1.0 Introduction

1.1 Public sector assets are those assets owned and/or controlled by governmental or quasi-governmental entities to provide goods or services to the general public. The principles that apply to the valuation of public sector assets are essentially the same as for any other assets.

1.2 The valuation of public sector assets may be undertaken for a range of purposes including financial reporting, privatisation planning, loan origination, bond issuance, and cost-benefit or economic analyses performed by governments and quasi-government entities either to determine whether a public sector asset is being used and managed efficiently or to set pricing for monopoly services.

1.3 The International Federation of Accountants’ International Public Sector Accounting Standards Board (IPSASB) develops accounting standards for public sector entities, referred to as International Public Sector Accounting Standards (IPSASs). IPSASs, which apply to accrual accounting, are based on the International Financial Reporting Standards (IFRSs), issued by the International Accounting Standards Board (IASB). IPSASs cover public sector specific financial reporting issues, some of which are not addressed by IFRSs.

1.4 IVA 1 generally addresses the application of valuation bases to accounting principles in the context of IFRSs. Because of parallels between IPSASs and IFRSs, this Application necessarily repeats some of the content of IVA 1 while also addressing the specific requirements for the valuation of public sector assets and their treatment in financial reporting.

1.5 Property in the public sector comprises conventional cash-generating and non-cash-generating property assets as well as specialised property assets, including heritage and conservation assets, infrastructure assets, public buildings, public utility plants, and recreational assets. As with private sector assets, public sector assets fall into operational and non-operational categories. Non-operational assets include investment and surplus assets.

2.0 Scope

2.1 This Application applies to all valuations of public sector asset classes, included in any financial statement, which fall within the skills and expertise of Valuers (with the exception of valuations of Government Business Enterprises or GBEs that are performed according to IVA 1).

2.2 IVSs facilitate cross-border transactions and the viability of global markets through harmonisation and transparency in financial reporting. As such, this Application is developed in the context of International Public Sector Accounting Standards (IPSASs). In September 2005, the IPSAS Board issued an Exposure Draft of eleven IPSASs that had been updated to converge with the amended International Accounting Standards issued by IASB in December 2003 as part of its General Improvements Project. This Application is developed in the context of the proposed revisions to IPSASs contained within this Exposure Draft.

2.3 IPSASs and IFRSs adopt two models for the recognition of property assets in the balance sheet: a cost model, and a fair value model. Where the fair value model is applied, a current revaluation of the asset is required, and this Application focuses on these particular circumstances where Market Values are to be reported.

2.4 Legislative, regulatory, accounting, or jurisprudence requirements may require the modification of this Application in some countries or under certain conditions. Any departure due to such circumstances must be referred to and clearly explained in the Valuation Report.

3.0 Definitions

International Valuation Standards Definitions

3.1 Depreciated Replacement Cost. The current cost of replacing an asset with its modern equivalent asset
less deductions for physical deterioration and all relevant forms of obsolescence and optimisation.

3.2 Market Value. The estimated amount for which a property should exchange on the date of valuation between a willing buyer and willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without compulsion (IVS 1, para. 3.1).

3.3 Obsolescence. A loss in value due to a decrease in the usefulness of property caused by decay, changes in technology, people's behavioural patterns and tastes, or environmental changes. Obsolescence is sometimes classified according to items of outmoded design and functionality, items with structural design unable to meet current code requirements, and factors arising outside the asset, such as changes in user demand.

3.4 Optimisation. The process by which a least cost replacement option is determined for the remaining service potential of an asset. It is a process of adjusting the replacement cost to reflect that an asset may be technically obsolete or over-engineered, or the asset may have a greater capacity than that required. Hence optimisation minimises, rather than maximises, a resulting valuation where alternative lower cost replacement options are available.

3.5 Public building. A building that serves some community or social function and is held in public ownership. Examples include courthouses, municipal centres, schools, prisons, police stations, military facilities, libraries, hospitals, clinics, and social or public housing.

