



GOVERNMENT OF MALAYSIA

Federal Government Accrual Accounting Manual

IMPAIRMENT OF ASSETS

September 2021

ISSUED BY

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DOCUMENT VERSION CONTROL

All amendments made to this Federal Government Accrual Accounting Manual should be tracked. Relevant information such as the document version control reference number, dates of amendment and approval, and section(s) amended are to be recorded in the amendment schedule set out below:

Version No.	Effective Date	Approval	Details of Changes	
			Section Reference	Description of Changes
V3.0	7 Sept 2021	14.0 Impairment of Assets	Journal Entries – Accounting Code Changes: Scenario A.1 - Depreciated Replacement Cost Approach Changes: A.2 - Restoration Cost Approach Changes: A.3 Restoration Cost Approach Changes: A.4 - Impairment of an abandoned construction of a non-cash generating asset Changes: Scenario B - Impairment of cash generating asset Changes: Scenario C - Reversal of impairment loss	

14.0 IMPAIRMENT OF ASSETS

Introduction

14.1 This chapter covers the following matters:

- Basic principles of impairment
- Identifying assets that may be impaired
- Indicators of impairment
- Measuring and accounting for impairment
- Disclosures

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

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

14.4 Most assets held in the public sector are non-cash generating assets as the cash inflow from the economic benefit derived from holding the asset will never exceed the cash outflow from maintaining such an asset.

14.5 An asset may generate cash flows and also be used for non-cash generating purposes.

An example:

A public hospital has ten wards, one of which is used for fee paying patients on a commercial basis, and the rest 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 MPSAS 21 – Impairment of non-cash generating assets or MPSAS 26 – Impairment of cash-generating asset.

If, as in this example, the non-cash-generating component is a significant component of the arrangement as a whole, the entity applies MPSAS 21 – Impairment of non-cash-generating asset rather than MPSAS 26 – Impairment of cash-generating asset.

Basic principles of impairment

14.6 An asset is impaired when the carrying amount of the asset exceeds its recoverable service amount (for non-cash generating asset) or recoverable amount (for cash generating asset).

Identifying assets that may be impaired

14.7 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/recoverable amount of the asset.

14.0 IMPAIRMENT OF ASSETS (CONTINUED)**Indicators of impairment**Non-cash-generating assets

- 14.8 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

- (a) Evidence is available of physical damage of an asset;
- (b) 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;
- (c) A decision to halt the construction of the asset before it is complete or in a usable condition; and
- (d) Evidence is available from internal reporting that indicates that the service performance of an asset is, or will be, significantly worse than expected.

Cash-generating assets

- 14.9 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) An asset's market value has declined significantly more than would be expected as a result of the passage of time or normal use;
- (b) Significant 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, market, economic, or legal environment in which the entity operates, or in the market to which an asset is dedicated;
- (c) Market interest rates or other market rates of return on investments have increased during the period that are likely to affect the discount rate used in calculating an asset's value in use and decrease the asset's recoverable amount materially.

Internal sources of information

- (a) obsolescence or physical damage of an asset;
- (b) Significant 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 the manner in which, an asset is used or is expected to be used. It can include the asset becoming idle, plans to discontinue or restructure the operation to which an asset belongs, plans to dispose of an asset before the previously expected date, and reassessing the useful life of an asset as finite rather than indefinite;

14.0 IMPAIRMENT OF ASSETS (CONTINUED)

- (c) A decision to halt the construction of the asset before it is complete or in a usable condition; and
- (d) Economic performance of an asset is, or will be, worse than expected.

Measuring and accounting for impairment

- 14.10 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 (amortization). Impairment, therefore, reflects a decline in the utility of an asset to the entity that controls it.
- 14.11 If the recoverable service amount or recoverable amount of an asset is less than its carrying amount, the carrying amount of the asset shall be reduced to its recoverable service amount or recoverable amount. That reduction is an impairment loss.
- 14.12 The impairment loss shall be recognized as expense to surplus or deficit. 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 MPSAS so requires.
- 14.13 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.

