Accounting standard study group
CIMA Sri Lanka Division
Study of LKAS 16: Property, plant and equipment

A. Scope
This standard shall be applied in accounting for property, plant and equipment (PPE) except when another standard requires or permits a different accounting treatment.

B. Objectives of the study:
- to describe key theoretical areas of LKAS 16
- to identify and evaluate misconceptions and key issues associated with LKAS 16
- To identify management considerations relevant to the issues in applying the standard
C. Description of key definitions and theoretical areas of the study

### Key definitions

<table>
<thead>
<tr>
<th>Property, plant and equipment</th>
<th>Depreciable amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Held by an entity to produce and supply goods or services, rental or administrative purposes, for more than one period.</td>
<td>Cost of an asset or (other substitute for cost) in the financial statements, less its residual value.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depreciation:</th>
<th>Cost:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The systematic allocation of the depreciable amount of an asset over its useful life.</td>
<td>The amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Useful life:</th>
<th>Recoverable amount:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Either the period of time over which an asset is expected to be used by the entity, or the number of production or similar units expected to be obtained from the asset by the entity.</td>
<td>Is the higher of an asset’s net selling price and its value in use.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residual value:</th>
<th>Carrying amount:</th>
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<tbody>
<tr>
<td>The estimated amount which the entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal, if the asset is already of the condition and the age expected at the end of its useful life.</td>
<td>The amount at which an asset is included in the balance sheet after deducting any accumulated depreciation and impairment losses.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Fair value:</th>
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<tbody>
<tr>
<td>The amount for which an asset could be exchanged between knowledgeable, willing parties in an arm’s length transaction.</td>
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D. Theoretical areas of study

**Recognition**

The cost of an item of property, plant and equipment shall be recognised as an asset if, and only if:

(a) it is probable that future economic benefits associated with the item will flow to the entity, and
(b) the cost of the item can be measured reliably.

**Depreciation charges**

Each significant part of an item of PPE should be depreciated separately although they may be grouped together for depreciation charge purposes if they have the same useful lives and depreciation methods.

**Determination of carrying amounts of assets**

**Measurement at recognition**

An item of property, plant and equipment that qualifies for recognition as an asset shall be measured at its cost. Elements of cost - the cost of an item of property, plant and equipment comprises:

(a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates.
(b) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.
(c) The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation which an entity enters into either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventory during that period

**Measurement after recognition**

An entity shall choose either the cost model in paragraph 30 or the revaluation model in paragraph 31 as its accounting policy and shall apply that policy to an entire class of property, plant and equipment.

**Cost model**

Paragraph 30 states that after recognition as an asset, an item of property, plant and equipment shall be carried at its cost less any accumulated depreciation and any accumulated impairment losses.

**Revaluation model**

Paragraph 31 shows that after recognition as an asset, an item of property, plant and equipment whose fair value can be measured reliably shall be carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period.
E. Practical application of LKAS 16

1. Recognition of the assets

1.1. Recognition criteria- illustration

Company ‘A’ which is in the Airline industry may require replacing aircraft interiors such as seats and galleys several times during the life of the airframe. Under the recognition principle, Company A could recognise the replaced parts as PPE provided that those parts that are replaced are derecognised in accordance with the derecognition provisions of LKAS 16.

It should be noted that under the recognition principle, an entity does not recognise the cost of the day to day servicing of the item in the carrying amount of PPE. Costs of day to day servicing are primarily the costs of labour and consumables, and may include small parts. These expenditures are often described as repairs and maintenance and recognised in profit and loss as incurred.

2. Misconceptions and key issues associated with recognition of the assets

i. Spare parts and minor items individually insignificant but aggregately significant

Major spare parts qualify as PPE while smaller spares would be carried as inventory. However, if a set of spares can only be used on one item of PPE, then they should be accounted for as PPE. Some types of businesses may have a very large number of minor items of PPE such as tools, spare parts and moulds which nevertheless are used in more than one accounting period. There are practical problems in recording them on an asset by asset basis in an asset register as it is difficult to control and also to provide depreciation. The standard suggests that it may be appropriate to aggregate individually insignificant items and to apply the criteria to the aggregate value.

ii. Minimum capitalisation policy

As discussed in point (i) above, many companies have a minimum value for capitalising assets. If maintaining accounting records cost more than the assets, capitalising may not be cost effective. Professional judgment needs to be exercised in determining the minimum capitalisation amount.

