Fixed Assets Valuation Methodology

Local Government Capacity Building Project (LGCBP)
1 INTRODUCTION

In the following section a comprehensive design for Fixed Asset Valuation Methodology is presented. This methodology, once adopted by the Ministry of Local Government (MOLG), would be used by all LGUs to initially assign a value or revalue existing and future fixed assets, as part of the transition from cash to a modified accrual basis of accounting.

The methodology is consistent with generally accepted accounting principles (GAAP), which applies to all types of fixed assets (including water, sewerage & electricity networks, buildings, land, equipment, vehicles, etc., as appropriate) owned by the myriad local government units (LGUs), large, medium and small in size, operating in the West Bank and Gaza.

The Methodology will form the basis for development of the Fixed Asset Manual which will include the detailed policies and procedures to be followed by local governments in properly recording the acquisition, ownership, utilization, disposal and replacement of municipal fixed assets.

This Fixed Asset Valuation Methodology is prepared based on information collected by visiting 8 LGUs in both West Bank and Gaza. The selected LGUs are:

The initial phase of the project included a fact finding missions to the eight selected LGUs to get an overview of what kind of assets exist. Available procedures and information regarding the assets has also been identified and initial discussions regarding fixed assets requirements and the methodology for valuation during the mission.

The visits to the LGUs were very helpful and provided valuable information to our team. All information collected has been organized and structured as shown in this document. The Consultant cannot be sure that all assets are described in the structure and valuation methodology and it is assumed that this document would outline the main assets and the valuation methodologies that should be further developed by valuators and the municipalities in the actual valuation of the fixed assets to come.
2 GENERAL VALUATION METHODOLOGY AND DEFINITIONS

In the following the various *general* and basic definitions, regardless of categories of assets, have been described. This together with the *specific* definitions described under each and every category of asset (electricity, water, sewer etc.) forms the complete Fixed Assets Valuation Methodology to be used by all LGUs.

2.1 Standards

The Fixed Assets Valuation Methodology is based on generally accepted accounting principles where mainly the following international standards have been used:

IPSAS - International Public Sector Accounting Standard, IPSAS 17 - Property Plant and Equipment

IPSAS 16 - Investment Property

GASB 34 - Governmental Accounting Standard Board (for guidance purposes) IAS - International Accounting Standard

- IAS 16 - Property Plant and Equipment
- IAS 36 - Impairment of Assets

IVS - International Valuation Standard

The special conditions in Palestine have been the basis for development of a simple, ease and understandable procedures, which will make the final implementation less problematic.

2.2 Definition of an Asset

The main definitions of what are classified as an asset have been (will be) described and included in the Fixed Assets Manual describing the policies and procedures. However, the assets that should be included in the valuation are described further below.
Based on the definitions a cut off policy is established and described in Paragraph 2.4 for expenditure that should be capitalized versus those that should be expensed or reported as inventory of supplies.

2.2.1 Method of Acquisition

The method of acquisition is not a determining factor in classifying an item as a fixed asset. Items acquired by any means, including regular purchase, lease/purchase, donation, annexation, trade or barter, transfer from another department annexation, construction by City workforce, construction by outside contractor, or addition to an existing asset shall be subject to the capital asset policy.

2.2.2 Investment Property

These are mostly Real Estate properties. The following properties are identified and classified under the umbrella investment properties:

- Rental Properties
- Build Operates Properties
- Developed Land
- Undeveloped Land used for rental or acquired for appreciation of value
- Etc, etc

2.2.3 Enterprise Funds Property, Plant of Equipment

These assets are mostly Utilities, providing services for sale to the public. The following assets are identified and classified under the umbrella enterprise funds property, plant and equipment:

- Water Supply Systems
- Waste Management Systems
- Electricity Systems
- Sewer Systems
- Etc, etc

The intent of the local government to assign a fund as enterprise or not is basis for such classification.
2.2.4 General Governmental Funds Fixed Assets

These assets are mostly used in the day to day operation of the local government that is not classified under proprietary funds. The approach used for this grouping is a hybrid between GASB 34 (US standard) and international IPSAS (ref. Paragraph 2.1). The following assets are identified and classified under the umbrella governmental Funds Fixed Assets:

- Land
- Buildings
- Improvement other than buildings
- Equipment and vehicles
- General Infrastructure

2.3 Useful Life of Asset

Definition (IAS 16-6)

*Useful life is: “*

(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 the entity.

IPSAS 17-12 has a similar definition.

2.3.1 Definition & Guide Lines for Useful Life of Fixed Assets

Economic useful life generally means the period (years) during which the asset is providing benefit to the LGU. The physical life of an asset is the period (years) in which the asset is able to perform as originally designed, built and maintained.

*The economic useful life of an asset may be the same as the physical life, or it may*
be shorter.

It is a general policy to assign asset lives based on an estimate of the period of productive benefit to the LGU; that is, the economic useful life of the asset. If an asset is no longer providing productive benefit to the LGU, its economic useful life has ended even though its physical life may continue.

As a general rule, expected useful life is normally the shortest of the assets Physical, technological, commercial and legal life. An asset’s useful life is based on its use by the local government.

GASB 34 does not provide specific guidance in this regard as it is not possible to authoritatively predetermine the useful lives of assets. In determining an asset’s estimated useful life, a local government should consider its present condition, intended use, construction type and maintenance policy. It should also consider how long the asset is expected to meet service and technology demands. Useful lives should be based on the local government’s own experience and plans for the assets.

For example, a local government may pave a vacant property to provide surface parking to the downtown core. The parking lot and equipment may physically be capable of providing service for 10 years but the local government expects to redevelop the property in five years to provide affordable housing to citizens. In this case, the expected future usage of the parking lot is five years. Therefore the cost, less any residual value, should be depreciated over the five years.

Note: Since the rate of residual value is not defined; the residual value was not considered in calculating the depreciation at the time of performing the valuation of fixed assets. The residual value will be rectified at the time of disposing the asset as the actual residual value will be recorded as income from sale of asset.

Other factors to be considered in estimating the useful life of a capital asset include:

- Expected future usage;
- Effects of technological obsolescence;
- Expected wear and tear from use or the passage of time;
- The maintenance program;
- Geological conditions;
- Capacity versus actual usage
• Studies of similar items retired;
• Changes in demand for services; and
• Condition of existing comparable items.

The following paragraphs contain guidelines for assigning economic useful lives. When assigning a life to an asset, all relevant information should be considered. In general, experience serves as a guide to estimating normal life expectancy.

For fixed assets acquired in new condition, LGUs are encouraged but not required to use the useful life shown in Schedule A which provide a useful reference for indicative asset useful lives. However, a shorter or longer estimated life may be used depending on factual circumstances, replacement policies, or LGUs repair and use practices. Proposed material (more than 50% of the normal asset useful life) deviation in useful life from Schedule A requires prior written approval from the MDF.

LGUs are responsible for establishing and utilizing an appropriate useful life for assets acquired in less than new condition.

For leasehold improvements, the useful life is the estimated service life of the leasehold improvements, or the remaining term of the lease, whichever is shorter.

In some categories of assets, consideration should be given to rapid technological change whereby certain LGU assets may be subject to obsolescence. Where experience and information indicate that a LGU asset may become technologically obsolete before its economic useful life will end, then it is appropriate to assign a shorter asset life based on an assessment of the asset’s technologically useful life.

