

IPSAS 12—INVENTORIES

Acknowledgment

This International Public Sector Accounting Standard is drawn primarily from International Accounting Standard (IAS) 2 (revised 1993), “Inventories” published by the International Accounting Standards Committee (IASC). The International Accounting Standards Board (IASB) and the International Accounting Standards Committee Foundation (IASCF) were established in 2001 to replace the IASC. The International Accounting Standards (IASs) issued by IASC remain in force until they are amended or withdrawn by IASB. Extracts from IAS 2 are reproduced in this publication of the Public Sector Committee of the International Federation of Accountants with the permission of IASB.

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The standards, which have been set in bold type, should be read in the context of the commentary paragraphs in this Standard, which are in plain type, and in the context of the “Preface to International Public Sector Accounting Standards.” International Public Sector Accounting Standards are not intended to apply to immaterial items.

Objective

The objective of this Standard is to prescribe the accounting treatment for inventories under the historical cost system. A primary issue in accounting for inventories is the amount of cost to be recognized as an asset and carried forward until the related revenues are recognized. This Standard provides practical guidance on the determination of cost and its subsequent recognition as an expense, including any write-down to net realizable value. It also provides guidance on the cost formulas that are used to assign costs to inventories.

Scope

1. **An entity which prepares and presents financial statements under the accrual basis of accounting should apply this Standard in the context of the historical cost system in accounting for inventories other than:**
 - (a) **Work in progress arising under construction contracts, including directly related service contracts (see International Public Sector Accounting Standard (IPSAS) 11, “Construction Contracts”);**
 - (b) **Financial instruments;**
 - (c) **Producers’ inventories of livestock, agricultural and forest products, and mineral ores to the extent that they are measured at net realizable value in accordance with well established practices in certain industries; and**
 - (d) **Work in progress of services to be provided for no or nominal consideration directly in return from the recipients.**
2. **This Standard applies to all public sector entities other than Government Business Enterprises.**
3. Government Business Enterprises (GBEs) are required to comply with International Accounting Standards (IASs) issued by the International Accounting Standards Committee. The Public Sector Committee’s Guideline No. 1, “Financial Reporting by Government Business Enterprises” notes that IASs are relevant to all business enterprises, regardless of whether they are in the private or public sector. Accordingly, Guideline No. 1, recommends that GBEs should present financial statements that conform, in all material respects, to IASs.

4. The inventories referred to in paragraph 1(c) may be measured at net realizable value at certain stages of production. This occurs, for example, when agricultural crops have been harvested or mineral ores have been extracted and sale is assured under a forward contract or a government guarantee, or when a homogenous market exists and there is a negligible risk of failure to sell. These inventories are excluded from the scope of this Standard.
5. The inventories referred to in paragraph 1(d) are not encompassed by IAS 2, "Inventories" and are excluded from the scope of this Standard because they involve specific public sector issues that require further consideration.

Definitions

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

Current replacement cost is the cost the entity would incur to acquire the asset on the reporting date.

Inventories are assets:

- (a) **In the form of materials or supplies to be consumed in the production process;**
- (b) **In the form of materials or supplies to be consumed or distributed in the rendering of services;**
- (c) **Held for sale or distribution in the ordinary course of operations; or**
- (d) **In the process of production for sale or distribution.**

Net realizable value is the estimated selling price in the ordinary course of operations less the estimated costs of completion and the estimated costs necessary to make the sale, exchange or distribution.

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

Inventories

7. Inventories encompass goods purchased and held for resale including, for example, merchandise purchased by an entity and held for resale, or land and other property held for sale. Inventories also encompass finished goods produced, or work in progress being produced, by the entity. Inventories

also include materials and supplies awaiting use in the production process and goods purchased or produced by an entity, which are for distribution to other parties for no charge or for a nominal charge; for example, educational books produced by a health authority for donation to schools. In many public sector entities inventories will relate to the provision of services rather than goods purchased and held for resale or goods manufactured for sale. In the case of a service provider, inventories include the costs of the service, as described in paragraph 23, for which the entity has not yet recognized the related revenue (guidance on recognition of revenue can be found in IPSAS 9, “Revenue from Exchange Transactions”).

