

Accounting Guideline



national treasury

Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

GRAP 17

Property, Plant and Equipment

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Note that this document is not part of the GRAP standard. The GRAP takes precedence while this guideline is used mainly to provide further explanations on the concepts already in the GRAP.

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1 INTRODUCTION

This document provides guidance on how an entity can distinguish property, plant and equipment from other non-current assets and the accounting treatment thereof.

The content should be read in conjunction with GRAP 17 (issued February 2010) and includes any changes made by the board in terms of the Improvements to Standards of GRAP. Note that this document is not part of the GRAP standard. The GRAP takes precedence while this guideline is used mainly to provide further explanations on the concepts already in the GRAP.

For purposes of this guide, “entities” refer to the following bodies to which the standards of GRAP relate to, unless specifically stated otherwise:

- Public entities
- Constitutional institutions
- Municipalities and all other entities under their control
- Parliament and the provincial legislatures

Explanation of images used in the manual:

	Definition
	Take note
	Management process and decision making
	Example

2 SCOPE

GRAP 17 is applicable to all entities preparing their financial statements on the accrual basis of accounting to account for property, plant and equipment.

The following are excluded from GRAP 17:

- Instances where another standard of GRAP is adopted, e.g. GRAP 12, 16, 27, 31 and 103;
- Assets within the scope of GRAP 100 on Non-current Assets Held for Sale and Discontinued Operations;
- Recognition and measurement of exploration and evaluation assets; and
- Mineral rights and mineral reserves such as oil, natural gas and similar non-regenerative resources.
- to the initial recognition and initial measurement of property, plant and equipment acquired in a transfer of functions between entities under common control or a merger

Note that the assets used to maintain or develop any biological, exploration and evaluation assets and mineral rights and reserves, are within scope of GRAP 17.

GRAP 17 is applicable to specialised military equipment, infrastructure assets and leased assets as well.

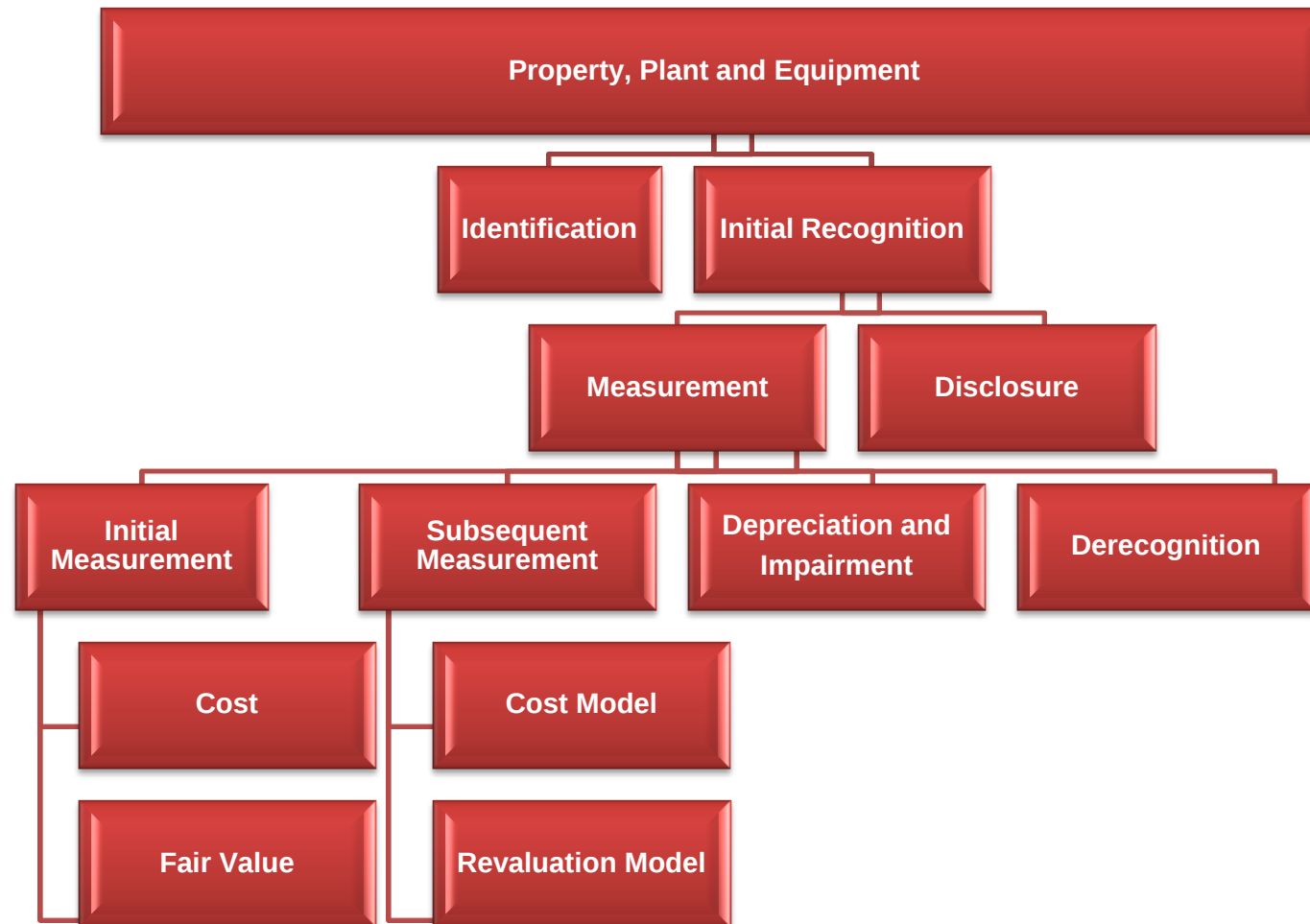
	Infrastructure assets are those assets displaying some or all of the following characteristics: • Are part of a system or network; • Are specialised in nature and do not have alternative uses; • Are immovable; and • May be subject to constraints on disposal. Infrastructure assets referred to in GRAP 17, include, for example, road networks, sewer systems, water and power supply systems and communication networks.
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	Accounting for heritage assets Currently, entities have an option with regards to the accounting for heritage assets, i.e. they can apply the principles in GRAP 17, or apply the principles in GRAP 103 on Heritage Assets. Under GRAP 17 it is not compulsory to recognise heritage assets which would otherwise meet the recognition criteria of GRAP 17. If an entity does however recognise heritage assets, it is not necessary to apply the measurement principles of GRAP 17, but the disclosure requirements of GRAP 17 must be applied. If an entity applies the principles in GRAP 103 on Heritage Assets to account for heritage assets, an entity should comply in full with the recognition, measurement and disclosure requirements in the standard. Refer to the accounting guideline on GRAP 103 for detail. For entities that are applying GRAP 17, it should be noted that once GRAP 103 on
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	Heritage Assets becomes effective, the option to account for heritage assets in terms of GRAP 17 will be removed.
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	Public-Private Partnership (PPP) agreements between an entity and a private party are treated in accordance with the guidance on Public-Private Partnerships issued by the Accounting Standards Board. GRAP 17 and/or GRAP 13 on Leases could be applied; depending on whether the entity controls the use of the asset or whether the PPP agreement contains a lease. An example of PPP agreements are where entities have traditionally owned and operated infrastructure assets, and transferred the operation of the infrastructure assets to a private party in order for the private party to carry out certain services or maintain or operate the asset. Refer to the section on Public-Private-Partnerships for the accounting treatment of the assets relating to these types of agreements.
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3 BIG PICTURE



Figur

eg.1

4 IDENTIFICATION

	Property, plant and equipment are tangible items that: - are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and - are expected to be used during more than one reporting period.
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4.1 Land and buildings

Entities often encounter difficulties when deciding which standard of GRAP should be applied to land and buildings owned by an entity. The following decision tree can be used to assist in the decision-making process:

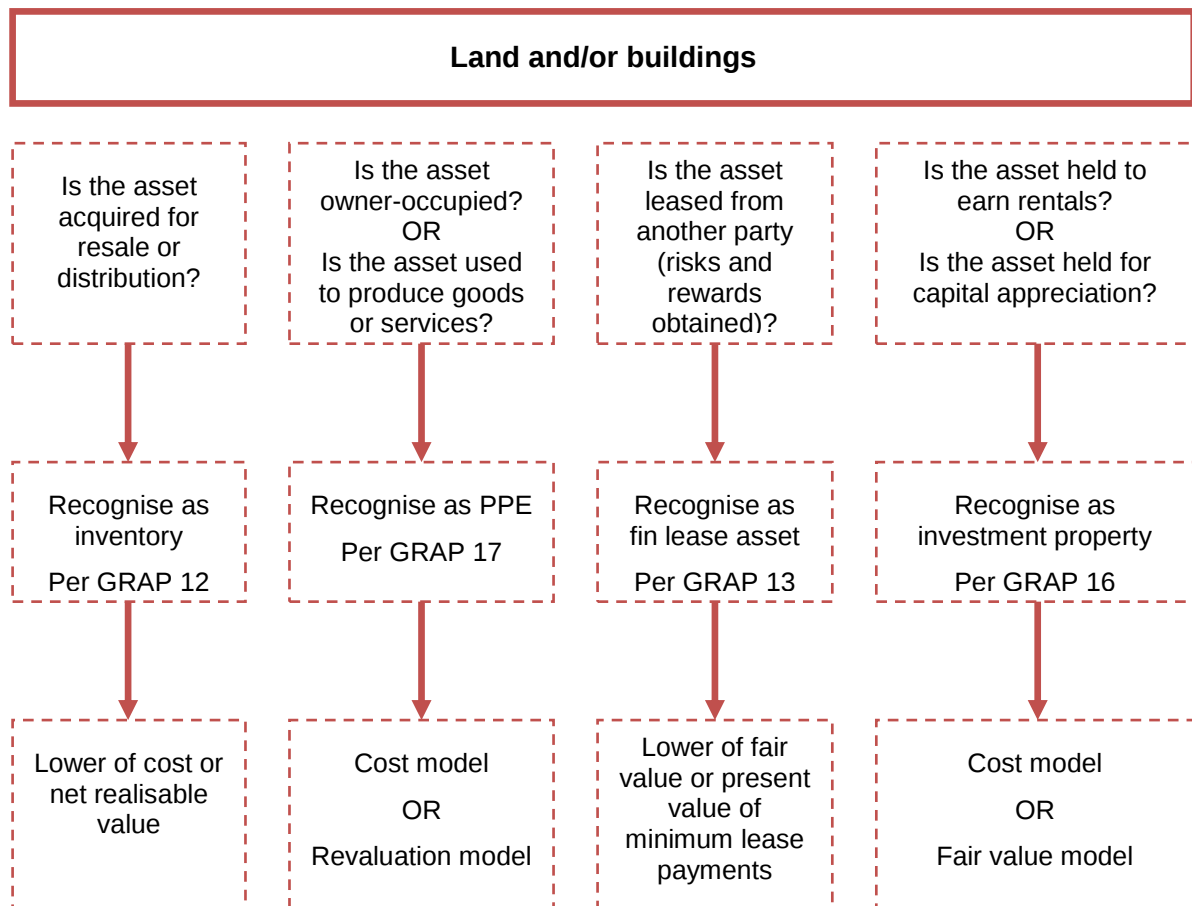


Figure 2 - decision tree for the recognition of land and buildings

Examples of property that meet the definition of property, plant and equipment and which should be accounted for in accordance with GRAP 17:

- Property that is owner-occupied, for example, a building that is occupied by the entity for administrative purposes or to supply goods and services;

- Property, i.e. housing, rented to **employees**, regardless of whether the rent is market related or not; and
- Property held to provide a social service and which also generates cash inflows, for example, an entity rents out one of its properties (buildings) to other parties on an ad-hoc basis. The rental revenue received is incidental to the purpose for which the property is held; therefore it is treated as property, plant and equipment and not investment property.

	Where Municipalities hold RDP houses for future sale, those houses will be treated as inventory, as it is primarily held to provide low cost housing to the public rather than for capital appreciation or for rental income.
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4.2 Classification of software cost

Computer software can be classified as either a tangible asset, i.e. property, plant and equipment or an intangible asset, depending on the level of integration with the related hardware.

	Where software is an integral part of the related hardware, i.e. the hardware cannot operate without the software, the software will be treated as property, plant and equipment together with the related hardware already recognised, which will normally be computer equipment. Where the software is not an integral part of the related hardware, i.e. the hardware can operate without the software, an entity determines whether the cost meets the definition and recognition criteria of an intangible asset and if met, capitalise the cost as an intangible asset.
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For example, the operating system of a computer (e.g. Microsoft Windows, Linux), without which the computer cannot operate, is an integral part of the related hardware and is therefore treated as property, plant and equipment. When the software is not an integral part of the related hardware, computer software is treated as an intangible asset. Examples of software that may be capitalised as intangible assets are Microsoft Office, Excel or Word or various accounting software packages, such as E-Venus, Pastel or SAP. In these cases the computer can operate without the software.

	Example 1: Capitalising software as property, plant and equipment A public entity in the health sector purchased a computer-operated machine that will automate the sample testing performed in the entity's laboratory. After a verification process has been followed, the results obtained from the machine will be more reliable and will be available in a fraction of the time than with hand-testing. The invoice obtained from the supplier split the cost as follows: <table border="0"> <tr> <td>Laboratory equipment</td><td>R21,000,000</td></tr> <tr> <td>Software</td><td>R2,500,000</td></tr> <tr> <td>Total payable</td><td>R23,500,000</td></tr> </table>	Laboratory equipment	R21,000,000	Software	R2,500,000	Total payable	R23,500,000
Laboratory equipment	R21,000,000						
Software	R2,500,000						
Total payable	R23,500,000						

	The entity subsequently has to decide whether to capitalise the software cost as a separate intangible asset, or along with the cost of the machine. To make this decision the entity should consider the level of integration with the machinery. The machinery cannot operate without that specific software and without that software the machine will be rendered completely useless. The software is therefore an integral part of the machine and should consequently be treated as property, plant and equipment.
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4.3 Biological assets

Entities often encounter difficulties in deciding which standard of GRAP should be applied to a biological asset owned by an entity. In deciding under which standard of GRAP a biological asset should be accounted for, an entity considers the intended use of such asset. The following decision tree can be used to assist in the decision-making process:

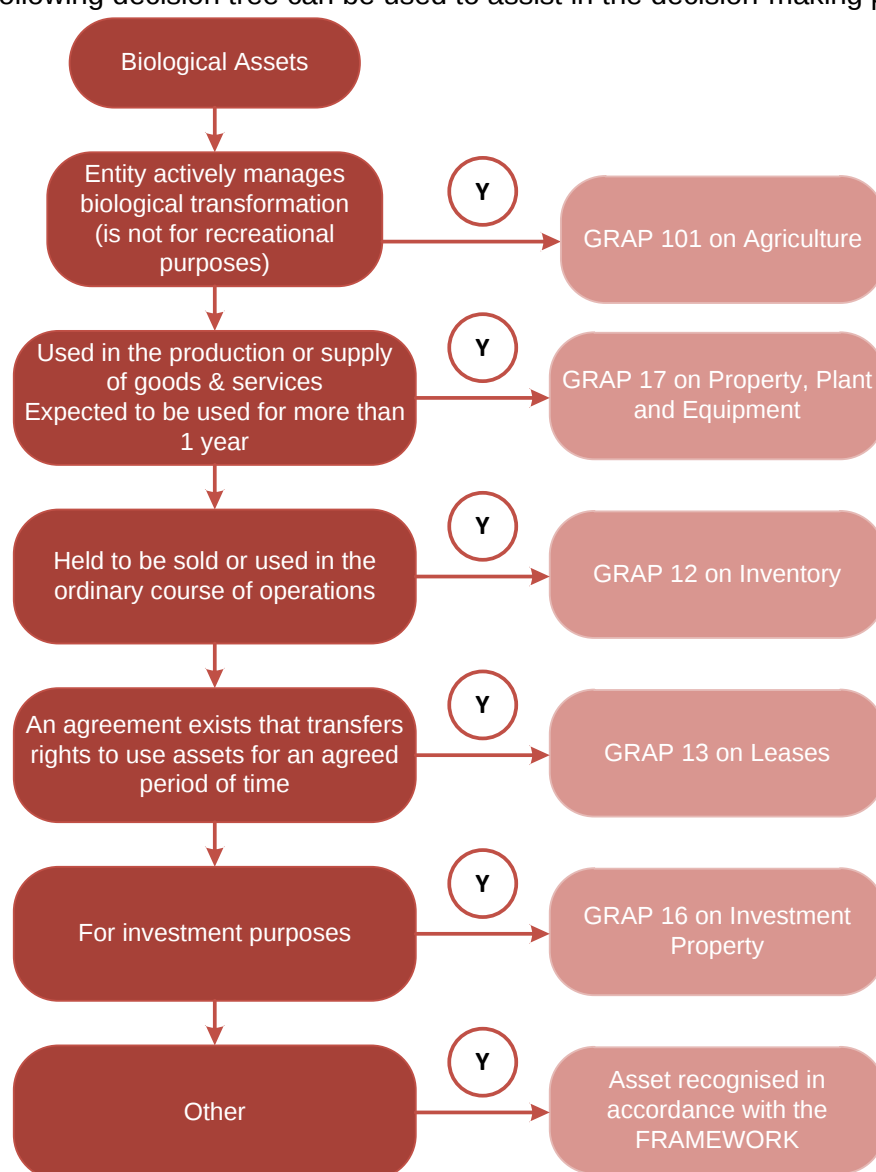


Figure 3 – selection of applicable standard of GRAP to apply to a biological asset

Examples where biological assets are used for the supply of goods or services (and therefore may fall within the scope of GRAP 17) include:

- Trees in public parks;
- Police horses and dogs;
- Management of biological assets held for research, experimental or public recreational purposes, including raising animals in zoos and game parks.

5 INITIAL RECOGNITION

5.1 Initial costs

Initial recognition criteria:

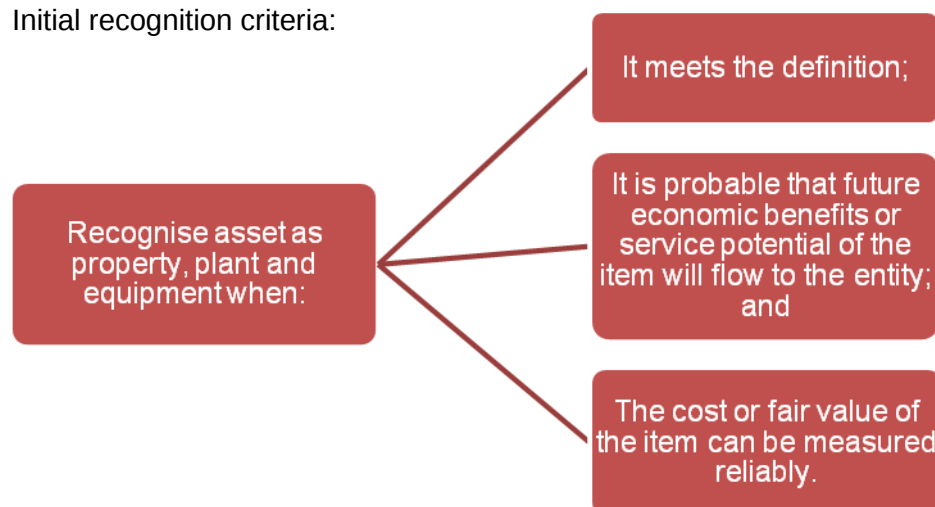


Figure 4 – recognition criteria

Other items that can be capitalised as property, plant and equipment include:

- Item such as spare parts, stand by equipment and servicing equipment are recognised in accordance with this Standard, when they meet the definition of property, plant and equipment. Otherwise such items are classified as inventory in accordance with the Standard of GRAP on *Inventories* ; and
- Assets that were acquired for safety and environmental purpose which may not necessarily increase the economic benefit of the asset directly or the service potential, but may be necessary for the entity to derive economic benefits or service potential from other assets; and
- Leasehold improvements, i.e. improvements made to lease assets, can be capitalised if they meet the definition of property, plant and equipment.

	Expensing assets below a capitalisation threshold In practice it is often found that entities expense items of property, plant and equipment with a cost price below a capitalisation threshold on the basis of materiality as determined in accordance with their policy on assets. It is important to note that assets should be capitalised in accordance with GRAP 17 when it meets the definition of property, plant and equipment, regardless of the cost price of an asset. Therefore, in accordance with GRAP 17, if an asset is expected to be used for more than one reporting period, it should be capitalised. If an entity does have a policy with a capitalisation threshold below which assets are expensed, this policy should be an internal policy of the entity and should not appear in the accounting policies to the financial statements, as this would constitute non-compliance with GRAP 17.
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	With reference to the preceding paragraph, it is important to note that it would not be appropriate to assume that the non-disclosure of the internal policy in the accounting policy alone would be acceptable. GRAP 1 – Presentation of Financial Statements states explicitly that if an entity states that it prepares its financial statements in accordance with GRAP it must comply in full with the standards of GRAP. Therefore, for financial reporting purposes full compliance with GRAP is required regardless of the entity's internal reporting requirements. Entities should keep adequate records of all the assets expensed, as the effect on the cost and depreciation as reflected in the financial statements may become material over time. Materiality must be considered by not only taking into account the materiality of the individual item, but also considering: • the cumulative effect of all the individually immaterial items of property, plant and equipment that were expensed during a specific financial year; and • the cumulative year-on-year effect of all expensed items of property, plant and equipment. It is also important to remember that, even if every asset in a set is below the capitalisation threshold, the set of assets have to be assessed as a whole to determine whether or not to capitalise the assets. For example: one chair of R500 may not be material, but 1,000 chairs of R500 each may be.
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6 INITIAL MEASUREMENT

6.1 General

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

Where an asset is obtained at no cost or nominal cost, its cost should be measured at fair value on the date of acquisition.

Property, plant or equipment may be gifted or contributed to an entity and therefore obtained at no cost. Property, plant or equipment may also be acquired at no cost or for a nominal cost (below market value) through the process of sequestration.

In both these circumstances, the cost of the property, plant or equipment should be measured at its fair value at the **date of acquisition**.

In determining the fair value of an item of property, plant and equipment acquired through a non-exchange transaction, an entity should apply the principles under the section on **determining the fair value**.

Subsequent to the recognition of such an asset, an entity can choose to adopt either the revaluation model or the cost model in accordance with GRAP 17.



Measuring property, plant and equipment at initial recognition at fair value vs. measuring property, plant and equipment using the revaluation value model for subsequent measurement

Remember that the initial measurement at fair value of an asset acquired at no cost does not call for the use of, nor does it imply the use of the revaluation model for subsequent measurement.

If the class to which an item of property, plant and equipment acquired at no cost belongs is subsequently measured at cost, the fair value of the asset at initial recognition will be deemed to be the cost for subsequent measurement. This deemed cost will be subject to depreciation, if the cost model is used.

However, if the revaluation model is used for the subsequent measurement of property, plant and equipment, the revalued amount is usually either the market value determined by appraisal or the fair value by reference to other items with similar characteristics, etc? The movements in the revalued amount will be recognised in a revaluation surplus in net assets.

For more detail on the revaluation model (and cost model), refer to the section on **subsequent measurement**.

6.2 Elements of cost

The cost of an item of property, plant and equipment is the purchase price and other 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.

The cost of property, plant and equipment would generally include:

- purchase price, including import duties, non-refundable purchase tax; and

	Trade discounts and rebates should be deducted from the purchase price.
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- the initial estimates of the costs of dismantling and removing an item and restoring the site on which an item is located. The obligation to incur such costs arises either when the entity acquires the asset, or as a result of using the asset over a certain period, except when the asset is used to produce inventory during that period. If the asset is used to produce inventory during a period, an entity applies GRAP 12 on Inventory to the cost of obligations for dismantling, removing and restoring the site on which the asset is located.

	Example 2: Provision for rehabilitation of landfill site Entity G has an obligation to rehabilitate a landfill site at the end of the usage period which is 20 years. It is expected that the cost to rehabilitate the landfill site will amount to R5 million at the end of year 20. The expected future cost to rehabilitate the landfill site should be the best estimate of the expenditure required to settle the present obligation. This is determined as the amount that an entity would rationally pay to settle the obligation at the reporting date or to transfer it to a third party at that time. The estimates of future cost require the judgement of the management of the entity, which should be supplemented by experience of similar transactions or reports from independent experts. The present value of the estimated future cost to rehabilitate the site at end of year 20 should be recognised in the statement of financial position once the landfill site is being used. Assume that the landfill site is used from 1 July 2009. The reporting date is 30 June 2010. Entity G has estimated a discount rate of 8% per annum to be appropriate. The present value of the estimated rehabilitation cost is calculated as follows: FV = -R5,000,000 PMT = nil i = 8 % N = 20 years i.e. PV = R1, 072, 741. This can be calculated by using MS Excel or a financial calculator. Journal entries:
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The following journal entries will be made to account for the rehabilitation cost:

1 July 2009	Debit	Credit
	R	R
Landfill site (asset)	1,072,741	
Provision for rehabilitation of landfill site		1,072,741
Recognising present value of provision for rehabilitation cost		

30 June 2010	Debit	Credit
	R	R
Finance cost (surplus or deficit)	85,819	
Provision for rehabilitation of landfill site (R1, 072,741 x 8%)		85,819
Recognising the increase in provision due to unwinding of discount		

30 June 2010	Debit	Credit
	R	R
Depreciation (R1,072,741 / 20)	53,637	
Accumulated depreciation		53,637
Recognising depreciation for the year		

In year 2 the following journal entries will be made:

30 June 2011	Debit	Credit
	R	R
Finance cost (surplus or deficit)	R92,685	
Provision for rehabilitation of landfill sites ((R1, 072,741 + R85, 819) x 8%)		R92,685
Recognising the increase in provision due to unwinding of discount		

30 June 2011	Debit	Credit
	R	R
Depreciation (R1,072,741 / 20)	53,637	

Accumulated depreciation		53,637
Recognising depreciation for the year		

Calculations:

Calculating the interest on the provision for rehabilitation cost:

Amortisation table	Interest @ 8%	Provision
Start of year 1		R1,072,741
End of year 1	R85,819	R1,158,560
End of year 2	R92,685	R1,251,245
End of year 3	R100,100	R1,351,345
End of year 4	R108,108	R1,459,453
End of year 5	R116,756	R1,576,209
End of year 6	R126,097	R1,702,306
End of year 7	R136,184	R1,838,490
End of year 8	R147,079	R1,985,569
End of year 9	R158,846	R2,144,415
End of year 10	R171,553	R2,315,968
End of year 11	R185,277	R2,501,245
End of year 12	R200,100	R2,701,345
End of year 13	R216,107	R2,917,452
End of year 14	R233,396	R3,150,848
End of year 15	R252,068	R3,402,916
End of year 16	R272,233	R3,675,149
End of year 17	R294,012	R3,969,161
End of year 18	R317,533	R4,286,694
End of year 19	R342,936	R4,629,630
End of year 20	R370,370	R5,000,000

The amortisation table can be populated by using MS Excel or a financial calculator.

At the end of year 20, the provision will have increased to R5, 000,000 and will be realised by the payment made at the end of year 20.

Assume the following additional information:

At the beginning of year 3 the entity decided that they will only use the landfill site for 14 years. As two years have already passed, the remaining period of usage is 12

years.

The carrying amount of the provision as at 1 July 2011 is R1, 251,245 (obtained from the amortisation table above).

The carrying amount of the asset as at 1 July 2011 is R965, 467 (R1, 072,741 x 18/20).

Assume that the estimated cost to settle the provision at the end of year 14 has now changed to R4, 800,000 and the discount rate is still 8%.

The change in the provision to be recognised on 1 July 2011 is calculated as follows:

Calculate the present value of new estimated rehabilitation cost:

FV = -R4,800,000

PMT = nil

i = 8

N = 12

i.e. PV = R1,906,146

Therefore the increase in the provision to be recognised is R654, 901 (R1, 906,146 - R1, 251,245).

The new carrying amount of the asset will be R1, 620,368 (R965, 467 + R654, 901) (which will be depreciated over the remaining useful life of 12 years).

Journal entries:

The following journal entries will be made to account for the rehabilitation cost:

1 July 2011	Debit	Credit
	R	R
Landfill site (asset)	654,901	
Provision for rehabilitation of landfill site		654,901
Recognising change in the provision for rehabilitation cost		

30 June 2011	Debit	Credit
	R	R
Finance cost (surplus or deficit)	152,491	
Provision for rehabilitation of landfill site (R1, 906,146 x 8%)		152,491
Recognising the increase in provision due to unwinding of discount		

30 June 2011	Debit	Credit
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		R	R
	Depreciation (R1,620,368 / 12)	135,030	
	Accumulated depreciation		135,030
	Recognising depreciation for the year		
	Important considerations relating to these type of provisions: • A decrease in the provision will be limited to the carrying amount of the asset. Any excess should be recognised immediately in surplus or deficit. • In the case of an increase in the provision, an entity should consider whether it is an indication that the new carrying amount of the asset may not be fully recoverable. If that is the case, the assets should be tested for impairment in accordance with GRAP 21 on Impairment of Non-cash-generating Assets and GRAP 26 on Impairment of Cash-generating Assets. • The related asset will be depreciated over its useful life, and in the case of a change in the carrying amount of the asset, will be depreciated over its remaining useful life based on its new carrying amount. Once the asset has reached the end of its useful life, any subsequent changes in the provision should be recognised in surplus or deficit as they occur (this is because the asset's carrying amount is zero). For guidance on how to determine the amount to be recognised as a provision and other information, refer to the accounting guideline on GRAP 19.		

Examples of other directly attributable costs are:

- employee costs as defined in GRAP 25 on Employee Benefits;
- those costs that arises as a result of direct involvement in the construction or acquisition of the item of property, plant and equipment;

	Borrowing costs (finance cost) that are incurred in relation to the construction, production or acquisition of a qualifying asset may form part of the cost of an asset. GRAP 5 on Borrowing Costs determined the criteria for the recognition of finance cost in the carrying amount of such an asset. For more detail refer to the accounting guideline on GRAP 5.
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- costs to prepare the site where property, plant and equipment will be located;
- initial delivery and installation cost;
- costs of testing the asset; and

	Any proceeds on items sold that were produced during the testing of equipment are deducted from the costs of testing the asset.
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- professional fees.

Capitalisation of costs should cease as soon as the asset is in the location and condition necessary for it to be capable of operating in the manner intended by management.