The estimated useful life of a capital asset is a function of each LGU’s own experience. This Methodology considers engineering studies and actual experience documented in the records of similar assets as adequate support for determining the estimated useful life of an asset or group of assets.

LGUs may use (follow) the useful lives guidelines identified by this methodology When calculating depreciation expense only if they have no supportable estimates of their own.
Estimation of useful life is to be made using the best available information. Changes in useful life and depreciation rates are to be approved by the MDF or MOLG.

A common specification of useful life range for categories of fixed assets has been developed based on a best practices approach.

Useful life is a technical estimation for the lifetime of an asset. In this valuation methodology, useful life would be used for estimation of Fair Value as described in Paragraph 2.5 below only. Depreciation methods for financial statements are described in the Fixed Asset Manual.

Useful life is an estimate of the period of time the LGU expects the asset to be in operation. Normally the period estimate depends on various factors such as the rate of obsolescence and dimensioning criteria, etc.

For registration of the assets, Normal Useful Life and Range of Useful life is established as shown in Appendices 4-1, 5-113-1 in Column Useful life. The figures without brackets are proposed Normal Useful life and the Range of Useful life in brackets.

All Asset Types has to be registered with Normal Useful Life in accordance with Appendices 4-1, 5-1 13-1 when the year of acquisition is higher than the year of valuation minus Useful Life.

Example:

Year of valuation (registering) is 2007.  
The assets Normal Useful Life is 30 years in accordance with Appendices 4-1, 5-1...13-1 
The year of acquisition is 1990.

This means that the asset is 17 years old and less than 30 year as defined as Normal Useful Life, and 30 year as Useful Life shall be used in the registration.

When registering assets and determining the acquisition year, some assets or subsystems are in operation longer than Normal Useful Life defined in Appendix 4-1, 5-1...13-1. The assets are still in use and operation and should then have a Value in the accounting system. Hence, the valuator have to
determine and do a qualified judgment if the asset really are in a condition to continue to be in operation any longer and /or if there are plans for rehabilitation or replacement of the asset. If the Electricity Department is presenting plans where the asset will be replaced within 2 years, the Normal Useful Life should be extended with 2 years after the year of valuation.

Example:

Year of valuation (registering) is 2007. The assets Normal Useful Life is 30 years in accordance with Appendix 4-1, 5-1......13-1. The asset is planned to be replaced within 2 years. The year of acquisition is 1972.

This means that the asset is 35 years old and more than 30 year as defined as Normal Useful Life and planned to be replaced within 2 year. 37 year as Useful Life shall be used in the registration .If the Electricity Department don t have any plans for replacement and the valuator are examine the asset and expect that it can be in operation for some additional year, 10% of the Normal Useful life, or 2 years shall be added to the Normal Useful life from the year of valuation. Whichever is greater?

Example:

Year of valuation (registering) is 2007. The assets Normal Useful Life is 30 years in accordance with Appendix 4-1, 5-1......13-1. The valuator judges that the asset can be in operation for some more years. The year of acquisition is 1972.

This means that the asset is 35 years old and more than 30 year as defined as Normal Useful Life and the valuator expects that the asset can be in operation for some more years. 38 year as Useful Life shall be used in the registration.

2.3.2 Review & Revision of useful life

It may be necessary to review the useful life of assets as the original estimate of useful life may become inappropriate. If expectations are significantly different from previous estimates, adjustments are deemed necessary in estimates and the depreciation charge for the current (period of revision) and
future periods should be adjusted.

Estimated useful life required to be reviewed on a regular basis every 2 years. This review is also event driven. As well, before any changes are made to the estimate of the asset’s remaining useful life, it must be clearly demonstrated that those changes are justified.

For fixed assets that are approaching the end of their originally estimated useful life (remaining useful life is 10% of the normal useful life or 2 years, whichever is greater), LGUs should make an estimate of how much useful life remains and adjust future depreciation accordingly.

The following formula will be applied for calculating the new useful life (NUL) NUL= IF (Age of asset less normal life, then NUL=Normal life otherwise ((if normal life x 10% bigger than or equal 2, then (normal life x 10%) + age of asset, otherwise NUL = 2+age of asset).

For example, if the LGU had an asset that it originally was going to depreciate over a Five-year useful life but determined in the third year that the asset would be used up to Seven years then the remaining book value of the asset would be depreciated over the new useful life estimated (remaining Four years). This only applies to material assets with the cost (value) of (NIS 100,000) or greater.

2.3.3 Impact of maintenance and renewal programs on estimated useful life

The deferral of maintenance can shorten an asset’s estimated useful life. For example, deferral of annual pavement crack filing programs could allow water to infiltrate the road bed, causing deterioration and shortening of the life of the road.

Many long-lived assets, such as water mains and pipes, often need replacing well within their physical life due to road repairs, corrosion and basic weather conditions. All of these factors need to be considered when determining the estimated useful life of infrastructure.

2.3.4 Salvage (Residual) Value

Salvage (Residual) Value is the net amount that the municipality (LGU) expects to obtain for an asset at the end of its useful life after deducting the expected costs
of disposal.

A salvage value does not need to be estimated when recording and depreciating fixed assets. However, if the LGU has historically estimated salvage value on capital assets or believes not estimating a salvage value would have a material impact on the annual depreciation calculation, it is permissible to include a salvage value when recording and depreciating capital assets. When the normal useful life of an asset is ended the asset will be held in the LGU books with its salvage value.

*Note: This case is not applicable as we are estimating new useful life in case the normal useful life is ended otherwise if the asset is not in working condition, minimum value will be considered $1.*

2.3.5 Acquisition date

It is recommended, but not required, that LGUs use the start-year convention when calculating depreciation expense in the year in which an asset is acquired or constructed. The start-year convention works as follows: Regardless of what month LGU place the asset in service; LGU calculate and record depreciation expense as if the LGU placed the asset in service on January 1 of the fiscal year. This results in recording depreciation expense for the full first fiscal year of service.

It’s also recommended, but not required, that LGUs use the end-year convention when calculating depreciation expense in the year in which an asset is disposed. Regardless of when an asset that is not fully depreciated is disposed, the LGU treats the asset as if it was disposed on December 31 of the fiscal year and records a full year of depreciation expense.

An alternative methodology is to calculate depreciation expense based on the actual month the capital asset is placed in service.

2.3.6 Unknown Acquisition date

The age and estimated useful life of fixed assets should be based on when the asset was acquired or underwent its most recent major renovation. When that is not feasible (asset acquisition date it totally unknown), it should be estimated by the LGU based on the condition of the asset, taking into consideration all the available data.
If it is not feasible (applicable) to estimate the acquisition date, the following methodology will be applied:

On the valuation year the remaining asset useful life will be assumed to be 10% of the normal asset useful life or 2 years, whichever greater.

Example: if an asset valuated at 2007 with a normal useful life of 30 years and the acquisition date is unknown.