8. Inventories in the public sector may include:
 - (a) Ammunition;
 - (b) Consumable stores;
 - (c) Maintenance materials;
 - (d) Spare parts for plant and equipment other than those dealt with in Standards on Property, Plant And Equipment;
 - (e) Strategic stockpiles (for example, energy reserves);
 - (f) Stocks of unissued currency;
 - (g) Postal service supplies held for sale (for example, stamps);
 - (h) Work in progress, including:
 - (i) Educational/training course materials; and
 - (ii) Client services (for example, auditing services) where those services are sold at arm’s length prices; and
 - (i) Land/property held for sale.
9. Where the government controls the rights to create and issue various assets, including postal stamps and currency, these items of inventory are recognized as inventories for the purposes of this Standard. They are not reported at face value, but measured in accordance with paragraph 11, that is at their printing or minting cost.
10. When a government maintains strategic stockpiles of various reserves, such as energy reserves (for example, oil), for use in emergency or other situations (for example, natural disasters or other civil defense emergencies), these stockpiles are recognized as inventories for the purposes of this Standard and treated accordingly.

Measurement of Inventories

11. **Inventories should be measured at the lower of cost and net realizable value, except where paragraph 12 applies.**
12. **Inventories should be measured at the lower of cost and current replacement cost where they are held for:**
 - (a) **Distribution at no charge or for a nominal charge; or**
 - (b) **Consumption in the production process of goods to be distributed at no charge or for a nominal charge.**

Cost of Inventories

13. **The cost of inventories should comprise all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.**

Costs of Purchase

14. The costs of purchase of inventories comprise the purchase price, import duties and other taxes (other than those subsequently recoverable by the entity from the taxing authorities), and transport, handling and other costs directly attributable to the acquisition of finished goods, materials and supplies. Trade discounts, rebates and other similar items are deducted in determining the costs of purchase.
15. The costs of purchase may include foreign exchange differences which arise directly on the recent acquisition of inventories invoiced in a foreign currency in the circumstances permitted in the allowed alternative treatment in IPSAS 4, "The Effects of Changes in Foreign Exchange Rates." These exchange differences are limited to those resulting from a severe devaluation or depreciation of a currency against which there is no practical means of hedging and that affects liabilities which cannot be settled and which arise on the recent acquisition of the inventories.

Costs of Conversion

16. The costs of converting work-in-progress inventories into finished goods inventories are incurred primarily in a manufacturing environment. The costs of conversion of inventories include costs directly related to the units of production, such as direct labor. They also include a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods. Fixed production overheads are those indirect costs of production that remain relatively constant regardless of the volume of production, such as depreciation and maintenance of factory buildings and equipment, and the cost of factory management and administration. Variable production overheads are those indirect costs of

production that vary directly, or nearly directly, with the volume of production, such as indirect materials and indirect labor.

17. The allocation of fixed production overheads to the costs of conversion is based on the normal capacity of the production facilities. Normal capacity is the production expected to be achieved on average over a number of periods or seasons under normal circumstances, taking into account the loss of capacity resulting from planned maintenance. The actual level of production may be used if it approximates normal capacity. The amount of fixed overhead allocated to each unit of production is not increased as a consequence of low production or idle plant. Unallocated overheads are recognized as an expense in the period in which they are incurred. In periods of abnormally high production, the amount of fixed overhead allocated to each unit of production is decreased so that inventories are not measured above cost. Variable production overheads are allocated to each unit of production on the basis of the actual use of the production facilities.
18. For example, the allocation of costs, both fixed and variable, incurred in the development of undeveloped land held for sale into residential or commercial landholdings, could include costs relating to landscaping, drainage, pipe laying for utility connection, etc.
19. A production process may result in more than one product being produced simultaneously. This is the case, for example, when joint products are produced or when there is a main product and a by-product. When the costs of conversion of each product are not separately identifiable, they are allocated between the products on a rational and consistent basis. The allocation may be based, for example, on the relative sales value of each product either at the stage in the production process when the products become separately identifiable, or at the completion of production. Most by-products, by their nature, are immaterial. When this is the case, they are often measured at net realizable value and this value is deducted from the cost of the main product. As a result, the carrying amount of the main product is not materially different from its cost.

Other Costs

20. Other costs are included in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition. For example, it may be appropriate to include non-production overheads or the costs of designing products for specific customers in the cost of inventories.
21. Examples of costs excluded from the cost of inventories and recognized as expenses in the period in which they are incurred are:

- (a) Abnormal amounts of wasted materials, labor, or other production costs;
 - (b) Storage costs, unless those costs are necessary in the production process prior to a further production stage;
 - (c) Administrative overheads that do not contribute to bringing inventories to their present location and condition; and
 - (d) Selling costs.
22. In limited circumstances, borrowing costs are included in the cost of inventories. These circumstances are identified in the allowed alternative treatment in IPSAS 5, "Borrowing Costs."

Cost of Inventories of a Service Provider

23. The cost of inventories of a service provider consists primarily of the labor and other costs of personnel directly engaged in providing the service, including supervisory personnel, and attributable overheads. The costs of labor not engaged in providing the service are not included. Labor and other costs relating to sales and general administrative personnel are not included but are recognized as expenses in the period in which they are incurred.