3.6 Public sector asset. An asset, owned and/or controlled by a governmental or quasi-governmental entity, for the provision of some public service or good. Public sector assets comprise different asset types, including conventional assets as well as heritage and conservation assets, infrastructure assets, public utility plants, recreational assets, and public buildings (e.g., military facilities), each category of which constitutes property, plant and equipment within the meaning of IPSASs and IFRSs. Public sector assets typically include:
   a) assets, which have atypical tenure, are irreplaceable, are non-cash-generating, or provide goods or services in the absence of any market competition;
   b) land with restrictions on its sale or leasing; and
   c) land, which is designated for a specialised use that is not necessarily its highest and best use.

See also Heritage assets, Infrastructure assets, Public building, Public utility, and Recreational assets.

3.7 Public utility. A property that:
   a) produces a service or good for general public consumption; and
   b) is usually a monopoly or quasi-monopoly provider subject to some form of governmental control.

3.8 Recreational assets. Properties held in public ownership that:
   a) are managed by or on behalf of national, municipal, or local governmental authorities; and
   b) provide for recreational use by the general public.

Examples include parks; playgrounds; greenbelts; walks and trails; swimming pools; playing courts, fields and courses; and other properties equipped with recreational and athletic facilities.

3.9 Service potential. The capacity of an asset to continue to provide goods and services in accordance with the entity's objectives.

3.10 Value of improvements. The value added to the land by improvements such as buildings, structures or modifications to the land, of a permanent nature, involving expenditures of labour and capital, and intended to enhance the value or utility of the property. Improvements have differing patterns of use and economic lives.

International Public Sector Accounting Standards Definitions

3.11 Cash Generating Assets. Assets held to generate a commercial return. (IPSAS 21.14)

3.12 Depreciable Amount. The cost of an asset, or other amount substituted for cost, less its residual value (IPSAS 17.13).

3.13 Depreciation. The systematic allocation of the depreciable amount of an asset over its useful life (IPSAS 17.13, IPSAS 21.14).

3.14 Government business enterprise (GBE). An entity that has all of the following characteristics:
   a) is an entity with the power to contract in its own name;
   b) has been assigned the financial and operational authority to carry on a business;
c) sells goods and services, in the normal course of its business, to other entities at a profit or full cost recovery;

d) is not reliant on continuing government funding to be a going concern (other than purchases of outputs at arm’s length); and

e) is controlled by a public service entity. (IPSAS 21.14)

3.15 **Heritage assets.** Assets having some cultural, environmental or historical significance. Heritage assets may include historical buildings and monuments, archaeological sites, conservation areas and nature reserves, and works of art. Heritage assets often display the following characteristics (although these characteristics are not necessarily limited to heritage assets):

a) their economic benefit in cultural, environmental, educational and historic terms is unlikely to be fully reflected in a financial value based purely on market price;

b) legal and/or statutory obligations may impose prohibitions or severe restrictions on disposal by sale;

c) they are often irreplaceable and their economic benefit may increase over time even if their physical condition deteriorates; and

d) it may be difficult to estimate their useful lives, which in some cases could be hundreds of years.

The above definition is consistent with the description of heritage assets in IPSAS 17.9

3.16 **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 (IPSAS 21.14).

3.17 **Infrastructure assets.** Assets that usually display some or all of the following general characteristics:

a) they are part of a system or network;

b) they are specialised in nature and do not have alternative uses;

c) they are immovable; and

d) they may be subject to constraints on disposal.

The above definition is consistent with the description of infrastructure assets in IPSAS 17.21

3.18 **Non-cash-generating assets.** Assets other than cash-generating assets (IPSAS 21.14).

3.19 **Recoverable service amount.** The higher of a non-cash-generating asset’s fair value less costs to sell and its value in use (IPSAS 21.14).

3.20 **Useful life (of property, plant and equipment).** Either

a) the period over which an asset is expected to be available for use by an entity; or

b) the number of production or similar units expected to be obtained from the asset by an entity. (IPSAS 17.13, IPSAS 21.14)

3.21 **Value in use of a non-cash-generating asset.** The present value of the asset’s remaining service potential. (IPSAS 21.14)

4.0 **Relationship To Accounting Standards**

4.1 This Application applies the principles developed in IVS 1, IVS 2, IVS 3 and IVA 1 to the requirements of IPSASs.

4.2 This Application focuses on valuation requirements under IPSAS 17 (Exposure Draft, September 2005), Property, Plant and Equipment; and IPSAS 21, Impairment of Non-Cash-Generating Assets. Further requirements may become mandatory, pending publication of revised IPSAS 17.