Then the acquisition date will be \[2007-30 + (30 * 10\%) = 1980\]

*For unknown acquisition date, the formula is “(Evaluation year – Normal life) + (Normal Life x 10%)”*

2.3.7 Residual (remaining) life

For existing assets, residual life should not be greater than total Normal useful life because part of those assets has already been used up or has expired. However, where assets have been well maintained, remaining useful life could be similar to normal useful life. *Remaining life = New useful life – Age of asset.*

2.4 Fixed Assets Capitalization Policy

Each LGU should set a monetary threshold for the recording of fixed assets. This registration threshold should be set in the light of the particular needs of each LGU. The effect of the threshold is to limit the recording and financial reporting of assets to those above the threshold.

The Fixed Assets Manual will define the capitalization policy for:

- Capitalization of a new asset
- Capitalization of addition and enhancements to a registered fixed asset
- Capitalization of repair and replacement of parts of a registered fixed asset
- Capitalization of construction work in progress
- Capitalization of Heritage assets (Works of art & Historical Treasures, etc).
2.4.1 Capitalization of new Assets

A policy has been (will be) developed in the Fixed Assets Manual to establish a monetary threshold for capitalization of expenses or for registry of an asset.

Any amount that is less than the threshold will be immediately recognized (expensed).

Financial statement presentation is impacted by the use of depreciation to feather the cost of an asset over its useful life. A higher capitalization threshold results in more expenses being absorbed in the current year.

In addition to the definition of a monetary threshold, the Fixed Assets Manual describes a minimum useful life time for capitalization of assets. That means that for instant a new asset with less useful life time than defined in the Fixed Assets Manual would not be capitalized and registered as Fixed Assets Register.

2.4.2 Capitalization of addition and enhancements to a registered fixed asset

Addition and enhancements to fixed assets that will increase the value or the estimated useful life of an asset, that is material in nature, and with a value of at least 10% of the asset cost or fair value, should be capitalized.

2.4.3 Capitalization of repair and replacement of parts of a registered fixed asset

The Fixed Assets Manual will also describe the policy for when a maintenance cost should be capitalized.

Generally maintenance costs that should be capitalized would increase the value of the asset or increasing the estimated useful life and are equal to or greater than 10% of the cost of the asset.

For most of the fixed assets, normally maintenance (repair) expenses will not be capitalized unless the repair obviously increase the value of the asset or increase its useful life time.

LGUs should identify & use thresholds to capitalize additions, enhancement, repair, replacement, or expansion expenditures. Expenditures...
that only serve to restore a capital asset to a working condition or do not enhance or extend the useful life should be recorded as repair and maintenance expense and should not be capitalized.

Significantly, this Methodology does not prescribe absolute materiality levels but provides the following benchmarks as guides:

1) An amount which is equal to or greater than 10% of the Cost or Fair Value of the asset may be presumed to be material unless there is evidence or convincing argument to the contrary; and

2) An amount which is less than 10% of the Cost or Fair Value of the Asset may be presumed not to be material unless there is evidence, or convincing argument, to the contrary.

Example: A NIS 10,000 replacement of part of a heating system having a value of NIS 120,000 would not be capitalized. In this case NIS 10,000 is not at least 10 percent of the asset's value. Had the heating system value been less than NIS 100,000, the NIS 10,000 heating system replacement would have been capitalized.

For infrastructure assets (water, sewage, storm water, roads and electricity), repairs involving the replacement of more than 75 Meter of line or cost NIS 50,000 and more should be capitalized.

2.4.4 Capitalization of construction work in progress

Construction in progress is a temporary account for the recording of costs to later be capitalized to a construction project. When the project is completed, costs in the construction-in-progress account are reclassified into one or more of the other major asset classes of land, buildings, infrastructure or equipment. Construction-in-progress is recorded both for the financial statements and accounting systems but not in the fixed Assets register.

At the close of the fiscal year, the recorded expenditures for fixed assets not completed are charged to construction in progress. Upon completion, the total asset cost is transferred to Land Improvement, Building and
Building Improvements, Machinery and Equipment, etc. Cost to be included for construction in progress follows the same guidelines as specified and discussed for applicable classes of assets in the fixed asset manual.

Construction work in progress will be capitalized upon completion.

2.4.5 Capitalization of Heritage Assets (Works of art & Historical Treasures)

Works of art & Historical Treasures should be capitalized at their historical cost at acquisition where applicable or fair value (estimated if necessary) at the date of donation (if donated) whether they are held as individual items or in a collection.

Where the original cost is not applicable and the service potential embodied in a heritage asset can be acquired through replacement, reproduction, rental, leasing or in any other manner the asset must be valued at the current replacement cost. If the service potential embodied in the heritage asset cannot be replaced or reproduced if the LGU was deprived of it, the asset should be valued at its market selling price.

The cost of capitalized Works of Art and Historical Treasures should be depreciated over the estimated useful lives if the items have useful lives that are diminished by display or educational or research applications.

Items which whose economic benefit and estimated useful life is extraordinarily long are considered inexhaustible capital assets and are not depreciated. It is not possible to estimate the future economic benefits associated with such property.

It is normally the intention of LGUs to maintain and preserve them indefinitely because of their unique historical and cultural attributes. In many cases, it is not even possible to put a value on these types of assets they are priceless. While some art work and historical treasures can be duplicated, they cannot be replaced.

Duplicates would rarely have the same intrinsic value as the original. The existence of such property should be disclosed in the notes to the
financial statements. Expenditures for preservation, cleaning and restoration that are implicit with works of art and historical treasures should be expensed in the period incurred.

If no original costs or fair values are available in the case of one or more or all heritage assets, and it is believed that the determination of a fair value for the assets in question will be an expensive undertaking, record such asset or assets in the fixed asset register without an indication of the costs or fair value concerned. For balance sheet purposes, the existence of such heritage assets shall be disclosed by means of an appropriate note. Where a heritage asset is not recognized in the accounts because it cannot be measured on reliable basis LGUs should disclose information in respect of the asset which is relevant for decision making purposes in the notes to the financial reports.

2.5 Original Cost, Fair Value (Replacement Cost) and net fair value

For assets classified as Property, Plant and Equipment, the IPSAS 17-22 & 23 define the initial measurement as:

An item of property, plant and equipment which qualifies for recognition as an asset should initially be measured at its cost.

Where an asset acquired at no cost, or for a nominal cost, its cost is its fair value as at the date of acquisition.

Regarding measurement subsequent to Initial Recognition, the IPSAS 17-39 allow the following treatment to be used:

Subsequent to initial recognition as an asset, an item of property, plant and equipment should be carried at revaluated amount, being its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent impairment losses.

Hence, the following treatment of these assets should be used:

2.5.1 Original (Actual, Historical)Cost

Original Cost should be used if available, when year of acquisition is less than
3 year. Original Cost is then defined as *Historical Value*.

Fixed assets must be recorded & reported at actual (Historical, Acquisition) cost. Normally the cost recorded is the purchase price or construction costs of the asset plus any other reasonable and necessary costs incurred to place the asset in its intended location and intended uses. Fixed Assets Manual describes all relevant costs.

**Impairment of capital assets**

A fixed asset is considered to be impaired if the asset experiences a significant and unexpected decline in its service utility. The service utility of a fixed asset is the expected usable capacity at acquisition. A fixed asset may be impaired due to events or changes in circumstances, such as physical damage, obsolescence or changes in technology, enactment or approval of laws or regulations or other changes in environmental factors, a change in manner or duration of use, or a construction stoppage. A fixed asset that becomes impaired is to be devalued to reflect its decline in service utility.

