

IPSAS 21—IMPAIRMENT OF NON-CASH-GENERATING ASSETS

Acknowledgment

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History of IPSAS

This version includes amendments resulting from IPSASs issued up to January 15, 2013.

IPSAS 21, *Impairment of Non-Cash-Generating Assets* was issued in December 2004.

Since then, IPSAS 21 has been amended by the following IPSASs:

- *Improvements to IPSASs 2011* (issued October 2011)
- IPSAS 26, *Impairment of Cash-Generating Assets* (issued February 2008)
- IPSAS 29, *Financial Instruments: Recognition and Measurement* (issued January 2010)
- IPSAS 31, *Intangible Assets* (issued January 2010)
- *Improvements to IPSASs* (issued November 2010)

Table of Amended Paragraphs in IPSAS 21

Paragraph Affected	How Affected	Affected By
2	Amended	IPSAS 29 January 2010 IPSAS 31 January 2010
5	Amended	IPSAS 26 February 2008
6	Amended	IPSAS 26 February 2008
7	Amended	IPSAS 31 January 2010
9	Amended	IPSAS 29 January 2010
12	Amended	Improvements to IPSASs November 2010
14	Amended	IPSAS 26 February 2008
16 ¹	Amended	IPSAS 26 February 2008
17	New	IPSAS 26 February 2008
18	New	IPSAS 26 February 2008

¹ Subsequent paragraphs have been renumbered.

Paragraph Affected	How Affected	Affected By
19	New	IPSAS 26 February 2008
20	New	IPSAS 26 February 2008
20	Amended	Improvements to IPSASs November 2010
26A	New	IPSAS 31 January 2010
26B	New	IPSAS 31 January 2010
27	Amended	Improvements to IPSASs October 2011
39A	New	IPSAS 31 January 2010
71	Amended	IPSAS 26 February 2008
72	New	IPSAS 26 February 2008
72A	New	IPSAS 26 February 2008
73A	New	Improvements to IPSASs November 2010
73A	Deleted	Editorials April 2012
80A	New	Improvements to IPSASs October 2011
82A	New	IPSAS 31 January 2010
82B	New	Improvements to IPSASs October 2011

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Comparison with IAS 36 (2004)

International Public Sector Accounting Standard 21, *Impairment of Non-Cash-Generating Assets*, is set out in paragraphs 1–83. All the paragraphs have equal authority. IPSAS 21 should be read in the context of its objective, the Basis for Conclusions, and the *Preface to International Public Sector Accounting Standards*. IPSAS 3, *Accounting Policies, Changes in Accounting Estimates and Errors*, provides a basis for selecting and applying accounting policies in the absence of explicit guidance.

Objective

1. The objective of this Standard is to prescribe the procedures that an entity applies to determine whether a non-cash-generating asset is impaired, and to ensure that impairment losses are recognized. This Standard also specifies when an entity would reverse an impairment loss, and prescribes disclosures.

Scope

2. **An entity that prepares and presents financial statements under the accrual basis of accounting shall apply this Standard in accounting for impairment of non-cash-generating assets, except:**
 - (a) **Inventories (see IPSAS 12, *Inventories*);**
 - (b) **Assets arising from construction contracts (see IPSAS 11, *Construction Contracts*);**
 - (c) **Financial assets that are included in the scope of IPSAS 29, *Financial Instruments: Recognition and Measurement*;**
 - (d) **Investment property that is measured using the fair value model (see IPSAS 16, *Investment Property*);**
 - (e) **Non-cash-generating property, plant, and equipment that is measured at revalued amounts (see IPSAS 17, *Property, Plant, and Equipment*);**
 - (f) **Non-cash-generating intangible assets that are measured at revalued amounts (see IPSAS 31, *Intangible Assets*); and**
 - (g) **Other assets in respect of which accounting requirements for impairment are included in another IPSAS.**
3. **This Standard applies to all public sector entities other than Government Business Enterprises.**
4. The *Preface to International Public Sector Accounting Standards* issued by the IPSASB explains that Government Business Enterprises (GBEs) apply IFRSs issued by the IASB. GBEs are defined in IPSAS 1, *Presentation of Financial Statements*.
5. **Public sector entities that hold cash-generating assets as defined in paragraph 14, shall apply IPSAS 26, *Impairment of Cash-Generating Assets*, to such assets. Public sector entities that hold non-cash-generating assets shall apply the requirements of this Standard to non-cash-generating assets.**
6. This Standard excludes from its scope the impairment of assets that are dealt with in another IPSAS. GBEs apply IAS 36, and therefore are not subject to

the provisions of this Standard. Public sector entities other than GBEs apply IPSAS 26 to their cash-generating assets, and apply this Standard to their non-cash-generating assets. Paragraphs 6–13 explain the scope of the Standard in greater detail.

7. This Standard excludes non-cash-generating intangible assets that are regularly revalued to fair value from its scope. This Standard includes all other non-cash-generating intangible assets (e.g., those that are carried at cost less any accumulated amortization) within its scope. Entities apply the requirements of this Standard to recognizing and measuring impairment losses, and reversals of impairment losses, related to such non-cash-generating intangible assets.
8. This Standard does not apply to inventories and assets arising from construction contracts, because existing IPSASs applicable to these assets contain requirements for recognizing and measuring these assets.
9. This Standard does not apply to financial assets that are included in the scope of IPSAS 28, *Financial Instruments: Presentation*. Impairment of these assets is dealt with in IPSAS 29.
10. This Standard does not require the application of an impairment test to an investment property that is carried at fair value in accordance with IPSAS 16. This is because, under the fair value model in IPSAS 16, an investment property is carried at fair value at the reporting date and any impairment will be taken into account in the valuation.
11. This Standard does not require the application of an impairment test to non-cash-generating assets that are carried at revalued amounts under the allowed alternative treatment in IPSAS 17. This is because, under the allowed alternative treatment in IPSAS 17, (a) assets will be revalued with sufficient regularity to ensure that they are carried at an amount that is not materially different from their fair value at the reporting date, and (b) any impairment will be taken into account in the valuation. In addition, the approach adopted in this Standard to measuring an asset's recoverable service amount means that it is unlikely that the recoverable service amount of an asset will be materially less than an asset's revalued amount, and that any such differences would relate to the costs of disposal of the asset.
12. Consistent with the requirements of paragraph 5 above, items of property, plant, and equipment that are classified as cash-generating assets, including those that are carried at revalued amounts under the allowed alternative treatment in IPSAS 17, are dealt with under IPSAS 26.
13. Investments in:
 - (a) Controlled entities, as defined in IPSAS 6, *Consolidated and Separate Financial Statements*;

- (b) Associates, as defined in IPSAS 7, *Investments in Associates*; and
- (c) Joint ventures, as defined in IPSAS 8, *Interests in Joint Ventures*;

are financial assets that are excluded from the scope of IPSAS 29. Where such investments are classified as cash-generating assets, they are dealt with under IPSAS 26. Where these assets are non-cash-generating assets, they are dealt with under this Standard.

Definitions

14. The following terms are used in this Standard with the meanings specified:

An active market is a market in which all the following conditions exist:

- (a) The items traded within the market are homogeneous;
- (b) Willing buyers and sellers can normally be found at any time; and
- (c) Prices are available to the public.

Cash-generating assets are assets held with the primary objective of generating a commercial return.

Costs of disposal are incremental costs directly attributable to the disposal of an asset, excluding finance costs and income tax expense.

Fair value less costs to sell is the amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal.

An impairment is a loss in the future economic benefits or service potential of an asset, over and above the systematic recognition of the loss of the asset's future economic benefits or service potential through depreciation.

Non-cash-generating assets are assets other than cash-generating assets.

Recoverable service amount is the higher of a non-cash-generating asset's fair value less costs to sell and its value in use.

Useful life is either:

- (a) The period of time over which an asset is expected to be used by the entity; or
- (b) The number of production or similar units expected to be obtained from the asset by the entity.

Value in use of a non-cash-generating asset is the present value of the asset's remaining service potential.

Terms defined in other IPSASs are used in this Standard with the same meaning as in those Standards, and are reproduced in the *Glossary of Defined Terms* published separately.

