Impairment of Non-Cash-Generating Assets

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1. Introduction

In its July 2004 meeting, the International Public Sector Accounting Standards Board (IPSASB) of IFAC, approved the publication of an International Public Sector Accounting Standard (IPSAS) No. 21 "Impairment of Non-Cash-Generating Assets" (the standard). Terms and terminology used in the standard reminds the reader the revised International Accounting Standard (IAS) No. 36, "Impairment of Assets". However, the uniqueness of the standard steams from its scope: Applies only to assets that do not generate cash flows. IPSAS 21 explicitly states that cash generating assets or assets which are part of cash generating groups will be tested for impairment using private sector accounting (IAS 36). In the near future, a public sector standard for testing impairment of cash generating asset, will be published by the IPSASB.

It is worth mentioning however, that state owned enterprises or Government Business Enterprises (GBE) as defined in the standard are not within the scope of the IPSASB's publications and therefore they apply private sector accounting standards, i.e. IFRSs (previously, IASs). In a similar way, state owned enterprises in Israel apply private sector accounting standards published by the Israeli Accounting Standards Board (which is committed to adopt IASB's publications).

Except Non-for-Profit entities and corporate assets which contribute to the future cash flows of cash generating assets or units, None-Cash-Generating (NCG) assets are the solely the estate of the public sector. Business enterprises do not hold assets which do not generate commercial return or, at least, support other asset units that do generate commercial return as a whole.

IPSASB's work is based on international private sector accounting published by the IASB. Deviation from guidelines set for private sector, including (but not limited to) changes of guidelines set in private sector standards and publishing of unique standards for the public sector, is being carried only when public sector specific issues arise and require separate reference. This standard is an example of such public sector specific issue[1].

Emphasis on the Scope

Although IAS 36 does not exclude from its scope cash-generating property, plant and equipment carried at revalued amounts at the reporting date, IPSAS 21 does not apply to NCG assets carried at revalued amounts at the reporting date under the allowed alternative treatment in International Public Sector Accounting Standard IPSAS 17, "Property, Plant and Equipment". The reason for this deviation with regard to the scope will be further explored later on in this article.

2. Definitions

IPSAS 21 adds and changes a number of definitions from IAS 36 in order for them to suite the public sector more adequately:

2.1 Recoverable service amount - the higher of a NCG asset's fair value less costs to sell and its value in use.

2.2 An impairment - 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.

2.3 An impairment loss of a non-cash-generating asset - the amount by which the carrying amount of an asset exceeds its recoverable service amount.

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

In the public sector, stages taken in order to account for impairment losses of assets are similar to the stages set in the private sector. Testing assets for impairment consists of two stages. The first stage is identifying indications that an asset may be impaired. In the second stage, depending on the outcome of the first stage, a quantitative analysis is being carried in order to determine whether and to what extent an impairment loss is present.

Later on, it will be shown that although an impairment loss of a NCG asset should reflect a decline in the utility of an asset to

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[1] Examples of public sector specific issues which are due to be published as Exposure Drafts within the near future are: Revenue from Non-Exchange Transactions (Including Taxes and Transfers), and Accounting for Social Policies of Governments.

the entity that controls it, this utility is not measured by the use of cash flows, but rather by the service potential embedded in the asset.

3. Identifying an Asset that may be Impaired

The indications set for determining that an asset may be impaired are familiar to the reader from IAS 36. However, within the external sources of information, it was decided to omit the controversial indication from IAS 36: An increase during the period of market interest rates or other market rates of return, and those increases are likely to affect the discount rate used in calculating an asset's value in use and decrease the asset's recoverable amount significantly.

Also, it was decided to omit the indication relating to circumstances under which the carrying amount of the net assets of the reporting enterprise is more than its market capitalization.

The reason for the omission of the first indication is that the value in use of an NCG asset cannot be set by discounting non existent cash flows, not to mention the debate surrounding this indication with regard to cash generating assets in the first place. Regarding the second indication, market capitalization is irrelevant when it comes to measuring the net assets of a public sector entity.

In addition, maybe in order to indicate reduced significance, the emphasis given to the first indication provided in the private sector for identifying an asset that may be impaired (in the form of bold lettering) was removed. The indication from IAS 36 (Paragraph 12 (a)) is: 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.

A new indication can be found within the frame of the external sources of information: Cessation, or near cessation, of the demand or need for services provided by the asset. A near cessation refers to a situation in which demand for an asset's services is so low that the entity would not have attempted to respond to that demand, or would not have acquired the asset at all. This determination is especially relevant to NCG assets which are held by the public sector in order to provide goods and services, directly and indirectly, to the citizens.