5.0 **Application**

To perform valuations that comply with this Application and Generally Accepted Valuation Principles (GAVP), it is essential that Valuers adhere to all sections of the IVS Code of Conduct pertaining to Ethics, Competence, Disclosure, and Reporting (sections 4, 5, 6, and 7)

5.1 **Classification of Assets.** Valuers shall obtain from the directors of the owning entity a list of assets to be valued, designating them as operational assets, i.e., assets requisite to the operations of the entity, or non-operational assets, being properties held for future development, investment, or assets surplus to the operations of the entity.

5.2 **Applicable Standards.** The classification of assets determines which IPSAS applies. IPSAS 17, paras. 26 and 27, requires non-current property, plant and equipment assets held for the production or supply of goods or services to be measured upon recognition at
cost, or where an item is acquired through a non-exchange transaction, its cost shall be measured at its fair value at the date of acquisition. IPSAS 17, para. 42 requires that after recognition, such assets be carried in accordance with either the cost model or revaluation (fair value) model described in 5.3. Other accounting standards that require or permit the valuation of tangible assets include:

- Leases – IPSAS 13
- Investment Property – IPSAS 16
- Impairment of Non-Cash Generating Assets – IPSAS 21

5.3 IPSAS 17, Cost and Fair Value

5.3.1 IPSAS 17 deals with the cost model in paragraph 43 as follows:

“After recognition as an asset, an item of property, plant and equipment shall be carried at its cost less any accumulated depreciation and any accumulated impairment losses.”

5.3.2 The fair value model, which requires regular revaluations, is explained in paragraph 44 as follows:

“After recognition as an asset, an item of property, plant and equipment whose fair value can be measured reliably shall be carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the reporting date.”

5.3.3 Fair value is not necessarily synonymous with Market Value. It is used throughout IPSASs in differing contexts.

5.3.4 Financial statements are produced on the assumption that the entity is a going concern unless management either intends to liquidate the entity or cease operation, or has no realistic alternative but to do so. This assumption therefore underlies the application of fair value to property plant and equipment, except in cases where it is clear that there is either an intention to dispose of a particular asset or that option of disposal has to be considered, e.g. when undertaking an impairment review.

5.4 Valuations under IPSAS 17

Where an entity adopts the fair value revaluation option under IPSAS 17, the assets are included in the balance sheet at their fair value as follows:

a) “The fair value of items of property is usually determined from market-based evidence by appraisal. The fair value of items of plant and equipment is usually their market value determined by appraisal” (IPSAS 17, para. 45).

b) “If no market evidence is available to determine the market value in an active and liquid market of an item of property, the fair value of the item may be established by reference to other items with similar characteristics, in similar circumstances and location…” (IPSAS 17, para. 47).

c) “If there is no market-based evidence of fair value because of the specialized nature of the item of plant and equipment, an entity may need to estimate fair value using … depreciated replacement cost, or the restoration cost or service units approaches…” (IPSAS 17, para. 48). (See paras. 6.5, 6.6 and 6.7 below.)

5.4.1 IVSC considers that a professional Valuer undertaking an appraisal under 5.4 (a) to (c) above should report the Market Value of the asset. Any assumptions or qualifications made in applying Market Value should be discussed with the entity and disclosed in the report.

Where a reliable assessment of Market Value is not possible, the Valuer must disclose the basis for this conclusion to the reporting entity.

5.4.2 The valuation conclusion shall be reported in accordance with IVS 3, Valuation Reporting. Valuers shall ensure that reports include sufficient information for the entity to meet the requirements of IPSAS 17, para. 92, when preparing financial statements:

a) the effective date of the revaluation;

b) whether an Independent Valuer was involved (Note, IVSC interprets this as an External Valuer);
5.3.5

5.5 Valuations under IPSAS 16 - Investment Property

All public sector investment property is valued in accordance with IVA 1.