Government Business Enterprises

15. GBEs include both trading enterprises, such as utilities, and financial enterprises, such as financial institutions. GBEs are, in substance, no different from entities conducting similar activities in the private sector. GBEs generally operate to make a profit, although some may have limited community service obligations under which they are required to provide some individuals and organizations in the community with goods and services at either no charge or a significantly reduced charge.

Cash-Generating Assets

16. Cash-generating assets are assets held with the primary objective of generating a commercial return. An asset generates a commercial return when it is deployed in a manner consistent with that adopted by a profit-oriented entity. Holding an asset to generate a commercial return indicates that an entity intends to generate positive cash inflows from the asset (or from the cash-generating unit of which the asset is a part), and earn a commercial return that reflects the risk involved in holding the asset. An asset may be held with the primary objective of generating a commercial return, even though it does not meet that objective during a particular reporting period. Conversely, an asset may be a non-cash-generating asset, even though it may be breaking even or generating a commercial return during a particular reporting period. Unless stated otherwise, references to an asset or assets in the following paragraphs of this Standard are references to non-cash-generating asset(s).
17. There are a number of circumstances in which public sector entities may hold some assets with the primary objective of generating a commercial return, although the majority of assets are not held for that purpose. For example, a hospital may deploy a building for fee-paying patients. Cash-generating assets of a public sector entity may operate independently of the non-cash-generating assets of the entity. For example, the deeds office may earn land registration fees independently from the department of land affairs.
18. In certain instances, an asset may generate cash flows although it is primarily held for service delivery purposes. For example, a waste disposal plant is operated to ensure the safe disposal of medical waste generated by state-controlled hospitals, but the plant also treats a small amount of medical waste generated by other private hospitals on a commercial basis. The treatment of medical waste from the private hospitals is incidental to the

activities of the plant, and the assets that generate cash flows cannot be distinguished from the non-cash-generating assets.

19. In other instances, an asset may generate cash flows and also be used for non-cash-generating purposes. For example, a public hospital has ten wards, nine of which are used for fee-paying patients on a commercial basis, and the other is used for non-fee-paying patients. Patients from both wards jointly use other hospital facilities (for example, operating facilities). The extent to which the asset is held with the objective of providing a commercial return needs to be considered to determine whether the entity should apply the provisions of this Standard or IPSAS 26. If, as in this example, the non-cash-generating component is an insignificant component of the arrangement as a whole, the entity applies IPSAS 26 rather than this Standard.
20. In some cases, it may not be clear whether the primary objective of holding an asset is to generate a commercial return. In such cases, it is necessary to evaluate the significance of the cash flows. It may be difficult to determine whether the extent to which the asset generates cash flows is so significant that this Standard is applicable rather than IPSAS 26. Judgment is needed to determine which Standard to apply. An entity develops criteria so that it can exercise that judgment consistently in accordance with the definition of cash-generating assets and non-cash-generating assets, and with the related guidance in paragraphs 16–20. Paragraph 73A requires an entity to disclose the criteria used in making this judgment. However, given the overall objectives of most public sector entities, other than GBEs, the presumption is that assets are non-cash-generating and, therefore, IPSAS 21 will apply.
21. Assets held by GBEs are cash-generating assets. Public sector entities other than GBEs may hold assets to generate a commercial return. For the purposes of this Standard, an asset held by a non-GBE public sector entity is classified as a cash-generating asset if the asset (or unit of which the asset is a part) is operated with the objective of generating a commercial return through the provision of goods and/or services to external parties.

Depreciation

22. Depreciation and amortization are the systematic allocation of the depreciable amount of an asset over its useful life. In the case of an intangible asset, the term amortization is generally used instead of depreciation. Both terms have the same meaning.

Impairment

23. This Standard defines an impairment as a loss in the future economic benefits or service potential of an asset, over and above the systematic recognition of the loss of the asset's future economic benefits or service potential through depreciation (amortization). Impairment, therefore,

reflects a decline in the utility of an asset to the entity that controls it. For example, an entity may have a purpose-built military storage facility that it no longer uses. In addition, because of the specialized nature of the facility and its location, it is unlikely that it can be leased out or sold, and therefore the entity is unable to generate cash flows from leasing or disposing of the asset. The asset is regarded as impaired, as it is no longer capable of providing the entity with service potential – it has little, or no, utility for the entity in contributing to the achievement of its objectives.

Identifying an Asset that may be Impaired

24. Paragraphs 26–34 specify when recoverable service amounts would be determined.
25. A non-cash-generating asset is impaired when the carrying amount of the asset exceeds its recoverable service amount. Paragraph 27 identifies key indications that an impairment loss may have occurred. If any of those indications are present, an entity is required to make a formal estimate of recoverable service amount. If no indication of a potential impairment loss is present, this Standard does not require an entity to make a formal estimate of recoverable service amount.
26. **An entity shall assess at each reporting date whether there is any indication that an asset may be impaired. If any such indication exists, the entity shall estimate the recoverable service amount of the asset.**
- 26A. **Irrespective of whether there is any indication of impairment, an entity shall also test an intangible asset with an indefinite useful life or an intangible asset not yet available for use for impairment annually by comparing its carrying amount with its recoverable service amount. This impairment test may be performed at any time during the reporting period, provided it is performed at the same time every year. Different intangible assets may be tested for impairment at different times. However, if such an intangible asset was initially recognized during the current reporting period, that intangible asset shall be tested for impairment before the end of the current reporting period.**
- 26B. The ability of an intangible asset to generate sufficient future economic benefits or service potential to recover its carrying amount is usually subject to greater uncertainty before the asset is available for use than after it is available for use. Therefore, this Standard requires an entity to test for impairment, at least annually, the carrying amount of an intangible asset that is not yet available for use.
27. **In assessing whether there is any indication that an asset may be impaired, an entity shall consider, as a minimum, the following indications:**

External sources of information

- (a) **Cessation, or near cessation, of the demand or need for services provided by the asset;**
- (b) **Significant long-term changes with an adverse effect on the entity have taken place during the period, or will take place in the near future, in the technological, legal, or government policy environment in which the entity operates;**

Internal sources of information

- (c) **Evidence is available of physical damage of an asset;**
 - (d) **Significant long-term changes with an adverse effect on the entity have taken place during the period, or are expected to take place in the near future, in the extent to which, or manner in which, an asset is used or is expected to be used. These changes include the asset becoming idle, plans to discontinue or restructure the operation to which an asset belongs, or plans to dispose of an asset before the previously expected date and reassessing the useful life of an asset as finite rather than indefinite;**
 - (e) **A decision to halt the construction of the asset before it is complete or in a usable condition; and**
 - (f) **Evidence is available from internal reporting that indicates that the service performance of an asset is, or will be, significantly worse than expected.**
28. The demand or need for services may fluctuate over time, which will affect the extent to which non-cash-generating assets are utilized in providing those services, but negative fluctuations in demand are not necessarily indications of impairment. Where demand for services ceases, or nearly ceases, the assets used to provide those services may be impaired. Demand may be considered to have nearly ceased when it is so low that the entity (a) would not have attempted to respond to that demand, or (b) would have responded by not acquiring the asset being considered for impairment testing.
29. The list in paragraph 27 is not exhaustive. There may be other indications that an asset may be impaired. The existence of other indications may result in the entity estimating the asset's recoverable service amount. For example, any of the following may be an indication of impairment:
- (a) During the period, an asset's market value has declined significantly more than would be expected as a result of the passage of time or normal use; or

- (b) A significant long-term decline (but not necessarily cessation or near cessation) in the demand for or need for services provided by the asset.
30. The events or circumstances that may indicate an impairment of an asset will be significant, and will often have prompted discussion by the governing board, management, or media. A change in a parameter such as demand for the service, extent or manner of use, legal environment, or government policy environment would indicate impairment only if such a change was significant, and had or was anticipated to have a long-term adverse effect. A change in the technological environment may indicate that an asset is obsolete, and requires testing for impairment. A change in the use of an asset during the period may also be an indication of impairment. This may occur when, for example, a building used as a school undergoes a change in use and is used for storage. In assessing whether an impairment has occurred, the entity needs to assess changes in service potential over the long term. This underlines the fact that the changes are seen within the context of the anticipated long-term use of the asset. However, the expectations of long-term use can change, and the entity's assessments at each reporting date would reflect that. The Implementation Guidance sets out examples of impairment indications referred to in paragraph 27.
31. In assessing whether a halt in construction would trigger an impairment test, the entity would consider (a) whether construction has simply been delayed or postponed, (b) whether there is an intention to resume construction in the near future, or (c) whether the construction work will not be completed in the foreseeable future. Where construction is delayed or postponed to a specific future date, the project may be treated as work-in-progress and is not considered as halted.
32. Evidence from internal reporting that indicates that an asset may be impaired, as referred to in paragraph 27(f) above, relates to the ability of the asset to provide goods or services rather than to a decline in the demand for the goods or services provided by the asset. This includes the existence of:
- (a) Significantly higher costs of operating or maintaining the asset, compared with those originally budgeted; and
 - (b) Significantly lower service or output levels provided by the asset, compared with those originally expected due to poor operating performance.