All the internal sources of information established in the private sector can be found in the public sector as well. In addition, a new indication was added: A decision to halt the construction of the asset before it is complete or in a usable condition. Even though this situation is more common in the public sector, in our opinion this indication is relevant for the private sector as well. At this stage, we would like to remind that the lists of indications are not exhaustive.

4. Examples

The following are partial extractions of selected examples from **Appendix A** of IPSAS 21, "**Indications of Impairment - Examples**":

4.1 External sources of information

4.1.1 Cessation, or near cessation, of the demand or need for services provided by the asset although the asset still maintains the same service potential. For example:

(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 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.

4.1.2 Significant long-term changes with an adverse effect on the entity in the technological environment in which the entity operates. For example:

(a) Medical diagnostic equipment that is rarely or never used because a newer machine embodying more advanced technology provides more accurate results.

(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.

4.1.3 Significant long-term changes with an adverse effect on the entity in the legal or government policy environment in which the entity operates. For example:

(a) An automobile that does not meet new emission standards or a plane 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.

4.2 Internal sources of information

Evidence is available of physical damage of an asset which would likely result in the asset being unable to provide the level of service that it once was able to provide.

4.2.1 . For example:

(a) A building damaged by fire or flood or other factors.

(b) 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.

(c) A water treatment plant whose capacity has been reduced by an intake blockage and the removal of the blockage is not economical.

4.2.2 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. The 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. For example: a mainframe computer that is underutilized because many applications have been converted or developed to operate on servers or PC platforms.

4.2.3 Significant long-term changes, with an adverse effect on the entity, in the manner in which an asset is used, or is expected to be used. For example: a school building that is being used for storage rather than for educational purposes.

4.2.4 A decision to halt the construction of the asset before it is complete or in a usable condition. For example:

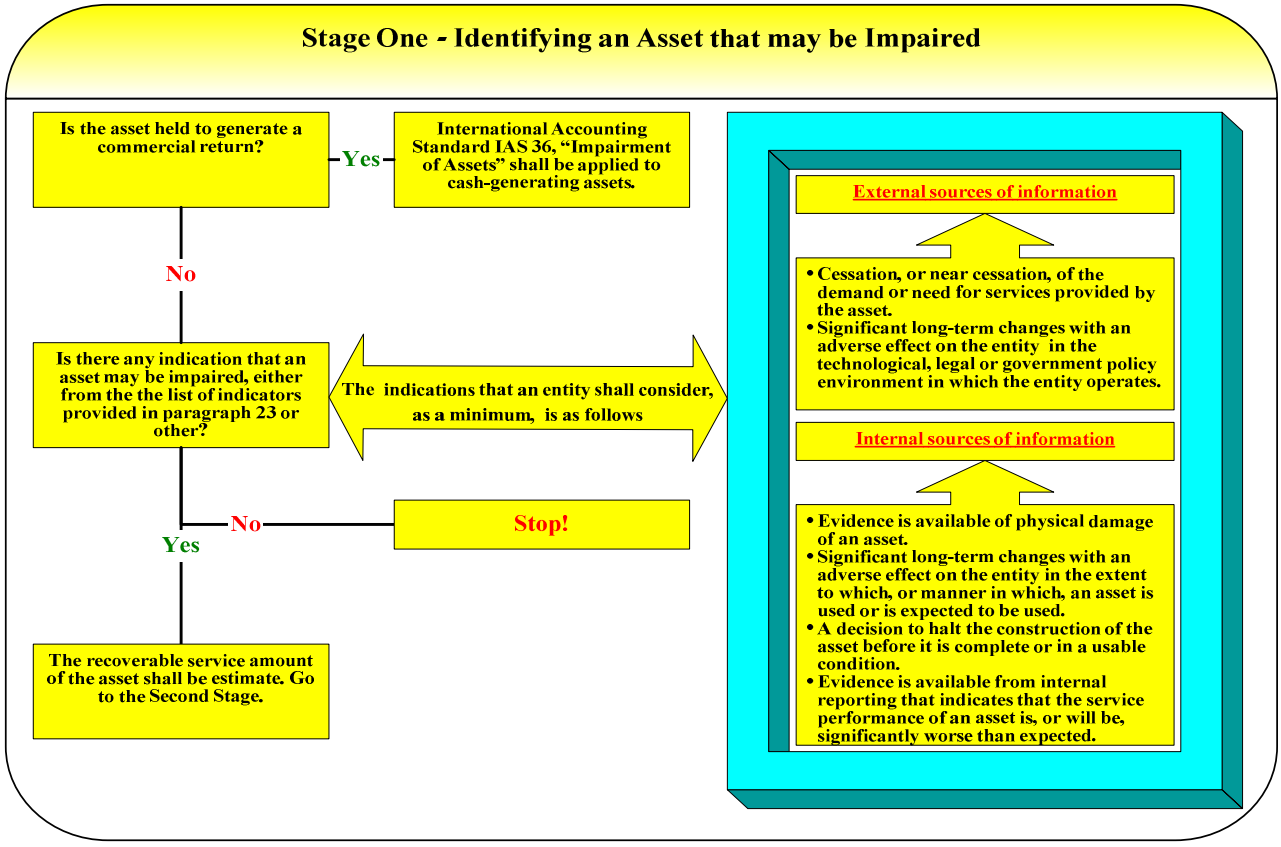
(a) Construction was stopped due to identification of an archaeological discovery or environmental condition such as nesting ground for a threatened or endangered species.