	Storage costs Storage costs typically do not qualify as directly attributable costs to bringing the asset to its location and condition for it to operate in the manner as intended by management, as these costs are usually incurred after the asset is already in its location and condition ready to operate. However, if an entity has to store an asset for a period of time before it can be modified, improved or put into use, then the storage cost can be capitalised.
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Accounting treatment of assets being constructed on behalf of an entity

GRAP 11 on Construction Contracts deals with construction contracts where an entity (the contractor) constructs an asset on behalf of another party (the client). Refer to the **accounting guideline on GRAP 11** for detail.

This section deals primarily with how the **client** should account for the constructed asset in their financial statements.

	Example 3: Assets under construction contracts - Client Background The Department of Public Works (DPW) is contracted by the Department of Transport (DoT) to build a bridge. In this example: • DPW is the contractor as they are constructing the bridge; and • DoT is the client. • DPW applies GRAP 11 in accounting for the relevant costs and, if relevant revenue; and • DoT will make the required payments to DPW over the contract period and at the end will 'receive' the bridge, thereafter the department will apply GRAP 17 – Property, Plant and Equipment to account for the bridge in its accounting records. Information pertaining to the contract between the two parties The construction begins on 1 October 2010 and will be finished on 31 March 2012 (i.e. 1.5 years). After which, the bridge will be complete and be available for use by
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DoT.

The parties agreed on a fixed price contract of R40 million.

Contract revenue and contract costs are determined based on surveys of work performed (work certified to date / contract price).

DPW invoices DoT upon the issue of certificates.

The DoT will retain 5% of the contract value, of which 50% will be paid to DPW at handover and 50% will be retained for a further period of 3 months after delivery of the project (the defects liability period). Any defects discovered during this period must be corrected by DPW.

The contract revenue as determined over the contract period, is as follows:

Date	Amount	% complete
31/11/2010	R2.5 million	6.25%
31/12/2010	R3.2 million	14.25%
28/02/2011	R1.5 million	18%
30/04/2011	R5.6 million	32%
31/05/2011	R4.9 million	44.25%
31/07/2011	R2.6 million	50.75%
31/10/2011	R3.6 million	59.75%
30/11/2011	R8.1 million	80%
31/01/2012	R4.2 million	90.5%
31/03/2012	R3.8 million	100%
Total contract price	R40 million	

Journal entries:

The journals entries in the accounting records of the **client (DoT)** will be as follows (note that for example purposes the total effect on each period is shown in one journal):

Period ending 31 March 2011	Debit	Credit
	R	R
Property, plant and equipment (WIP asset)	7,200,000	
Payable to DPW		7,200,000
Recognise WIP asset under construction (R2.5mil + R3.2mil+ R1.5mil)		

Period ending 31 March 2012	Debit	Credit
	R	R
Property, plant and equipment (WIP asset)	32,800,000	
Payable to DPW		32,800,000

Recognise WIP asset under construction (R40 mil - R7.2 mil)

Assuming that the entire amount will be settled on completion of construction, the journal entries will be as follows: (Remember that an amount of R2, 000,000 (5% of R40, 000,000) will be withheld as retention money until all defective work has been corrected. This amount will remain in payables.)

Period ending 31 March 2012	Debit	Credit
	R	R
Payable to DPW	40,000,000	
Retention creditor – DPW		2,000,000
Bank		38,000,000
Payment to DPW (R40mil – R2mil retention money)		

DoT inspected the bridge and identified outstanding items to be completed by DPW prior to the handover of the bridge and issued a list of outstanding items (a so-called 'snag list' to DPW.

Upon completion of the outstanding items by DPW, the DoT carries out a final inspection and issues a practical completion certificate and the bridge is handed over to DoT. In terms of the contract 50% of the retention money is payable to the contractor on handover. The transaction is as follows:

Period ending 31 March 2012	Debit	Credit
	R	R
Retention creditor – DPW	1,000,000	
Bank		1,000,000
Payment of 50% of retention money to DPW (R2mil – R1mil retention money)		

The bridge is now available for use by DoT and it should therefore be classified to the class of property, plant and equipment under which it will fall. In this case it will be infrastructure assets.

Furthermore, the asset will be depreciated over its useful life from this date.

At 31 March 2012	Debit	Credit
	R	R
Property, plant and equipment (infrastructure assets)	40,000,000	
Property, plant and equipment (WIP asset)		40,000,000
Transfer WIP asset to infrastructure assets upon completion of construction		

When the defects liability period lapses, DoT pays the rest of the retention money

	over to DPW. The transactions is as follows:		
	30 June 2012	Debit	Credit
		R	R
	Retention creditor – DPW	1,000,000	
	Bank		1,000,000
Payment of the remaining 50% of retention money to DPW			



Some additional information related to construction contracts

Note that, in the case of a construction contract, the bidding documents and the general conditions of contract have to adhere to the prescripts of the Construction Industry Development Board, in addition to the supply chain management prescripts of National Treasury.

The conditions of contract will normally specify the following (among others):

- The work that will be done;
- The time taken to complete the work;
- What will happen if there are delays or variations in the contract;
- The amount and time of any payments to be made;
- What work methods and quality will apply; and
- The procedures to be followed regarding cancellation, disagreement and disputes.

The following are some terms that are normally used in the contract along with a short description of each:

Progress payments:

The contract will normally make provision for monthly payment to the contractor based on the estimate of the value of the work completed (sometimes including certain other costs, such as materials on site). The contractor delivers the monthly statement for payment to the engineer (or another representative), who certifies the amount due, where after the employer pays the contractor within the time period specified in the contract.

Penalties:

Most contracts provide for penalties to be paid for failure to complete the project within the specified time. Penalties are normally an agreed upon amount of money per day and will be deducted from payments due to the contractor.

Retention:

Usually an amount of money is held back by the client to ensure that the contractor does his work properly. This retention money is due to the contractor, as the work is

	complete, but will not be paid out. This is to ensure that the contractor corrects any defective work. Normally half of the retention money is paid to the contractor when the project is delivered (or the engineer issues the Certificate of Completion) and the other half is paid within 14 days after the end of the 'defects liability period'. Defects liability period: This is the period in which the contractor is required to correct any defects that may be discovered and can vary between 3 to 12 months.
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6.3 Measurement of cost

	Cost is 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.
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Deferred settlement

If in debt, the cash price is the difference between this amount and the total payments is recognised as interest expense over the period of credit unless it is capitalised in accordance with the allowed alternative treatment in the Standard of GRAP on *Borrowing Costs*.

Example 4: Deferred settlement terms

An entity purchases a machine for R5 million. On acquisition date the machine was ready for its intended use.

The machine will be accounted for in accordance with GRAP 17 as property, plant and equipment.

The supplier allows the entity to settle payment for the machine after 6 months, but charges interest on the outstanding amount at 15% per annum, payable at the end of the settlement period. The normal credit terms of the entity are 30 days.

Based on the above, the difference between the capital amount (purchase price) of R5, 000,000 and the total payments (capital plus interest) of R5, 386,916, will be recognised as finance cost over the period of 6 months. The total payments (including interest) were calculated as follows:

$$PV = R5,000,000$$

$$I = 15\%/12$$

$$N = 6$$

Comp FV = R5, 386,916. This can be calculated by using MS Excel or a financial calculator.

Therefore the finance cost to be expensed over 6 months is R386, 916 (R5, 386,916 - R5, 000,000).

The journal entries will be as follows:

Acquisition date	Debit	Credit
	R	R

Machine	5,000,000	
Creditor		5,000,000
Recognise machine purchased on acquisition date		
At the end of 6 months	Debit	Credit
	R	R
Finance cost	386,916	
Creditor		386,916
Expense interest accrued to surplus or deficit		
Note that the interest over the six months has been aggregated for the purposes of this example. The actual monthly calculation of the interest will be as follows:		
Period	Interest	Total
Month 1 (R5,000,000 x 15% / 12)	R 62,500	5,062,500
Month 2 (R5,062,500 x 15% / 12)	R 63,281	5,125,781
Month 3 (R5,125,781 x 15% / 12)	R 64,073	5,189,854
Month 4 (R5,189,853 x 15% / 12)	R 64,873	5,254,727
Month 5 (R5,254,726 x 15% / 12)	R 65,684	5,320,411
Month 6 (R5,320,410 x 15% / 12)	R 66,505	5,386,916
Total interest is therefore	R386,916	
At the end of 6 months	Debit	Credit
	R	R
Creditor	5,386,916	
Bank		5,386,916
The creditor paid		

7 PUBLIC-PRIVATE PARTNERSHIPS (PPP's)

Identification

Public-Private Partnerships (PPP's) typically involve an arrangement whereby a private party supplies an asset and/or services that previously were developed or provided by a public entity on behalf of the public entity.

The control approach should be followed in determining whether an entity should account for the asset and related obligation in a PPP agreement, i.e. does the entity control the use of the asset?

It is important to note that the right of ownership is not essential when control is determined, but that the substance, rather than the form, of the arrangement will have to be assessed. Hence, the entity does not have to be the legal owner of the asset to satisfy the requirement for control. However, the entity should be able to control the rights or the access to the future economic benefits or service potential (e.g. delivering goods and services in terms of the entity's objectives) of the asset.

The criteria to be assessed under the control approach are:

- The entity controls or regulates what services the private party must provide with the associated asset, to whom it must provide them and at what price; and
- The entity controls (through ownership, beneficial entitlement or other) any significant residual interest in the asset at the end of the agreement.

If an existing asset is provided to a private party in terms of a PPP agreement, who upgrades, operates and maintains the asset for a specific period of time, the entity uses the control criteria above to determine whether it controls the use of the underlying asset.

If a PPP agreement requires a private party to use its own asset which it will upgrade, operate and maintain for a specific period of time, the entity uses the control criteria above to determine whether it controls the use of the underlying asset.

For assets constructed, developed, acquired or used in terms of a PPP agreement, whereby the private party uses the assets to perform a part of the entity's service delivery or administrative functions, the entity uses the control criteria above to determine whether it controls the use of the underlying asset.

If one or both of the control criteria above are not met, an entity should determine whether or not the agreement constitutes a lease. Refer to the **accounting guideline on GRAP 13** which includes the principles to be considered.

Recognition

Where the control approach criteria have been met, assets under a PPP agreement will be recognised once the **recognition criteria in GRAP 17** are met.

Assets under construction or development will be recognised as the assets are being constructed or developed. If the construction or development takes more than one year to complete, an entity recognises the assets based on the percentage of completion method.

Contributions made by an entity that relates to the construction or development of an asset that is recognised based on the control approach above, should be included in the cost of the constructed or developed asset. These contributions will be recognised as prepayments and transferred to work-in-progress as the construction or development is completed.

Measurement

The assets should be measured in accordance with the **principles set out in GRAP 17** (or other standards of GRAP where applicable for other assets).

Unitary payments made relating to both the:

- Asset element: the construction or development of an asset; and
- Service element: to services provided by the private party, e.g. repairs and maintenance, service delivery,

should be separated into the respective elements and accounted for in accordance with the relevant standards of GRAP or Framework.

	Unitary payment is the charge payable by the entity to the private party in connection with the performance of the private party's obligations included in project deliverables.
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The asset (the asset element) will be measured at the present value of the scheduled payments, excluding those payments which relate to the service element (under GRAP 17 an asset should initially be measured at cost).

The service element will be recognised as an expense as the service is rendered by the private party, based on the provisions of the PPP agreement, irrespective of whether payment was made.

For example, a PPP agreement stipulates that at inception of the agreement the entity is liable for a single payment of R1 million to the private party to provide certain services over a period of three years. The R1 million was paid over at the inception of the agreement. If it is assumed that the private party rendered services to the value of R560, 000 in the first year, the following journal entries will be made for year 1:

Year 1 – inception	Debit	Credit
	R	R
Prepayment (asset)	1,000,000	
Bank		1,000,000
Accounting for payment in accordance with PPP agreement		

If no payment was made at inception, a liability would have been raised.

Year 1 – reporting date	Debit	Credit
	R	R
Service costs (expense)	560,000	
Prepayment		560,000

Accounting for services rendered by the private party in terms of the PPP agreement.

The amount cannot be expensed when paid (or when the entity is liable for payment) as the services have not been rendered yet, thus the prepayment is reduced as the services are performed.

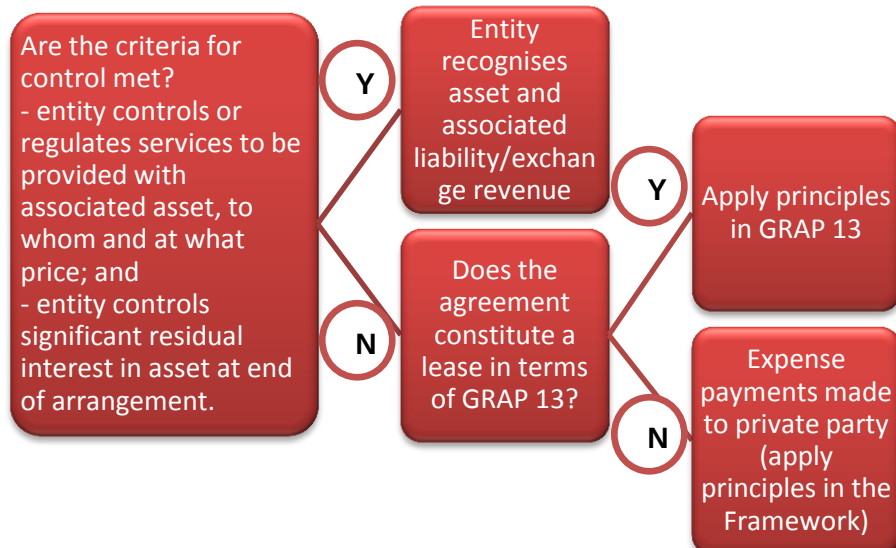
If the unitary payment cannot be split between the asset element and the service element, the entity needs to determine the fair value of the asset at inception of the PPP agreement, and recognise the asset at that value. The difference between the fair value and the unitary payment will constitute the service element.



Example 7: Recognising assets acquired in a Public-Private Partnership (PPP)

Entity XYZ enters into a PPP agreement with a private company for the construction of a toll road, which the company will manage for the next five years. In terms of the PPP agreement the company is entitled to all the proceeds from the toll road during the term of the agreement. The toll fees to be levied are determined by Entity XYZ. The private party completed the toll road in one year. The fair value of the toll road at the commencement of the PPP agreement is R2, 500,000. The toll road has a ten year economic life and is depreciated on a straight-line basis over its economic life.

The following diagram indicates the approach that should be followed in determining the accounting treatment of the PPP agreement:



Entity XYZ recognises the toll road at fair value after construction, based on the control criteria that are met:

- Entity XYZ determines the toll fees, therefore the first control criteria is met:
- Entity XYZ controls a significant residual interest in the toll road as the remaining economic life is a significant portion of the total economic life, therefore the second control criteria is met.

If the asset was not controlled by Entity XYZ (i.e. one or both of the criteria are not met), Entity XYZ will determine whether the agreement contains a lease, and if so, accounts for the asset by applying the principles in GRAP 13 on Leases.

If the PPP agreement does not constitute a lease, the payments made to the private company will be expensed as the service is rendered per the provisions of the agreement in accordance with the principles in the Framework.

Entity XYZ only recognises the toll road once the recognition criteria in GRAP 17 are met. The entity therefore does not recognise the toll road during construction as the entity cannot use or otherwise benefit from the toll road before construction is complete.

