.
- These might include:
  - ***revision**s of the estimate*
  - ***utilization*** of the provision or
  - ***Release*** of part of the provision

Disclosure for a provision:

An explanation should be provided for each class of provision, detailing:

- Use of the provision
- the expected timing of outflows
- Indication of uncertainties over timing or amount of expected outflows
- whether any reimbursement has been recognized

The above disclosures should be provided where an entity elects to recognize provisions for social benefits for which it does not receive consideration that is approximately equal to the value of the goods and services provided directly in return from recipients of those benefits.

Disclosure

Opening balances

+ additional provisions recognized

less amounts used

less unused amounts reversed

+ increase in the discounted amount due to the

passage of time and / or changes in the discount rate

= ending balances

- ♦ “Repurposing” of provisions prohibited!
- ♦ No comparative information

Generally required categories

Provisions for litigation

- Provisions for warranties
- Provisions for environmental obligations
- Provisions for loss orders / onerous contracts
- Provisions for restructuring costs

Disclosure

n) Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. *IPSAS 19.22* *IPSAS 19.56*

Where the Group expects some or all of a provision to be reimbursed, for example, under an insurance contract, the reimbursement is recognized as a separate asset only when the reimbursement is virtually certain. *IPSAS 19.63*

The expense relating to any provision is presented in the statement of financial performance net of any reimbursement. *IPSAS 19.64*

Rehabilitation liability

Rehabilitation costs are provided at the present value of expected costs to settle the obligation using estimated cash flows and are recognized as part of the cost of that particular asset. The cash flows are discounted at a current pre-tax rate that reflects the risks specific to the rehabilitation liability. The unwinding of the discount is expensed as incurred and recognized in the statement of financial performance as a finance cost. The estimated future costs of decommissioning are reviewed annually and adjusted as appropriate. Changes in the estimated future costs or in the discount rate applied are added to or deducted from the cost of the asset. *IPSAS 17.30 (c)* *IPSAS 19.53*

Contingent liabilities

The Group does not recognize a contingent liability, but discloses details of any contingencies in the notes to the financial statements, unless the possibility of an outflow of resources embodying economic benefits or service potential is remote. *IPSAS 19.35* *IPSAS 19.36* *IPSAS 19.100*

Contingent assets

The Group does not recognize a contingent asset, but discloses details of a possible asset whose existence is contingent on the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group in the notes to the financial statements. Contingent assets are assessed continually to ensure that developments are appropriately reflected in the financial statements. If it has become virtually certain that an inflow of economic benefits or service potential will arise and the asset's value can be measured reliably, the asset and the related revenue are recognized in the financial statements of the period in which the change occurs. *IPSAS 19.39*

Disclosure

36. Current provisions

	Environmental rehabilitation €000	Leave benefits €000	Performance bonuses €000	Total €000	
Balance at the beginning of the year	327,645	299,783	21,468	648,896	*IPSAS 19.97 (a)*
Additional provisions raised	236,187	38,908	55,068	330,163	*IPSAS 19.97 (b)*
Provision utilized	(388,314)	(28,762)	(23,468)	(440,544)	*IPSAS 19.97 (c)*
Change in provision due to change in discount factor and time value of money	(9,611)	(7,489)	1,076	(16,024)	*IPSAS 19.97 (e)*
Transferred from non-current provisions	219,392	-	-	219,392	
Balance as at 31 December 2013	385,299	302,440	54,144	741,883	*IPSAS 19.97 (a)*

Leave benefits

Annual leave accrues to employees on a monthly basis, subject to certain conditions and constraints. The provision is an estimate of the amount due to staff as at the financial year-end, based on the value of statutory and non-statutory leave. The provision was calculated based on the leave entitlement due to staff at year end adjusted for:

IPSAS 19.98 (a)(b)

- Experience adjustment in relation to the forfeiture of leave, leave encashment trends and leave taken trends
- The salary scales applicable at the time of leave encashment and realization of leave by employees
- Uncertainty is related to this provision is contained in the rate at which leave is realized either through taking the leave or by having leave paid out along with the timing of such realization

Disclosure

Key financial assumptions:	2013	2012
	%	%
Discount rate	7.5	8.8
General inflation rate (CPI)	5.4	5.9
Salary increases	9.2	6.6

Environmental rehabilitation

A provision for the estimated cost of rehabilitating waste sites is made based on the Group's licensing terms on the waste landfill sites. The provision has been determined on the basis of a recent independent study. The cost factors derived from the study by a firm of consulting engineers have been applied and projected at an annual inflation rate of 5.4% (2012: 5.9%) and a discount rate that reflects the risks specific to the liability of 11% (2012: 11%).

The payment dates of total closure and rehabilitation are uncertain, but are currently expected to be between 2020 and 2030.

Example

Waste from a government entity's production process contaminated the groundwater at the entity's plant. In a lawsuit brought against the entity, members of the local community seek compensation for damages to their health as a result of the contamination. The entity acknowledges its wrongdoing and the court is deciding on the extent of the compensation to be awarded to the members of the local community. It is uncertain when the ruling will take place but the entity's lawyers expect it will take place in about two years and they estimate that the compensation awarded by the court will be in the range Ksh100 million–250 million?

Practical Implementation challenges

- Valuation
- Long legal process
- Insurance

Thank you

Discussions