(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.

4.2.5 Evidence is available from internal reporting that indicates that the service performance of an asset is, or will be, significantly worse than expected. 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.

Following is a diagram describing the requirements set by IPSAS 21 that have been reviewed up to this point - the "Stage One" of the standards requirements:



5. Value in use of a non-cash-generating asset

IPSAS 21 defines value in use of a NCG asset as the present value of the asset's remaining service potential. Three approaches are provided in order to measure the remaining service potential. However, we would like to begin with a closer look at other alternative approaches to determining the present value of the asset's remaining service potential that were considered but eventually disqualified by the IPSASB.

One such approach (a possible approach under IAS 36) involves estimating and discounting cash inflows that would have arisen had the entity sold its services or other outputs in the market. This approach was disqualified due to the fact that in most cases it would be impracticable to establish "price tags" for the services or goods provided by the public sector.

Yet another approach which was considered was the use of the market value approach in which observable market value of the asset is used if an active market for the asset exists. If no such market exists, the entity uses the best available market evidence. This alternative was disqualified due to the fact that market value is already incorporated into the determination of recoverable service amount through fair value less costs to sell. Furthermore, using this alternative for the determination of value in use would cause a permanent inequality in which the fair value less costs to sell to would always be lower than the value in use (by the amount of the costs of disposal). As a result, the recoverable service amount of the asset would **always** be determined by its fair value less costs to sell.

Now, let's go back to the accepted approaches for measuring the present value of the remaining service potential of the asset (Extractions of selected examples from **Appendix B** of IPSAS 21, "**Measurements of Impairment Loss - examples**" were incorporated within the alternatives):

5.1 Depreciated Replacement Cost

Under this approach, the present value of the remaining service potential of an asset is determined as the lowest possible cost to replace the gross service potential of an asset less accumulated depreciation to reflect the service potential already consumed or used. At the base of this approach lies the assumption that the entity would replace the remaining service potential of an asset if it is deprived of it. The replacement of an asset's service potential may be through the replacement of the asset itself by reproduction or replication, for instance were unique assets are involved, or by replacing the asset's 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 service potential already consumed or used.

The replacement cost and reproduction cost of an asset are determined on an “optimized” basis. The rational behind this determination is based on the aspiration to become more efficient. Under this rational, an entity would replace an over designed and over captivity asset with an asset that is capable of providing the required demand for the asset's outputs in the most optimized way. An important insight from the abovementioned determination (the "optimized" basis cost of replacement) is that the replacement cost represents the service potential required of the asset and **not necessarily** the service potential actually embodied in the original asset (at its undamaged state). Note that according to IPSAS 21 standby or surplus capacity that is held for safety or other reasons held to insure that adequate service capacity is available in the particular circumstances of the entity is part of the required service potential of the asset. Therefore this standby or surplus captivity is not considered as such for the purpose of determining the replacement cost and reproduction cost of an asset.