5.6 Valuation Requirements for Leased Assets – IPSAS 13

5.6.1 Leased assets are classified under IPSAS 13 as either finance leases or operating leases. (For further explanation, see IVA 1, para. 6.6.1 and Addendum A.) If a lease is classified as a finance lease, the fair value of the asset is required to establish the amount of the asset and liability recorded by the entity on its balance sheet (IPSAS 13, para 20).

5.6.2 For leases of land and buildings special rules apply. (See IVA 1, para. 6.6.3.) For all property, other than investment property, land and buildings have to be considered separately for classification as either a finance lease or an operating lease.

5.6.3 IVSC considers that in each case the requirement to establish the fair value of the leased asset under IPSAS 13, para. 28, is met by the Valuer reporting the Market Value. For leases of real estate, this is the Market Value of the lease interest held by the lessee. For leases of other assets, it is normally the Market Value of the asset unencumbered by the lease, as the liability is recorded separately.

5.7 Valuation of Impaired Non-Cash Generating Assets – IPSAS 21

5.7.1 Impairment arises where there is a permanent decrease in the recoverable service amount of an asset below its carrying amount. IPSAS 21, para. 48, requires that if, and only if, the recoverable service amount of an asset is less than its carrying amount, the carrying amount of the asset shall be reduced to its recoverable service amount. That reduction is an impairment loss. IPSAS 21, para. 51, further states that when the amount estimated for an impairment loss is greater than the carrying amount of the asset to which it relates, an entity shall recognise a liability if, and only if, that is required by another IPSAS.

5.7.2 The entity is required to write down the carrying amount of impaired cash-generating assets to the higher of their value in use or fair value less costs to sell. The requirements for cash-generating assets are discussed further in IVA 1, para. 6.8.2.

5.8 Valuations after Business Combinations

5.8.1 Where a governmental or quasi-governmental entity acquires or is merged with another, the acquirer has to account for the assets and liabilities of the acquiree at their fair value as of the acquisition date. For identifiable assets and liabilities, IVSC considers that the Valuer should report their Market Value as they existed at the date of acquisition.

5.9 Surplus Assets

5.9.1 Surplus assets are to be separately identified. Such assets may be accounted for individually or as a “disposal group”, i.e., a group of assets to be disposed of together, by sale or otherwise, and the liabilities directly associated with those assets that will also be transferred in the transaction. Surplus assets are to be initially accounted for at the lower of the carrying amount and the fair value less costs to sell, and subsequently at fair value less cost to sell. Valuers should therefore ascertain whether surplus assets are to be valued as individual items, or as a group or portfolio of assets that will be disposed of in a single transaction, and report the Market Value with the appropriate assumptions.

5.10 Properties Held for Sale in the Ordinary Course of Business – IPSAS 12 Inventories

5.10.1 Valuations of properties held for sale in the ordinary course of business should comply with the requirements of IPSAS 12, Inventories. These properties are measured at the lower of cost and net realisable value. Net realisable 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.
5.11 Selling Costs

5.11.1 When instructed to value impaired or surplus assets, or assets that are held for sale in the ordinary course of business, the Valuer must report their Market Value without deducting selling costs. If the client requests the Valuer to advise on the costs to sell the assets, such costs are to be reported separately.

5.12 Non-Agricultural Biological Assets

5.12.1 These include naturally occurring flora and fauna. The Valuer should value these assets in accordance with the guidance in GN 10.

5.13 Co-operation with Auditors. Subject to first obtaining the consent of their client, Valuers shall discuss and explain their valuations openly with the entity’s auditors.

6.0 Discussion

IPSAS 17 and 21 provide the following clarification, which is useful in understanding the correct application for public sector accounting.