The toll road will therefore be recognised once construction is complete. The asset is not used in the first year and therefore no depreciation expense is recognised in respect of that year.

Journal entries:

The journal entry will be as follows:

Beginning of year 2	Debit	Credit
	R	R
Property, plant and equipment	2,500,000	
Exchange revenue received in advance (liability)		2,500,000
Recognising the toll road at fair value which represents a net asset inflow for the entity (in accordance with GRAP 9)		

The revenue (exchange consideration) should be recognised over the period of the PPP agreement in the statement of financial performance as the entity gives the company the right to use the asset (access is granted to the company).

The journal entries for every year of the PPP agreement will therefore be as follows:

Year 2 - 5	Debit	Credit
	R	R
Depreciation (R2,500,000 / 10)	250,000	
Accumulated depreciation		250,000
Recognising depreciation for the year		
Exchange revenue received in advance (liability) (R2,500,000 / 5)	500,000	
Exchange revenue (surplus or deficit)		500,000
Recognising revenue from the PPP agreement		

8 SUBSEQUENT MEASUREMENT

8.1 General

An entity should choose either the cost model or the revaluation model for subsequent measurement of property, plant and equipment.

Cost model



Under the cost model, assets are carried at cost less any accumulated depreciation and any accumulated impairment losses subsequent to recognition.

Revaluation model



Subsequent to recognition, those assets whose fair value can be measured reliably are carried at revalued amount less any accumulated depreciation and any accumulated impairment losses. The revalued amount is the fair value at the date of the revaluation. Refer to the section later on dealing in more detail with the accounting treatment of property, plant and equipment under the **revaluation model**.

The following sections deals with useful lives, residual values and depreciation.

8.2 Useful life and residual value

	Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life. Depreciable amount is the cost of an asset, or other amount substituted for cost, less its residual value.
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	Useful life is: - the period over which an asset is expected to be available for use by an entity; or - the number of production or similar units expected to be obtained from the asset by an entity.
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Sometimes the useful life may be shorter than its economic life, because management may have a practice of disposing the assets after a specified time.

	Differentiating between the useful life and economic life of an asset Economic life is either: - the period over which an asset is expected to be economically usable by one or more users; or - the number of production or similar units expected to be obtained from the asset by one or more users. Useful life is either: - the period over which an asset is expected to be available for use by an entity; or - the number of production or similar units expected to be obtained from the asset by an entity. The difference between useful life and economic life can therefore be summarised as follows: Useful life is the term that the entity expects to use an asset while the economic life is the actual life span of the asset. For example, it might be the policy of an entity to purchase a new fleet of vehicles every three years and therefore the useful life of the vehicles is 3 years. The vehicles can, however, still be used for at least another 10 years before they are in an unusable condition and therefore the economic life of the vehicles will be 13 years.
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	The residual value of an asset is the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset was already of the age and in the condition expected at the end of its useful life.
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	Example 8: Assessing the residual value of an asset Entity Z acquired a Toyota Corolla on 1 July 2010 for R225, 000. In order to determine the residual value of the asset, the entity first has to determine the useful life of the asset. The entity estimates the useful life of the Toyota Corolla to be 5 years, which is shorter than the economic life of a Toyota Corolla, and therefore it can be assumed that the asset will have a residual value*.
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	In order to determine the residual value, the entity has to determine what the Toyota Corolla would currently sell for if it was already of the age and in the condition expected at the end of its useful life. It therefore estimates what a 5 year old Toyota Corolla currently sells for. Similar 5 year old Toyota Corollas are currently sold in the market for an average of R50, 000. Entity Z therefore estimates the residual value of the vehicle to be R50, 000 at end of its useful life. *Note that the standards of GRAP specify that if an entity uses an asset for a shorter period than its economic life, it implies that such an asset will have a residual value, unless there are specific conditions to indicate differently, as another entity or person will still be able to use the asset afterwards.
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If the residual value of an asset increases to an amount equal to or greater than the asset's carrying amount, no depreciation is recognised until the residual value subsequently decreases to an amount below an asset's carrying amount.

	Residual values The residual value of an asset may often be insignificant and therefore immaterial in the calculation of the depreciable amount. In certain instances entities will also be unable to dispose of the assets at the end of its useful life, or will only be able to dispose of an asset for a nominal amount. The following are examples of assets that may have no or insignificant residual values: • Infrastructure assets, such as waste water networks or roads; • Computer hardware; and • Computer software.
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8.3 Depreciation

	Depreciation of an asset commences when the asset is available for use. Depreciation of an asset continues even though the asset is idle unless it is classified as held for sale or derecognised. Thus the asset should be depreciated when it can be used even if it is not used.
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	An asset is available for use when the asset is in the location and condition necessary for it to be capable of operating in the manner intended by management.
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F.A.Q

One of the most Frequently asked questions relating to depreciation are: When should an entity start depreciating major spare parts and stand-by equipment?

Answer: An entity starts depreciating major spare parts and stand-by equipment when the asset is available for use, i.e. when it is in the location and condition necessary for it to be capable of operation in the manner intended by management. This implies that depreciation may commence while the item is held in storage. Under usage based depreciation, the depreciation of items held in storage may be zero.

If major installation of the spare part is however required, it may be argued that the spare parts are not immediately available for use in the manner intended by management. In these instances, depreciation may only commence once the installation is complete.

Management should exercise judgement in applying the requirements in GRAP 17 regarding the depreciation of major spare parts and standby equipment.

Depreciation methods

The depreciation method used should allocate the depreciable amount on a systematic basis that reflects the pattern of how the economic benefits or service potential are expected to be consumed by the entity (i.e. over its useful life).

The more commonly applied depreciation methods in accordance with GRAP 17 are straight-line method, the diminishing balance methods and units of production method.

The following examples illustrate the difference between the three methods.



Example 9: Straight-line method of depreciation

Entity B purchased an asset for R136, 800 (VAT incl.) that is expected to be used for 5 years, with a residual value of R15, 000. The entity chooses to allocate the asset's depreciable amount using the straight-line method over its expected useful life.

Calculations:

The cost of the asset	R120,000 (R136,800 / 114 x 100)
The depreciable amount	R105,000 (R120,000 – R15,000)
The annual depreciation charge will therefore be	R21,000 (R105,000 / 5)

**Example 10: Diminishing balance method of depreciation**

Assume the same information as in **Example 9** above, but the diminishing balance method is used. As a result, the carrying amount (less the residual value) of the asset is depreciated by multiplying it with the depreciation rate (20%).

Calculations:

The cost of the asset	R120,000 (R136,800 / 114 x 100)
The depreciable amount	R105,000 (R120,000 – R15,000)
The depreciation charge for year 1 will therefore be	R21,000 (R105, 000 x 20%)
The depreciation charge for year 2 will therefore be	R16,800 [(R105,000 – R21,000) x 20%]

This process will continue in a similar way each year.

**Example 11: Unit of production method of depreciation**

Machinery acquired is expected to produce 1,600,000 units of inventory over its lifespan. The cost of asset is R136, 800 (VAT incl.). The residual value expected is R15, 000. In the first year, 500,000 units were produced.

Calculations:

The cost of the asset	R120,000 (R136,800 / 114 x 100)
The depreciable amount	R105,000 (R120,000 – R15,000)
The depreciation charge for year 1 will therefore be	R32,813 (500,000 / 1,600,000 x R105,000)

Recognising the depreciation charge

The depreciation expense should be recognised in surplus or deficit, except where the depreciation charge is capitalised against another asset.

The depreciation charge will continue to be recognised even though the fair value of the asset exceeds the carrying amount. Only when the residual value exceeds carrying amount of the asset, should the depreciation charge cease.



Depreciation charge continues even though the asset is idle or retired from active use and held for disposal, unless the asset is fully depreciated or the asset is classified as held for sale.

However, where the unit of production method is adopted, the depreciation charge will be zero while the asset is idle.

Reassessment of depreciation methods, useful lives and residual values

The depreciation method applied to an asset should be reviewed at least at each reporting date. Any changes in the depreciation method should be accounted for as a change in accounting estimate in accordance with GRAP 3 on Accounting Policies, Changes in Accounting Estimates and Errors.

Similarly, the estimate of the useful life and residual value of an asset should also be reviewed **at least at each reporting date**. Any changes in the estimated useful life or residual value of an asset should be accounted for as changes in accounting estimates and applied prospectively in accordance with GRAP 3 on Accounting Policies, Changes in Accounting Estimates and Errors.



Example 12: Reassessing the useful life and residual value of an asset

Assume the same information as in **Example 8** above.

At 30 June 2012, when reassessing the useful lives and residual values of its assets, Entity Z now decides that it will use the vehicle for a **total of 10 years** from purchase date.

Currently a 10 year old Toyota Corolla sells for R25, 000, and therefore the entity estimates that amount as its new residual value.

Carrying amount at 30 June 2011	R190,000 $(R225,000 - ((R225,000 - R50,000) / 5))$
'Old' depreciation at 30 June 2012	R35,000 $(R225,000 - R50,000) / 5$

A change in accounting estimate in accordance with GRAP 3 on Accounting Policies, Changes in Accounting Estimates and Errors is accounted for prospectively; therefore the entity needs to recalculate depreciation from the beginning of the current reporting period, i.e. 1 July 2011.

It is important to note that when calculating the depreciation for the 2011/2012 period, the entity will use the estimated remaining useful life at the beginning of the period.

Therefore, for the period ended 30 June 2012, the entity will have to determine the remaining useful life at 30 June 2011.

The **remaining useful life** at 30 June 2011 is 9 years.

The 9 years is calculated as follows: remaining useful life based on original assessment of useful life at 30 June 2011 is 4 years, add the additional years added based on reassessment, which is 5 years.

As from 1 July 2011, the vehicle will therefore be depreciated over 9 years.	
'New' depreciation for next 9 years	R18,333 $((R190,000 - R25,000) / 9)$
Change in accounting estimate	R16,667 $(R35,000 - R18,333)$
Take note that when calculating the new depreciation as a result of a change in estimate, one will always calculate it by dividing the carrying amount by the remaining useful life. The change in accounting estimate results in a decrease in depreciation in the current period. Disclosure of the change in accounting estimate should be made in accordance with GRAP 3.	

	Reassessment of useful lives and residual values It is not appropriate to take a blanket approach of reassessing an entire class of property, plant and equipment. For example, an entity has furniture and equipment and estimates that the entire class of furniture and equipment's useful lives are 10 years. Each asset should be assessed for the appropriateness of its remaining useful lives (and residual value). Factors which an entity can take into consideration in determining whether there is a possible indication that an asset's useful life has changed: • Condition of the asset; • Plan to dispose of the asset; • Plan to replace an asset; and • Other factors. The condition of an asset can be assessed already as part of the physical verification of assets, which should be carried out at least at reporting date. The poorer the condition, the more likely that the remaining useful life will be less. The condition of an asset can also be an indicator that the asset may be impaired.

Separation of assets into significant parts

	Separation of assets into significant parts Parts of assets only have to be depreciated separately if: • the part identifiable has a cost that is significant in relation to the total cost of the item; and • the part has a different useful life than that of the item (or other parts).

	Management should assess all assets which might have significant separately identifiable parts in order to identify which parts should be depreciated separately. Notwithstanding the above, management can decide to depreciate separately the parts of an item of property, plant and equipment that does not have a cost that is significant in relation to the total cost of the item. As an example, most infrastructure assets have significant parts and different useful lives from other parts of the related asset and should therefore be identified and depreciated separately. Note that to the extent that an entity depreciates separately some parts of an asset, it should also depreciate separately the remainder of the asset (the remainder will consist of the parts of the asset that are individually not significant). The thought-process in deciding whether a part of an asset should be depreciated separately should be properly documented in the entity's policy on assets (the details need not be included as part of the accounting policy).
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	Example 13: Significant parts - Building with other assets Entity B acquired a building on 1 September 2009 for R6, 000,000 and which includes 5 air conditioners and an elevator. Assume that the fair value of the air conditioners is R500, 000 and of the elevator R1, 200,000 at acquisition date. The useful life of the building is estimated to be 20 years and has a residual value of R1, 000,000. The air conditioners have an expected useful life of 5 years with no residual values. The elevator has an expected useful life of 10 years with no residual value. If one follows the approach that the identifiable assets attached to the building have different useful lives and their costs are significant in relation to the total cost of R6, 000,000, the air conditioners and elevator should be treated as separate parts of the building and depreciated over their estimated useful life of 5 and 10 years respectively. On the other hand, if one follows the approach that the costs of the identifiable assets attached to the building are not significant in relation to the total cost of R6,000,000, only the building will be recognised at R6,000,000 and depreciated over 20 years. Whichever approach is followed, it should be properly justified.
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In order to be able to separately depreciate each item with a cost that is significant in relation to the total cost of the item, such significant part of the single asset (e.g., an infrastructure asset) should be identified and the following should be determined for each part:

- Cost (all of the individual parts needs to add up to the total cost of the item of property, plant and equipment);
- Useful life; and
- Residual value.

**Example 14: Significant parts – Asset consisting of different parts**

An entity acquires an aeroplane at a cost of R10, 000,000. At the acquisition date, the replacement values of the different parts of the aeroplane are as follows:

Engine: R4,000,000

Airframe: R4,000,000

Seats: R2,000,000

The entity estimates that the airframe and seats will have a residual value of zero at the end of its useful life and also estimates that the engine will have a residual value of R500, 000. The entity assesses the useful lives as follows:

Engine: 5 years

Airframe: 20 years

Seats: 10 years

Each of the different parts are significant in relation to the total cost of the aeroplane and the residual values and useful lives also differ significantly and therefore the different parts will have to be depreciated separately in accordance with GRAP 17.

Note that each part that will be depreciated separately will need to be shown separately in the fixed asset register and add up to the total cost of the asset.

For example, extract out of an entity's fixed asset register:

Asset description	Cost	Useful life	Residual value	Depreciation
Aeroplane	10,000,000			
Engine	4,000,000	5 years	500,000	xxx
Airframe	4,000,000	20 years	0	xxx
Seats	2,000,000	10 years	0	xxx

As mentioned earlier, infrastructure assets are a typical example which consists of significant parts. Refer to **entity-specific guidance** for details.

8.4 Impairment

At each reporting date, an entity has to assess (in accordance with GRAP 26 on Impairment of Cash-generating Assets and GRAP 21 on Impairment of Non-cash-generating Assets) whether or not there is an indication that items of property, plant and equipment might be impaired. If there is an indication of impairment, then the recoverable amount or recoverable service amount should be determined respectively.



An impairment loss is the amount by which the carrying amount of the asset exceeds its recoverable amount or recoverable service amount.

When assets are carried at cost under the cost model, any impairment loss or reversal of impairment loss is recognised in surplus or deficit.

When assets are carried at revalued amounts, an impairment loss is treated as a revaluation decrease – i.e. is recognised in the revaluation reserve to the extent of a revaluation surplus available. The reversal of an impairment loss previously recognised, should be treated as a revaluation increase – i.e. is recognised in the revaluation reserve (unless it is first recognised in surplus or deficit to reverse a previous impairment loss recognised in surplus or deficit, in which case, only any excess will be recognised in the revaluation reserve).

Refer to the **accounting guideline on GRAP 21** for guidance on the impairment of non-cash-generating assets and refer to the **accounting guideline on GRAP 26** for guidance on the impairment of cash-generating assets. These guidelines will provide indicators of impairment that an entity should consider, as well as guidance on how to determine the recoverable amount and recoverable service amount of impaired assets.

