# THEORETICAL AND PRACTICAL ASPECTS OF IMPAIRMENT OF NON-CASH-GENERATING ASSETS IN THE PUBLIC SECTOR ENTITIES, ACCORDING TO THE INTERNATIONAL PUBLIC SECTOR ACCOUNTING STANDARD (IPSAS) 21

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#### Abstract

International Accounting Standards pay a special attention to the asset measurement issues, The assent held by the public sector entities bring an economic benefit, or are used in the free delivery of services. The assets which carry the service potential, do not generate the cash flows, but generate a material basis for implementation of main functions of the public organizations. The issues related to impairment of the cash-generating and non-cash-generating assets are discussed in IPSAS 21 and IPSAS 26. Actuality of the issue is conditioned by circumstance that in case of impairment of the non-cash-generating assets, the methods of measurement of value of their use differ from measurement of the value of use of those assets, which bring an economic benefit.

The Article considers the issues of determination of impairment of the non-cash-generation assets and recognition of the losses caused by such impairment in the public sector entities, according to the International Accounting Standards.

Objective. A purpose of the Article is determine to analyze the theoretical aspects of determination and recognition of the losses caused by impairment of the non-cash-generating assets and, to reflect the same in the financial reporting according to IPSAS 21 - "Impairment of Non-Cash-Generating Assets".

**Key words:** *Impairment; Non-cash-generation assets; Recoverable cost of use; Cost of use; Depreciation amount; Restoration cost Approach; Service units method.* 

**JEL Classification**: *M 41* 

## I. Introduction

The fixed assets included in the balance of a public sector entity, is an integral part of the stet-owned property. Their accounting and reflection in the financial statements according to requirements of the international standards, ensures formation of exact, full, and transparent information regarding the resources of the state, which, in its part, contributes to efficient use of these resources. One of the principles of the accounting, which regulates the assets and liabilities, is the Principle of conservatism. According to this Principle, increase of the assets should be recognized when it is a dully identified phenomenon, while its reduction should be recognized when it is a possible phenomenon.

The topics such as: Methods of Measurement of Elements of the Financial Reporting (Kvatashidze N., 2009), Regulation of Impairment of the Assets of Enterprises (Maisuradeze M., 2013), Peculiarities of Accounting of Impairment of the Fixed Assets (Sreseli N., 2014), Issues for Discussions on Measurement of Impairment of the Long-term Assets of Enterprise (Chiladze I., 2016), Main Aspects of Measurement of the Fair Value of Nonfinancial Assets (Maisuradze M. and Vardiashvili M), Accounting the Impairment of the Noncash-Generating Assets in Budgetary Organizations (Tkachenko L.I., 2015), Impairment of Noncash-Generating Assets in Public Sector Organizations, Business Management (Georgieva D., 2016), Accounting policies and practices applicable for the impairment of assets that generate income other than cash flows (Marinela – Daniela MANEA, 2016) and other issues related to assets measurement, are discussed in the scientific papers listed in the Bibliography.

Measurement of the asset should reflect the economic benefit to be gained from the asset in future. A part of the assets of the public sector entities in future, which carries the service potential, is classified as the non-cash-generating assets. Such the assets are not targeted at a commercial activity, correspondingly, they do not participate in receiving the cash flow. The fact of hold of the non-cash-generating assets does not create a profitability, it serves for another purposes.

The public sector entities are required to measure the asset's impairment regardless whether they generate cash flows or not. Actuality of the issue is conditioned by circumstance that in case of impairment of the non-cash-generating assets, the methods of measurement of value of their use differ from measurement of the value of use of those assets, which generate the cash flow.

The issues related to impairment of the non-cash-generating assets are discussed in IPSAS 21 - "Impairment of Non-Cash-Generating Assets".

I. Non-cash-Generating Assets

The public sector entities perform their main function through services which are rendered to the society free-of-charge. Therefore, the public sector entities are less involves s in the economic activity. However, there exist various circumstances when they use a par of their assets mainly for gaining profit by commercial activity. Correspondingly, the asets held by the public sector entities, bring the economic benefit, or are the carriers of the service potential. Receiving the economic benefit by the assets, is possible in two cases:

Through implementing the economic activity; or

Through selling these assets.

Part of the assets through which gaining the economic benefit is not envisaged, are the ones which carry the service potential. They do not generate cash flows, but, they create material basis for implementation of the main functions of State-owned organizations (Vardiashvili M., 2014).