A significant increase in operating costs of an asset may indicate that the asset is not as efficient or productive as initially anticipated in output standards set by the manufacturer, in accordance with which the operating budget was drawn up. Similarly, a significant increase in maintenance costs may indicate that higher costs need to be incurred to maintain the asset's performance at a level indicated by its most recently assessed standard of

performance. In other cases, direct quantitative evidence of an impairment may be indicated by a significant long-term fall in the expected service or output levels provided by the asset.

33. The concept of materiality applies in identifying whether the recoverable service amount of an asset needs to be estimated. For example, if previous assessments show that an asset's recoverable service amount is significantly greater than its carrying amount, the entity need not re-estimate the asset's recoverable service amount if no events have occurred that would eliminate that difference. Similarly, previous analysis may show that an asset's recoverable service amount is not sensitive to one (or more) of the indications listed in paragraph 27.
34. If there is an indication that an asset may be impaired, this may indicate that (a) the remaining useful life, (b) the depreciation (amortization) method, or (c) the residual value for the asset needs to be reviewed and adjusted in accordance with the IPSAS applicable to the asset, even if no impairment loss is recognized for the asset.

Measuring Recoverable Service Amount

35. This Standard defines recoverable service amount as the higher of an asset's fair value, less costs to sell, and its value in use. Paragraphs 36–50 set out the basis for measuring recoverable service amount.
36. It is not always necessary to determine both an asset's fair value less costs to sell and its value in use. If either of these amounts exceeds the asset's carrying amount, the asset is not impaired, and it is not necessary to estimate the other amount.
37. It may be possible to determine fair value less costs to sell, even if an asset is not traded in an active market. Paragraph 42 sets out possible alternative bases for estimating fair value less costs to sell when an active market for the asset does not exist. However, sometimes it will not be possible to determine fair value less costs to sell, because there is no basis for making a reliable estimate of the amount obtainable from the sale of the asset in an arm's length transaction between knowledgeable and willing parties. In this case, the entity may use the asset's value in use as its recoverable service amount.
38. If there is no reason to believe that an asset's value in use materially exceeds its fair value less costs to sell, the asset's fair value less costs to sell may be used as its recoverable service amount. This will often be the case for an asset that is held for disposal. This is because the value in use of an asset held for disposal will consist mainly of the net disposal proceeds. However, for many public sector non-cash-generating assets that are held on an ongoing basis to provide specialized services or public goods to the

community, the value in use of the asset is likely to be greater than its fair value less costs to sell.

39. In some cases, estimates, averages, and computational short cuts may provide reasonable approximations of the detailed computations illustrated in this Standard for determining fair value less costs to sell or value in use.

Measuring the Recoverable Service Amount of an Intangible Asset with an Indefinite Useful Life

39A. Paragraph 26A requires an intangible asset with an indefinite useful life to be tested for impairment annually by comparing its carrying amount with its recoverable service amount, irrespective of whether there is any indication that it may be impaired. However, the most recent detailed calculation of such an asset’s recoverable service amount made in a preceding period may be used in the impairment test for that asset in the current period, provided all of the following criteria are met:

- (a) If the intangible asset does not provide service potential from continuing use that is largely independent of those from other assets or groups of assets and is therefore tested for impairment as part of the cash-generating unit to which it belongs, the assets and liabilities making up that unit have not changed significantly since the most recent recoverable amount calculation;
- (b) The most recent recoverable service amount calculation resulted in an amount that exceeded the asset’s carrying amount by a substantial margin; and
- (c) Based on an analysis of events that have occurred and circumstances that have changed since the most recent recoverable service amount calculation, the likelihood that a current recoverable service amount determination would be less than the asset’s carrying amount is remote.

Fair Value Less Costs to Sell

- 40. The best evidence of an asset’s fair value less costs to sell is a price in a binding sale agreement in an arm’s length transaction, adjusted for incremental costs that would be directly attributable to the disposal of the asset.
- 41. If there is no binding sale agreement, but an asset is traded in an active market, fair value less costs to sell is the asset’s market price less the costs of disposal. The appropriate market price is usually the current bid price. When current bid prices are unavailable, the price of the most recent transaction may provide a basis from which to estimate fair value less costs to sell, provided that there has not been a significant change in economic

circumstances between the transaction date and the date as at which the estimate is made.

42. If there is no binding sale agreement or active market for an asset, fair value less costs to sell is based on the best information available to reflect the amount that an entity could obtain, at reporting date, from the disposal of the asset in an arm's length transaction between knowledgeable, willing parties, after deducting the costs of disposal. In determining this amount, an entity could consider the outcome of recent transactions for similar assets within the same industry. Fair value less costs to sell does not reflect a forced sale, unless management or the governing body is compelled to sell immediately.
43. Costs of disposal, other than those that have been recognized as liabilities, are deducted in determining fair value less costs to sell. Examples of such costs are legal costs, stamp duty and similar transaction taxes, costs of removing the asset, and direct incremental costs to bring an asset into condition for its sale. However, termination benefits (as defined in IPSAS 25, *Employee Benefits*.) and costs associated with reducing or reorganizing a business following the disposal of an asset, are not direct incremental costs to dispose of the asset.

Value in Use

44. This Standard defines the value in use of a non-cash-generating asset as the present value of the asset's remaining service potential. Value in use in this Standard refers to value in use of a non-cash-generating asset, unless otherwise specified. The present value of the remaining service potential of the asset is determined using any one of the approaches identified in paragraphs 45–49, as appropriate.

Depreciated Replacement Cost Approach

45. Under this approach, the present value of the remaining service potential of an asset is determined as the depreciated replacement cost of the asset. The replacement cost of an asset is the cost to replace the asset's gross service potential. This cost is depreciated to reflect the asset in its used condition. An asset may be replaced either through reproduction (replication) of the existing asset or through replacement of its gross service potential. The depreciated replacement cost is measured as the reproduction or replacement cost of the asset, whichever is lower, less accumulated depreciation calculated on the basis of such cost, to reflect the already consumed or expired service potential of the asset.
46. The replacement cost and reproduction cost of an asset are determined on an optimized basis. The rationale is that the entity would not replace or reproduce the asset with a like asset if the asset to be replaced or reproduced is an oversized or overcapacity asset. Oversized assets contain

features that are unnecessary for the goods or services the asset provides. Overcapacity assets are assets that have a greater capacity than is necessary to meet the demand for goods or services the asset provides. The determination of the replacement cost or reproduction cost of an asset on an optimized basis thus reflects the service potential required of the asset.

47. In certain cases, standby or surplus capacity is held for safety or other reasons. This arises from the need to ensure that adequate service capacity is available in the particular circumstances of the entity. For example, the fire department needs to have fire engines on standby to deliver services in emergencies. Such surplus or standby capacity is part of the required service potential of the asset.

Restoration Cost Approach

48. Restoration cost is the cost of restoring the service potential of an asset to its pre-impaired level. Under this approach, the present value of the remaining service potential of the asset is determined by subtracting the estimated restoration cost of the asset from the current cost of replacing the remaining service potential of the asset before impairment. The latter cost is usually determined as the depreciated reproduction or replacement cost of the asset, whichever is lower. Paragraphs 45 and 47 include additional guidance on determining the replacement cost or reproduction cost of an asset.

Service Units Approach

49. Under this approach, the present value of the remaining service potential of the asset is determined by reducing the current cost of the remaining service potential of the asset before impairment to conform with the reduced number of service units expected from the asset in its impaired state. As in the restoration cost approach, the current cost of replacing the remaining service potential of the asset before impairment is usually determined as the depreciated reproduction or replacement cost of the asset before impairment, whichever is lower.