8.5 Revaluation model

Subsequent to recognition, an accounting policy choice can be made to carry those assets whose fair value can be measured reliably are at revalued amount less any subsequent accumulated depreciation and any subsequent accumulated impairment losses. The revalued amount is the fair value at the date of the revaluation.

	Important to note when applying the revaluation model: Revaluations should be made with sufficient regularity to ensure that the carrying amount of the item of property, plant and equipment does not differ materially from the fair value at the reporting date. The frequency of revaluation depends on the changes in the fair value of the assets being revalued. When the fair value of a revalued asset differs materially from its carrying amount, a further revaluation is necessary. For an asset that shows insignificant changes in fair value, it may be necessary to revalue the asset only every 3 to 5 years. Assets that experience significant and volatile changes in fair value require annual revaluation. This is an accounting policy choice. When one item of property, plant and equipment in a class is revalued, then the entire class should be revalued. Also note that the movement in the revalued amount is recognised in net assets - under the revaluation surplus (with certain exceptions), and not in surplus and deficit.
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	Example 15: All assets in a class should be revalued Entity B owns six buildings. Building 1 is situated in an area which is fast developing and the value of the property has increased dramatically. Entity B decides that it wants to revalue Building 1 to its current market value. If Entity B revalues Building 1, then it will have to revalue the other 5 buildings as well, as they fall within the same class of assets, namely Buildings. It will be treated as a change in accounting policy. Furthermore, all the buildings will have to be revalued regularly to ensure that the carrying amount does not differ materially from the fair value at reporting date.
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Determining the fair value

The fair value of items of property, plant and equipment is usually their market value determined by appraisal. To revalue land and buildings, an independent valuator can be (but is not required to be) used, who would usually determine the fair value by reference to market evidence.

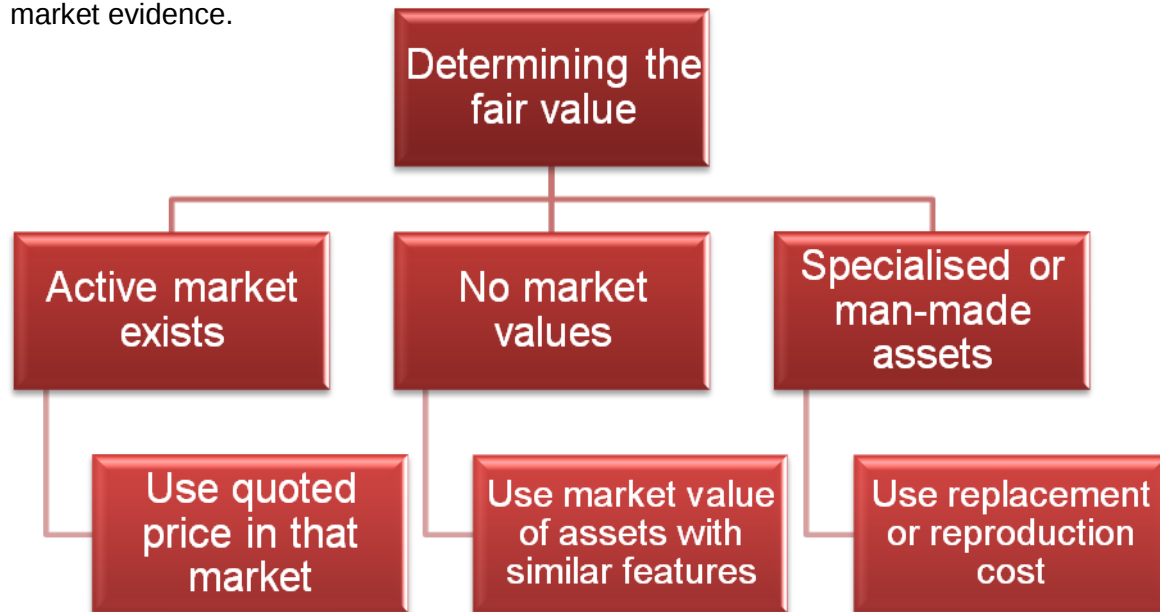


Figure 5 – the 3 methods of determining the fair value of property, plant and equipment

The fair value can be determined by applying one of three methods:

- The fair value of many assets can be determined by reference to quoted prices in an active and liquid market;
- Where market values are not available, estimates can be made with reference to the market value of assets with similar characteristics, in similar circumstances and location or with reference to recent arm's length transactions concluded for similar assets; or
- If an asset is of a specialised nature, and market-based fair value is not available, an entity may need to estimate the fair value using either the reproduction cost or replacement cost. To determine the depreciated replacement cost of an asset, reference can be made to the cost of components used to produce the asset or the indexed price for similar assets based on a price of a previous period.



Depreciated replacement cost is the current cost of reproduction or replacement of an asset less deductions for physical deterioration and all relevant forms of obsolescence and optimisation.

In layman's terms, the depreciated replacement cost of an asset is the current reproduction or replacement cost of the asset, less accumulated depreciation, to reflect the already consumed or expired service potential of the asset.

The replacement cost is the cost to replace the service potential of an asset.

The reproduction cost is the cost of creating an exact replica of the asset.

Treatment of accumulated depreciation

One of the following two options can be followed for the treatment of accumulated depreciation:

- **Restatement:** Restate both the gross carrying amount and the accumulated depreciation, so that the new carrying amount equals the revalued amount. This method is often used when an asset (mostly plant or equipment) is revalued by means of applying an index to its depreciated replacement cost; or
- **Elimination:** The accumulated depreciation is eliminated against the gross carrying amount of the asset and the net amount is restated to the revalued amount. This method is often used for property (buildings).

The amount of the adjustment on the accumulated depreciation is part of the increase or decrease in the carrying amount as discussed below.

Accounting treatment of increases and decreases in the carrying amount as a result of a revaluation

Under the revaluation model, the difference between the revalued amount and the carrying amount is recognised in the revaluation surplus. In the case of a reversal of an increase in excess of the increase previously recognised in the revaluation surplus, or a reversal of a decrease previously recognised in surplus or deficit, it will be recognised in surplus or deficit.

An amount recognised in surplus or deficit is shown as an impairment loss.

To summarise:

Annual financial statements	First revaluation	Subsequent revaluation results in an increase in carrying amount	Subsequent revaluation results in a decrease in the carrying amount
In the statement of changes in net assets	Increase in carrying amount of asset is credited against revaluation surplus	Secondly, where no impairment loss available, the increase (or any excess in the case where impairment loss was previously recognised in surplus or deficit) is recognised in revaluation surplus	Firstly, reverse revaluation surplus previously recognised, if any
In the statement of financial performance	Decrease in carrying amount of asset is recognised as impairment loss in surplus or deficit	Firstly, reverse the impairment loss previously recognised in surplus or deficit, if any	Secondly, where no revaluation surplus available, the decrease (or any excess in the case where revaluation surplus was available) is recognised in surplus or deficit

The difference between the two options on the treatment of accumulated depreciation and the accounting treatment of revaluation increases and decreases are illustrated in the examples below.



Example 16: Treatment of accumulated depreciation at revaluation date (first revaluation)

The following information is available about an entity's machinery at the end of year 2:

Cost of machinery purchased (year 1)	R150,000 (cost)
Accumulated depreciation (end of year 2)	R30,000 (OAD)
Carrying amount (end of year 2)	R120,000 (CA)
Useful life (straight-line method) 10 years	
Depreciated replacement cost end of year 2 when the machinery was revalued	R160,000 (DRC)
Entity's policy is to revalue assets every second year	

The entity has two options to treat the accumulated depreciation upon revaluation, these are shown below.

Restatement option

If the entity chooses to apply the 'restatement' option, both the cost and the accumulated depreciation need to be restated.

Calculations based on the restatement option:

New gross carrying amount (GCA) (is the depreciated replacement cost adjusted for accumulated depreciation already accounted for)	R200,000 $(R150,000 \text{ (cost)} \times R160,000 \text{ (DRC)} / R120,000 \text{ (CA)})$
New accumulated depreciation (NAD)	R40,000 $(R30,000 \text{ (OAD)} \times R160,000 \text{ (DRC)} / R120,000 \text{ (CA)})$
The restatement is calculated as follows:	
Gross carrying amount	R50,000 $(R200,000 \text{ (GCA)} - R150,000 \text{ (cost)})$
Accumulated depreciation	R10,000 $(R40,000 \text{ (NAD)} - R30,000 \text{ (OAD)})$

Journal entries:

The journal entry will be as follows:

Year 2	Debit	Credit
	R	R
Machinery	50,000	
Accumulated depreciation		10,000
Revaluation surplus (R160,000 (DRC) – R120,000 (CA))		40,000
Recognise increase in carrying amount in revaluation surplus		

Elimination option

If the entity chooses to apply the 'elimination' option, the accumulated depreciation should be eliminated against gross carrying amount of the asset.

Journal entries:

The journal entry will be as follows:

Year 2	Debit	Credit
	R	R
Accumulated depreciation (OAD)	30,000	
Machinery		30,000
Write accumulated depreciation back to cost of asset		
Machinery	40,000	
Revaluation surplus (R160,000 (DRC) – R120,000 (CA))		40,000
Adjust balance of carrying amount to depreciated replacement cost		

Alternatively, the journal entry can be as follows:

Year 2	Debit	Credit
	R	R
Accumulated depreciation (OAD)	30,000	
Machinery at revaluation (DRC)	160,000	
Machinery at cost (cost)		150,000
Revaluation surplus (R160,000 (DRC) – R120,000 (CA))		40,000
Eliminate carrying amount and recognise at depreciated replacement cost		

	In conclusion: Under the first option, the asset's value is adjusted to its gross carrying amount, i.e. the depreciated replacement cost adjusted for accumulated depreciation up to the date of revaluation. Under the second option, the carrying amount, i.e. cost less accumulated depreciation on the date of revaluation, is eliminated and the asset is recognised at its depreciated replacement cost. As can be seen above, no matter which option is applied, the amount recognised in revaluation surplus is the same, i.e. will always be the difference between the carrying amount and the revalued amount.
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	Example 17: Subsequent decrease in carrying amount as a result of a revaluation Assume the same information as the previous example. At end of year 4, the following information is available: <table border="1" data-bbox="467 857 1380 1350"> <tr> <td>Carrying amount (end of year 4) - under 'restatement' option calculated as $R200,000 / 10 \times 6$ (because cost = gross amount)</td><td>R120,000 (CA)</td></tr> <tr> <td>Accumulated depreciation (end of year 4) - under 'restatement' option calculated as $R200,000 / 10 \times 4$</td><td>R80,000 (OAD)</td></tr> <tr> <td>Carrying amount (end of year 4) - under 'elimination' option calculated as $R160,000 / 8 \times 6$ (because cost = net amount)</td><td>R120,000 (CA)</td></tr> <tr> <td>Accumulated depreciation (end of year 4) - under 'elimination' option calculated as $R160,000 / 8 \times 2$</td><td>R40,000</td></tr> <tr> <td>Depreciated replacement cost end of year 4 when the machinery was revalued</td><td>R75,000 (DRC)</td></tr> </table> As can be seen above, no matter which option is applied, the carrying amount will be the same; it is only the calculation that is different. The change as a result of the revaluation is R45, 000 ($R120,000$ (CA) – $R75,000$ (DRC)). The decrease in the carrying amount is recognised in surplus or deficit, but it should first be recognised against revaluation surplus to the extent that a surplus in respect of a previous revaluation is available. R40,000 is available against which the decrease should be offset first. The remaining R5,000 will be recognised as an impairment loss in surplus or deficit. The entity has two options to treat the accumulated depreciation upon revaluation, these are shown below. Restatement option If the entity chooses to apply the 'restatement' option, both the cost and the accumulated depreciation need to be restated.	Carrying amount (end of year 4) - under 'restatement' option calculated as $R200,000 / 10 \times 6$ (because cost = gross amount)	R120,000 (CA)	Accumulated depreciation (end of year 4) - under 'restatement' option calculated as $R200,000 / 10 \times 4$	R80,000 (OAD)	Carrying amount (end of year 4) - under 'elimination' option calculated as $R160,000 / 8 \times 6$ (because cost = net amount)	R120,000 (CA)	Accumulated depreciation (end of year 4) - under 'elimination' option calculated as $R160,000 / 8 \times 2$	R40,000	Depreciated replacement cost end of year 4 when the machinery was revalued	R75,000 (DRC)
Carrying amount (end of year 4) - under 'restatement' option calculated as $R200,000 / 10 \times 6$ (because cost = gross amount)	R120,000 (CA)										
Accumulated depreciation (end of year 4) - under 'restatement' option calculated as $R200,000 / 10 \times 4$	R80,000 (OAD)										
Carrying amount (end of year 4) - under 'elimination' option calculated as $R160,000 / 8 \times 6$ (because cost = net amount)	R120,000 (CA)										
Accumulated depreciation (end of year 4) - under 'elimination' option calculated as $R160,000 / 8 \times 2$	R40,000										
Depreciated replacement cost end of year 4 when the machinery was revalued	R75,000 (DRC)										

Calculations based on the restatement option:

New gross carrying amount (GCA)	R125,000 (R200,000 x R75,000 (DRC) / R120,000 (CA))
New accumulated depreciation (NAD)	R50,000 (R80,000 (OAD) x R75,000 (DRC) / R120,000 (CA))
The restatement is calculated as follows:	
Gross carrying amount	R75,000 (R200,000 – R125,000 (GCA))
Accumulated depreciation	R30,000 (R80,000 (OAD) – R50,000 (NAD))

Journal entries:

The journal entry will be as follows:

Year 4	Debit	Credit
	R	R
Accumulated depreciation	30,000	
Machinery		75,000
Revaluation surplus (R75,000 (DRC) – R120,000 (CA)) limited to available balance remaining	40,000	
Impairment loss (difference)	5,000	
Recognise decrease in carrying amount		

Elimination option

If the entity had chosen to apply the 'elimination' option, the accumulated depreciation should be eliminated against gross carrying amount of the asset.

Journal entries:

The journal entry will be as follows:

Year 4	Debit	Credit
	R	R
Accumulated depreciation	40,000	
Machinery		40,000

Write accumulated depreciation back to revalued amount of asset		
Machinery		45,000
Revaluation surplus	40,000	
Impairment loss	5,000	
Adjust balance of carrying amount to depreciated replacement cost		
Alternatively, the journal entry can be as follows:		
Year 4	Debit	Credit
	R	R
Machinery at revaluation (DRC)	75,000	
Accumulated depreciation	40,000	
Machinery at previous valuation		160,000
Revaluation surplus	40,000	
Impairment loss	5,000	
Eliminate carrying amount and recognise at depreciated replacement cost		



Example 18: Subsequent increase in carrying amount as a result of a revaluation

Assume the same information as the previous two examples. At end of year 6, the following information is available:

Carrying amount (end of year 6) - under 'restatement' option calculated as $R125,000 / 10 \times 4$ (because cost = gross amount)	R50,000 (CA)
Accumulated depreciation (end of year 6) - under "restatement" option calculated as $R125,000 / 10 \times 6$	R75,000 (OAD)
Carrying amount (end of year 6) - under 'elimination' option calculated as $R75,000 / 6 \times 4$ (because cost = net amount)	R50,000 (CA)
Accumulated depreciation (end of year 6) - under 'elimination' option calculated as $R75,000 / 6 \times 2$	R25,000
Depreciated replacement cost end of year 6 when the machinery was revalued	R90,000 (DRC)

As can be seen above, no matter which option is applied, the carrying amount will be the same; it is only the calculation that is different.