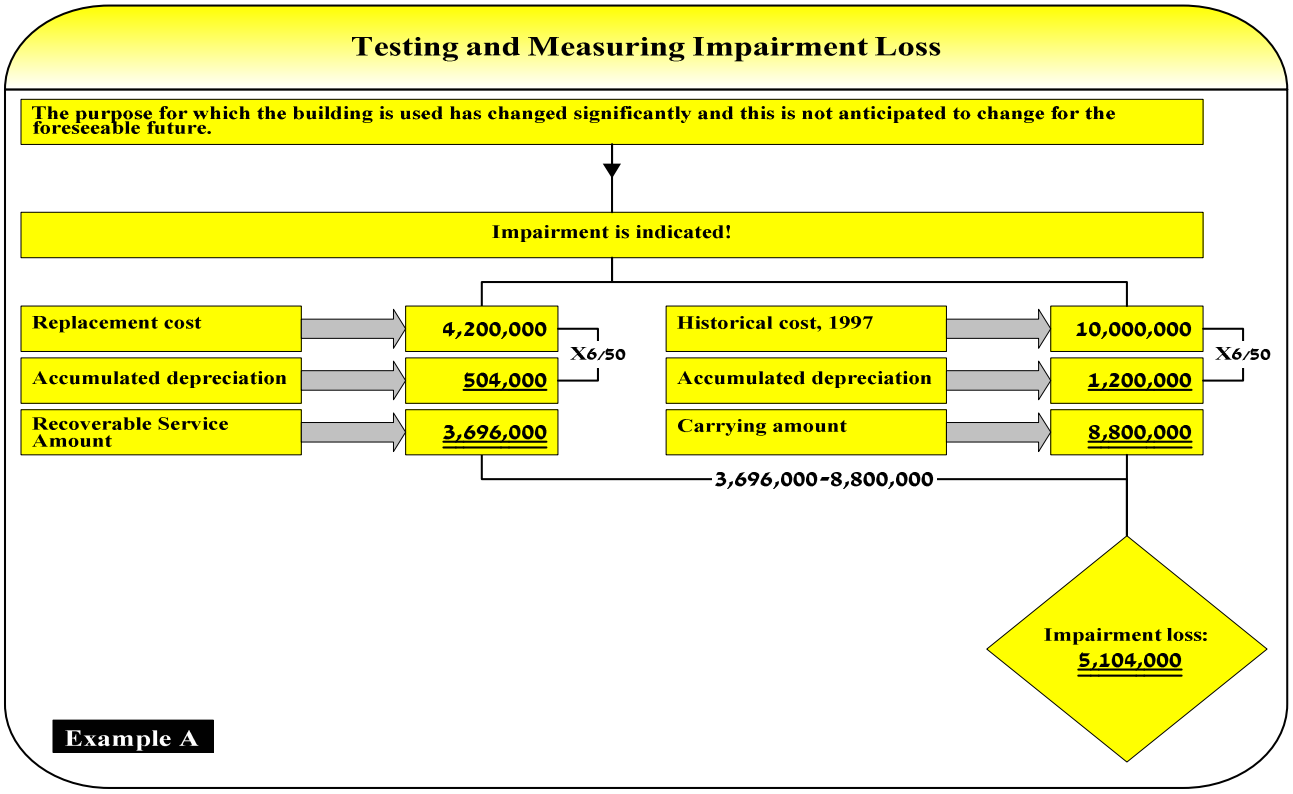
Example A: Significant Long-term Change with Adverse Effect on the Entity in the Manner of Use - School used as warehouse

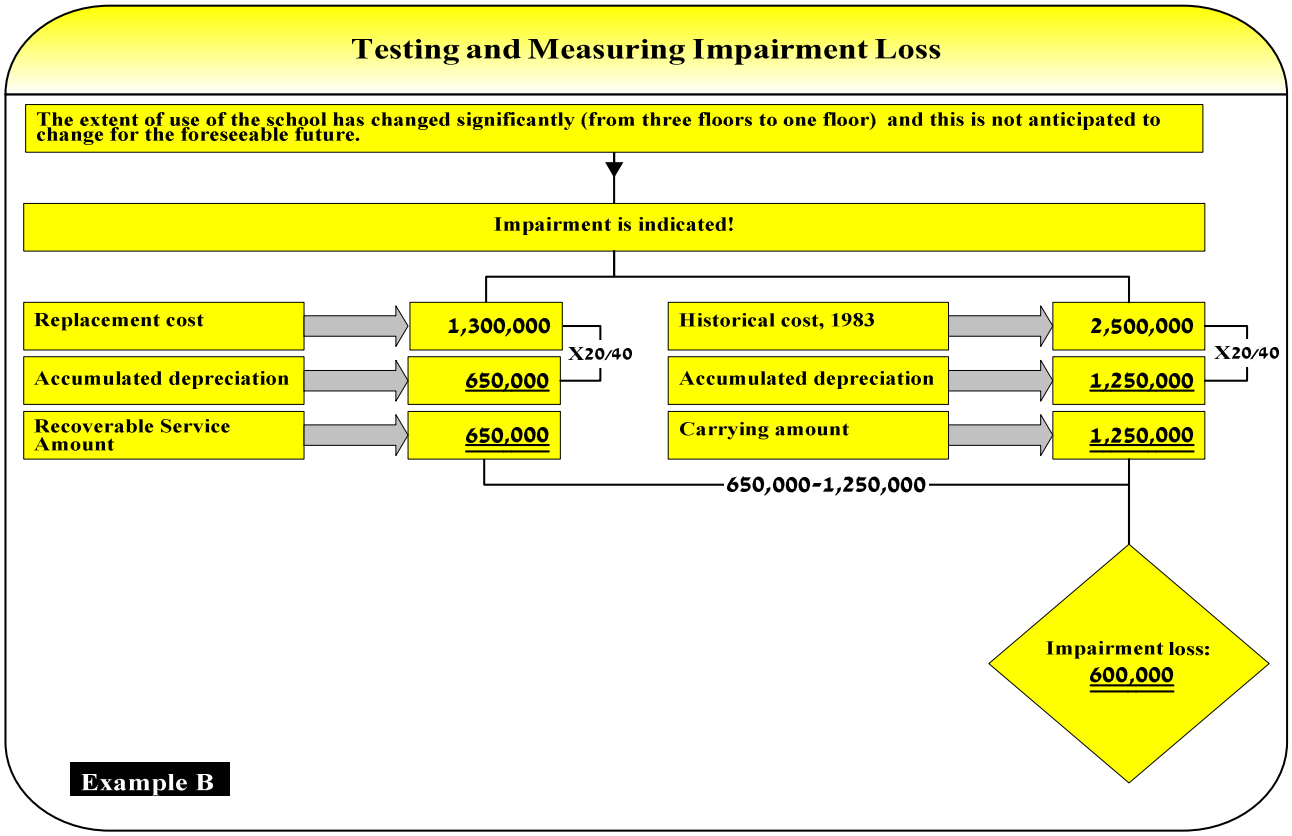
In 1997, Jerusalem School District constructed an elementary school at a cost of 10 million Currency Units (CU). The estimated useful life of the school is fifty years. In 2003, the school is closed because enrollments in the district declined unexpectedly due to a population shift caused by the bankruptcy of a major employer in the area. The school is converted to use as a storage warehouse, and Jerusalem 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. Assume 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. Therefore, the asset’s recoverable service amount is equal to its value in use. Evaluation of impairment is presented in the diagram "Example A", below.