iii. Software capitalisation

The question is whether the software could be capitalised under PPE? The answer to this is depends on determining which element is more significant: the PPE element or the intangible element. The intangible part is more likely to be an asset in its own right if it was developed separately, or if it can be used independently of the item of PPE of which it forms a part. For example, operating software is an integral part of the hardware as without it the hardware cannot operate. Hence, it could be capitalised as PPE. However, application software is independent of the hardware. Hence, it is an intangible asset.

iv. Environmental and safety equipment

These may qualify for recognition as assets, even though they may not directly increase future economic benefits. This will be considering that these assets will be necessary in order for the entity to obtain the future economic benefits from other assets. However, the resulting carrying amount of such an asset and related assets are reviewed for impairment in accordance with LKAS 36: impairment of assets.

For example, a chemical manufacturer may have to install certain new chemical handling processes in order to comply with environmental requirements on the production and storage of dangerous chemicals. Plant enhancements related to this are recognised as assets to the extent of their recoverable amount because, without them, the enterprise is unable to manufacture and sell chemicals.

v. Inspection costs

A condition for continuing to operate an item of property, plant and equipment (for example, an aircraft) may be performing regular major inspections for faults regardless of whether parts of the item are replaced. When each major inspection is performed, its costs are recognised in the carrying amount of the PPE as a replacement, if the recognition criteria is satisfied.

vi. Distinction between land and land improvements

When acquiring land, certain costs are ordinary and necessary, and should be assigned to land. These costs will include the cost of the land, plus title fees, legal fees, survey costs etc. Land improvements are another item of PPE and include the cost of parking lots, sidewalks, landscaping, irrigation systems, and similar expenditure. It is important to separate land and land improvement costs as it could be noted that land is considered to have an indefinite life and is not depreciated. Alternatively, parking lots, irrigation systems, etc do wear out and must therefore be depreciated.

2.1. Management considerations

i. Impact to ratios

Ratios such as return on capital employed will be affected by the corporate policy on recognition of assets when calculating capital employed. The impact of this will be that the comparability of ratios between companies is affected by the asset recognition policy of the company. Ratios such as fixed asset turnover which measures the efficiency of utilisation of assets will be affected by the capitalisation policy of assets.
Furthermore, this will also affect operational costs in the income statement impacting profit related ratios such as net profit margin and gross profit margin.

ii. Management accounts - Impact to the profit due to the differences between repairs, maintenance expenses and fixed assets capitalisation.

**Therefore, it is important note that professional judgment is required in determining items to capitalise.**

3. Determination of carrying amounts of the assets

3.1. Measurement at recognition

An item of property, plant and equipment that qualifies for recognition as an asset shall be measured at its cost.

3.1.1. Initial costs

**Illustration:**

XYZ incurs the following costs in relation to the construction of a new factory and the introduction of its products to the local market. Rs'000

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Capitalised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site preparation costs</td>
<td>240</td>
</tr>
<tr>
<td>Materials used</td>
<td>1,500</td>
</tr>
<tr>
<td>Labour costs, including Rs.90000 incurred during an industrial dispute. No construction occurred during the period of the dispute.</td>
<td>3,190</td>
</tr>
<tr>
<td>Testing of various processes in factory</td>
<td>150</td>
</tr>
<tr>
<td>Consultancy fees relevant to installation of equipment</td>
<td>220</td>
</tr>
<tr>
<td>Relocation of staff to new factory</td>
<td>110</td>
</tr>
<tr>
<td>General overheads</td>
<td>500</td>
</tr>
<tr>
<td>Costs to dismantle the factory at end of its useful life in 10 years time</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total to be capitalised</strong></td>
<td><strong>5,310</strong></td>
</tr>
</tbody>
</table>

3.1.2. Subsequent costs

There are a number of costs which arise subsequent to acquisition which may be capitalised throughout the life of the asset. Enhancement costs which significantly enhance the economic benefits by increasing the capacity, improving the quality of output, extending the economic life of the asset or by reducing the operating costs of the assets can be capitalised. The replacement costs of major components and overhaul costs which improve the economic benefit that can be generated can also be capitalised. I.e.- The dry docking cost in the shipping industry.