Non cash generating asset

- 14.14 A non-cash-generating asset is impaired when the carrying amount of the asset exceeds its recoverable service amount. The recoverable service amount is the higher of an asset's fair value less costs to sell and its value in use.
- 14.15 The value in use of a non-cash-generating asset is the present value of the asset's remaining service potential.

There are 3 approaches to estimate the present value of the asset's remaining service potential for non-cash generating assets

- (a) Depreciated replacement cost approach – where an asset's present value is determined based on the cost to replace to assets gross service potential after taking into account its accumulated depreciation over consumed service potential asset life.
- (b) Restoration cost approach - 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.
- (c) Service units approach – where the asset's 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 to 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.

14.0 IMPAIRMENT OF ASSETS (CONTINUED)Cash generating asset

- 14.16 Similar to non-cash generating asset, an impairment loss of a cash-generating asset is the amount by which the carrying amount of an asset exceeds its recoverable amount.
- 14.17 Unlike non-cash generating asset, to estimate the recoverable amount, an entity will need to look into its cash flow projections to derive value in use. In measuring value in use, an entity shall:
- (a) Base cash flow projections on reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions that will exist over the remaining useful life of the asset.
 - (b) Base cash flow projections on the most recent financial budgets/forecasts approved by management, but shall exclude any estimated future cash inflows or outflows expected to arise from future restructurings or from improving or enhancing the asset's performance. Projections based on these budgets/forecasts shall cover a maximum period of five years, unless a longer period can be justified; and
 - (c) Estimate cash flow projections beyond the period covered by the most recent budgets/forecasts by extrapolating the projections based on the budgets/forecasts using a steady or declining growth rate for subsequent years, unless an increasing rate can be justified.
- 14.18 Estimates of future cash flows shall include:
- (a) Projections of cash inflows from the continuing use of the asset;
 - (b) Projections of cash outflows that are necessarily incurred to generate the cash inflows from continuing use of the asset (including cash outflows to prepare the asset for use) and can be directly attributed, or allocated on a reasonable and consistent basis, to the asset; and
 - (c) Net cash flows, if any, to be received (or paid) for the disposal of the asset at the end of its useful life.
- 14.19 Future cash flows shall be estimated for the asset in its current condition. Estimates of future cash flows shall not include estimated future cash inflows or outflows that are expected to arise from:
- (a) A future restructuring to which an entity is not yet committed; or
 - (b) Improving or enhancing the asset's performance.
- 14.20 Estimates of future cash flows shall not include:
- (a) Cash inflows or outflows from financing activities; or
 - (b) Income tax receipts or payments.

14.0 IMPAIRMENT OF ASSETS (CONTINUED)Reversal of impairment of loss

- 14.21 The increased carrying amount of an asset attributable to a reversal on an impairment loss shall not exceed the carrying amount that would have been determined (net of depreciation or amortization) had no impairment loss been recognized for the asset in prior periods.
- 14.22 A reversal of an impairment loss for an asset shall be recognized immediately in surplus or deficit.
- 14.23 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.

Disclosure Requirements

- 14.24 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.
 - (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.
- 14.25 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 MPSAS 18 – Segment reporting.
 - (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).
 - (g) If the recoverable service amount is value in use, the approach used to determine value in use.

References

- MPSAS 21 – Impairment of Non-Cash-Generating Asset
- MPSAS 26 – Impairment of Cash-Generating Asset
- Accounting Policy and Interpretation

14.0 IMPAIRMENT OF ASSETS (CONTINUED)

Scenario A - Impairment of non-cash generating asset

Scenario A.1 - Depreciated Replacement Cost Approach

In 1999, the entity purchased a software license for an application for its new mainframe computer for RM350,000. The entity 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 20X2, usage of the application had declined to 15 per cent of its originally anticipated demand. A license for a software application to replace the remaining service potential of the impaired software application costs RM70,000.