The change as a result of the revaluation is R40, 000 (R90,000 (DRC) – R50,000 (CA)).

The increase in the carrying amount as a result of the revaluation is recognised in surplus or deficit to reverse any decrease previously recognised, i.e. R5,000 was previously recognised. Any excess, i.e. R35,000 will be recognised in the revaluation

surplus.

The entity has two options to treat the accumulated depreciation upon revaluation, these are shown below.

Restatement option

If the entity chooses to apply the 'restatement' option, both the cost and the accumulated depreciation need to be restated.

Calculations based on the restatement option:

New gross carrying amount (GCA)	R225,000 (R125,000 x R90,000 (DRC) / R50,000 (CA))
New accumulated depreciation (NAD)	R135,000 (R75,000 (OAD) x R90,000 (DRC) / R50,000 (CA))
The restatement is calculated as follows:	
Gross carrying amount	R100,000 (R225,000 (GCA) – R125,000)
Accumulated depreciation	R60,000 (R135,000 (NAD) – R75,000 (OAD))

Journal entries:

The journal entry will be as follows:

Year 6	Debit	Credit
	R	R
Accumulated depreciation		60,000
Machinery	100,000	
Impairment loss reversed		5,000
Revaluation surplus (R90,000 (DRC) – R50,000 (CA) limited to excess over impairment loss reversed)		35,000
Recognise increase in carrying amount		

Elimination option

If the entity had chosen to apply the 'elimination' option, the accumulated depreciation should be eliminated against gross carrying amount of the asset.

Journal entries:

The journal entry will be as follows:

Year 6	Debit	Credit
	R	R
Accumulated depreciation	25,000	
Machinery		25,000
Write accumulated depreciation back to revalued amount of asset		
Machinery	40,000	
Revaluation surplus		35,000
Impairment loss reversed		5,000
Adjust balance of carrying amount to depreciated replacement cost		

Alternatively, the journal entry can be as follows:

Year 6	Debit	Credit
	R	R
Machinery at revaluation (DRC)	90,000	
Accumulated depreciation	25,000	
Machinery at previous valuation		75,000
Revaluation surplus		35,000
Impairment loss reversed		5,000
Eliminate carrying amount and recognise at depreciated replacement cost		

The revaluation surplus relating to an asset will be realised over time by transferring some or the whole of the surplus to accumulated surplus or deficit by way of, either:

- Through the use of the asset: transferring the portion as the asset to which the surplus relates to is depreciated; or
- When the asset is derecognised: transferring the portion when the asset to which the surplus relates to is disposed.

The transfer of the revaluation surplus may never go through surplus or deficit.

Note that the option on how to treat the realisation of the revaluation surplus is an accounting policy choice, which should be applied consistently.

When an entity chooses to transfer the revaluation surplus as the asset is used, the amount to be transferred will be the difference between the depreciation based on the revalued carrying amount and the depreciation based on the asset's original cost, i.e. if the asset was never revalued.


Example 19: Transfers from the revaluation reserve to the accumulated surplus or deficit when depreciating a revalued asset

Assume the same information as in the previous example. The depreciation charge for year 7 will be calculated as follows (note that the depreciation charge is the same for both options):

Carrying amount (end of year 6)	R90,000
Remaining useful life 4 years	
Depreciation for year 7 (R90,000 / 4)	R15,000
Revaluation surplus	R35,000
Portion of the current year's depreciation relating to the revaluation of the assets (R35,000 / 4)	R8,750

A transfer will be made from the revaluation surplus to the accumulated surplus or deficit account (via the statement of changes in net assets) to offset the additional depreciation charged as a result of the revaluation on a yearly basis.

The accounting entry to account for the transfer will be as follows:

Year 7	Debit	Credit
	R	R
Revaluation surplus (R35,000 / 4)	8,750	
Accumulated surplus		8,750
Transferring the portion of the revaluation surplus relating to the current year's depreciation to the accumulated surplus or deficit.		

8.6 Fully depreciated assets still in use

If an entity made an appropriate estimate of the useful lives, residual values and depreciation method of an asset based on the information available at the previous reporting dates, it continues to measure the assets at R0. GRAP 17 encourages an entity to disclose the fact that such asset has been fully depreciated and is still in use.

This would be for instance where an entity has a policy to replace assets at specified intervals and at the end of a reporting period, an entity fully depreciate certain assets knowing that in the following year, it is scheduled to replace these assets. However, in the following year, due to cash flow problems, the budget has been reduced, and the entity was not able to replace the assets.

Where an entity did not appropriately review the useful life, residual values and depreciation method in accordance with GRAP 17 and the asset is fully depreciated, but still being used, this constitutes a prior period error. The error should be corrected and disclosed in accordance with the requirements of GRAP 3.

Decision tree to assist whether fully depreciated assets still in use, constitutes an error or not:

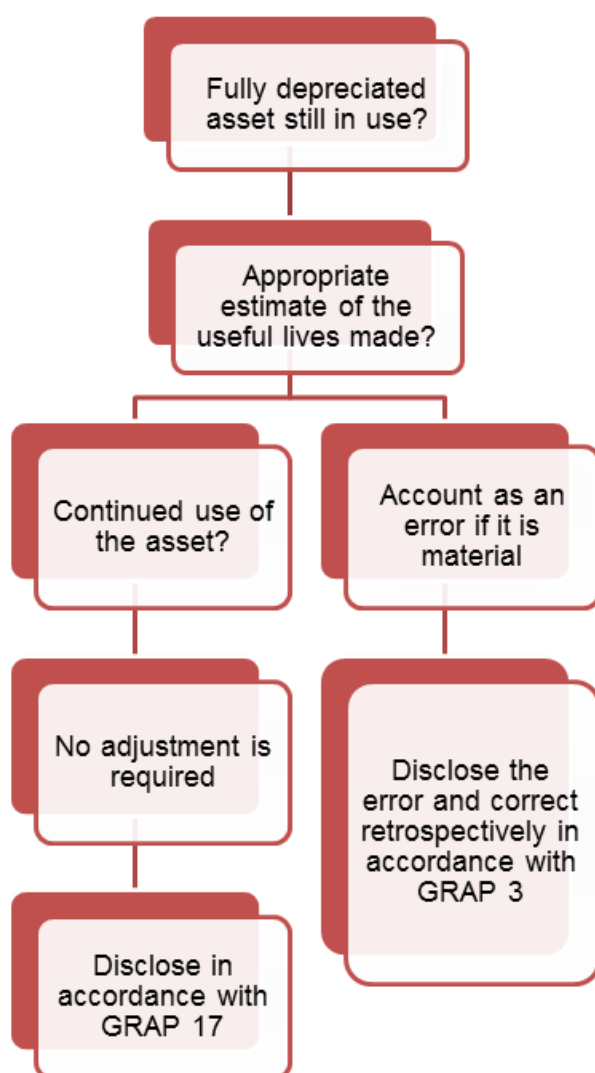


Figure 6 – fully depreciated assets still in use

8.7 Subsequent costs

All costs incurred subsequently to add to, replace part of, or service any asset are recognised in the carrying amount of the related asset if the **recognition criteria** are met.

Inspection costs

A condition of continuing to operate an asset (for example, a machine) may be to perform regular major inspections. When each major inspection is performed, its cost is recognised in the carrying amount of the related asset if the **recognition criteria** are satisfied. The remaining carrying amount of the 'previous inspection' is derecognised in accordance with the derecognition provisions in GRAP 17 (refer to the section on **Derecognition**) once the related asset undergoes the next inspection.

This will occur regardless of whether the cost of the previous inspection was separately identified in the transaction when the asset was acquired. If the previous inspection cost cannot be measured reliably or is not available, the estimated cost of a similar future

inspection may be used as an indication of what the cost of the existing inspection component was when the item was acquired.

The carrying value of the previous inspection cost is then derecognised and the cost of the current inspection is recognised in the carrying amount of the related asset.



Example 20: Inspection costs

Entity I acquired a machine on 1 April 2009 that needs a major inspection every 2 years. The cost price of the machine is R4, 000,000 and the cost of the inspection is R400, 000. The useful life of the machine is 8 years and has no residual value. Assume that the inspection cost meet the recognition criteria.

Details of the carrying amounts of the machine on 31 March 2010 and 2011:

Balances	Machine	Inspection	Total
	R	R	R
Cost	3,600,000	400,000	4,000,000
Depreciation 2009/2010:			
Machine (R3,600,000 / 8)	(450,000)		(450,000)
Inspection (R400,000 / 2)		(200,000)	(200,000)
Carrying amount 31 March 2010	3,150,000	200,000	3,350,000
Depreciation 2010/2011	(450,000)	(200,000)	(650,000)
Carrying amount 31 March 2011	2,700,000	-	2,700,000

Note that the inspection component is not a separate asset, but forms part of the machine (but is depreciated separately as it has a different useful life than the machine).

Day-to-day servicing costs

Costs incurred for the day-to-day servicing of an asset are expensed when incurred; these are usually known as repairs and maintenance.



Repairs and maintenance vs. improvements

As indicated above, the cost of day-to-day servicing, i.e. repairs and maintenance is expensed when incurred.

Only costs incurred to improve an asset, i.e. improvements, or to replace a part of an asset, can be capitalised if they meet the recognition criteria.

If there is uncertainty as to whether the costs incurred relating to an asset should be expensed or capitalised, the following can be considered, and if the answer is yes to one or more, the cost should be capitalised:

- Does the cost incurred satisfy the recognition criteria?

	• Will the cost enhance the service provision of the asset beyond its original expectation? • Will the cost increase the performance of the asset beyond its original performance? • Will the cost increase the useful life of the asset beyond its original life? • Is the cost incurred not primarily for labour, consumables or small parts? • Is the cost incurred to increase the size of the asset or change its shape? • Is the cost incurred to replace a significant part of the asset?
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Replacement costs

Parts of some items of property, plant and equipment may require replacement at regular intervals. The cost of replacing such a part is recognised in the carrying amount of the related asset if the **recognition criteria** are met. The carrying amount of the part that is replaced is derecognised in accordance with the derecognition provisions in GRAP 17 (refer to the section on **Derecognition**).



Example 21: Costs of replacement of assets

Scenario 1

Entity A operates and maintains a road which cost R10, 000,000. The useful life of the road is 10 years, however, the road has to be resurfaced every 5 years (over and above routine maintenance) to ensure that it will last for its estimated useful life. The cost of resurfacing the road is R2, 000,000. The cost of the road, excluding the cost of resurfacing therefore amounts to R8, 000,000. At 30 June 2008 (after 5 years), the road was resurfaced at a cost of R3, 000,000.

On 30 June 2009 the details of the carrying amount (**excluding resurfacing**) of the road is as follows:

Cost	R10,000,000
Cost of resurfacing	(R2,000,000)
[The cost of resurfacing is taken out as it is included in the total cost of the road]	
Road excluding resurfacing	R8,000,000
Accumulated depreciation up to 30 June 2008 (5 years)	(R4,000,000)
Depreciation for 2008/2009	(R800,000)
Carrying amount as at 30 June 2009	R3,200,000

Details of the carrying amount of the **resurfacing** on 30 June 2008 and 2009:

Cost	R2,000,000
Accumulated depreciation up to 30 June 2008 (5 years)	(R2,000,000)
Carrying amount as at 30 June 2008	R0
New cost of resurfacing capitalised	R3,000,000

Depreciation for 2008/2009 (5 years)	(R600,000)
Carrying amount as at 30 June 2009	R2,400,000
Total carrying amount of road as at 30 June 2009	R5,600,000

Scenario 2

Based on the information provided above, if we assume that at initial recognition of the road, the cost of resurfacing was not identified as a separate component, but the R3, 000,000 incurred to resurface the road now qualifies for recognition as an asset (significant part), then it would be necessary to derecognise the remaining carrying amount of the resurfacing that was replaced.

GRAP 17 states that, if it is not practical to determine the carrying amount of the replaced part, the cost of the replacement part may be used as an indication of what the cost of the replaced part was at the time it was acquired.

Assume for this example that the carrying amount of the replaced part, i.e. cost of resurfacing, cannot be reasonably determined.

Details of the carrying amount (**old cost of resurfacing**) on 30 June 2008:

Deemed cost	R3,000,000
[The carrying amount will be based on the new cost of resurfacing]	
Deemed accumulated depreciation up to 30 June 2008 (5 years)	(R1,500,000)
The old cost of resurfacing was included in the total cost of the road; therefore the useful life of 10 years is used.	
Deemed carrying amount of old cost of resurfacing	R1,500,000

Details of the carrying amount of the road directly after resurfacing it on 30 June 2008:

Cost	R10,000,000
Accumulated depreciation up to 30 June 2008 (5 years)	(R5,000,000)
Derecognition of the deemed carrying amount of the old cost of resurfacing	(R1,500,000)
Capitalisation of new cost of resurfacing	R3,000,000
Carrying amount of road as at 30 June 2008	R6,500,000

The same depreciation calculation for 2008/2009 will now apply as indicated in the first scenario.

Note that the cost of resealing or maintaining a road is considered to be repairs and maintenance and will not be capitalised, but will be expensed when incurred.

	As can be seen from the example above, it is important to show each component separately in the asset register, because when it is replaced, one needs to take out only the replaced part and not the whole asset. Furthermore, in order to comply with GRAP 17, items with a cost that is significant in relation to the total cost of the asset, and whose useful lives differs from that of the asset, have to be depreciated separately.
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8.8 Compensation received from third parties

When compensation is expected from third parties for items of property, plant and equipment that were impaired, lost or given up, it is included in surplus or deficit when the compensation amount becomes receivable.

	The loss or impairment of an asset and the compensation received from third parties (i.e. insurance payments) are separate economic events and hence the transactions have to be accounted for and disclosed separately. The transactions should not be netted off. The loss on disposal/impairment of asset will therefore be shown separately from the insurance payments received as compensation in the statement of financial position.			
	For example:			
	Extract out of the statement of financial performance	Notes	20x1	20x0
	Revenue			
	Compensation received – insurance claim paid out	x	200,000	
	Other revenue		XX	XX
	Expenses			
	Loss on disposal of assets	x		(50,000)
	Impairment loss on assets	x	(60,000)	
	Other expenses		(XX)	(XX)

9 DERECOGNITION

An item of property, plant and equipment is derecognised:

- On disposal; or

	A disposal can be, for example, when an asset is: • sold; • donated; • scrapped; • transferred, etc.
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- When no future economic benefits or service potential are expected from its use or disposal.

If an entity recognises in the carrying amount of an item of property, plant and equipment, the cost of a replacement for part of the item in accordance with the section on **Subsequent costs**, then it derecognises the carrying amount of the replaced part regardless of whether the replaced part had been depreciated separately. If it is not practicable for an entity to determine the carrying amount of the replaced part, it may use the cost of the replacement as an indication of what the cost of the replaced part was at the time it was acquired.

The gain or loss on disposal of an item of property, plant and equipment is determined as follows:



The gain or loss is recognised in surplus or deficit when the asset is derecognised.

If the asset was carried at revalued amount then the revaluation surplus of the asset disposed is recognised in accumulated surplus or deficit.