Application of Approaches

50. The choice of the most appropriate approach to measuring value in use depends on the availability of data and the nature of the impairment:
 - (a) Impairments identified from significant long-term changes in the technological, legal, or government policy environment are generally measurable using a depreciated replacement cost approach or a service units approach, when appropriate;
 - (b) Impairments identified from a significant long-term change in the extent or manner of use, including that identified from the cessation or near cessation of demand, are generally measurable using a

depreciated replacement cost or a service units approach, when appropriate; and

- (c) Impairments identified from physical damage are generally measurable using a restoration cost approach or a depreciated replacement cost approach, when appropriate.

Recognizing and Measuring an Impairment Loss

51. Paragraphs 52–57 set out the requirements for recognizing and measuring impairment losses for an asset. In this Standard, impairment loss refers to impairment loss of a non-cash-generating asset unless otherwise specified.
52. **If, and only if, the recoverable service amount of an asset is less than its carrying amount, the carrying amount of the asset shall be reduced to its recoverable service amount. That reduction is an impairment loss.**
53. As noted in paragraph 26, this Standard requires an entity to make a formal estimate of recoverable service amount only if an indication of a potential impairment loss is present. Paragraphs 27–33 identify key indications that an impairment loss may have occurred.
54. **An impairment loss shall be recognized immediately in surplus or deficit.**
55. **When the amount estimated for an impairment loss is greater than the carrying amount of the asset to which it relates, an entity shall recognize a liability if, and only if, that is required by another IPSAS.**
56. Where the estimated impairment loss is greater than the carrying amount of the asset, the carrying amount of the asset is reduced to zero, with a corresponding amount recognized in surplus or deficit. A liability would be recognized only if another IPSAS so requires. An example is when a purpose-built military installation is no longer used and the entity is required by law to remove such installations if not usable. The entity may need to make a provision for dismantling costs if required by IPSAS 19, *Provisions, Contingent Liabilities and Contingent Assets*.
57. **After the recognition of an impairment loss, the depreciation (amortization) charge for the asset shall be adjusted in future periods to allocate the asset's revised carrying amount, less its residual value (if any), on a systematic basis over its remaining useful life.**

Reversing an Impairment Loss

58. Paragraphs 59–70 set out the requirements for reversing an impairment loss recognized for an asset in prior periods.
59. **An entity shall assess at each reporting date whether there is any indication that an impairment loss recognized in prior periods for an**

asset may no longer exist or may have decreased. If any such indication exists, the entity shall estimate the recoverable service amount of that asset.

60. **In assessing whether there is any indication that an impairment loss recognized in prior periods for an asset may no longer exist or may have decreased, an entity shall consider, as a minimum, the following indications:**

External sources of information

- (a) **Resurgence of the demand or need for services provided by the asset;**
- (b) **Significant long-term changes with a favorable effect on the entity have taken place during the period, or will take place in the near future, in the technological, legal, or government policy environment in which the entity operates;**

Internal sources of information

- (c) **Significant long-term changes with a favorable effect on the entity have taken place during the period, or are expected to take place in the near future, in the extent to which, or manner in which, the asset is used or is expected to be used. These changes include costs incurred during the period to improve or enhance an asset's performance or restructure the operation to which the asset belongs;**
 - (d) **A decision to resume construction of the asset that was previously halted before it was completed or in a usable condition; and**
 - (e) **Evidence is available from internal reporting that indicates that the service performance of the asset is, or will be, significantly better than expected.**
61. Indications of a potential decrease in an impairment loss in paragraph 60 mainly mirror the indications of a potential impairment loss in paragraph 27.
62. The list in paragraph 60 is not exhaustive. An entity may identify other indications of a reversal of an impairment loss that would also require the entity to re-estimate the asset's recoverable service amount. For example, either of the following may be an indication that the impairment loss may have reversed:
- (a) A significant rise in an asset's market value; or
 - (b) A significant long-term increase in the demand or need for the services provided by the asset.

63. A commitment to discontinue or restructure an operation in the near future is an indication of a reversal of an impairment loss of an asset belonging to the operation, where such a commitment constitutes a significant long-term change, with a favorable effect on the entity, in the extent or manner of use of that asset. Circumstances where such a commitment would be an indication of reversal of impairment often relate to cases where the expected discontinuance or restructuring of the operation would create opportunities to enhance the utilization of the asset. An example is an x-ray machine that has been underutilized by a clinic managed by a public hospital and, as a result of restructuring, is expected to be transferred to the main radiology department of the hospital where it will have significantly better utilization. In such a case, the commitment to discontinue or restructure the clinic's operation may be an indication that an impairment loss recognized for the asset in prior periods may have to be reversed.
64. If there is an indication that an impairment loss recognized for an asset may no longer exist or may have decreased, this may indicate that (a) the remaining useful life, (b) the depreciation (amortization) method, or (c) the residual value may need to be reviewed and adjusted in accordance with the IPSAS applicable to the asset, even if no impairment loss is reversed for the asset.
65. **An impairment loss recognized in prior periods for an asset shall be reversed if, and only if, there has been a change in the estimates used to determine the asset's recoverable service amount since the last impairment loss was recognized. If this is the case, the carrying amount of the asset shall, except as described in paragraph 68, be increased to its recoverable service amount. That increase is a reversal of an impairment loss.**
66. This Standard requires an entity to make a formal estimate of recoverable service amount only if an indication of a reversal of an impairment loss is present. Paragraph 60 identifies key indications that an impairment loss recognized for an asset in prior periods may no longer exist or may have decreased.
67. A reversal of an impairment loss reflects an increase in the estimated recoverable service amount of an asset, either from use or from sale, since the date when an entity last recognized an impairment loss for that asset. Paragraph 77 requires an entity to identify the change in estimates that causes the increase in recoverable service amount. Examples of changes in estimates include:
- (a) A change in the basis for recoverable service amount (i.e., whether recoverable service amount is based on fair value less costs to sell or value in use);

- (b) If recoverable service amount was based on value in use, a change in estimate of the components of value in use; or
 - (c) If recoverable service amount was based on fair value less costs to sell, a change in estimate of the components of fair value less costs to sell.
68. **The increased carrying amount of an asset attributable to a reversal of an impairment loss shall not exceed the carrying amount that would have been determined (net of depreciation or amortization) if no impairment loss had been recognized for the asset in prior periods.**
69. **A reversal of an impairment loss for an asset shall be recognized immediately in surplus or deficit.**
70. **After a reversal of an impairment loss is recognized, the depreciation (amortization) charge for the asset shall be adjusted in future periods to allocate the asset's revised carrying amount, less its residual value (if any), on a systematic basis over its remaining useful life.**

Redesignation of Assets

71. **The redesignation of assets from cash-generating assets to non-cash-generating assets or from non-cash-generating assets to cash-generating assets shall only occur when there is clear evidence that such a redesignation is appropriate. A redesignation, by itself, does not necessarily trigger an impairment test or a reversal of an impairment loss. Instead, the indication for an impairment test or a reversal of an impairment loss arises from, as a minimum, the listed indications applicable to the asset after redesignation.**
72. There are circumstances in which public sector entities may decide that it is appropriate to redesignate a non-cash-generating asset as a cash-generating asset. For example, an effluent treatment plant was constructed primarily to treat industrial effluent from a social housing unit, for which no charge is made. The social housing unit has been demolished, and the site will be developed for industrial and retail purposes. It is intended that, in future, the plant will be used to treat industrial effluent at commercial rates. In light of this decision, the public sector entity decides to redesignate the effluent treatment plant as a cash-generating asset.