Journal entries

- 1) To record the impairment loss in year ended 20X2 of RM120,000

		(RM)
a.	Acquisition cost, 1999	350,000
	Accumulated depreciation, 20X2 (a ÷ 7 x 4)	200,000
b.	Carrying amount, 20X2	150,000
c.	Replacement cost	70,000
	Accumulated amortization (c ÷ 7 x 4)	40,000
d.	Recoverable Service Amount	30,000
	Impairment loss (b-d)	120,000

As illustrated above, the carrying amount of RM150,000 is greater than the recoverable service amount of RM30,000. Hence, impairment loss of RM120,000 would be recognized as expense and the corresponding entry is recognised as accumulated impairment loss.

	Amount (RM)	Accounting Code
DR Impairment loss expense	120,000	B483xxxx
CR Accumulated impairment loss	120,000	A483xxxx

Refer to Scenario C for reversal of impairment loss.

14.0 IMPAIRMENT OF ASSETS (CONTINUED)**Scenario A.2 - Restoration Cost Approach**

In 1998, the entity acquired a bus at the cost of RM200,000 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 20X2, the bus sustained damage in a road accident requiring RM40,000 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 RM250,000 in 20X2.

Journal entries

- 1) To record the impairment loss in year ended 20X2 of RM15,000.

		(RM)
a.	Acquisition cost, 1998	200,000
	Accumulated depreciation, 20X2 (a ÷ 10 x 5)	100,000
b.	Carrying amount, 20X2	100,000
c.	Replacement cost	250,000
	Accumulated depreciation (c ÷ 10 x 5)	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

As illustrated above, the carrying amount of RM100,000 is greater than the recoverable service amount of RM85,000. Hence, impairment loss of RM15,000 would be recognized as expense and the corresponding entry is recognised as accumulated impairment loss.

	Amount (RM)	Accounting Code
DR Impairment loss expense	15,000	B413xxxx
CR Accumulated impairment loss	15,000	A413xxxx

Refer to Scenario C for reversal of impairment loss.

14.0 IMPAIRMENT OF ASSETS (CONTINUED)**Scenario A.3 - Service Units Approach**

In 1998, the entity purchased a new printing machine at a cost of RM40 million. The entity 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 20X2, it was reported that an automated feature of the machine's function does not operate as expected resulting in a 25 per cent 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 RM45 million in 20X2.

Journal entries

- 1) To record the impairment loss in year ended 20X2 of RM3,125,000.

		(RM)
a.	Acquisition cost, 1998	40,000,000
	Accumulated depreciation (a ÷ 10 x 5)	20,000,000
b.	Carrying amount, 20X2	20,000,000
c.	Replacement cost	45,000,000
	Accumulated depreciation (c ÷ 10 x 5)	22,500,000
d.	Depreciated replacement cost before adjustment for remaining units	22,500,000
e.	Recoverable Service Amount (d x 75%)	16,875,000
	Impairment loss (b-e)	3,125,000

As illustrated above, the carrying amount of RM20,000,000 is greater than the recoverable service amount of RM 16,875,000. Hence, impairment loss of RM3,125,000 would be recognized as expense and the corresponding entry is recognised as accumulated impairment loss.

	Amount (RM)	Accounting Code
DR Impairment loss expense	3,125,000	B413xxxx
CR Accumulated impairment loss	3,125,000	A413xxxx

Refer to Scenario C for reversal of impairment loss.

14.0 IMPAIRMENT OF ASSETS (CONTINUED)

Scenario A.4 - Impairment of an abandoned construction of a non-cash generating asset

In January 20X8, the FGOM granted to Contractor A a contract to construct a hospital at an overall agreed cost of work amounting to RM200 million. Work commenced in March 20X8. The duration of construction was expected to be 2 years.

Up until January 20X0, a total of RM180 million was paid out to Contractor A based on periodic progress billing and certificate of progress completion. The building was 90% completed.

By this time, major disputes arose between the FGOM and Contractor A and as the disputes were unresolved, the Contractor activated the break clause and terminated his contract with FGOM.