In this view, the assets are divided into two groups, by their purpose in the operational activity:

Cash-generating Assets; and

Non-cash-Generating Assets.

Despite the circumstance that a part of the assets does not generate a cash, with their value in the financial statements must be reflected fairly. They must be measured as at the date of submitting the financial statement with taking into account a real situation, i.e. a balance value of the asset should not differ considerably from its fair value. Fair value is a measurement which is fully based on the market data. To say simply, this is a price the sellers might receive, not a price they wish to receive by sale of the asset (Maisurdze M., Vardiashvili M. 2016).

To reflect the assets with their fair value and, for envisaging any impairment in the course of their measurement, the Standard requires that the public sector entities must perform the impairment test of the non-cash-generating assets in each reporting period.

The above requirement is not spread over the assets which are re-assessed on a regular basis according to the procedure of permissible alternative accounting and reporting, as set forth in ISPAS 17.

Sometimes, it is really difficult to define, to which group this or that specific fixed asset belongs: cash-generating or non-cash-generating.

In some cases the asset may generate the cash even if the main purpose of its hold is to render services to the society.

For example, certain educational institution provides services to both paid and free groups, in one and the same building. in such a situation, the entity should, independently but with taking into account the Standard's requirements, develop the criteria through which it becomes possible to separate cash-generating and non-cash-generating assets. This will enable the entity to determine, which standard shall apply – IPSAS 21 or IPSAS 26.

#### II. Possibly Impaired Asset Identification

According to the impairment concept, an asset is deemed impaired if the entity cannot derive its value through its use or sale.

Impairment starts when its future usefulness is reducing The impaired asset cannot any more give the service potential to the entity for the latter achieve its goals. Such impaired asset can bring only a small benefit or no benefit at all.

For understanding the sense of impairment, it is necessary to look through the explanations provided in both private and public sectors accounting standards. According to IPSAS 21, "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" (IPSAS 21, 2017).

According to IAS 36, "An asset is impaired when its carrying amount exceeds its recoverable amount (IAS 36, 2013).

Thus, the essence of impairment of non-cash-generating assets corresponds fully to a general model of impairment of assets.

The Standard establishes inner and outer indicators which demonstrate impairment of the non-cash-generating assets. Of these indicators, the following may be singled out:

- A complete or almost complete termination of demand or need in the services provided by the asset;
- Expected long-term changes in the technological, legal, or political environment, which will have a negative impact on an entity;
  - Evidence of a physical damage to the asset;
  - A decision to halt the construction of the asset before it is complete or in a usable condition; and
- Evidence is available from internal reporting that indicates that the service performance of an asset is, or will be, significantly worse than expected (IPSAS 21, 2017).

The entity shall, in each reporting period reveal existence of the similar signs based on the internal and external sources, in order to assess whether impairment takes place. The entity shall asses changes of the service potential with the long-term prospects. For example, it may happen if a purpose of use of the school building is changed – transformed into the warehouse facility is changed. This underlines once again that the changes are to be considered by view of possible long-term use of the asset.

The impairment of an asset is also determined by reduction of its erm or productivity or its useful service, which is based on the information provided in the internal report that the cost of maintaining the highest production level of the asset is higher than it was envisaged under the original budget.

The same standard also requires an annual inspection of intangible assets for impairment, which cannot be used for goodwill and unlimited useful service.

### III. MEASURING RECOVERABLE SERVICE AMOUNT

When the asset impairment signs become obvious, the entity must identify the impairment loss and reflect the same in the financial reports.

The non-cash-generating assets impairment takes place when the balance value of the asset exceeds its recoverable service amount, i.e. (thus), for identifying the impairment loss, the recoverable (reimbursable) service amount of the asset should be measured, first of all.

The recoverable service amount is the highest amount between the fair value and the value in use, reduced by costs of sale of the non-cash-generating assets.

But, it is not always necessary to identify both these values, because, if one of them exceeds the balance value of a given asset, this asset shall not be deemed impaired, so, there is no necessity to measure the second value.

In order to define a recoverable service amount, the value in use of the asset should be defined at first.

"The value in use of the asset is an economic benefit a company expects to gain through continuous use of the assets by their functions (Sreseli N., 2014).

The value in use of the non-cash-generating assets is determined by ;present discounted value of the asset's remainder service potential.