2.5.2 Fair Value

Fair value is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction. *In other meaning, Fair value is the current price on the open market rises and falls depending on several factors that have nothing to do with the book value of your asset. It can increase or decrease after you buy the asset.*

Donated or contributed assets should be recorded at their estimated fair market value at the date donated plus ancillary charges, if any. Ancillary charges include costs that are directly attributable to asset acquisition such as freight and transportation charges, site preparation costs, and professional fees, etc.

Where LGUs gain control of assets by way of donations or approvals i.e. roads sewer, water and parklands, they should be recorded at their fair value and accounted for as revenue in the operating statement.

2.5.3 **Estimation of Fair Value  Written down current (replacement)cost**

If determination of the actual historical cost of a fixed asset is not possible, an
estimated cost may be calculated from the replacement cost and year of acquisition. The replacement cost of the asset is estimated. Through inquiry, the year or approximate year of acquisition is determined.

**If Original Cost is not available or asset acquisition date is more than 3 years, estimation of replacement cost shall be established for all Asset Types.**

To estimate the Fair Value, Replacement Cost should be introduced. The Replacement Cost of equipment and networks is the estimated cost of acquiring a new or modern substitute asset having the same productive capacity as that existing asset, the same technical requirements as that existing asset, together with the associated expenses directly related to the installation of the asset.

It is important to understand that reference to the modern equivalent asset is only made so as to obtain a current cost (replacement cost) for the asset already held. It is irrelevant as to whether the modern equivalent asset will be purchased, or whether the existing asset will ever be replaced.

The chosen approach to calculate the Net Fair Value is to use straight line method technical depreciation of Replacement Costs. This approach is also initiated by first establishing the current cost (replacement cost) of the item. Useful life time for the item has to be established and then depreciate the current cost (replacement cost) backwards to the year acquired. The current cost (replacement cost) is then depreciated to arrive at the estimated Net Fair Value.

In short "Written down current cost" approach, this means current cost (Replacement cost) less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired service potential of the asset.

Technical depreciation should not be mixed with depreciation for the financial Statements and reporting. Financial depreciation policies and methods are described in the Fixed Asset Manual. Technical depreciation is a method for estimating Fair Value only.

**Note:** The above paragraph is not clear as the straight line method which they call it
technical depreciation is it one of financial depreciation’ types.

An example to show calculating of Net Fair Value is shown below: the below is not estimation, it is a way of calculating the net fair value (book value)

Replacement Cost for an asset is estimated to be USD 80,000. Year of valuation is 2007. Year of acquisition of the asset is 1977. Useful Life in accordance with Paragraph 2.3 is 40 years.

The asset's Fair Value in 2007 is then: USD 80,000-(USD 80,000/40x30) = USD 20,000.

Impairment cost is not recognized. The remaining years of depreciation is 10 years.

Care should be taken to ensure that accurate values are assigned to assets where the original cost prices are adjusted.

2.6 Asset Groups

Assets With the same (similar) nature & different acquisition (operation) date to be recorded (Registered) as a group with a reference note to their details using an average acquisition date. (Examples might be calculators, roads, tape players, telephones, and audio-visual equipment.)

Problems may occur where there are large numbers of homogenous assets which have complementary values. (e.g. trees, chairs in a theatre, library books). In such cases the assets may be recorded either in isolation and expensed if it falls below the materiality threshold or in aggregate. While the isolation approach will lead to treatment of most homogeneous assets as periodic expense, the aggregate approach will be beneficial where the value of the components of the asset fall under the recording threshold but the aggregate value of the asset lies above the threshold. It is not acceptable to aggregate assets which have fundamentally different characteristics as this will result in incorrect assumptions about useful life and depreciation.

Accordingly, where existing assets are expected to be a significant aggregate asset, it is recommended that they be reported on the basis of standard unit cost. Different unit cost could be applied to different types of aggregate assets.
i.e. Printers grouped by size (e.g. small, medium, big). The use of a small number of unit cost reflecting current cost will simplify the valuation process.

*If the value of assets is expected to be material but excluded from the financial statements because value can not be reliably measured, the notes to the financial statements should state the omission and the reason for it. A similar approach should be adopted for all other aggregate assets where value is expected to be material.*

2.7 Recording of Minor assets (Controlled Assets)

Whilst thresholds may be set below which assets will not be recorded for accounting purposes, there may still be a need to record those assets for management purposes. In order to discharge custodial and risk management responsibilities, each LGU should consider maintaining a separate record of assets which fall below the registration threshold? The LGU may decide to keep a separate record of all assets that are below the registration threshold or set another threshold whereby all assets above a minimum requirement but below the registration threshold are recorded. Regardless of the recording aspect, all assets that are below the registration threshold and are not recorded in the asset register should still be subject to adequate custodial controls.

2.8 Coding and Interface to the Accounting System

The system for coding of assets, assets groups, municipalities etc has been developed and included below. The coding system has been coordinated with the proposed Fixed Asset Register and Accounting System software.

2.8.1 System for Coding of Assets

A system for coding of assets will be developed and presented in the Fixed Assets Manual.

2.9 Fixed Asset Register

The asset register is a subsidiary record supporting the balances of the general ledger control accounts for each asset category. The register should be periodically reconciled to the general ledger control accounts.
The register records the key data for each asset. Emphasis should be placed on the accuracy and completeness of asset registers, taking into account both asset management and finance considerations.

All Capital Expenditures above the set thresholds shall be properly classified and recorded in the Fixed Asset System and the General Ledger in accordance with generally accepted accounting principles. An asset will be placed in the Fixed Asset System when construction is completed or the asset is placed in service (Whichever is earlier) or, in the case of Capital Equipment purchases, when title passes to the LGU.

An asset held under a finance lease, shall be recognized as a fixed asset, as the municipality has control over such an asset even though it does not own the asset.

The fixed asset register shall be maintained in the format determined by the LGU, which format shall comply with the requirements of generally recognized accounting practice (GRAP) and generally accepted municipal accounting practice (GAMAP) and any other accounting requirements which may be prescribed. The fixed asset register shall reflect the following information:

How the final presentation of the Fixed Asset Register would look like, is not defined in detail yet. But the minimum elements to be presented should be:

- Class
- Category
- Asset Group
- Sub groups
- Client ID/address or similar for the asset
- Asset Type (description of the asset and its components)
- Unit of measure
- Quantity of Asset Type
- Date of acquisition (Year)
- Replacement Cost
- Normal asset Useful Life
- New asset Useful Life
- Estimated remaining Useful Life
- Net Fair Value - Depreciated Remaining Value (book value)
- Asset Location
- Asset Code (Number)
Original (Actual, Historical) Cost if available  
Last valuation Or revaluation date for assets subject to revaluation  
Valuation Basis  
Accumulated depreciation to date  
Depreciation expense (charge) for the current financial year (Annual Depreciation)  
Source of financing  
Ownership status {Owned or Controlled} (especially for lands)  
Salvage value if any

With a computerized system, reports could be generated for almost whatever needed.

Some examples of output from the fixed asset valuation and the Fixed Assets Register are shown in Appendix 2.

A fixed asset shall be capitalized, that is, recorded in the fixed assets register, as soon as it is acquired. If the asset is constructed over a period of time, it shall be recorded as work-in-progress until it is available for use, where after it shall be appropriately capitalized and recorded as a fixed asset in the asset register.