Disclosure

- 72A. **An entity shall disclose the criteria developed by the entity to distinguish non-cash-generating assets from cash-generating assets.**
73. **An entity shall disclose the following for each class of assets:**
- (a) **The amount of impairment losses recognized in surplus or deficit during the period, and the line item(s) of the statement of**

- financial performance in which those impairment losses are included; and**
- (b) **The amount of reversals of impairment losses recognized in surplus or deficit during the period, and the line item(s) of the statement of financial performance in which those impairment losses are reversed.**
- 73A. [Deleted]
74. A class of assets is a grouping of assets of similar nature and use in an entity's operations.
75. The information required in paragraph 73 may be presented with other information disclosed for the class of assets. For example, this information may be included in a reconciliation of the carrying amount of property, plant, and equipment, at the beginning and end of the period, as required by IPSAS 17.
76. **An entity that reports segment information in accordance with IPSAS 18, *Segment Reporting*, shall disclose the following for each segment reported by the entity:**
- (a) **The amount of impairment losses recognized in surplus or deficit during the period; and**
- (b) **The amount of reversals of impairment losses recognized in surplus or deficit during the period.**
77. **An entity shall disclose the following for each material impairment loss recognized or reversed during the period:**
- (a) **The events and circumstances that led to the recognition or reversal of the impairment loss;**
- (b) **The amount of the impairment loss recognized or reversed;**
- (c) **The nature of the asset;**
- (d) **The segment to which the asset belongs, if the entity reports segment information in accordance with IPSAS 18;**
- (e) **Whether the recoverable service amount of the asset is its fair value less costs to sell or its value in use;**
- (f) **If the recoverable service amount is fair value less costs to sell, the basis used to determine fair value less costs to sell (such as whether fair value was determined by reference to an active market); and**
- (g) **If the recoverable service amount is value in use, the approach used to determine value in use.**

78. **An entity shall disclose the following information for the aggregate of impairment losses and aggregate reversals of impairment losses recognized during the period for which no information is disclosed in accordance with paragraph 77:**
- (a) **The main classes of assets affected by impairment losses (and the main classes of assets affected by reversals of impairment losses); and**
 - (b) **The main events and circumstances that led to the recognition of these impairment losses and reversals of impairment losses.**
79. An entity is encouraged to disclose key assumptions used to determine the recoverable service amount of assets during the period.

Transitional Provisions

80. **This Standard shall be applied prospectively from the date of its application. Impairment losses (reversals of impairment losses) that result from adoption of this IPSAS shall be recognized in accordance with this Standard (i.e., in surplus or deficit).**
- 80A. **The amendment to paragraph 27 shall be applied prospectively from the date of its application.**
81. Before the adoption of this Standard, entities may have adopted accounting policies for the recognition and reversal of impairment losses. On adoption of this Standard, a change in accounting policy may arise. It would be difficult to determine the amount of adjustments resulting from a retrospective application of the change in accounting policy. Therefore, on adoption of this Standard, an entity shall not apply the benchmark or the allowed alternative treatment for other changes in accounting policies in IPSAS 3, *Accounting Policies, Changes in Accounting Estimates and Errors*.

Effective Date

82. **An entity shall apply this Standard for annual financial statements covering periods beginning on or after January 1, 2006. Earlier application is encouraged. If an entity applies this Standard for a period beginning before January 1, 2006, it shall disclose that fact.**
- 82A. **IPSAS 31 amended paragraphs 2 and 7, and inserted paragraphs 26A, 26B, and 39A. An entity shall apply those amendments for annual financial statements covering periods beginning on or after April 1, 2011. If an entity applies IPSAS 31 for a period beginning before April 1, 2011, the amendments shall also be applied for that earlier period.**

- 82B. **Paragraph 27 was amended by *Improvements to IPSASs 2011* issued in October 2011. An entity shall apply that amendment for annual financial statements covering periods beginning on or after January 1, 2013. Earlier application is encouraged. If an entity applies the amendment for a period beginning before January 1, 2013, it shall disclose that fact.**
83. When an entity adopts the accrual basis of accounting as defined by IPSASs for financial reporting purposes subsequent to this effective date, this Standard applies to the entity's annual financial statements covering periods beginning on or after the date of adoption.

Basis for Conclusions

This Basis for Conclusions accompanies, but is not part of, IPSAS 21.

Introduction

- BC1. The IPSASB's IFRS Convergence Program is an important element in the IPSASB's work program. The IPSASB's policy is to converge the accrual basis IPSASs with IFRSs issued by the IASB where appropriate for public sector entities.
- BC2. The accrual IPSASs are based on the IFRSs issued by the IASB, to the extent that the requirements of those Standards are applicable to the public sector. The requirements of this Standard have been developed consistent with that policy. IAS 36 requires entities to determine the recoverable amount of an asset if there are indications that the asset is impaired. The recoverable amount of an asset is defined as the higher of value in use and fair value less costs to sell of the asset. This Standard includes a similar definition.
- BC3. IAS 36 applies to cash-generating assets and cash-generating units, while this Standard applies to individual non-cash-generating assets. This results in a number of differences between the two standards. The main differences are:
- (a) The method of measurement of value in use of a non-cash-generating asset under this Standard is different from that applied to a cash-generating asset under IAS 36;
 - (b) This Standard does not require entities to apply an impairment test to property, plant, and equipment carried at revalued amounts; and
 - (c) This Standard does not include a decrease in market value significantly greater than would be expected as a result of the passage of time or normal use as a minimum indication of impairment. This indication is included as an additional indication that impairment may exist.
- The IPSASB's reasons for making these departures from the requirements of IAS 36 are explained in the paragraphs below.
- BC4. An Invitation to Comment (ITC), *Impairment of Assets*, issued in 2000 proposed an approach to accounting for impairment of the assets of public sector entities that applied IAS 36 to the extent that it was appropriate. ED 23, *Impairment of Assets*, was developed after consideration of responses to the ITC and issued in 2003. This Standard was developed after consideration of the responses to ED 23.

Cash-Generating Assets

- BC5. IAS 36 requires an entity to determine value in use as the present value of estimated future cash flows expected to be derived (a) from the continuing use of the asset, or cash-generating unit, and (b) from its disposal at the end of its useful life. The service potential of cash-generating assets is reflected by their ability to generate future cash flows. IPSAS 26 is based on IAS 36. The requirements of IPSAS 26 are applicable to cash-generating assets held by public sector entities. This Standard requires entities to apply IPSAS 26 to account for impairment of cash-generating assets in the public sector.

Non-Cash-Generating Assets

- BC6. In considering the principles underpinning a value in use concept applicable to non-cash-generating assets, the IPSASB agreed that the value in use of a non-cash-generating asset should be measured by reference to the present value of the remaining service potential of the asset. This replicates the approach taken by IAS 36.

Determination of Value in Use

- BC7. Determining value in use (present value of remaining service potential) of a non-cash-generating asset may be approached in a number of ways. One approach that replicates IAS 36 involves estimating and discounting cash inflows that would have arisen had the entity sold its services or other outputs in the market. However, the IPSASB is of the view that it is unlikely that this approach could be used in practice, due to the complexities involved in determining the appropriate prices at which to value the service or other output units and estimating the appropriate discount rate.
- BC8. Other approaches reflect an implicit determination of value in use. In this respect, the IPSASB considered the market value approach, and approaches that measure depreciated replacement cost, and include consideration of restoration cost and service units.

Market value approach

- BC9. Under this approach, where an active market exists for the asset, the value in use of the non-cash-generating asset is measured at the observable market value of the asset. Where an active market for the asset is not available, the entity uses the best available market evidence of the price at which the asset could be exchanged between knowledgeable, willing parties in an arm's length transaction, having regard to the highest and best use of the asset for which market participants would be prepared to pay in the prevailing circumstances. The IPSASB noted that the use of the observable market value as a proxy for value in use was redundant, since market value differed from the fair value less costs to sell (the other arm of the recoverable service

amount estimate) of the asset only by the amount of the costs of disposal. Therefore the market value would be effectively captured by the fair value less costs to sell arm of recoverable service amount.

Depreciated replacement cost approach

BC10. Under this approach, the value in use of the asset is determined as the lowest cost at which the gross service potential embodied in the asset could be obtained in the normal course of operations, less the value of the service potential already consumed. This approach assumes that the entity replaces the remaining service potential of the asset if it is deprived of it. An asset may be replaced either through reproduction (such as specialized assets) or through replacement of its gross service potential. Therefore, value in use is measured as the reproduction or replacement cost of the asset, whichever is lower, less accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired service potential of the asset.

Restoration cost approach

BC11. This approach is usually used when impairment losses arise from damage. Under this approach, the value in use of the asset is determined by subtracting the estimated restoration cost of the asset from the depreciated replacement or reproduction cost of the asset before impairment.

Service units approach

BC12. This approach determines the value in use of the asset by reducing the depreciated replacement or reproduction cost of the asset before impairment to conform to the reduced number of service units expected from the asset in its impaired state.

Approaches adopted

BC13. The IPSASB agreed that the value in use of a non-cash-generating asset will be measured using the depreciated replacement cost, the restoration cost, or the service units approaches cited above as appropriate.