3.2. Measurement after recognition

LKAS 16 allows two alternatives to the chosen accounting policy in terms of measurement of PPE after initial recognition. The choice made must be applied to an entire class of assets. However, not all classes are required to have the same policy.

3.2.1. Valuation methods

- Fair value is to be determined from 'market based evidence'. Following valuation bases are commonly used:
  
  i) Market value in existing use: An entry value for property continuously used in the business which is based on the concept of net current replacement cost

  ii) Open market value: This is an exit value and is based on the amount that a property is valued at that in excess of the value that could be generated when it is sold considering its present purpose of usage.

- Income approach: This includes the use of discounted cash flows that will be generated by the asset.

- Depreciated replacement cost: This is an alternative basis for valuing assets which are rarely sold. These are specialised assets for which no market value exists.
3.2.2. Valuation frequency

Valuation frequency is not laid down by the LKAS 16. The standard states that revaluation are to be made with sufficient regularity to ensure that the carrying amount does not differ materially from the fair value at the end of the reporting period. When the fair value of the asset differs materially from the carrying amount then a revaluation is required.

3.2.3. Valuers

The standard states that the valuation is normally determined by professional valuers.

3.3. Misconceptions, key issues associated with determination of carrying amounts

i. Incidental and non incidental income

During the construction of an asset, an entity may enter into incidental operations that are not themselves necessary to bring the asset to the location and intended condition necessary for it to be capable of operating in the manner intended by management.

For an example, the income that is earned by using a building site as a car park prior to starting construction. Such income and expenses earned from incidental operations are recognised in the profit and loss and included in their respective classification of income and expenses. Such incremental income is not offset against the cost of the asset.

<table>
<thead>
<tr>
<th>Income</th>
<th>Accounting treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proceeds from selling items produced while bringing the asset to the location and condition intended by the management</td>
<td>Include cost of testing the asset after deducting the net sales proceeds</td>
</tr>
<tr>
<td>Income received during the construction of property</td>
<td>Profit and loss account</td>
</tr>
<tr>
<td>Liquidated damages from contractors.</td>
<td>Set off against the asset cost. However, if the contract specifically mentions that the damages are for the loss of revenue then it should be accounted in profit and loss.</td>
</tr>
</tbody>
</table>

ii. Dismantling and site restoration costs

LKAS 16 requires entities to initially estimate the costs of dismantling, removing the item, restoring the site on which it is located and recording the obligation. However, LKAS 16 is not clear about the extent to which an item's carrying amount should be affected by the changes in the estimated amount of dismantling and site restoration costs that occur after the estimate made upon initial measurement.

This has been explained by IFRIC 1: changes in existing decommissioning, restoration and similar liabilities.

If the asset is carried at cost:

- Changes in the liability is added to or deducted from the cost of the asset. The deduction may not exceed the carrying value of the asset.

If the asset is carried at valuation:

- Decrease in liability is credited directly to the revaluation surplus unless it reverses a revaluation deficit on the asset that was previously recognised in profit and loss, in which case it may be taken to profit and loss.
- Increase in liability is taken straight to profit and loss, unless there is a revaluation surplus existing in respect of that asset.

iii. Cost of a building to be demolished in connection with the construction of a new building

The question is when an entity demolishes a building to construct a new building, how do you account for the carrying value of the existing building?

The entity needs to depreciate the carrying amount of the building from the date of the decision to demolish the building such that it is nil at the date demolition is planned. This is to accelerate the depreciation charge. Therefore, the entity cannot capitalise this amount as part of the cost of the new building.

iv. Cost of land and building purchased together
When the land and buildings are purchased together, the entity needs to allocate the cost between the two assets based on their relative fair values at the date of the purchase in accordance with paragraph 58 of LKAS 16. However, when the old building to be demolished is unusable, then the fair value of the old building will be low. In these cases, it's appropriate to allocate large part of the purchase price to the land being acquired.

v. Deferred payment

It should be noted that at the recognition date the cost of an item of PPE is its ‘cash price equivalent’. This means that if payment is made in some other manner, the cost to be capitalised is the normal cash price. This, if payment terms are extended beyond normal credit terms, the cost to be recognised must be the cash price equivalent and any difference must be treated as an interest expense.

vi. Exchange of assets

LKAS 16 requires all acquisitions of PPE in exchange for non-monetary or a combination non-monetary and monetary assets to be measured at fair value, subject to following conditions:

- the exchange transaction should have commercial substance
- The fair value of the assets should be reliably measured.