**A fixed asset shall remain in the fixed assets register for as long as it is in physical existence. The fact that a fixed asset has been fully depreciated shall not in itself be a reason for writing-off such an asset. All assets should be registered in New Israeli Shekel (NIS)**

### 2.10 Main steps in the valuation process

The main steps to be followed in the execution of the valuation are described for the various Categories in Section 4-13. The main steps in logical sequence are shown below:

1. Determine & Assign LGU staff for the implementation of the valuation process. LGU staff should be carefully selected so that at least makes the assessment required on the asset registry forms.

2. Prepare LGUs for the valuation process (define & explain the
Methodology to LGUs staff assigned to get them ready). LGU staff should be advised of the task they are expected to carry out and should have a clear understanding of the nature of the information they must record.

3. Identification of assets (Determine types of Assets).

4. Organize Assets.

5. Preparation of registration sheets.

6. Physical visits.

7. Recording assets (Registration of data).

8. Valuation of assets (Establishing replacement costs & determining assets remaining useful lives).

9. Review Asset Register by LGU after the recording is completed so that any missing or inconsistent data is captured or clarified quickly. Review the asset register to identify any anomalies, such as:
   - Serviceable assets with nil values
   - Unusually high or low valuations
   - Whether significant assets have been omitted or overlooked
   - Double counting of asset
   - Inconsistent determination of (units of measure, valuations, residual life...)

10. Amend (Correct) Asset register Upon LGU reasonable comments

3. ASSET CLASSIFICATIONS: CLASSES, CATEGORIES AND GROUPS OF ASSETS

It is important to the maintenance of accurate records that each asset category is precisely defined and that all persons responsible for records maintenance be fully aware of the categorization system. This section further clarifies the asset definitions by major category.
A clear and common understanding of the various categories of assets has been one of the main tasks during development of the Fixed Assets Valuation Methodology.

The classes, categories and groups of assets described below have been defined based on an overview of the various assets and their status within the samples of LGUs chosen for the project.

These definitions will form the basis for the Fixed Asset Registers to be established in all the LGUs.

The structure of classes, categories and asset groups is shown in Appendix 1.

3.1 Classes of Assets

When LGUs classify assets they should first consider the functions or activities the asset is used for. The second step is to then decide upon the assets nature or type.

All assets controlled by LGUs must be classified into functional activity based on their predominant use. There should be no cross classifications of components of a specific asset into different types or functions. Where the predominant use of an asset cannot be reliably attributed to a function the asset should remain in the Administration function.

Functions:

The functions required for disclosure shall be determined at the discretion of the LGU. As a minimum, LGUs must disclose any commercial and operational activities. These include (where applicable):

- Water Supplies
- Sewerage Services
- Fuel & Energy Services
- Administration
- Recreation and Culture
- Public Order and Safety
- Economic Affairs
- Health
- Mining, Manufacturing
LGUs must classify assets for financial reporting purposes into the following types: *(The main Capital asset classes include, but are not limited to the following):*

- Land
- Land Improvements (depreciable)
- Buildings
- Building Improvements
- Infrastructure
- Machinery and Equipment
- Vehicles
- Heritage Assets (Works of art & Historical Treasures)
- Others: specify if material (i.e. controlled assets, Animal Zoo, etc)

The various international standards referred to in Paragraph 2.1 are mainly established for private enterprises where the infrastructure class normally is less complex than in governmental/municipal enterprises. For many municipalities around the world, also in Palestine, the infrastructure includes several enterprises with a complex asset structure.

See also Appendix 1 for the structure of Classes.

**3.2 Categories within the Various Classes of Assets**

To make the registration of assets as simple as possible, all assets, regardless of the category, should be entered only once in the fixed asset register, and under the main *class of asset*. Such a registration will support an easy and fast electronic retrieval of information when required.

To facilitate and easy-to-read Asset Valuation Methodology Manual the various categories have been described in separate main chapters.

See also Appendix 1 for the structure of Classes and Categories.
3.2.1 Land Categories
The following main categories for the asset class *Land* are identified:

- Community: Developed Or Undeveloped
- Operational: Developed Or Undeveloped
- Others: specify if material

3.2.2 Building Categories
The following main categories for the asset class Buildings are identified:

- Buildings for Operation
- Commercial
- Others: specify if material

3.2.3 Building Improvements Categories
The following main categories for the asset class Buildings are identified:

- Systems
- Services
- Fixtures
- Others: specify if material

3.2.4 Infrastructure Categories
The following main categories for the asset class Infrastructure are identified:

- Electricity
- Water Systems
- Sewage Systems
- Storm water Systems
- General Infrastructure

3.2.5 Machinery and Equipment Categories
The following main categories for the asset class Machinery and Equipment identified:

- Furniture
- Office Equipment
- Others: specify if material
3.2.6 Vehicles
The following main categories for the asset class Machinery and Equipment identified:

- Transportation Vehicles
- Road equipments
- Emergency Vehicles
- Service Vehicles
- Others: specify if material

3.3 Groups of Assets within the Various Categories of Assets

The Infrastructure Asset Categories, e.g. Electricity and water often include land and buildings as Groups of Assets. To make the registration of assets as simple as possible, such assets have been included under the main classes of assets for Land and Buildings, as separate groups of assets. Such a registration will support an easy and fast electronic retrieval of information when required.

See also Appendix 1 for the structure of Classes, Categories and Asset Groups.

3.3.1 Land/Category Undeveloped - Group of Assets
The following main group of assets for the asset class Land is identified:

- Land, Urban area
- Land, Rural area
- Others: Specify if material

3.3.2 Land/Category Developed - Group of Assets

- Parking Area
- Public Parks & Gardens
- Land under buildings for Class: Buildings
- Land under roads for Category: General infrastructure
- Landfill
- Natal land
- Natural Reserves
- Land for Category: Electricity
- Land for Category: Water Systems
- Land for Category: Sewage Systems
- Land for Category: Storm water Systems
• Others: specify if material

3.3.3 Land Improvements - Group of Assets
The following main group of assets for Operational Buildings is identified:

• Trails & Paths
• Fencing & gates
• Outside sprinkler systems
• Recreational fields and courts
• Parking barriers & parking lots
• Driveways,
• Retaining walls
• Others: specify if material

3.3.4 Building/Category Buildings for Operation - Group of Assets
The following main group of assets for Operational Buildings is identified:

• Offices
• Buildings for Category: Electricity
• Buildings for Category: Water Systems
• Buildings for Category: Sewage Systems
• Buildings for Category: Storm water Systems
• Others: Specify if material

3.3.5 Building/Category Commercial - Group of Assets
The following main group of assets for Commercial Buildings is identified:

• Vegetable markets
• Rental shops
• Slaughter House
• Rental parking
• Commercial Centre
• Health Centers
• Recreation Centers
• Others: Specify if material

3.3.6 Building/Category Others - Group of Assets
The following main group of assets for Other Buildings is identified:
3.3.7 Building Improvements/Category Systems Group of Assets
The following main group of assets for Other Buildings is identified:

- Heating & Cooling Systems
- Telecommunication systems
- Security systems
- Septic systems
- Others: specify if material