Example B: Significant Long-term Change with Adverse Effect on the Entity in the Extent of Use - School partially closed due to decline in enrollment

In 1983, the Rishon LeZion 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 1,000 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. Rishon LeZion 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. Assume 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[2]. Therefore, the asset’s recoverable service amount is equal to its value in use. Evaluation of impairment is presented in the diagram "Example B", below.

[2] In our opinion, a consideration should have been given to the possibility that management would lease the two closed floors to a third party. Such consideration, although not provided in Appendix B, might have changed the results of the final impairment loss to be recognized.


Testing and Measuring Impairment Loss
The purpose for which the building is used has changed significantly and this is not anticipated to change for the foreseeable future.
Impairment is indicated!
Replacement cost
4,200,000
X6/50
Accumulated depreciation
504,000
Recoverable Service Amount
3,696,000
Historical cost, 1997
10,000,000
X6/50
Accumulated depreciation
1,200,000
Carrying amount
8,800,000
3,696,000-8,800,000
Impairment loss:
5,104,000
Example A

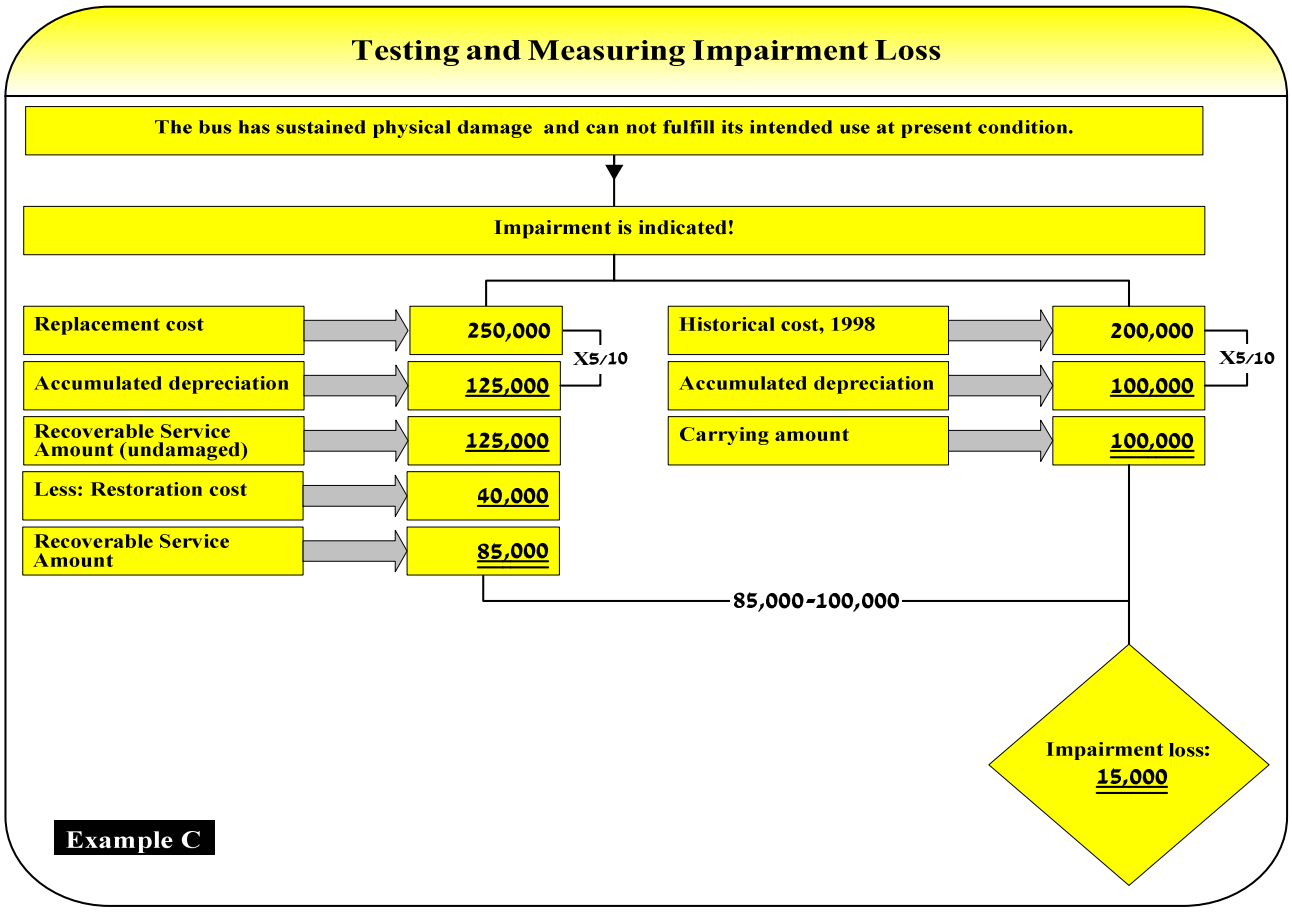

Testing and Measuring Impairment Loss
The extent of use of the school has changed significantly (from three floors to one floor) and this is not anticipated to change for the foreseeable future.
Impairment is indicated!
Replacement cost
1,300,000
X20/40
Accumulated depreciation
650,000
Recoverable Service Amount
650,000
Historical cost, 1983
2,500,000
X20/40
Accumulated depreciation
1,250,000
Carrying amount
1,250,000
650,000-1,250,000
Impairment loss:
600,000
Example B

5.2 Restoration Cost

Under this approach, the restoration cost is the cost that would be expensed in order to bring the asset's service potential back to its pre-impaired level. The present value of the remaining service potential of the asset is determined by subtracting the estimated restoration cost of the asset from the depreciated replacement cost as defined in section 5.1 above.

Example C: Physical Damage - School bus damaged in road accident

In 1998, Gezer Regional Council 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. Assume 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. Therefore, the asset's recoverable service amount is equal to its value in use. Evaluation of impairment is presented in the diagram "Example C", below.



5.3 Service Units

Under this last reviewed 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 depreciated replacement cost as defined in section 5.1 above, represents the remaining service potential of the asset in its unimpaired state.