The net proceeds received or receivable on disposal is initially recognised at fair value. Thus, when payment is deferred, the proceeds received are recognised as the cash price equivalent. The difference between the cash price equivalent and the nominal amount is recognised as interest revenue. Refer to **accounting guideline on GRAP 9** for the recognition and measurement of revenue from the sale of assets and interest (when cash inflow is deferred).

**Example 22: Derecognition of items of property, plant and equipment**

Entity REM has a printing press which is classified as property, plant and equipment in its financial records. After careful consideration Entity REM made a decision to sell this printing press. A potential buyer was found on the 25th of November 20x0 and after several meetings a sale agreement was signed on the 28th of January 20x1.

The following information pertains to the example:

Carrying amount on 25 November 20x0	R650,000
Carrying amount on 28 January 20x1	R625,000
Carrying amount on 15 February 20x1	R620,000
Selling price	R1,500,000
The entity's reporting date is 31 March.	

The agreed selling price is a cash price of R1, 500,000, however the buyer does not have the full amount in cash and it was therefore agreed that the buyer pay Entity REM R500, 000 cash, which was paid on 15 February 20x1 and the remaining balance will be paid over 12 months in equal instalments of R88, 615, with first payment due on 31 March 20x1. The agreement stipulates that the buyer will take control of the printing press once the cash amount of R500, 000 is paid.

Based on above:

The transaction date for disposal of the printing press is the 15th of February 20x1, as this is the date that the significant risks and rewards of ownership were transferred to the buyer. The payment is deferred and therefore the proceeds should be recognised as the cash price, which is R1, 500,000.

For the deferred portion, the difference between the cash equivalent (R1, 000,000) and the nominal amount (R1, 063,380 = 12 months x R88, 615) should be recognised as interest revenue over the period of the credit.

The effective interest rate is calculated as 11, 5% (using the formula - $PV = R1,000,000$, $n = 12$, $PMT = -R88,615$ on a financial calculator).

Journal entries:

The journal entries for the disposal will be as follows:

15 February 20x1	Debit	Credit
	R	R
Bank	500,000	
Receivables	1,000,000	
Property, plant and equipment		620,000
Gain on disposal of property, plant and equipment		880,000

	31 March 20x1		Debit	Credit
			R	R
	Bank		88,615	
	Receivables			88,615
	Recognise the first instalment received			
	31 March 20x1		Debit	Credit
			R	R
	Receivables		9,583	
	Interest revenue (R1,000,000 x 11.5% / 12 months)			9,583
	Recognise the interest earned for the month of March 20x1			

10 DISCLOSURE

An example illustrating the disclosures required for property, plant and equipment (refer to the standard for detail): **Extract from Statement Financial Position**

	Note	20x1	20x0
		R	R
Non-current assets			
Property, plant and equipment	4	XX	XX
Net assets			
Revaluation reserve	5	XX	XX

Extract from Statement Financial Performance

	Note	20x1	20x0
		R	R
Expenses			
Depreciation and amortisation	6	XX	XX
Gain or loss on disposal of assets	x	XX	XX
Impairment loss (reversal of impairment loss) on assets	x	XX	XX
.....			

Accounting policies

1.4 Property, plant and equipment

Accounting policy should include as a minimum:

- Recognition criteria;
- Measurement basis (initial and subsequent);
- Depreciation method
- Residual value and impairment; and
- Useful lives or depreciation rates.

For example:

The cost of an item of property, plant and equipment is recognised as an asset when it is probable that the expected future economic benefits or service potential that are attributable to the asset will flow to the entity and the cost or fair value of the asset can be measured reliably.

The cost of an item of property, plant and equipment is the purchase price and other costs attributable to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended by the entity. Trade discounts and rebates are deducted in arriving at the cost. The cost, if any, also includes the necessary costs of dismantling and removing the asset and restoring the site on which it is located.

When significant components of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Where an asset is acquired by the entity for no or nominal consideration (i.e. a non-exchange transaction), the cost is deemed to be equal to the fair value of that asset on the date acquired.

Major spare parts and servicing equipment qualify as property, plant and equipment when the entity expects to use them during more than one period. Similarly, if the major spare parts and servicing equipment can be used only in connection with an item of property, plant and equipment, they are accounted for as property, plant and equipment.

Where the entity replaces parts of an asset, it derecognises the part of the asset being replaced and capitalises the new component. Subsequent expenditure incurred on an asset is capitalised when it increases the capacity or future economic benefits associated with the asset.

[Classes of property, plant and equipment carried under the cost model:]

Subsequent to initial recognition, items of property, plant and equipment are carried at cost less accumulated depreciation and accumulated impairment losses. Land is not depreciated, as it is deemed to have an indefinite useful life.

[Classes of property, plant and equipment carried under the revaluation model:]

Subsequent to initial recognition, items of property, plant and equipment [state which items] are carried at a revalued amount, being its fair value at the date of revaluation less any subsequent accumulated depreciation and accumulated impairment losses.

Revaluations are performed every x years by registered valuers for every class separately.

An increase in the carrying amount of an asset as a result of a revaluation is credited directly to a revaluation surplus reserve, except to the extent that it reverses a revaluation decrease of the same asset previously recognised in surplus or deficit.

A decrease in the carrying amount of an asset as a result of a revaluation is recognised in surplus or deficit, except to the extent of any credit balance existing in the revaluation surplus in respect of that asset.

[Classes of property, plant and equipment carried under the either model:]

Depreciation is calculated on the depreciable amount, using the straight-line method over the estimated useful lives of the assets. Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets or, where shorter, the term of the relevant lease. Components of assets that are significant in relation to the whole asset and that have different useful lives are depreciated separately. Depreciation

commences when the asset is ready for its intended use. The annual depreciation rates are based on the following estimated average asset lives:

Buildings x-x years

Equipment x-x years

Furniture x-x years

The residual value, the useful life of an asset and the depreciation method is reviewed annually and any changes are recognised as a change in accounting estimate in the statement of financial performance.

An item of property, plant and equipment is derecognised when the asset is disposed of or when there are no further economic benefits or service potential expected from the use of the asset. The gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount and is included in surplus or deficit when the item is derecognised.

Extract from Notes to the financial statements

	20x1	20x0
	R	R
4. Property, plant and equipment		
<i>[For each class of property, plant and equipment recognised]</i>		
Opening balance	XXX	XXX
Cost / Revalued amount	XX	XX
Accumulated depreciation and impairment losses	(XX)	(XX)
Additions	XX	XX
acquisitions through a transfer of functions between entities under common control, transfer of functions between entities not under common control or a merger	XX	XX
Depreciation	(XX)	(XX)
Increase / (decrease) due to revaluation	XX	(XX)
(Impairment loss) / reversal of impairment loss	(XX)	(XX)
Carrying amount of disposals	(XX)	(XX)
Cost	(XX)	(XX)
Accumulated depreciation	XX	XX
Transfer to / (from) property, plant and equipment	XX	XX
Closing balance	XXX	XXX
Cost / Revalued amount	XX	XX
Accumulated depreciation and impairment losses	(XX)	(XX)

Additional disclosure should be made, for example:

The class of property, plant and equipment that were revalued by an independent sworn appraiser (if so) on which date, method used to determine the fair value and significant assumptions applied.

The carrying amount of the item(s) of property, plant and equipment held under a finance lease.

The amount of contractual commitments for the acquisition of property, plant and equipment.

Compensation received from third parties [disclose in note if not disclosed separately on face of statement of financial performance]: Item of property, plant and equipment Rx.

The existence and amounts of restrictions on title and disposal of items of property, plant and equipment.

Property, plant and equipment pledged as securities for liabilities.

Note that the disclosure above is only for example purposes; it does not cover all the disclosure required by GRAP 17. This disclosure also assumes that the entity applies both the cost and revaluation model for its classes of property, plant and equipment.

5. Revaluation reserve

Opening balance	XXX	XXX
Increase/ (decrease) in revaluation for the period	XX	(XX)
Disposals	(XX)	(XX)
Closing balance	XXX	XXX

Disclosure of any restrictions on the distribution of this balance to owners of the net assets.

6. Depreciation and amortisation

Property, plant and equipment	XX	XX
....	XX	XX
Total	XXX	XXX



Determining classes of property, plant and equipment and disclosure requirements of each class as required by GRAP 17

Class of property, plant and equipment means a grouping of items of property, plant and equipment of a similar nature or function in an entity's operations that is shown as a single item for the purpose of disclosure in the financial statements. Examples include:

- Land;
- Buildings;
- Machinery;

	• Motor vehicles; • Furniture and fixtures; • Office equipment; • Etc. Note that these are only examples, and it is an entity's choice which classes will be disclosed. For example, if an entity has leasehold improvements, it can decide to group it together with similar items such as, buildings, or can decide to show it as a separate class of property, plant and equipment. It is important to know the classes of property, plant and equipment used by an entity, due to the following: • An entire class of property, plant and equipment should be measured under the same model, i.e. either cost or revaluation model; • An entire class of property, plant and equipment should be depreciated based on the same estimated useful lives; and • Specific disclosure is required for each class of property, plant and equipment. Also take note of the way in which the gross carrying amount and the accumulated depreciation together with the reconciliation of the carrying amount at the beginning and end of the period (i.e. opening balance + movements = closing balance) for each class of property, plant and equipment are provided. Some entities make use of an appendix to provide the reconciliation of classes of property, plant and equipment and only show one line item, namely for example 'Other assets', in the note on property, plant and equipment. This is acceptable, but only if proper reference is made to the appendix and the entity has stated somewhere in its financial statements that the appendix forms part of the annual financial statements. If this is not done, it will result in non-compliance with the disclosure requirements of GRAP 17.
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	Disclosure required by other standards of GRAP for property, plant and equipment Finance leases: GRAP 13 on Leases and GRAP 17 are silent on how the leased assets held under a finance lease should be disclosed in the notes to the financial statements, e.g. should it be a separate class of property, plant and equipment or should it be shown together with the similar class (for example office equipment) and then highlighted in the note what the carrying amounts are of those leased assets that is included in the class of property, plant and equipment are, etc. Whichever option is chosen, remember that GRAP 13 does require an entity to disclose the carrying amounts of each class of asset held under a finance lease, therefore ensure that the standard is complied with (refer to the accounting guideline on GRAP 13 for detail). Contractual commitments:
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	An entity is required to disclose the amount of contractual commitments for the acquisition of property; plant and equipment (refer to the accounting guideline on GRAP 19 for detail). Restrictions on assets: An entity is required to disclose the carrying amount of assets that are subject to restrictions, as well as a narrative on the nature of the restrictions (refer to the accounting guideline on GRAP 23 for detail). For example under the Property, plant and equipment note, the entity can disclose the following: <i>Included in property, plant and equipment is 200 hectares of land situated in Bellville with a carrying amount of Rx. In terms of a transfer agreement with National Government this land can only be used for a university campus.</i>
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11 GRAP COMPLIANT ASSET REGISTER

Entities are required to safeguard and maintain its assets, to value them in accordance with the related standards of GRAP, maintain a system of internal control over assets and to keep an asset register.

An adequate asset register is integral to effective asset management and provides details of the values (figures) to be disclosed in the financial statements.

All assets owned and controlled (which includes leased assets and assets expensed but in use) should be included in an asset register regardless of the funding source or value thereof. With regards to the preceding, assets expensed can be included in a separate register and do not necessarily have to contain the detail information as in the main asset register, as long as they are recorded and accounted for. All disposals should be taken out of the asset register on the date of disposal.

In order to comply with above, a GRAP compliant asset register should be prepared which should consist of the following information as a minimum:

- Detail asset description;
- Bar code, unique identifier, serial number (where applicable), erf number (where applicable) (or other number to distinguish it from other assets);
- Location;
- Purchase price;
- Acquisition date;
- Estimated useful life (original);
- Estimated residual value;
- Remaining useful life;
- Depreciation;
- Accumulated depreciation;
- Disposal – date, proceeds, depreciation up to date of disposal;
- Information on a change in accounting estimate as a result of change in useful life or residual value – date reassessed, etc;
- Impairment loss recognised or reversed;
- Carrying amount at the beginning and end of the reporting period;
- Funding source;

- Condition of the asset – this can assist in determining the remaining useful life of an asset and whether it may possibly be impaired; and
- Person responsible for safeguarding and maintaining the asset(s).

This information should be provided for each type of asset e.g. property, plant and equipment, intangible assets, investment property, and each class e.g. buildings, office equipment, computer equipment, and preferably for the current and prior period simultaneously.

12 ENTITY-SPECIFIC GUIDANCE

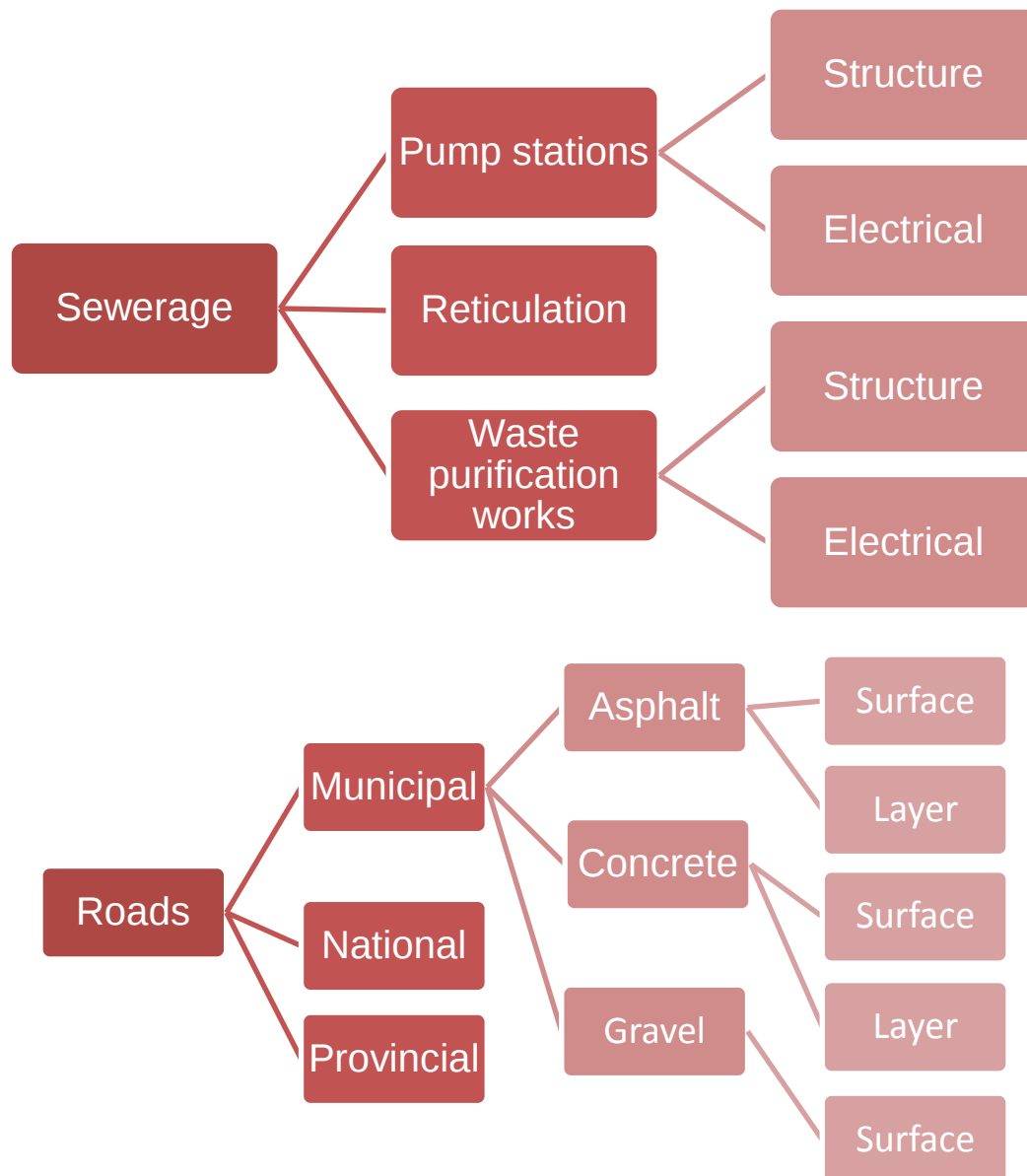
Entity-specific guidance has been included where appropriate to provide specific guidance on a subject that only relates to those types of entities.