Of the methods recognized for measuring the non-cash-generating assets, the Standard deals with three methods:

- 1. Depreciated Replacement Cost Approach;
- 2. Restoration Cost Approach;
- 3. Service Units Approach.

According to the Depreciated Replacement Cost Approach, the present discounted value of the asset's remainder service potential is determined as the depreciated cost of substitution or reproduction of the asset.

The above approach implies that an entity will substitute the remainder service potential of the asset in case only, if the asset will no more have such the potential. The asset may be substituted either through its reproduction (as a specialized property) or by substitution of its whole service potential . For identifying the already used or remainder service potential of the asset, the amortization is accrued on the value of the Asset's substitution or reproduction.

Thus, as per the Depreciated Replacement Cost Approach, the value in use of the asset is determined by value of substitution or reproduction of the asset and, such the value is then corrected by the accumulated depreciation.

According to the Restoration Cost Approach, the value in use f the asset is determined by subtracting the restoration cost of the asset from the current cost of replacing the remaining service potential of the asset.

For example, a bus is damaged as a result of a road incident. Th cost of its restoration makes 50 000 USD. The bus was purchased 6 years ago for 40 000 USD. Its useful service term is 10 years. In this example, impairment of the bus is obvious. Let's now determine its value in use by the Restoration Cost Approach.

Table №1. Calculation of the value in use by the Restoration Cost Approach

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Name	Amount	
Costs of Purchase	400 000	
Accumulated depreciation 400 000/10 * 6	240 000	
Balance value	160 000	
Cost of substitution	450 000	
Accumulated depreciation (450 000 /10 * 6)	270 000	
Depreciated cost of substitution		
( in a non-damaged state)	180 000	
3. Cost of restoration makes	50 000	
Value in use	130 000	

According to the Service Unit Approach, the value in use of the asset is determined by reducing depreciated cost of substitution or cost of reproduction of the asset, to conform with the reduced number of service units expected from the asset in its impaired state.

Example. IN 2000 the City Hall purchase 20-storey office building for 800 000 USD. Useful service life of the building was determined as 40 years. In 2015 a new normative regulation was enacted, according to which the upper 4 floors of the building should had to be vacated. In 2015 the fair value of the building was 450 000 USD while the present cost of substitution thereof is 850 000 USD.

Impairment of the building is clear, since a scope of use of the office building is reduced by 4 floors (only 16 floors of 20 are used).

In order to ensure conformity of the depreciated cost of substitution of the building with the reduced service value (16 floors) the value in use should be calculated with taking into account the normative regulation (see Table 2, Point 3).

In the present case, the restoration cost of the asset is 450 000 USD, i.e. the highest between the net selling price of the asset (450 000 USD) and the value in use (425 000 USD) (see Table 2, Point 3).

Table №2 Measurement of Impairment by Service Units Approach

Name	Amount
Costs of Purchase	800 000
Accumulated depreciation in 2015 - 80 000 /40*15	300 000
Balance Value	500 000
Cost of substitution (20-storey building)	850 000
Accumulated depreciation 850 000 /40*15	318 750
Depreciated cost of substitution	531 250
Value in use of the building after enactment of the normative	425 000
regulations (531250 /20 *16)	
Fair value reduced by the selling cists, after enactment of the	450 000
normative regulations	
Restoration cost of the asset- The highest between P.3 and P.4	450 000
Impairment loss	50 000

"The methods applied for measurement of the fair value should ensure a maximal use of the empiric initial data and should be minimally relied upon the non-empiric initial information (Maisuradze M., Vardiashvili M. 2016).

To determionere the value in use, the entities should select the above mentioned approaches with taking into consideration existing circumstances According to the Standard, use of the Depreciated Replacement Cost Approach and the Service Units Approach are recommended when impairment is caused by changes in technological, legal, or political environment and/or as a result of considerable long-term changes in the quality or methods of use of the assets.

### IV. MEASUREMENT AND RECOGNITION OF THE IMPAIRMENT LOSS

The loss caused by impairment of assets should be recognized when the balance value of the asset exceeds its recoverable service amount. In such a case, the balance value of the asset should be reduced to its recoverable service cost. A difference between the balance value and the recoverable cost will be recognized in surplus of deficit

Example. In 2010, the conference hall of the higher educational institution was equipped by the apparatuses for simultaneous translation. The initial value of the equipment was 900 000 USD. Term of the useful service life of this asset was determine as 10 years. In 2016 the equipment became partly damaged, the value of its rehabilitation was determined in amount of 100 000 USD. Repair works could not affect the term of use thereof. Value of the new analogical equipment is 1 000 000 USD minus the selling costs amounted to 240 000 USD.