Techniques for the Measurement of Cost

24. Techniques for the measurement of the cost of inventories, such as the standard cost method or the retail method, may be used for convenience if the results approximate cost. Standard costs take into account normal levels of materials and supplies, labor, efficiency and capacity utilization. They are regularly reviewed and, if necessary, revised in the light of current conditions.

Cost Formulas

25. **The cost of inventories of items that are not ordinarily interchangeable and goods or services produced and segregated for specific projects should be assigned by using specific identification of their individual costs.**
26. Specific identification of costs means that specific costs are attributed to identified items of inventory. This is an appropriate treatment for items that are segregated for a specific project. However, specific identification of costs is inappropriate when there are large numbers of items of inventory which are ordinarily interchangeable. In such circumstances, the method of selecting those items that remain in inventories could be used to obtain predetermined effects on the net surplus or deficit for the period.

27. **When applying paragraph 28 an entity should use the same cost formula for all inventories having similar nature and use to the entity. For inventories with different nature or use (for example, certain commodities used in one segment and the same type of commodities used in another segment), different cost formulas may be justified. A difference in geographical location of inventories (and in the respective tax rules), by itself, is not sufficient to justify the use of different cost formulas.**
28. **The cost of inventories, other than those dealt with in paragraph 25, should be assigned by using the first-in, first-out (FIFO) or weighted average cost formulas.**
29. The FIFO formula assumes that the items of inventory which were purchased first are sold first, and consequently the items remaining in inventory at the end of the period are those most recently purchased or produced. Under the weighted average cost formula, the cost of each item is determined from the weighted average of the cost of similar items at the beginning of a period and the cost of similar items purchased or produced during the period. The average may be calculated on a periodic basis, or as each additional shipment is received, depending upon the circumstances of the entity.

Net Realizable Value

30. The cost of inventories may not be recoverable if those inventories are damaged, if they have become wholly or partially obsolete, or if their selling prices have declined. The cost of inventories may also not be recoverable if the estimated costs of completion or the estimated costs to be incurred to make the sale, exchange or distribution have increased. The practice of writing inventories down below cost to net realizable value is consistent with the view that assets should not be carried in excess of the future economic benefits or service potential expected to be realized from their sale, exchange, distribution or use.
31. Inventories are usually written down to net realizable value on an item by item basis. In some circumstances, however, it may be appropriate to group similar or related items. This may be the case with items of inventory that have similar purposes or end uses and cannot practicably be evaluated separately from other items in that product line. It is not appropriate to write-down inventories based on a classification of inventory, for example, finished goods, or all the inventories in a particular operation or geographical segment. Service providers generally accumulate costs in respect of each service for which a separate selling price may be charged. Therefore, each such service is treated as a separate item.

32. Estimates of net realizable value are based on the most reliable evidence available at the time the estimates are made as to the amount the inventories are expected to realize. These estimates take into consideration fluctuations of price or cost directly relating to events occurring after the end of the period to the extent that such events confirm conditions existing at the end of the period.
33. Estimates of net realizable value also take into consideration the purpose for which the inventory is held. For example, the net realizable value of the quantity of inventory held to satisfy firm sales or service contracts is based on the contract price. If the sales contracts are for less than the inventory quantities held, the net realizable value of the excess is based on general selling prices. Guidance on the treatment of provisions or contingent liabilities, such as those arising from firm sales contracts in excess of inventory quantities held, and on firm purchase contracts can be found in IAS 37, "Provisions, Contingent Liabilities and Contingent Assets."
34. Materials and other supplies held for use in the production of inventories are not written down below cost if the finished products in which they will be incorporated are expected to be sold, exchanged or distributed at or above cost. However, when a decline in the price of materials indicates that the cost of the finished products will exceed net realizable value, the materials are written down to net realizable value. In such circumstances, the replacement cost of the materials may be the best available measure of their net realizable value.
35. A new assessment is made of net realizable value in each subsequent period. When the circumstances which previously caused inventories to be written down below cost no longer exist, the amount of the write-down is reversed so that the new carrying amount is the lower of the cost and the revised net realizable value. This occurs, for example, when an item of inventory, which is carried at net realizable value because its selling price has declined, is still on hand in a subsequent period and its selling price has increased.

Distributing Goods at No Charge or for a Nominal Charge

36. A public sector entity may hold inventories whose future economic benefits or service potential are not directly related to their ability to generate net cash inflows. These types of inventories may arise when a government has determined to distribute certain goods at no charge or for a nominal amount. In these cases, the future economic benefits or service potential of the inventory for financial reporting purposes is reflected by the amount the entity would need to pay to acquire the economic benefits or service potential if this was necessary to achieve the objectives of the entity. Where

the economic benefits or service potential cannot be acquired in the market, an estimate of replacement cost will need to be made. If the purpose for which the inventory is held changes, then the inventory is valued using the provisions of paragraph 11.