The project was abandoned for approximately 2 years before a new Contractor B was assigned to complete the construction of the hospital. Contractor B estimates a further RM50 million to complete the construction. The estimated RM50 million includes RM20 million for restoration work and RM30 million to complete construction. Replacement cost of the building was estimated at RM210 million.

Journal entries

- 1) To record construction cost incurred until January 20X0

	Amount (RM)	Accounting Code
DR Asset under construction	180,000,000	A203xxxx
CR Bank	180,000,000	A011xxxx

- 2) To record impairment on asset under construction

Assessment was made on asset under construction to check for impairment indicators and consequently assess the recoverable service amount.

Impairment indicators assessed are:

- A decision to halt completion or in a usable condition; no impairment as there was intention to complete construction.
- Evidence available on physical damage; there was evidence of damage hence restoration was subsequently pursued.

Evaluation of impairment	(RM'000)
a) Acquisition cost at 20X0 (at 90%)/current value	180,000
b) Replacement cost (Fair value at 90% of RM210 million)*	189,000
Less: Restoration cost	(20,000)
c) Recoverable service amount	169,000
Impairment loss (a – c)	11,000

* The replacement cost of a 90% completed building approximates to RM189 million.

	Amount (RM)	Accounting Code
DR Impairment loss expense	11,000,000	B573xxxx
CR Accumulated impairment loss	11,000,000	A573xxxx

14.0 IMPAIRMENT OF ASSETS (CONTINUED)**Journal entries**

3) To record restoration expense incurred in 20X2

During 20X2, Contractor B restored building to its original state and completed construction on the remaining building structure.

a) The RM20 million is added to asset under construction in year 20X2

	Amount (RM)	Accounting Code
DR Asset under construction	20,000,000	A203xxxx
CR Bank (Contractor B)	20,000,000	A011xxxx

b) To record the remaining RM30 million incurred to bring asset to its current service potential

	Amount (RM)	Accounting Code
DR Asset under construction	30,000,000	A203xxxx
CR Bank (Contractor B)	30,000,000	A011xxxx

Upon full completion and certificate of completion obtained, the asset can be transferred from asset under construction to property plant and equipment (building).

Subsequently, the asset was revalued at a higher replacement cost of RM240 million. The asset's current recoverable amount at present is RM219 million (RM180 million + RM50 million – less impairment of RM11 million). The asset can now be increased to its recoverable service amount.

The entire impairment loss provided for under journal entry 2 is now reversed.

	Amount (RM)	Accounting Code
DR Accumulated impairment loss	11,000,000	A573xxxx
CR Impairment loss expense	11,000,000	B573xxxx

The increased carrying amount of the asset attributable to a reversal of an impairment loss shall not exceed the carrying amount that would have been determined had no impairment loss been recognised in prior period.

14.0 IMPAIRMENT OF ASSETS (CONTINUED)**Scenario B - Impairment of cash generating asset**

At the beginning of 20X0, an entity puts into service a power plant that it constructed at the cost of RM250 million. At the beginning of 20X3, power plants constructed by competitors are put into service, resulting in a reduction in the revenue produced by the entity. Reduction in revenue was due to lower than expected volume of electricity generated and lower than expected electricity price and stand-by capacities. The reduction in revenue is evidence that the economic performance of the asset is worse than expected.

The following are the details of the power plant:

Cost	RM250,000,000
Useful life	20 years
Residual value	0
Depreciation method	Straight line

Consequently, the entity is required to determine the asset's recoverable amount. Since it is not possible to determine the fair value less costs to sell of the power plant, recoverability can only be determined through the calculation of value in use.

In order to determine the value in use of the power plant, the entity is required to:

- (a) Prepares pre-tax cash flow forecasts derived from the most recent financial budgets/forecasts for the next five years (year 20X4 – 20X8) approved by management;
- (b) Estimates subsequent pre-tax cash flows (years 20Y0 – 20Y9) based on declining growth rates ranging from -6 per cent per annum to -3 per cent per annum; and
- (c) Select a 6 per cent discount rate which represents a rate that reflects current market assessments of the time value of money and the risks specific to the entity's power plant.