Other Assets

BC14. IPSAS 21 contains specific requirements for testing intangible assets for impairment, and for recognizing and measuring impairment losses related to intangible assets. These requirements complement the requirements of IPSAS 31, *Intangible Assets*. Non-cash-generating intangible assets measured at cost are included in the scope of this Standard and should be tested for impairment according to the requirements of this Standard.

Group of Assets and Corporate Assets

- BC15. Under IAS 36, where it is not possible to determine the recoverable amount for an individual asset, then the recoverable amount for the asset's cash-generating unit (CGU) will be determined. The CGU is the smallest identifiable group of assets (a) that generates cash inflows from continuing use, and (b) that is largely independent of the cash inflows from other assets or groups of assets. The IPSASB considered the concept of a service-generating unit in a non-cash-generating context. It noted that as the requirements in this Standard are applied to individual assets, the adoption of such a concept by analogy to the CGU concept in IAS 36 is unnecessary, because it is possible to identify the service potential of individual assets. Moreover, its adoption would introduce undue complexities in accounting for impairment of non-cash-generating assets.
- BC16. Under IAS 36, assets other than goodwill that contribute to the future cash flows of two or more CGUs are regarded as corporate assets. In a cash-generating context, because corporate assets do not generate separate cash inflows, the impairment of corporate assets are dealt with as part of the impairment of the cash-generating unit to which the corporate assets belong. The IPSASB observed that in a non-cash-generating context, the concept of a service-generating unit is not warranted, as noted in paragraph BC15 above. The IPSASB further noted that such assets are often an integral part of the service delivery function and their impairment is to be dealt with as for any other non-cash-generating assets of the entity.

Property, Plant, and Equipment and Intangible Assets

- BC17. The Standard does not require the application of an impairment test to non-cash-generating assets that are carried at revalued amounts under the allowed alternative treatment ("revaluation model") in IPSAS 17 and IPSAS 31. The IPSASB is of the view that under the allowed alternative treatment in IPSAS 17 and IPSAS 31, assets will be revalued with sufficient regularity to ensure that they are carried at an amount that is not materially different from their fair value as at the reporting date, and any impairment will be taken into account in the valuation. Therefore any difference between the asset's carrying amount and its fair value less costs to sell will be the disposal costs. The IPSASB is of the view that, in most cases, these will not be material and, from a practical viewpoint, it is not necessary to measure an asset's recoverable service amount and to recognize an impairment loss for the disposal costs of a non-cash-generating asset.
- BC18. In contrast to this Standard, IAS 36 requires entities to test revalued assets for impairment after they had been revalued. The rationale for this difference can be explained by reference to the factors set out in paragraphs BC19 and BC20 below.

- BC19. Firstly, there are different methods of determining recoverable service amount under this Standard, and of determining recoverable amount under IAS 36. Recoverable service amount is defined in this Standard as the higher of a non-cash-generating asset's fair value less costs to sell and its value in use. Under this Standard, an entity determines an asset's value in use by determining the current cost to replace the asset's remaining service potential. The current cost to replace the asset's remaining service potential is determined using the depreciated replacement cost approach, and approaches described as the restoration cost approach and the service units approach. These approaches may also be adopted to measure fair value under IPSAS 17 and IPSAS 31 therefore the value in use is a measure of fair value. Recoverable amount is defined in IAS 36 as the higher of an asset's fair value less costs to sell and its value in use. Value in use under IAS 36 is determined using the present value of the cash flows expected to be derived from continued use of the asset and its eventual disposal. IAS 36 states that the value in use may be different from the fair value of the asset.
- BC20. Secondly, the requirement under IAS 36 to combine non-cash-generating assets with cash-generating assets to form a cash-generating unit is not replicated in this Standard. Under IAS 36, where an asset does not produce cash inflows, it is combined with other assets to form a cash-generating unit, the value in use of which is then measured. The sum of the fair values of the assets that make up a cash-generating unit may be different to the value in use of the cash-generating unit.

Impairment of Non-Cash-Generating Assets Held by GBEs

- BC21. This Standard requires that the impairment of all assets held by GBEs be accounted for under IAS 36. GBEs are profit-oriented entities, and the assets employed by them are primarily cash-generating assets. The *Preface to International Public Sector Accounting Standards* makes it clear that GBEs are profit-oriented entities, and are therefore required to comply with IFRSs and IASs. Individual IPSASs make it explicit that IFRSs apply to GBEs. Accordingly, non-cash-generating assets are expected to be appropriately grouped with cash-generating assets of GBEs to form a cash-generating unit to be tested for impairment in accordance with IAS 36.

Indications of Impairment—Changes in Market Value

- BC22. IAS 36 includes as a minimum indication of impairment that an asset's market value has declined significantly more than would be expected as a result of the passage of time or normal use. The IPSASB has included this as an additional indication of impairment, but not as a minimum indication of impairment. The IPSASB is of the view that these changes in market value do not necessarily indicate that a non-cash-generating asset is impaired. This is because non-cash-generating assets are held for reasons other than generating a commercial return; therefore, a change in market

value may not reflect a change in the amount of service that the entity will recover from continued use of the asset.

Reversal of Impairment

- BC23. Paragraph 60(a) includes resurgence of demand or need for services provided by the asset as a minimum indication of reversal of impairment, while paragraph 62(b) includes a significant long-term increase in demand or need for the services provided by the asset as an additional indication of possible reversal of impairment. The wording of these two indications is similar; however, they can be distinguished from each other because paragraph 60(a) refers to a resurgence of the demand that had declined and resulted in the recognition of an impairment loss. Paragraph 62(b) refers to new demand, and may be unrelated to the reason an impairment loss was recognized in respect of the asset.
- BC24. Paragraph 62(a) includes a significant rise in an asset's market value as an additional indication of reversal of impairment. This does not mirror the indication of impairment in paragraph 27(a), which requires that the decline in market value be significantly more than would be expected as a result of the passage of time or normal use. This difference means that the increase in market value may be expected or unexpected.
- BC25. Paragraph 27(c) includes "Evidence is available of physical damage of an asset" as a minimum indication of impairment. Paragraph 60 does not include an indication of reversal of impairment that mirrors this indication of impairment. The IPSASB has not included repair of an asset as an indication of reversal, because IPSAS 17 requires entities to add subsequent expenditure to the carrying amount of an item of property, plant, and equipment when it is probable that future economic benefits or service potential over the total life of the asset, in excess of the most recently assessed standard of performance of the existing asset, will flow to the entity. This requirement also applies to investment property that is measured using the cost model under IPSAS 16. The IPSASB is of the view that these requirements negate the need for an indication of reversal of impairment that mirrors the physical damage indication of impairment. The IPSASB also noted that restoration or repair of damage does not constitute a change in the estimate of the asset's recoverable service amount after impairment as specified by paragraph 65 of this IPSAS.

Implementation Guidance

This guidance accompanies, but is not part of, IPSAS 21.

Indications of Impairment (paragraph 27)

External Sources of Information

(a) Cessation, or Near Cessation, of the Demand or Need for Services Provided by the Asset.

IG1. The asset still maintains the same service potential, but demand for that service has ceased or nearly ceased. Examples of assets impaired in this manner include:

- (a) A school closed because of a lack of demand for school services, arising from a population shift to other areas. It is not anticipated that this demographic trend affecting the demand for the school services will reverse in the foreseeable future;
- (b) A school designed for 1,500 students currently has an enrollment of 150 students – the school cannot be closed because the nearest alternative school is 100 kilometers away. The entity does not envisage the enrollment increasing. At the time of establishment, enrollment was 1,400 students – the entity would have acquired a much smaller facility had future enrollment been envisaged to be 150 students. The entity determines that demand has nearly ceased, and the recoverable service amount of the school should be compared with its carrying amount;
- (c) A railway line closed due to lack of patronage (for example, the population in a rural area has substantially moved to the city due to successive years of drought, and those that have stayed behind use the cheaper bus service); and
- (d) A stadium whose principal occupant does not renew its occupancy agreement, with the result that the facility is expected to close.

(b) Significant Long-Term Changes with an Adverse Effect on the Entity in the Technological, Legal, or Government Policy Environment in Which the Entity Operates.