An exchange transaction has commercial substance if:

- the configuration of (risk, timing and amount) of the cash flows considering the asset received differs from the configuration of of the cash flows of the asset transferred: or
- the entity-specific value of the portion of the entity’s operations affected by the transaction, changes as a result of the exchange: and
- The difference in the two factors listed above is significant relative to the fair value of the assets exchanged.

vii. Borrowing costs

Capitalisation of borrowing costs in respect of certain qualifying assets if those assets are measured at cost is mandatory. This is accounted for in accordance with LKAS 23.

viii. Training costs

The acquisition of new machinery is often accompanied by employee training regarding the correct operating procedures for the device. Normally the training costs are expensed. The logic here is that the training attaches to the employee not the machine, and the employee is not owned by the company. On rare occasion, justification for capitalisation of very specialised training costs (where the training is company specific and benefits spread among many accounting periods) is made.

ix. Overheads

Overheads incurred that are directly attributed to bringing an asset to its intended purpose can be capitalised. However overhead costs associated with manufacturing/construction which cannot be directly linked to this purpose will not be capitalised. I.e. Salary of an engineer who's services are used for a building construction project, who is an employee of the organisation and engages in general engineering functions and projects. General and administrative overhead costs should not be capitalised.

4. Depreciation charges and de-recognition

4.1 Methods of computing depreciation

Illustration:

- The straight line method: the annual depreciation is calculated by dividing the depreciable base by the service life
- The reducing balance method: this results in a decreasing charge over the period of time.
- The units of output method: This technique involves calculations that are quite similar to the straight-line method, but it allocates the depreciable base over the units of output (e.g. machine hours)

4.2 Misconceptions, key issues associated with depreciation
i. Component depreciation

On initial recognition, allocate cost to significant parts of asset, including non-physical parts. However separate depreciation of each ‘component’ is carried out.

Professional judgment is required in applying componentisation, and other factors to consider include changing useful lives and differing patterns of economic benefits of components.

ii. Residual values

The standard states that an entity needs to review the residual values of all its items of PPE at least at the end of each financial year.

If there are any material difference in the current and previous estimated residual values, changes must be accounted for prospectively as a change in the accounting estimate in accordance with LKAS 8.

Residual value of an item of PPE today is to be calculated by taking the price such as asset would be today, but assuming that it was already in the condition it would be in at the end of its useful life.

iii. Computation of depreciation charge after revaluation

Useful life of the assets needs to be reviewed after the revaluation. Thereafter, the depreciation needs to be computed based on the revised useful life or if the useful life time was the same, then by computing depreciation based on the remaining useful lifetime of the asset.

iv. Economic life Vs useful life of assets

A company must consider the assets ‘useful life’. I.e for example the period which a company would effectively use a vehicle for the operations of a business. This would be more appropriate when calculating the annual depreciation of an asset as opposed to using the ‘economic’ life which would be similar to the effective lifetime of an asset. Factors to be considered when estimating the useful life of the assets are as follows:

- expected usage of the asset
- expected wear and tear – depends with the number of shifts, repair and maintenance programs etc
- technical and commercial obsolescence
- Legal or similar limits on the use of the asset.

Example would be to use ‘production units/period for calculating depreciation instead of time periods.

v. Insurance claims

With regard to insurance claims, LKAS 16 states that the loss or impairment and the insurance receivable are two events and hence to be accounted for as separately as follows:

- Impairments of PPE are recognised in accordance with LKAS 36
- Derecognition of assets recognised in accordance with LKAS 16
- Compensation from third parties for the impaired, lost or given up asset is included in profit and loss when it is receivable.

Disclaimer:
This document is compiled with the objective of presenting a basic overview of the respective Sri Lanka Accounting Standard, and does not construe professional advice in application of the standard. For specific application and understanding of all facets of the Standard, the relevant Sri Lanka Accounting Standard issued by The Institute of Chartered Accountants of Sri Lanka should be referred.

References and Useful web-links pertaining to Accounting Standards

http://www.accountingtools.com
http://www.ifrs.org/Home.htm
http://www.accountingtools.com
http://www.principlesofaccounting.com/chapter%2010.htm

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