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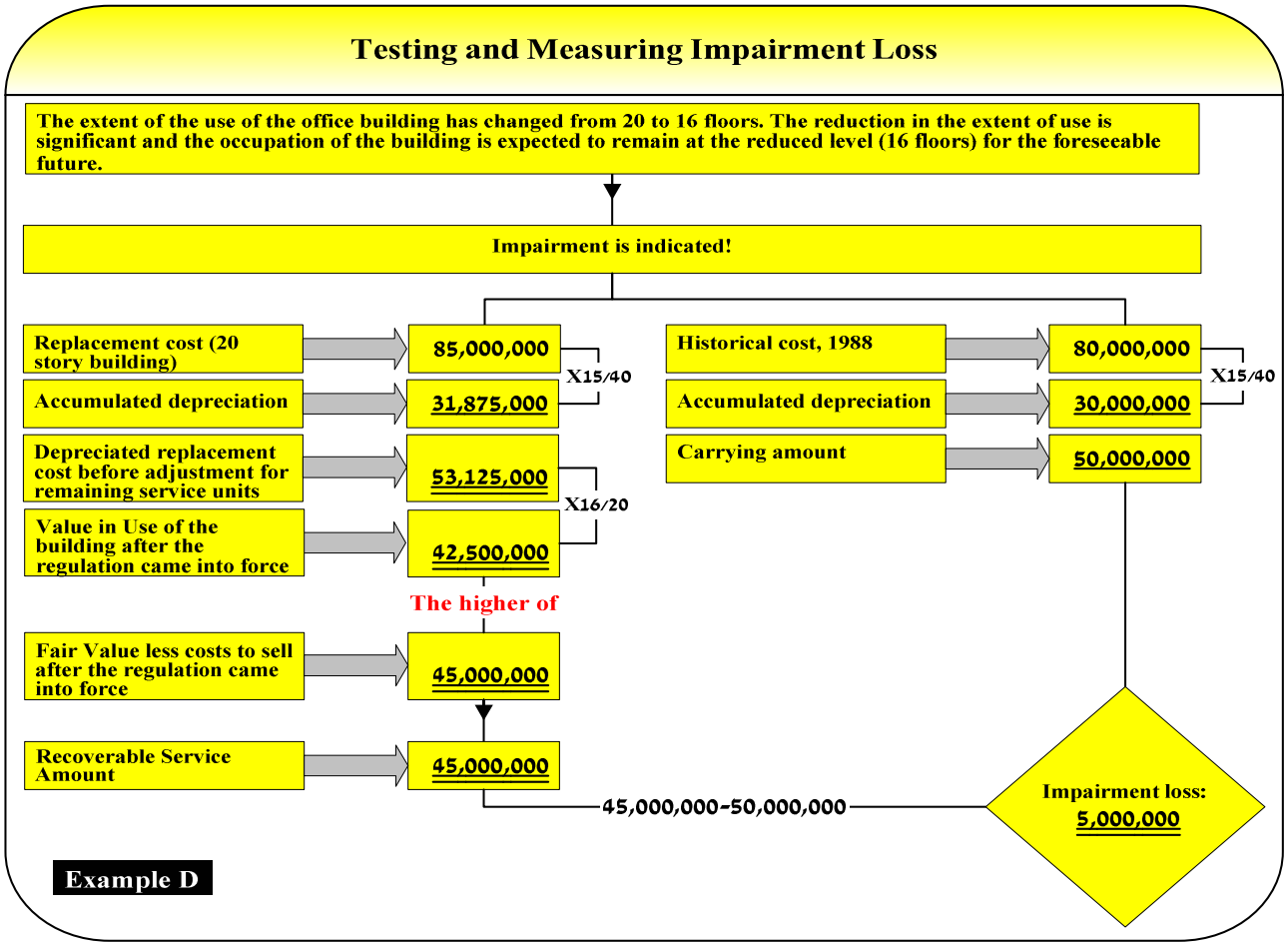
Example D: Significant Long-term Change with Adverse Effect in the Extent of Use - High rise building partially unoccupied

In 1988, Tel-Aviv Council constructed a 20 story office building for use by the Council in downtown Tel-Aviv 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 4 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 is presented in the diagram "Example D", below.



5.4 Application of Approaches

The selection of the most suitable approach is depended on the nature of the impairment and the availability of data:

(a) Impairments identified from significant long term changes in the technological, legal or government policy environment, or, alternatively, from significant long term changes in extant or manner of use, including that identified from the cessation or near cessation of demand, are generally measurable using a depreciated replacement cost approach or a service units approach, when appropriate.

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

6. A Remark Regarding Revalued Assets

The measurement of value in use of NCG asset in IPSAS 21 is based on the present value of the remaining service potential of the asset. This value is determined using one of three approaches: Depreciated replacement cost, Restoration cost, and Service unit approach.

Those exact three approaches were adopted within IPSAS 17, "Property, Plant and Equipment", for determining the fair value of assets within the public sector presented in revalued amounts under the allowed alternative treatment in IPSAS 17 and for which no active market exists. In addition, IPSAS 17 states that "Revaluations should be made with sufficient regularity such that the carrying amount does not differ materially from that which would be determined using fair value at reporting date". Taking into account those two requirements of IPSAS 17 leads us to the conclusion that following IPSAS's 17 requirements with regard to revalued assets will produce similar result as the appropriate application of IPSAS 21.

This conclusion is not compatible to the private sector since the determination of fair value of revalued assets in IAS 16, "Property, Plant and Equipment" is different from the determination of value in use in IAS 36, "Impairment of Assets". This is why a departure from the scope requirements of IAS 36 was needed carried in IPSAS 21.

7. Reversal of Impairment Loss

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.

Consistent with the omission of the following indication within the external sources of information, the IPSASB omitted the corresponding indication with regard to reversal of impairment loss: a decrease during the period of market interest rates or other market rates of return, and those decreases are likely to affect the discount rate used in calculating an asset's value in use and increase the asset's recoverable amount significantly (see discussion above).