Technological Environment

IG2. The service utility of an asset may be reduced if technology has advanced to produce alternatives that provide better or more efficient service. Examples of assets impaired in this manner are:

- (a) Medical diagnostic equipment that is rarely or never used because a newer machine embodying more advanced technology provides more accurate results (would also meet indication (a) above);

- (b) Software that is no longer being supported by the external supplier because of technological advances, and the entity does not have the personnel to maintain the software; and
- (c) Computer hardware that has become obsolete as the result of technological development.

Legal or Government Policy Environment

- IG3. An asset's service potential may be reduced as a result of a change in a law or regulation. Examples of impairments identified by this indication include:
- (a) An automobile that does not meet new emission standards or an airplane that does not meet new noise standards;
 - (b) A school that can no longer be used for instruction purposes due to new safety regulations regarding its building materials or emergency exits; and
 - (c) A drinking water plant that cannot be used because it does not meet new environmental standards.

Internal Sources of Information

(c) Evidence is Available of Physical Damage of an Asset.

- IG4. Physical damage would likely result in the asset being unable to provide the level of service that it once was able to provide. Examples of assets impaired in this way include:
- (a) A building damaged by fire or flood or other factors;
 - (b) A building that is closed due to identification of structural deficiencies;
 - (c) Sections of an elevated roadway that have sagged, indicating that these sections of roadway will need to be replaced in 15 years rather than the original design life of 30 years;
 - (d) A dam whose spillway has been reduced as a result of a structural assessment;
 - (e) A water treatment plant whose capacity has been reduced by an intake blockage, and the removal of the blockage is not economical;
 - (f) A bridge that is weight-restricted due to identification of structural deficiencies;
 - (g) A navy destroyer damaged in a collision; and
 - (h) Equipment that is damaged and can no longer be repaired, or for which repairs are not economically feasible.

(d) Significant Long-Term Changes, with an Adverse Effect on the Entity, in the Extent to Which an Asset is Used, or is Expected to be Used.

IG5. The asset still maintains the same service potential, but long-term changes have an adverse effect on the extent to which the asset is used. Examples of circumstances in which assets may be impaired in this manner include:

- (a) If an asset is not being used to the same degree as it was when originally put into service, or the expected useful life of the asset is shorter than originally estimated, the asset may be impaired. An example of an asset that might be identified as potentially being impaired by this indication is a mainframe computer that is underutilized, because many applications have been converted or developed to operate on servers or PC platforms. A significant long-term decline in the demand for an asset's services may translate itself into a significant long-term change in the extent to which the asset is used; and
- (b) If the asset is not being used in the same way as it was when originally put into service, the asset may be impaired. An example of an impaired asset that might be identified by this indication is a school building that is being used for storage rather than for educational purposes.

(e) A decision to Halt the Construction of the Asset Before it is Complete or in a Usable Condition.

IG6. An asset that will not be completed cannot provide the service intended. Examples of assets impaired in this manner include those where:

- (a) Construction was stopped due to identification of an archaeological discovery or environmental condition, such as a nesting ground for a threatened or endangered species; or
- (b) Construction was stopped due to a decline in the economy.

The circumstances that led to the halting of construction will also be considered. If construction is deferred, that is, postponed to a specific future date, the project could still be treated as work-in-progress, and is not considered as halted.

(f) Evidence is Available from Internal Reporting that Indicates that the Service Performance of an Asset is, or will be, Significantly Worse than Expected.

IG7. Internal reports may indicate that an asset is not performing as expected, or its performance is deteriorating over time. For example, an internal health department report on operations of a rural clinic may indicate that an x-ray machine used by the clinic is impaired because the cost of maintaining the machine has significantly exceeded that originally budgeted.

Illustrative Examples

These examples accompany, but are not part of, IPSAS 21.

Measurement of Impairment Loss

Note: In the following examples, it is assumed that the fair value less costs to sell of the asset tested for impairment is less than its value in use or is not determinable, unless otherwise indicated. Therefore, the asset's recoverable service amount is equal to its value in use. In these examples, the straight-line method of depreciation is used.

Depreciated Replacement Cost Approach

Significant Long-term Change with Adverse Effect on the Entity in the Technological Environment—Underutilized Mainframe Computer

IE1. In 1999, the City of Kermann purchased a new mainframe computer at a cost of CU10 million.² Kermann estimated that the useful life of the computer would be seven years, and that on average 80 percent of central processing unit (CPU) capacity would be used by the various departments. A buffer of excess CPU time of 20 percent was expected and needed to accommodate scheduling jobs to meet peak period deadlines. Within a few months after acquisition, CPU usage reached 80 percent, but declined to 20 percent in 2003 because many applications of the departments were converted to run on desktop computers or servers. A computer is available on the market at a price of CU500,000 that can provide the remaining service potential of the mainframe computer using the remaining applications.

Evaluation of Impairment

IE2. The indication of impairment is the significant long-term change in the technological environment resulting in conversion of applications from the mainframe to other platforms, and therefore decreased usage of the mainframe computer. (Alternatively it can be argued that a significant decline in the extent of use of the mainframe indicates impairment.) Impairment loss is determined using the depreciated replacement cost approach as follows:

a	Acquisition cost, 1999	10,000,000
	Accumulated depreciation, 2003 ($a \times 4 \div 7$)	5,714,286
b	Carrying amount, 2003	<u>4,285,714</u>
c	Replacement cost	500,000
	Accumulated depreciation($c \times 4 \div 7$)	285,714
d	Recoverable Service Amount	<u><u>214,286</u></u>

² In these examples monetary amounts are denominated in “currency units” (CU).

Impairment loss (b - d)	4,071,428
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Near Cessation in Demand for the Services Provided by a Non-cash-Generating Asset—Underutilized Mainframe Software Application

IE3. In 1999, the City of Kermann purchased a software license for an application for its new mainframe computer for CU350,000. Kermann estimated that the useful life of the software would be seven years, and that it would receive economic benefits and service potential from the software on a straight-line basis over the life of the software. By 2003, usage of the application had declined to 15 percent of its originally anticipated demand. A license for a software application to replace the remaining service potential of the impaired software application costs CU70,000.

Evaluation of Impairment

IE4. The indication of impairment is technological change, brought about by the loss of mainframe computer capacity.

a Acquisition cost, 1999	350,000
Accumulated depreciation, 2003 (a × 4 ÷ 7)	200,000
b Carrying amount, 2003	150,000
c Replacement cost	70,000
Accumulated amortization (c × 4 ÷ 7)	40,000
d Recoverable Service Amount	30,000
Impairment loss (b - d)	120,000

Significant Long-term Change with Adverse Effect on the Entity in the Manner of Use—School Used as Warehouse

IE5. In 1997, Lunden School District constructed an elementary school at a cost of CU10 million. The estimated useful life of the school is fifty years. In 2003, the school is closed because enrollments in the district declined unexpectedly due to a population shift caused by the bankruptcy of a major employer in the area. The school is converted to use as a storage warehouse, and Lunden School District has no expectation that enrollments will increase in the future such that the building would be reopened for use as a school. The current replacement cost for a warehouse with the same storage capacity as the school is CU4.2 million.

Evaluation of Impairment

IE6. Impairment is indicated, because the purpose for which the building is used has changed significantly from a place for instructing students to a storage facility, and this is not anticipated to change for the foreseeable future. An

impairment loss using depreciated replacement cost approach would be determined as follows:

a	Historical cost, 1997	10,000,000
	Accumulated depreciation, 2003 ($a \times 6 \div 50$)	1,200,000
b	Carrying amount, 2003	8,800,000
c	Replacement cost of a storage facility of similar capacity	4,200,000
	Accumulated depreciation ($c \times 6 \div 50$)	504,000
d	Recoverable Service Amount	3,696,000
	Impairment loss (b - d)	5,104,000

Significant Long-term Change with Adverse Effect on the Entity in the Extent of Use—School Partially Closed Due to Decline in Enrollment

IE7. In 1983, the Lutton School District constructed a school at the cost of CU2.5 million. The entity estimated the school would be used for 40 years. In 2003, the enrollment declined from 1000 to 200 students as the result of population shift caused by the bankruptcy of a major employer in the area. The management decided to close the top two floors of the three-story school building. Lutton School District has no expectation that enrollments will increase in the future such that the upper stories would be reopened. The current replacement cost of the one-story school is estimated at CU1.3 million.