3.3.8 Building Improvements/Category Services Group of Assets
The following main group of assets for Other Buildings is identified:

- Central Gas Services
- Parking Services
- Emergency services (emergency power generators, secure rooms, etc)
- Passenger and freight elevators,
- Baseboards
- Others: specify if Material

3.3.9 Building Improvements/Category Fixtures Group of Assets
The following main group of assets for Other Buildings is identified:

- Lightening Fixture
- Fixed Shelves
- Others: Specify if material

3.3.10 Infrastructure/Category Electricity Systems Group of Assets
The following main group of assets for the Electricity Systems is identified:

- (Land – to be registered under the main asset class Land)
- (Buildings - to be registered under the main asset class Buildings)
• Switchgear, Main Substation
• Switches, Outdoor
• Capacitors
• Transformers
• Cables, Underground
• Lines, Overhead
• Consumer Connection
• (Machinery and Equipment - to be registered under the main asset class Machinery and Equipment)
• (Office Equipment - to be registered under the main asset class Machinery and Equipment)
• Others: Specify if material

3.3.11 Infrastructure/Category Water Systems Group of Assets
The following main group of assets for the Water Systems is identified:

• (Land - to be registered under the main asset class Land)
• (Buildings - to be registered under the main asset class Buildings)
• Wells
• Transmission, Mains (Above ground / Under ground)
• Valves on transmission main (Chambers)
• Pump Stations
• Distribution Network
• Valves on distribution network
• Water Tanks
• Consumer Connection
• (Machinery and Equipment - to be registered under the main asset class Machinery and Equipment)
• (Office Equipment - to be registered under the main asset class Machinery and Equipment)
• Others: Specify if Material

3.3.12 Infrastructure/Category Sewage Systems Group of Assets
The following main group of assets for the Sewage Systems is identified:

• (Land - to be registered under the main asset class Land)
• (Buildings - to be registered under the main asset class Buildings)
• Transmission, mains
• Pump Stations
• Distribution Network
• Waste Treatment Plant
• (Machinery and Equipment - to be registered under the main asset class Machinery and Equipment)
• (Office Equipment - to be registered under the main asset class Machinery and Equipment)
• Others: Specify if material

3.3.13 Infrastructure/Category Storm water Systems Group of Assets
The following main group of assets for the Storm Water Systems is identified:

• (Land – to be registered under the main asset class Land)
• (Buildings - to be registered under the main asset class Buildings)
• Transmission, mains
• Pump Stations
• Distribution Network
• (Machinery and Equipment - to be registered under the main asset class Machinery and Equipment)
• (Office Equipment - to be registered under the main asset class Machinery and Equipment)
• Others: Specify if material

3.3.14 Infrastructure/Category General Infrastructure Group of Assets
The following main group of assets for the General Infrastructure is identified:

• (Land – to be registered under the main asset class Land)
• Street Lights
• Asphalt Roads and Sidewalks
• Base course Roads
• Dirt Roads
• Bridges
• Retaining Walls
• Road Signs
• Others: Specify if Material

3.3.15 Machinery and Equipment/Category Furniture Group of Assets
The following main group of assets for Furniture is identified:
• Chairs
• Tables
• Closets
• Counters
• Desks
• Safes
• Shelves
• Curtains
• Bill Boards
• Others: specify if Material

3.3.16 Machinery and Equipment/Office Equipment  Group of Assets
The following main group of assets for Office Equipment is identified:
• Photocopiers
• General Office Equipment
• Computer Hardware
• Computer Software
• In-house Development
• Others: specify if material

3.3.17 Vehicles/ Category Transportation  Group of Assets
The following main group of assets for Vehicles is identified:

• Buses
• Cars
• Trains
• Others: specify if material

3.3.18 Vehicles/ Category Road Equipment  Group of Assets
The following main group of assets for Vehicles is identified:

• Heavy machines
• Others: Specify if material

3.3.19 Vehicles/ Category Emergency  Group of Assets
The following main group of assets for Vehicles is identified:

• Fire trucks with ladder
• Fire trucks without ladder
• Ambulance Cars
• Others: Specify if material

3.3.20 Vehicles/ Category Service Group of Assets
The following main group of assets for Vehicles is identified:

• Garbage trucks
• Trucks
• Basket vehicles
• Pick-up
• Death cars
• Others: specify if material

3.3.21 Heritage Assets- Group of Assets
The following main group of assets for Heritage Vehicles is identified:

• Historic buildings & Places
• Monuments
• Works of art
• Museum collections
• Wilderness reserves
• Others: Specify if material

4 VALUATION METHODOLOGIES_ LAND

The methodology described under this chapter has to be used in connection with the GENERAL description in Chapter 2.

4.1 Main steps in the valuation process

Below a brief summary of the main steps to be followed in the execution of the valuation are described. The table below is showing the main steps in logical sequence:
<table>
<thead>
<tr>
<th>Main Steps</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine LGU staff</td>
<td>Agree on the LGU staff to be assigned for the implementation of the valuation process</td>
</tr>
<tr>
<td>2. Prepare LGUs for Valuation</td>
<td>Define &amp; explain Methodology terms dealing with land through workshops &amp; training sessions</td>
</tr>
<tr>
<td>3. Determine types of assets</td>
<td>Find out and clarify which types of Land to be registered in the Municipality. (See 4.2 below) Define which Categories, Asset Groups, Asset Subgroups and Types of Assets that will be included in the valuation. (See 4.2 below)</td>
</tr>
<tr>
<td>4. Organize Assets</td>
<td>Prepare structure of assets including useful life in accordance with Appendix 4-1. Delete Asset Groups, Asset Sub-groups and Asset Types that are not needed from the tables in Appendix 4-1 and add new if necessary.</td>
</tr>
<tr>
<td>5. Preparation of registration sheets</td>
<td>Prepare sheets for registering Land showing necessary information. Collect all available information such as maps showing the Land and background documents.</td>
</tr>
<tr>
<td>6. Physical visits</td>
<td>Execute physical inspection to determine clarify and collect all necessary information regarding the asset.</td>
</tr>
<tr>
<td>7. Registering of data</td>
<td>Register the data and valuation start in accordance with the description in Article 4.6 below.</td>
</tr>
<tr>
<td>8. Establishing replacement costs</td>
<td>Valuation of Land should follow the Marked Value principles and be executed by professional real estate valuators. International Valuation Guidance (IVS) should be bases for the valuation.</td>
</tr>
<tr>
<td>9. Asset Register</td>
<td>When all data are registered and replacement costs and valuation of land is</td>
</tr>
</tbody>
</table>
established, the actual valuation and asset register can be established and asset register can be prepared.

<table>
<thead>
<tr>
<th>10. Review Asset Register</th>
<th>After the recording is completed LGUs should review the asset register so that any missing or inconsistent data is captured or clarified quickly</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Amend Asset Register</td>
<td>Upon LGU reasonable comments. Comments will be analyzed and discussed then reflected into the asset register.</td>
</tr>
</tbody>
</table>

4.2 Assets Grouping and Types
For the purpose of registering, reporting and valuation, Land is divided into Asset Groups and the various Asset Groups for Land are included in Paragraph 3.3.1 & 3.3.2.

The Asset Groups are then divided into Asset Subgroups and further into Asset Types as shown in Appendix 4-1.