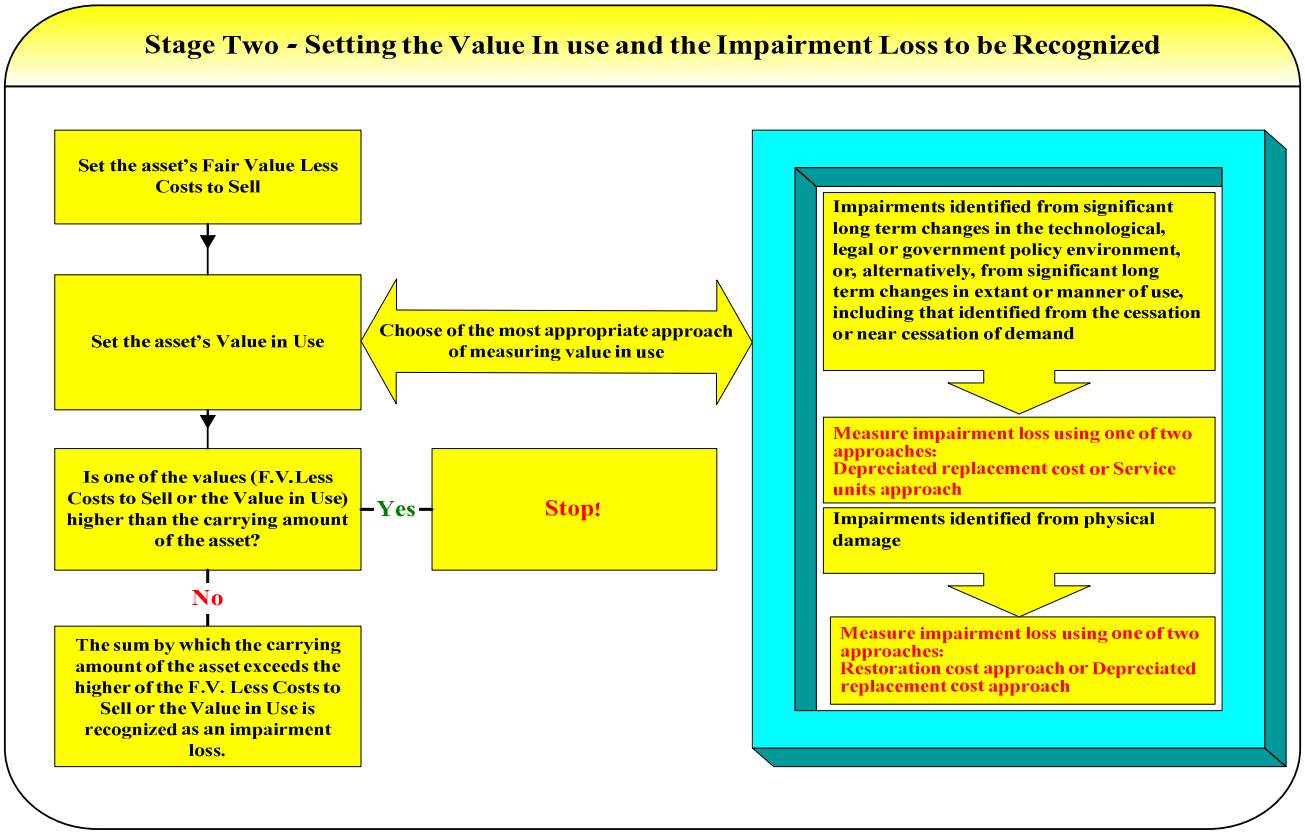
Additionally, we find the following new indications: Resurgence of the demand or need for services provided by the asset, and A decision to resume construction of the asset that was previously halted before it was completed or in a usable condition.

In conformity with IAS 36, the reversal of an impairment loss shall not cause the asset's value to exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset in prior periods.

8. Re-designation of Assets

The re-designation of assets from cash-generating assets to non-cash generating assets (or vice-versa) occurs only when there is clear evidence that such a re-designation is appropriate. A re-designation, by itself, does not form an indication that an impairment test should be carried. An impairment test or a reversal of an impairment loss arises, as a minimum, from the indications applicable to the asset after re-designation (as cash generating or non cash generating).

Following is a diagram describing the "Stage Two" of the IPSAS 21 requirements:



9. Conclusions

(a) Despite the fact that the title of IPSAS 21 is "Impairment of Non-Cash-Generating Assets", the perception of the underlying principals of public sector accounting starts with the understanding that the factor that is being tested for impairment is the service potential and not the asset itself.

(b) For those who feel uncomfortable with the fact that a "service generating unit" (equivalent to "cash generating unit" in IAS 36) was not included in IPSAS 21, we would like to remind that contrary to cash generating assets, for which a difficulty might arise in trying to attribute them a specific cash flow, for NCG assets the corresponding problem of attributing service potential to the individual asset dose not arise. On the contrary, the attribution of service potential to an asset is simpler.

(c) NCG assets are without a doubt estate of the public sector. Nevertheless, wouldn't the techniques to determine the value in use of NCG assets reviewed above provide some insight for a Non-for-Profit entity that determines impairment losses of its NCG assets under the requirements of IAS 36 based on discounting future cash flows?