The fact of damage of the equipment confirms it impairment, therefore, the impairment loss is to be defined.

As far as the asset is impaired as a result of a physical damage, the recoverable cost method is advisable to use for determining the value in use.

Table №3 Measurement of the Impairment Loss

No	Name of Indicator	Amount
1.	Initial value in 2010	900 000
2.	Accumulated depreciation in 2016 (900 000/ 10 *6)	540 000
3.	Balance value in 2016 (P 1- P 2)	360 000
4.	Cost of replacement	1 000 000
5.	Accumulated depreciation in 2016 (1 000 000/ 10 * 6)	600 000
6.	Accumulated depreciation of replacement (P 4- P 5)	400 000
7.	Recoverable costs	100 000
8.	Value in use of the asset (P 6- P 7)	300 000
9.	Fair value minus selling costs	240 000
10.	Recoverable cost of service (P8>P9)	300 000
11.	Impairment loss (P 3 > P 10)	60 000

As the Table shows, the assets were impaired by 60 000 USD, that should be reflected in the reporting as follows:

**Table №4. Reflect the Asset Impairment in the Accounting Records** 

	Account Name	Amount
Debit	Deficit	60 000
Credit	Asset	60 000

A situation may arise where a measured impairment loss exceeds the balance value of the asset. "If the measured impairment loss exceeds the balance value of the asset, hen the balance value should be reduced to zero, while a relevant amount should be recognized in surplus or deficit (IPSAS 21, 2017) In such a case an entity should reflect its liability.

According to IPSAS 21 Points 55 and 56, a liability should be recognized in cases only if any other standard requires to do so.

Such a typical case is, if in terms of non-use of the equipment, the entity is to disassembly it (IPSAS 19, 2017). According to IPSAS 19 - Provisions, Contingent Liabilities and Contingent Assets, the entity may face to the need of formation of a reserve fund for the disassembly -related expenditures

Example. A balance value of the non-cash-generating asset is 200 000 USD while its recoverable cost is 90 000 USD. According to IPSAS 19, the entity is obliged to form the reserve fund.

Table №5. Reflection of the Asset Impairment in the Accounting Records

	Account name	Amount
Debit	Deficit	290 000
Credit	Asset	200 000
Credit	Reserve	90 000

Following the recognition of impairment, the original balance value of the asset is changed, which in itself implies adjustment of accrued depreciation. Depreciation amount should be adjusted in future periods. Amortization does not require retrospective calculation.

The public sector entity must verify the asset's impairment for each reporting year. If the need on service be carried out by the asset for the next reporting period is reported, the entity should restore the impaired value of such the asset

According to IPSAS 21 pp.72-79, the public sector entity should disclose the following information in the financial reporting, regarding impairment of the non-cash-generating assets:

Criteria for grouping the non-cash-generating assets in this or that group;

Amount of the impairment loss and restoration of the impairment loss for each class of the assets recognized in deficit or surplus;

The events and circumstances that led to the recognition or reversal of the impairment loss

Nature of the Asset;

The segment to which the asset belongs, if the entity reports segment information in accordance with IPSAS 18;

Whether the recoverable service amount of the asset is its fair value less costs to sell or its value in use.

#### V. CONCLUSION

We may conclude that the method discussed in the IPSAS 21 – Impairment of Non-cash-Generating Assets – for determining impairment and the impairment loss, provides an opportunity of including the assets in the financial statements with their fair value. It corresponds to the general model of assets impairment, however, it envisages a specificity of the public sector and, assesses a reduction of future useful service of the assets not by receivable cash flows but by their service potential. It determines the value in use as a discounted cost of the remainder service potential.

As a result of such approach, the method of measurement of the value in use of the non-cash-generating assets according to IPSAS 21, differs from the methods of measurement of the value in use of the of the non-cash-generating assets provided by IAS 36.

Opinions of specialists regarding to the above indicated methods of determination of the assets impairment differ from each other and, it is assumed that this method is not always best one, since "measurement of the impairment loss of the assets may be considerably unrealistic and unreliable" (Chiladze i./ 2016).

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