Recognition as an Expense

37. **When inventories are sold, exchanged or distributed the carrying amount of those inventories should be recognized as an expense in the period in which the related revenue is recognized. If there is no related revenue, the expense is recognized when the goods are distributed or related service is rendered. The amount of any write-down of inventories and all losses of inventories should be recognized as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories should be recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs.**
38. The process of recognizing as an expense the carrying amount of inventories sold, exchanged or distributed results in the matching of costs and revenues. For a service provider, the point when inventories are recognized as expenses normally occurs when services are rendered, or upon billing for chargeable services.
39. Some inventories may be allocated to other asset accounts, for example, inventory used as a component of self-constructed property, plant or equipment. Inventories allocated to another asset in this way are recognized as an expense during the useful life of that asset.

Disclosure

40. **The financial statements should disclose:**
- (a) **The accounting policies adopted in measuring inventories, including the cost formula used;**
 - (b) **The total carrying amount of inventories and the carrying amount in classifications appropriate to the entity;**
 - (c) **The amount of any reversal of any write-down that is recognized in the statement of financial performance in the period in accordance with paragraph 37;**
 - (d) **The circumstances or events that led to the reversal of a write-down of inventories in accordance with paragraph 37; and**
 - (e) **The carrying amount of inventories pledged as security for liabilities.**

41. Information about the carrying amounts held in different classifications of inventories and the extent of the changes in these assets is useful to financial statement users. Common classifications of inventories are merchandise, production supplies, materials, work in progress and finished goods. The inventories of a service provider may simply be described as work in progress.
42. **The financial statements should disclose either:**
- (a) **The cost of inventories recognized as an expense during the period; or**
 - (b) **The operating costs applicable to revenues, recognized as an expense during the period, classified by their nature.**
43. The cost of inventories recognized as an expense during the period consists of those costs previously included in the measurement of the items of inventory sold, exchanged or distributed, and unallocated production overheads and abnormal amounts of production costs of inventories. The circumstances of the entity may also warrant the inclusion of other costs, such as distribution costs.
44. Some entities adopt a different format for the statement of financial performance, which results in different amounts being disclosed instead of the cost of inventories recognized as an expense during the period. Under this different format, an entity discloses the amounts of operating costs applicable to revenues for the period, classified by their nature. In this case, the entity discloses the costs recognized as an expense for raw materials and consumables, labor costs and other operating costs together with the amount of the net change in inventories for the period.
45. A write-down to net realizable value may be of such size, incidence or nature to require disclosure under IPSAS 3, "Net Surplus or Deficit for the Period, Fundamental Errors and Changes in Accounting Policies."

Effective Date

46. **This International Public Sector Accounting Standard becomes effective for annual financial statements covering periods beginning on or after July 1, 2002. Earlier application is encouraged.**
47. When an entity adopts the accrual basis of accounting, as defined by International Public Sector Accounting Standards, 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.

Comparison with IAS 2

International Public Sector Accounting Standard (IPSAS) 12, “Inventories” is drawn primarily from International Accounting Standard (IAS) 2 (revised 1993), “Inventories.” The main differences between IPSAS 12 and IAS 2 are as follows:

- At the time of issuing this Standard, the Public Sector Committee has not considered the applicability of IAS 41, “Agriculture,” to public sector entities, therefore IPSAS 12 does not reflect amendments made to IAS 2 consequent upon the issuing of IAS 41.
- IPSAS 12 uses a different definition from IAS 2, the difference recognizes that in the public sector some inventories are distributed at no charge or for a nominal charge.
- IPSAS 12 clarifies that work-in-progress of services which are to be distributed for no or nominal consideration directly in return from the recipients are excluded from the scope of the Standard.
- A definition of “current replacement cost,” which is additional to the definitions in IAS 2, has been included in IPSAS 12.
- IPSAS 12 requires that where inventories are provided at no charge or for a nominal charge, they are to be valued at the lower of cost and current replacement cost.
- IPSAS 12 does not allow the cost of inventories to be assigned using the last-in, first-out (LIFO) formula.
- Commentary additional to that in IAS 2 has been included in IPSAS 12 to clarify the applicability of the standards to accounting by public sector entities.
- IPSAS 12 uses different terminology, in certain instances, from IAS 2. The most significant examples are the use of the terms “entity,” “revenue” and “statement of financial performance” in IPSAS 12. The equivalent terms in IAS 2 are “enterprise,” “income” and “income statement.”