4.3 Useful Life
The general methodology described under Paragraph 2.3 should not be followed. Land has no ending useful life and the definition of Useful life will not apply.

4.4 Capital Maintenance
The general methodology described under Paragraph 2.4 should not be followed.

4.5 Valuation
The general methodology described under Paragraph 2.5 should not be followed. Valuation of Land should follow the

1- Marked Value principles (market selling price) executed by professional real estate valuators. International Valuation Guidance (IVS) should be bases for the valuation.

2- Cost, where new purchases from citizens have been made
3- A single rate can be used for land under roads.

4.6 Registration of Land
The system for asset grouping and level of asset types to be registered are shown in Appendix 4-1.

Researching of the necessary data as year of acquisition, quantities and references is a lot of work, but if it is done right, it only needs to be done once. If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.

The research for registering the assets should be done in close cooperation with the municipalities. Considerable help will have to come from the public works employees.

The necessary data to be defined or registered for valuation of assets are:

- **Asset Group** - In accordance with Appendix 4-1.
- **Asset Subgroup** - In accordance with Appendix 4-1.
- **Asset Type** - In accordance with Appendix 4-1.
- **Client ID** - Reference for the Asset Type like location, deed number, registration number etc. Should be defined together with the municipality.
- **Quantity** - Quantity of the Asset Type should be registered with sqm.
- **Year of Acquisition** - The year of acquisition of the Asset Type
- **Cost paid to citizens for having the land** if applicable
- **Ownership status (Owned Or Controlled)**

These data are necessary to be entered into the Asset Register Software. Hence, the data collection in the field will be to collect enough data to classify the assets in accordance with Appendix 4-1 to enable valuation of the assets.

4.7 Capitalization & Depreciation

All land shall be capitalized regardless of cost. Land is considered to be an inexhaustible asset (with infinite life) and therefore is not depreciated.
4.8 Appendices

Appendix 4-1: Structure of Asset Groups, Asset Subgroups and Asset Types...

5. VALUATION METHODOLOGY LAND IMPROVEMENTS, BUILDINGS & BUILDING IMPROVEMENTS

The methodology described under this chapter has to be used in connection with the GENERAL description in Chapter 2.

5.1 Main steps in the valuation process

Below a brief summary of the main steps to be followed in the execution of the valuation are described. The table below is showing the main steps in logical sequence:

<table>
<thead>
<tr>
<th>Main Steps</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1. Determine LGU staff</td>
<td>Agree on the LGU staff to be assigned for the implementation of the valuation process</td>
</tr>
<tr>
<td>2. Prepare LGUs for Valuation</td>
<td>Define &amp; explain Methodology terms dealing with depreciable Land improvements, Buildings &amp; Building improvements through workshops &amp; training sessions</td>
</tr>
<tr>
<td>3. Determine types of assets</td>
<td>Find out and clarify which types of Land improvements, Buildings and Building Improvements to be registered in the Municipality. (See 5.2 below) Define which Categories, Asset Groups, Asset Subgroups and Types of Assets that will be included in the valuation. (See 5.2 below)</td>
</tr>
<tr>
<td>4. Organize Assets</td>
<td>Prepare structure of assets including Normal useful life.</td>
</tr>
<tr>
<td>5. Preparation of registration sheets</td>
<td>Prepare sheets for registering assets showing necessary information. Examples of registration sheets are shown in Appendix 5-2. Collect all available information such as maps, drawings etc. or/and technical background documents for the assets.</td>
</tr>
<tr>
<td>6. Physical visits</td>
<td>Execute physical inspection to determine and estimate year of acquisition and verify if the assets/system are in line with the useful life. It is important to state that the asset/system actually have the theoretical remaining life time or not.</td>
</tr>
<tr>
<td>7. Registering of data</td>
<td>Register the data and valuation start in accordance with the description in article 5.6 below.</td>
</tr>
<tr>
<td>8. Establishing replacement costs</td>
<td>Establish pricelists for the assets in accordance with the description in Article 5.5 below.</td>
</tr>
<tr>
<td>9. Asset Register</td>
<td>When all data are registered and replacement costs and valuation of land improvements, Buildings &amp; Building improvements are established, the actual valuation and asset register can be established and asset register as shown in Appendix 2 can be prepared.</td>
</tr>
<tr>
<td>10. Review Asset Register</td>
<td>After the recording is completed LGUs should review the asset register so that any missing or inconsistent data is captured or clarified quickly.</td>
</tr>
<tr>
<td>11. Amend Asset Register</td>
<td>Upon LGU reasonable comments. Comments will be analyzed and discussed then reflected into the asset register.</td>
</tr>
</tbody>
</table>
5.2 Assets Grouping and Types

For the purpose of registering, reporting and valuation,

*Land Improvements* are divided into Asset Groups. The various Asset Groups are included in paragraph 3.3.3.

*Building* is divided into Categories and Asset Groups related to the kind of building and operation of services in the municipality. The various Categories and Asset Groups are included in paragraph 3.3.4, 3.3.5 and 3.3.6.

*Building Improvements* are divided into Categories and Asset Groups. The various Categories and Asset Groups are included in paragraph 3.3.7, 3.3.8 and 3.3.9.

See also Appendix 5-1 for further details.

The Asset Groups are then divided into Asset Subgroups and further into Asset Types as shown in Appendix 5-1. The Asset Type is the lowest level in the structure to enable estimating Replacement Cost and Useful Life.

5.3 Useful Life

The general methodology described under paragraph 2.3 should be followed.

5.4 Capital Maintenance

The general methodology described under paragraph 2.4 should be followed.

Rehabilitation of the *Land Improvements, buildings & Building Improvements* has been done time to time. Normally rehabilitation other than structural consolidation is considered as maintenance and will not change the Useful Life of the asset. Examples of such maintenance:

- Replacement of tiles, electrical and mechanical fixtures
- Painting, plastering and stone pointing works
- etc

Rehabilitation of the Asset Groups is normal procedures for the civil departments. Rehabilitation of main structural members such as foundations, columns will increase the useful life of the asset. Hence, the Valuator has to
define if the rehabilitation is significant enough to be defined as capital maintenance in accordance with Paragraph 2.4. If it is defined as capital maintenance the normal procedure should be to register the new structural rehabilitation with the new Useful Life and year of acquisition.

5.5 Valuation

The general methodology described under Paragraph 2.5 should be followed in addition to the following specific characteristics for valuation.

- External walls
- Building material
- Location of building

5.5.1 Original Cost

If available for the components of cost mentioned above, Original Costs shall be used in accordance with Paragraph 2.5.

It is important that all documents (invoices, contracts, etc.) is documented by a copy and attached to the Evaluation Report.

5.5.2 Replacement Cost

If Original Cost could not available, estimation of Replacement Cost shall be established for all Asset Types.

For the purpose of establishing Replacement Cost for all Asset Types shown in Appendix 5-1, unit price list has to be established. Appendix 5-1 describes how the Unit Price should be established under columns ‘Unit Price” and ‘Comments’.

There are several methods to establish a unit price list for Replacement Cost. However, this should be done in close cooperation with experts with long experience from the construction sector in Palestine. Bids, Contracts, locally established Price Lists and Authorities should be consulted to get the
Unit prices as up to date as possible.