6.1 Absence of Market Evidence - IPSAS 17

“For some public sector assets, it may be difficult to establish their market value because of the absence of market transactions for these assets. Some public sector entities may have significant holdings of these assets”. (IPSAS 17, para. 46)

6.1.1 “If no market evidence is available to determine the market value in an active and liquid market of an item of property, the fair value of the item may be established by reference to other items with similar characteristics, in similar circumstances and location. For example, the fair value of vacant government land that has been held for a long period during which time there have been few transactions may be estimated by reference to the market value of land with similar features and topography in a similar location for which market evidence is available. In the case of specialized buildings and other man-made structures, fair value may be estimated by using depreciated replacement cost, or the restoration cost or service units approach (see IPSAS 21). In many cases, the depreciated replacement cost of an asset can be established by reference to the buying price of a similar asset with similar remaining service potential in an active and liquid market. In some cases, an asset’s reproduction cost will be the best indicator of its replacement cost. For example, in the event of loss, a parliament building may be reproduced rather than replaced with alternative accommodation because of its significance to the community”. (IPSAS 17, para. 47)

6.1.2 “If there is no market-based evidence of fair value because of the specialized nature of the item of plant and equipment, an entity may need to estimate fair value using depreciated replacement cost, or the restoration cost or service units approaches (see IPSAS 21). The depreciated replacement cost of an item of plant or equipment may be established by reference to the market buying price of components used to produce the assets or indexed price for the same or similar asset based on a price for a previous period. When an indexed price method is used, judgement is required to determine whether technology has changed significantly over the period, and whether the capacity of the reference asset is the same as the asset being valued”. (IPSAS 17, para. 48)

6.2 Government Business Enterprises (GBEs) – IPSAS 21

“GBEs include both trading enterprises, such as utilities, and financial enterprises, such as financial institutions. GBEs are, in substance, no different from entities conducting similar activities in the private sector. GBEs generally operate to make a profit, although some may have limited community service obligations under which they are required to provide some individuals and organizations in the community with goods and services at either no charge or a significantly reduced charge”. (IPSAS 21, para. 15)

6.3 Cash-Generating Assets – IPSAS 21

“Cash-generating assets are those that are held to generate a commercial return. An asset generates a commercial return when it is deployed in a manner consistent with that adopted by a profit-oriented entity. Holding an asset to generate a ‘commercial return’ indicates that an entity intends to generate positive cash inflows from the asset (or of the unit of which the asset is a part) and earn a return that reflects the risk involved in holding the asset”. (IPSAS 21, para. 16)

“Assets held by GBEs are cash-generating assets. Public sector entities other than GBEs may hold assets to generate a commercial return. For the purposes of this Standard [IPSAS 21], an asset held by a non-GBE public sector entity is classified as a cash-generating asset if the asset (or unit of which the asset is a part) is operated with the objective
of generating a commercial return through the provision of goods and or services to external parties”. (IPSAS 21, para. 17)

6.4 \textbf{Value in Use – IPSAS 21}

“The value in use of a non-cash-generating asset is the present value of the asset’s remaining service potential. ‘Value in use’ in this Standard [IPSAS 21] refers to ‘value in use of a non-cash-generating asset’ unless otherwise specified. The present value of the remaining service potential of the asset is determined using any one of the approaches identified in paragraphs 41 to 45, as appropriate”. (IPSAS 21, para. 40)

6.5 \textbf{Depreciated Replacement Cost Approach – IPSAS 21}

“Under this approach, the present value of the remaining service potential of an asset is determined as the depreciated replacement cost of the asset. The replacement cost of an asset is the cost to replace the asset’s gross service potential. This cost is depreciated to reflect the asset in its used condition. An asset may be replaced either through reproduction (replication) of the existing asset or through replacement of its gross service potential. The depreciated replacement cost is measured as the reproduction or replacement cost of the asset, whichever is lower, less accumulated depreciation calculated on the basis of such cost, to reflect the already consumed or expired service potential of the asset”. (IPSAS 21, para. 41)

“The replacement cost and reproduction cost of an asset are determined on an ‘optimized’ basis. The rationale is that the entity would not replace or reproduce the asset with a like asset if the asset to be replaced or reproduced is an overdesigned or overcapacity asset. Overdesigned assets contain features which are unnecessary for the goods or services the asset provides. Overcapacity assets are assets that have a greater capacity than is necessary to meet the demand for goods or services the asset provides. The determination of the replacement cost or reproduction cost of an asset on an optimized basis thus reflects the service potential required of the asset”. (IPSAS 21, para. 42)