12.1 Municipalities

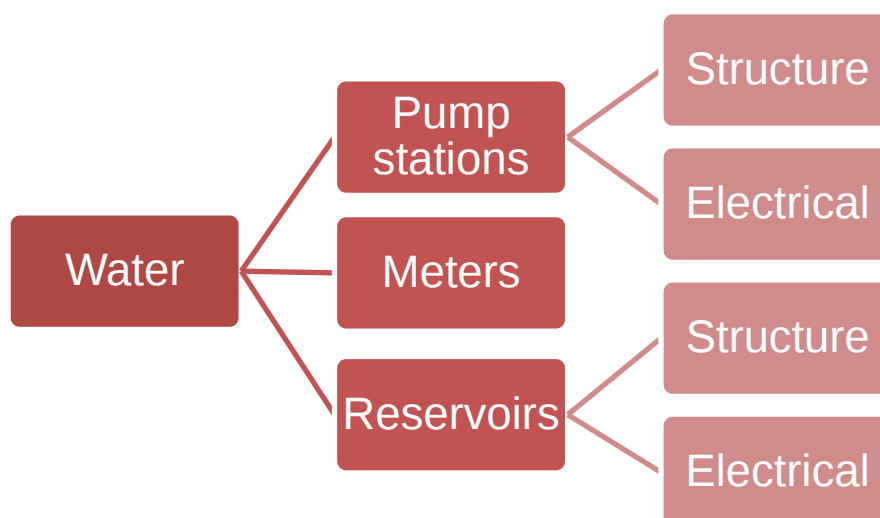
Illustrative example A - significant parts of infrastructure assets

Assume an entity's infrastructure assets consist of sewerage, roads and water.

All three of these main types of infrastructure assets can be further broken down for example, as follows:



Note that National and Provincial roads will also be broken down further, only showing municipal roads' breakdown to illustrate the concept.



It is therefore important that an entity should identify all significant parts of its assets that should be depreciated separately.

A simple black and white line drawing of a person standing with one arm raised, pointing upwards towards a glowing yellow lightbulb. The person is wearing a long-sleeved shirt and pants.

Illustration of how the asset register will look when assets are ‘broken-down’ into its significant parts in order to be able to comply with GRAP 17

Extract out of an entity’s asset register:

Asset description	Purchase date	Cost	Useful life	Depreciation
Water		xxx		
Pump stations:		4,450,000		
Structure	1 July 20xx	3,200,000	35 years	91,428
Electrical	1 July 20xx	1,250,000	20 years	62,500

As can be seen above, an entity will need to show every significant part separately from the main asset in the asset register. The total of all the parts should be added up to indicate the total value of the main asset and the main type of infrastructure asset (in this example, Water), as this will be disclosed in the financial statements (i.e. cost, accumulated depreciation, carrying amount and depreciation).

Illustrative example B - accounting for library books

In order for a municipality to determine the correct accounting treatment of library books the followings steps should be taken:

Consider whether the municipality controls the library books or whether it is under the control of another party.



Consider the nature and use of the library books to formulate the appropriate accounting policy regarding library books.

Figure 7

Detailed approach:

Assessing control:

Library books should only be accounted for if it is controlled by the municipality. Control means that a municipality has the ability to exclude or regulate the access of others to the benefits of an asset. To assess control, a municipality should consider factors that indicate:

- Whether the municipality controls the library books; and
- Its role and responsibility in providing community libraries.

	Municipality should consider the following indicators of control: • Whether the economic benefit or service potential will flow to the municipality; • Whether the municipality is responsible for replacing the library books; • Whether the municipality can restrict access and use of libraries by third parties; • Whether the municipality has the right to dispose of the library books; • Legislation; and • Binding arrangements, for example library books may be donated to the municipality for a specified period.
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After considering the indicators of control and if the municipality has concluded that it has control over the library books, then it should account for the library books and further consider the accounting treatment thereof.

Accounting treatment for library books:

As the nature and use of library books will differ among municipalities, each municipality should carefully assess the criteria related to the nature and use of the library books based on its own circumstances.

Once the nature and use is established, a municipality can then conclude whether to account for library books as property, plant and equipment, expenses or heritage assets. The definition of each of the items should be considered to determine whether it should be accounted as such. Library books are held to provide a service to the community and may be used for more than one reporting period. Such library books should be classified as property, plant and equipment in accordance with GRAP 17. It would be appropriate to aggregate the value of library books and capitalise the aggregated value.

Where the municipality does not expect that the use of library books will exceed the current reporting period, it should be recognised as an expense.

If library books meet the definition of heritage assets, it should be accounted in accordance with GRAP 103 on Heritage assets. Consequently, a municipality may find itself in a situation where some library books are accounted for as property, plant and equipment, some are accounted for as heritage assets and some are expensed on acquisition.

	Example 23: Library books Entity H recently purchased the private book collection from a well-read professor at a cost of R5 million. These books will be added to the current collection in the public library within control of the entity. Included in the collection, books to the value of R2 million, were collected from various locations around the world. These books were scarce copies from various ancient civilisations and limited copies could be found. Due to the advance in technology today, and degrading of general literacy of the population in the area, no publishers are willing to reproduce these books. Thus, entity H has decided that these books will be retained and will only be available to universities for research purposes. The general public will not be allowed to take them out; they can only be viewed in the library. It is expected that these books will be held for an indefinite period, unless destroyed by circumstances beyond human control. Included in the collection, are books of varying nature (amounting to R2, 5 million) which will be available to the general public and are expected to be used for more than one reporting period. These books are not scarce, there is a market price for them and can easily be replaced. Lastly there are children books amounting to R500, 000, these books are easily damaged by the children who visit the library and are replaced often, it is not expected to be used for more than one reporting period. Accounting treatment: The information has indicated that the entity has control over these books, thus they should be accounted for by the entity. The collection of scarce books of R2 million will qualify for recognition as heritage assets and should therefore be accounted for in accordance with GRAP 103. The second collection will not qualify for recognition as heritage assets, however, are expected to be used for more than one reporting period and will therefore qualify as property, plant and equipment and be accounted for in accordance with GRAP 17. The remaining collection of children books will be expensed.
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Transitional arrangements for medium or low capacity municipalities

The section below deals with situations where a municipality previously applied the IMFO framework and on adoption of the standards of GRAP, applied the transitional provisions in Directive 4.

Determining the historical cost or deemed cost of items of property, plant and equipment

Directive 4 allows a period of three years to comply with the initial and subsequent measurement of GRAP 17. Medium and low capacity municipalities should comply with GRAP 17 in full at 30 June 2011 and 30 June 2012 respectively.

Accounting treatment in applying the transitional provisions:

Assets may be recognised at provisional amounts in the financial statements during the transitional period. Provisional amounts may represent the carrying amounts under the previous basis of accounting, or they may be recognised at R0 (for example, if assets were previously not recognised).

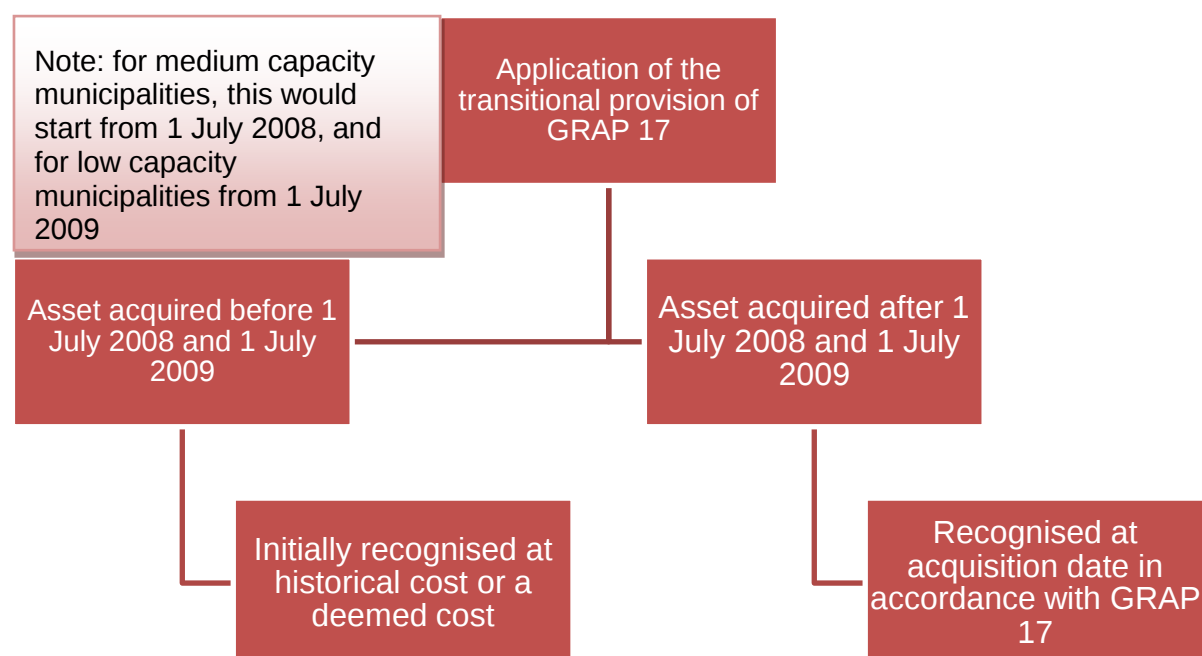


Figure 8

When the cost and acquisition date of an asset acquired before 1 July 2008 or 2009 is available, such an asset should be recognised at the acquisition cost (historical cost). Deemed cost should only be used where historical information is not available, i.e. cannot determine the historical cost after every reasonable effort to do so.

Deemed cost will be determined by using the guidance and provisions in Directive 7 on The Application of Deemed Cost on the Adoption of Standards of GRAP.

Deemed cost represents:

- Fair value at the measurement date determined in accordance with the paragraphs in GRAP 17 relating to the revaluation model; or

- Depreciated replacement cost at the measurement date determined for assets where the fair value cannot be determined.

	It is important to note that using the deemed cost approach under Directive 7 to measure assets at the measurement date, does not imply that the revaluation model is applied. Assets recognised at deemed cost, will be depreciated starting on the measurement date.
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	Measurement date, as used in Directive 7, is the date that an entity adopts the standards of GRAP and is the beginning of the earliest period for which an entity presents full comparative information, in its first financial statements prepared under GRAP. For medium capacity municipalities the measurement date will be 1 July 2007. For low capacity municipalities the measurement date will be 1 July 2008.
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The adoption of GRAP 17 resulting in a change in measurement of property, plant and equipment, represents a change in accounting policy.

The adjustment to property, plant and equipment will be made to the opening balance of the accumulated surplus or deficit OR against a revaluation surplus if the revaluation model is applied in the earliest period presented.

The residual values and useful lives of assets should be assessed during the transitional period.

Assets acquired or disposed after 1 July 2008 and 1 July 2009 should be treated in accordance with GRAP 17.

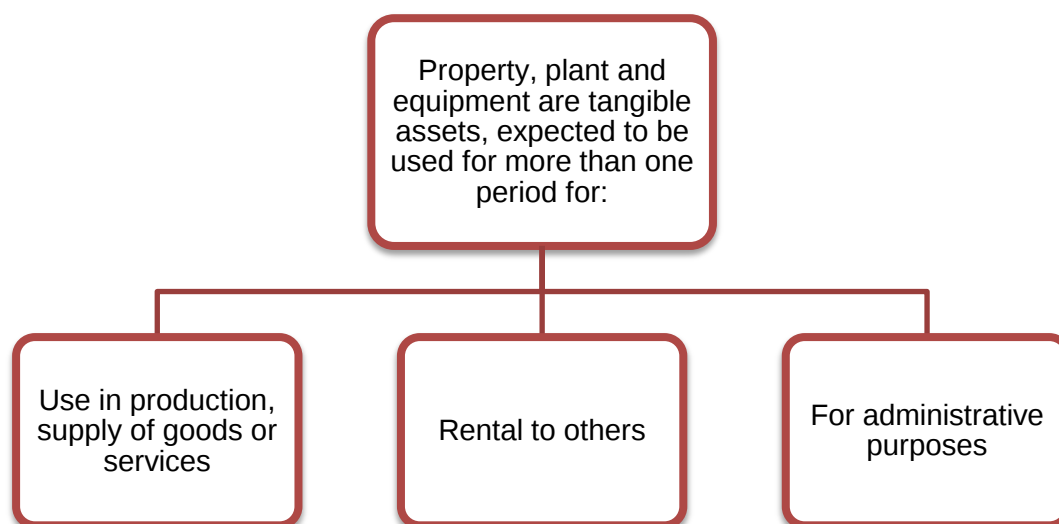
Unbundling of reserves

Many municipalities had reserves under the IMFO framework; however in adoption of the standards of GRAP, these reserves may only be kept if they are represented by cash, i.e. cash-backed.

A municipality should unbundle all reserves that are not cash-backed by taking any outstanding balance as at initial adoption of the standards of GRAP to accumulated surplus or deficit.

13 SUMMARY OF KEY PRINCIPLES

13.1 Identification



13.2 Recognition

Property, plant and equipment are recognised when they meet the definition and recognition criteria in GRAP 17.

All costs incurred subsequently to add to, replace part of, or service any asset are recognised to the carrying amount of the related asset if the recognition criteria are met.

13.3 Measurement

Asset is initially measured at cost or fair value if acquired for no cost or for nominal consideration.

Other costs incurred which typically can be included in the cost of the asset are, restoration and rehabilitation costs, borrowing costs, other costs to bringing the asset to its present condition and location as intended by management, etc.

Assets are subsequently measured in accordance with the cost model or revaluation model.

Cost model:

- Cost or fair value less accumulated depreciation and impairment losses

Revaluation model:

- Revaluation value less accumulated depreciation and impairment losses;
- The revalued amount is taken to the revaluation surplus in net assets (except in the case of reversals).

Costs of day-to-day servicing, i.e. repairs and maintenance are expensed; only costs incurred to improve an asset can be capitalised.

Subsequent cost incurred to replace a part of an asset or for major inspections, are capitalised in the carrying amount of the related asset by derecognising the carrying amount of the replaced part or inspection cost and recognising the new cost.

13.4 Derecognition

An asset is derecognised when it is disposed of or when no future economic benefits or service potential is expected. Any gain or loss is recognised in surplus or deficit.