Evaluation of Impairment

IE8. Impairment is indicated because the extent of use of the school has changed from three floors to one floor as the result of a reduction in the number of students from 1000 to 200 students. The reduction in the extent of use is significant, and the enrollment is expected to remain at the reduced level for the foreseeable future. Impairment loss using a depreciated replacement cost approach would be determined as follows:

a	Acquisition cost, 1983	2,500,000
	Accumulated depreciation, 2003 ($a \times 20 \div 40$)	1,250,000
b	Carrying amount, 2003	1,250,000
c	Replacement cost	1,300,000
	Accumulated depreciation ($c \times 20 \div 40$)	650,000
d	Recoverable Service Amount	650,000
	Impairment loss (b - d)	600,000

Restoration Cost Approach

Physical Damage—School Bus Damaged in Road

IE9. In 1998, North District Primary School acquired a bus at the cost of CU200,000 to help students from a nearby village to commute free of charge. The school estimated a useful life of 10 years for the bus. In 2003, the bus sustained damage in a road accident, requiring CU40,000 to be restored to a usable condition. The restoration will not affect the useful life of the asset. The cost of a new bus to deliver a similar service is CU250,000 in 2003.

Evaluation of Impairment

IE10. Impairment is indicated because the bus has sustained physical damage in the road accident. Impairment loss using the restoration cost approach would be determined as follows:

a	Acquisition cost, 1998	200,000
	Accumulated depreciation, 2003 ($a \times 5 \div 10$)	100,000
b	Carrying amount, 2003	100,000
c	Replacement cost	250,000
	Accumulated depreciation ($c \times 5 \div 10$)	125,000
d	Depreciated replacement cost (undamaged state)	125,000
	Less: restoration cost	40,000
e	Recoverable Service Amount	85,000
	Impairment loss (b - e)	15,000

Physical Damage—Building damaged by fire

IE11. In 1984, the City of Moorland built an office building at a cost of CU50 million. The building was expected to provide service for 40 years. In 2003, after 19 years of use, fire caused severe structural problems. Due to safety reasons, the office building is closed, and structural repairs costing CU35.5 million are to be made to restore the office building to an occupiable condition. The replacement cost of a new office building is CU100 million.

Evaluation of Impairment

IE12. Impairment is indicated because the office building has sustained physical damage due to the fire. Impairment loss using a restoration cost approach would be determined as follows:

a	Acquisition cost, 1984	50,000,000
	Accumulated depreciation, 2003 ($a \times 19 \div 40$)	23,750,000
b	Carrying amount, 2003	26,250,000

c	Replacement cost (of a new building)	100,000,000
d	Accumulated depreciation ($c \times 19 \div 40$)	47,500,000
	Depreciated replacement cost (undamaged)	52,500,000
	Less: restoration cost	35,500,000
e	Recoverable Service Amount	17,000,000
	Impairment loss (b - e)	9,250,000

Service Units Approach

Significant Long-term Change with Adverse Effect on the Entity in the Extent of Use—High-rise Building Partially Unoccupied for the Foreseeable Future

IE13. In 1988, Ornong City Council constructed a 20-story office building for use by the Council in downtown Ornong at the cost of CU80 million. The building was expected to have a useful life of 40 years. In 2003, National Safety Regulations required that the top four stories of high rise buildings should be left unoccupied for the foreseeable future. The building has a fair value less costs to sell of CU45 million in 2003 after regulations came into force. The current replacement cost of a similar 20-story building is CU85 million.

Evaluation of Impairment

IE14. Impairment is indicated because the extent of use of the office building has changed from 20 floors to 16 floors as the result of new National Safety Regulations. The reduction in the extent of use is significant, and the occupation of the building is expected to remain at the reduced level (16 floors) for the foreseeable future. Impairment loss using the service units approach would be determined as follows:

a	Acquisition cost, 1988	80,000,000
	Accumulated depreciation, 2003 ($a \times 15 \div 40$)	30,000,000
b	Carrying amount, 2003	50,000,000
c	Replacement cost (20-story building)	85,000,000
	Accumulated depreciation ($c \times 15 \div 40$)	31,875,000
d	Depreciated replacement cost before adjustment for remaining service units	53,125,000
e	Value in Use of the building after the regulation came into force ($d \times 16 \div 20$)	42,500,000
f	Fair value less costs to sell of the building after regulation came into force	45,000,000
g	Recoverable service amount (higher of e and f)	45,000,000

Impairment loss (b - g)	5,000,000
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Evidence from Internal Reporting—Higher Cost of Operating the Printing Machine

IE15. In 1998, Country X Education Department purchased a new printing machine at a cost of CU40 million. The Department estimated that the useful life of the machine would be 40 million copies of books to be printed over 10 years for use by elementary school students. In 2003, it was reported that an automated feature of the machine’s function does not operate as expected, resulting in a 25 percent reduction in the machine’s annual output level over the remaining 5 years of the useful life of the asset. The replacement cost of a new printing machine is CU45 million in 2003.

Evaluation of Impairment

IE16. Impairment is indicated by evidence from internal reporting that the service performance of the printing machine is worse than expected. Circumstances suggest that the decline in the service potential of the asset is significant and of a long-term nature. Impairment loss using a service units approach is determined as follows:

a	Acquisition cost, 1998	40,000,000
	Accumulated depreciation (a × 5 ÷ 10)	20,000,000
b	Carrying amount, 2003	20,000,000
c	Replacement cost	45,000,000
	Accumulated depreciation (c × 5 ÷ 10)	22,500,000
d	Depreciated replacement cost before adjustment for remaining service units	22,500,000
e	Recoverable Service Amount (d × 75%)	16,875,000
	Impairment loss (b - e)	3,125,000

Comparison with IAS 36 (2004)

IPSAS 21 is drawn primarily from IAS 36 (2004). The main differences between IPSAS 21 and IAS 36 (2004) are as follows:

- IPSAS 21 deals with the impairment of non-cash-generating assets of public sector entities, while IAS 36 deals with the impairment of cash-generating assets of profit-oriented entities. IPSAS 26 deals with the impairment of cash-generating assets of public sector entities.
- IPSAS 21 does not apply to non-cash-generating assets carried at revalued amounts at the reporting date under the allowed alternative treatment in IPSAS 17. IAS 36 does not exclude from its scope cash-generating property, plant, and equipment carried at revalued amounts at the reporting date.
- The method of measurement of value in use of a non-cash-generating asset under IPSAS 21 is different from that applied to a cash-generating asset under IAS 36. IPSAS 21 measures the value in use of a non-cash-generating asset as the present value of the asset's remaining service potential using a number of approaches. IAS 36 measures the value in use of a cash-generating asset as the present value of future cash flows from the asset.
- IPSAS 21 does not include a change in the market value of the asset as a black letter indication of impairment. A significant, unexpected decline in market value appears in black letter in IAS 36 as part of the minimum set of indications of impairment while IPSAS 21 refers to it in commentary.
- IPSAS 21 includes a decision to halt the construction of an asset before completion as a black letter indication of impairment and the resumption of the construction of the asset as an indication of reversal of the impairment loss. There are no equivalents in IAS 36.
- The scope of IAS 36 excludes certain classes of assets that are not excluded from the scope of IPSAS 21. These exclusions relate to classes of assets that are the subject of specific impairment requirements under other IFRSs. These have not been excluded from IPSAS 21 because there are not equivalent IPSASs. These exclusions include (a) biological assets related to agricultural activity, (b) deferred tax assets, (c) deferred acquisition costs, (d) intangible assets arising from an insurer's contractual rights under insurance contracts within the scope of IFRS 4, *Insurance Contracts*, and (e) non-current assets (or disposal groups) classified as held for sale in accordance with IFRS 5, *Non-current Assets Held for Sale and Discontinued Operations*.

- IPSAS 21 deals with the impairment of individual assets. There is no equivalent in IPSAS 21 for a cash-generating unit as defined in IAS 36.
- IPSAS 21 deals with corporate assets in the same manner as other non-cash-generating assets, while IAS 36 deals with them as part of related cash-generating units.
- IPSAS 21 uses different terminology, in certain instances, from IAS 36. The most significant examples are the use of the terms “revenue,” “recoverable service amount”, and “statement of financial performance,” in IPSAS 21. The equivalent terms in IAS 36 are “income,” “recoverable amount,” and “income statement.”