“In certain cases, standby or surplus capacity is held for safety or other reasons. This arises from the need to ensure that adequate service capacity is available in the particular circumstances of the entity. For example, the fire department needs to have fire engines on standby to deliver services in emergencies. Such surplus or standby capacity is part of the required service potential of the asset”. (IPSAS 21, para. 43)

6.6 \textbf{Restoration Cost Approach – IPSAS 21}

“Restoration cost is the cost of restoring the service potential of an asset to its pre-impaired level. Under this approach, the present value of the remaining service potential of the asset is determined by subtracting the estimated restoration cost of the asset from the current cost of replacing the remaining service potential of the asset before impairment. The latter cost is usually determined as the depreciated reproduction or replacement cost of the asset whichever is lower”. (IPSAS 21, para. 44)

6.7 \textbf{Service Units Approach – IPSAS 21}

“Under this approach, the present value of the remaining service potential of the asset is determined by reducing the current cost of the remaining service potential of the asset before impairment to conform with the reduced number of service units expected from the asset in its impaired state. As in the restoration cost approach, the current cost of replacing the remaining service potential of the asset before impairment is usually determined as the depreciated reproduction or replacement cost of the asset before impairment, whichever is lower”. (IPSAS 21, para. 45)

6.8 \textbf{Other Considerations}

6.8.1 \textbf{Heritage Assets}. “Some heritage assets have service potential other than their heritage value, for example, an historic building being used for office accommodation. In these cases, they may be recognized and measured on the same basis as other items of property plant and equipment. For other heritage assets, their service potential is limited to their heritage characteristics, for example, monuments and ruins. The existence of alternative service potential can affect the choice of measurement base”. (IPSAS 17, para. 10)

6.8.2 \textbf{Non-Agricultural Biological Assets}. Naturally occurring flora and fauna include special conservation assets, which may or may not be protected. Some are so significant that they have international recognition while others may reflect the environment in its natural state.

6.8.3 \textbf{Absence of Free Cash Flows to Monopolies}. Some public sector entities can be classed as monopolies. While monopoly service providers often generate
cash flows, these cash flows cannot be considered reflective of market levels since there is no market evidence against which to check the characteristic circularity of cash flow, yield, and value. Thus, a critical feature that differentiates certain classes of public sector assets from private sector assets is the absence of “free” cash flows to such public sector entities. In some cases it may be appropriate to use the cost approach either as the primary valuation method or as a cross check to establish that the rate of return being earned from the assets being valued is reasonable. This application does not apply to government business enterprises (GBEs), which are valued according to IVA 1.

6.8.4 Test of Adequate Service Potential. As non-cash generating assets have no free cash flows to test the adequate profitability of a public sector asset, the concept of service potential becomes the test of an asset’s performance. Service Potential is a measure of the suitability of the asset to continue meeting the objectives of the entity. This suitability may be assessed by reference to financial, social or political considerations. The measurement may be tangible, for example the number of visitors to a museum or users of a public library, or intangible, e.g. the social benefits of maintaining an otherwise uneconomic facility in a particular location.

Where a non-cash-generating asset is measured by reference to depreciated replacement cost, it is subject to the test of adequate service potential in order to determine whether the asset is impaired. (Also see GN 8, para. 5.11.)

6.8.5 Frequency of Revaluations. “Revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the reporting date….“ (IPSAS 17, para. 44)

In volatile markets the entity may be required to revalue annually whereas in more stable markets revaluations may be required every three to five years.

7.0 Disclosure

7.1 The Valuer shall make all disclosures required under IVS 3, Valuation Reporting.

7.2 For disclosures required under International Public Sector Accounting Standards (IPSASs), see paragraph 5.4.2 above.

7.3 The Valuer shall disclose the regulatory framework, and any departure required from these Standards to comply with local legislation, regulation (including accounting rules), or custom.

7.4 When no reliable measurement is possible, disclosure must be made to the reporting entity. (See para. 5.4.1 above)

8.0 Departure

8.1 In following this Application any departures must be in accordance with directions given in IVS 3, Valuation Reporting.

9.0 Effective Date

9.1 This International Valuation Application became effective 31 July 2007.