14.0 IMPAIRMENT OF ASSETS (CONTINUED)**Journal entries**

1) To record the impairment of loss in year ended 20X3 amounting to RM78.9 million.

		(RM)
a.	Acquisition cost	250,000,000
	Accumulated depreciation (a ÷ 20 x 4)	(50,000,000)
b.	Carrying amount	200,000,000
c.	Recoverable amount (value in use)	121,100,000
d.	Impairment loss (b – c)	78,900,000

As illustrated above, the carrying amount of RM200 million exceeds the recoverable amount of RM121.1 million (value in use) by RM78.9 million (RM200 million – RM121.1 million).

The determination of the value in use of the power plant at the end of the 20X3 is as illustrated in Table A.1 – Calculation of The Value in Use of The Entity's Power Plant.

Hence, the impairment loss of RM78.9 million is recognised as expense and the corresponding entry is recognised as accumulated impairment loss.

	Amount (RM)	Accounting Code
DR Impairment loss expense	78,900,000	B413xxxx
CR Accumulated impairment loss	78,900,000	A413xxxx

Refer to Scenario C for reversal of impairment loss.

Table A.1 – Calculation of the Value in Use of The Entity's Power Plant at the end of 20X3:

Year	Long-term growth rates	Future (pre-tax) cash flows (RM'm)	Present value factor at 6% discount rate ^β	Discounted future (pre-tax) cash flow (RM'm)
20X4		16.8*	0.94340	15.8
20X5		14.4*	0.89000	12.8
20X6		14.2*	0.83962	11.9
20X7		14.1*	0.79209	11.2
20X8		13.9*	0.74726	10.4
20Y0	(6%)	13.1 [±]	0.70496	9.2
20Y1	(6%)	12.3 [±]	0.66506	8.2
20Y2	(6%)	11.6 [±]	0.62741	7.3
20Y3	(5%)	11.0 [±]	0.59190	6.5
20Y4	(5%)	10.5 [±]	0.55839	5.9
20Y5	(5%)	10.0 [±]	0.52679	5.3
20Y6	(4%)	9.6 [±]	0.49697	4.8
20Y7	(4%)	9.2 [±]	0.46884	4.3
20Y8	(3%)	8.9 [±]	0.44230	3.9
20Y9	(3%)	8.6 [±]	0.41727	3.6
				121.1

Value in use

* Based on management's best estimate of net pre-tax cash flow projections.

± Based on an extrapolation from preceding year cash flow using declining growth rates.

β The present value factor is calculated as $k = 1/1 (1+a)^n$, where a = discount rate and n = period discount.

As stated in MPSAS 26 – Impairment of cash generating assets, discount rate is a pre-tax rate that reflects current market assessment of:

(a) The time value of money represented by the current risk-rate rate of interests; and

(b) The risks specific to the asset for which the future pre-tax cash flow estimates have not been adjusted.

14.0 IMPAIRMENT OF ASSETS (CONTINUED)**Scenario C - Reversal of impairment loss**

Following on from Scenario A.1 where an impairment loss of RM120,000 was recognised due to usage of a software application decreased to below its originally anticipated demand. This impairment loss was subsequently reversed as usage of the software application rebounded, where the value in value/recoverable service amount is now greater than the carrying amount.

Journal entries

1) To record the reversal of impairment loss

When there are signs of reversal of impairment loss, the accumulated impairment loss account is debited and the impairment loss account is credited.

The same journal entry applies when recognition and reversal of write down straddles over two financial years.

	Amount (RM)	Accounting Code
DR Accumulated impairment loss	120,000	A483xxxx
CR Impairment loss expense	120,000	B483xxxx

Note: The same journal entry is applicable for similar reversal of impairment loss scenarios for both cash generating and non-cash generating assets regardless whether the depreciated replacement cost approach, restoration cost approach, service units approach, CGU approach or the value in use approach are adopted.