5.6 Registration of Assets

The process and effort involved in identifying the various categories and quantities of the various fixed assets by purchase date is expected to be substantial. Due to lack of supporting documentation, some municipal fixed asset data items have to be estimated.

The system for asset grouping and level of asset types to be registered are shown in Appendix 5-1.

Researching of the necessary data as year of acquisition, quantities and references is a lot of work, but if it is done right, it only needs to be done once. If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.

The research for registering the assets should be done in close cooperation with the municipalities. Considerable help will have to come from the public works employees.

The necessary data to be defined or registered for valuation of assets are:

- **Asset Group** - In accordance with Appendix 5-1.
- **Asset Subgroup** - In accordance with Appendix 5-1.
- **Asset Type** - In accordance with Appendix 5-1.
- **Client ID** - Reference for the Asset Type like location, shop number etc. Should be defined together with the municipality.
- **Quantity** - Quantity of the Asset Type. Can be a number, sqm, etc.
- **Year of Acquisition** - The year of acquisition of the Asset Type
- **Asset historical (acquisition, actual)-Cost**
- **Asset Normal Useful Life**
- **Asset Estimated Remaining Useful life**
- **Ownership Status of Buildings**

These data are necessary to be entered into the Asset Register Software. Hence, the data collection in the field will be to collect enough data to classify the assets in accordance with Appendix 5-1 to enable valuation of the assets.
However, it is expected that a lot of the assets data required has to be estimated. Hence, the description below gives some ideas and procedures how to collect data and how to register them for later to be entered into the Asset Register Software.

5.6.1 Land
Land in connection with building systems is registered under the main class assets Land.

5.6.2 Machinery and Equipment
Machinery and Equipment in connection with buildings systems is registered under the main class assets Machinery and Equipment.

5.6.3 Office Equipment
Office Equipment in connection with buildings systems is registered under the main class assets Machinery and Equipment.

5.6.4 Building Improvements
Systems, Services & fixtures in connection with buildings systems are registered under the main class assets Building Improvements.

5.7 Capitalization & Depreciation

5.7.1 Land Improvements (depreciable)
Land Improvements meeting the capitalization policy described in the fixed asset manual shall be capitalized. Land improvements are considered to be

- Exhaustible: depreciated over its useful life
- Inexhaustible: Improvements that produce permanent benefits to the land, such as costs for fill and grading that ready the land for erection of a structure, or landscaping, are considered part of the land cost and are not depreciated.
5.7.2 Buildings

A building is a structure that is permanently attached to the land, has a roof, is partially or completely enclosed by walls, and is not intended to be transportable or moveable.

All buildings shall be capitalized regardless of cost. Buildings are considered to be exhaustible asset (with limited life) and therefore are depreciated.

5.7.3 Building Improvements

Building Improvements meeting the capitalization policy described in the fixed asset manual shall be capitalized. Building Improvements are considered to be exhaustible asset (with limited life) and therefore are depreciated.

5.8 Appendices

Appendix 5-1: Structure of Asset Groups, Asset Subgroups and Asset Types
Appendix 5-2: Example of form for registration for Buildings

6 VALUATION METHDOLOGY ELECTRICITY SYSTEMS

The methodology described under this chapter has to be used in connection with the GENERAL description in Chapter 2.

6.1 Main steps in the valuation process

Below a brief summary of the main steps to be followed in the execution of the valuation are described. The table below is showing the main steps in logical sequence:

<table>
<thead>
<tr>
<th>Main Steps</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine LGU staff</td>
<td>Agree on the LGU staff to be assigned for the implementation of the valuation process</td>
</tr>
<tr>
<td><strong>2. Prepare LGUs for Valuation</strong></td>
<td>Define &amp; explain Methodology terms dealing with Electricity Systems through workshops &amp; training sessions</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| **3. Determine types of assets** | Find out and clarify which types of assets to be registered in the Municipality. (See 6.2 below)   
Define which Categories, Asset Groups, Asset Subgroups and Types of Assets that will be included in the valuation. (See 6.2 below) |
| **4. Organize Assets**         | Prepare structure of assets including useful life.   
Delete Asset Groups, Asset Sub-groups and Asset Types that are not needed from the tables and add new if necessary. (See Appendix 6-1) |
| **5. Preparation of registration sheets** | Prepare sheets for registering assets showing necessary information. Examples of registration sheets are shown in Appendix 6-2, 3 and 4.   
Collect all available information such as maps, drawings etc. or/and technical background documents for the assets. |
| **6. Physical visits**         | Execute physical inspection to determine and estimate year of acquisition and verify if the assets/system are in line with the useful life. It is important to state that the asset/system actually have the theoretical remaining life time or not.   
Clarify if maintenance should be capitalized or not in accordance with Article 6.4 below. |
| **7. Registering of data**     | Register the data and valuation start in accordance with the description in article 6.6 below. |
### 8. Establishing replacement costs

Establish pricelists for the assets in accordance with the description in Article 6.5 below.

### 9. Asset Register

When all data are registered and replacement costs and valuation of *Electricity* are established, the actual valuation and asset register can be established and asset register as shown in Appendix 2 can be prepared.

### 10. Review Asset Register

After the recording is completed LGUs should review the asset register so that any missing or inconsistent data is captured or clarified quickly.

### 11. Amend Asset Register

Upon LGU reasonable comments, Comments will be analyzed and discussed then reflected into the asset register.

<table>
<thead>
<tr>
<th>6.2 Assets Grouping and Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the purpose of registering, reporting and valuation, <em>Electricity</em> is divided into Asset Groups related to the operation of the electricity system and services in the municipality. The various Asset Groups for electricity systems are included in Paragraph 3.3.10.</td>
</tr>
</tbody>
</table>

See also *Appendix 6-1* for further details.

The Asset Groups are then divided into Asset Subgroups and further into Asset Types as shown in *Appendix 6-1*. The Asset Type is the lowest level in the structure to enable estimating Replacement Cost and Useful life.

<table>
<thead>
<tr>
<th>6.3 Useful Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>The general methodology described under <em>Paragraph 2.3</em> should be followed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6.4 Capital Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The general methodology described under <em>Paragraph 2.4</em> should be followed.</td>
</tr>
</tbody>
</table>
Rehabilitation of the electrical network has been done time to time. Normally rehabilitation of the following Asset Groups is maintenance and will not change the Useful Life of the asset.

- Switchgear, Main Substation
- Switches, Outdoor
- Capacitors
- Transformers
- Consumer Connection

Rehabilitation of the Asset Groups Cables, Underground and Lines, Overhead are normal procedures for the electricity departments.

For Cables rehabilitation is normally to replace a part of the system with new cable. Hence, the Valuator has to define if the rehabilitation is significant enough to be defined as capital maintenance in accordance with Paragraph 2.4. If it is defined as capital maintenance the normal procedure should be to register the new cable in the feeder with the new Useful Life and year of acquisition, and reduce the old total length with the same.

For Lines it could be a little different than described for Cables. If a section of the line is replaced, the method should be the same as for Cables above. If for example only the conductors of a section have been replaced with new including insulators, but the poles are still the old, the method should be that extension of Useful life should be used.

6.5 Valuation

The general methodology described under Paragraph 2.5 should be followed in addition to the following specific characteristics for valuation of electricity sector assets.

The electricity sector is characterized by a high level of sunk costs for electrical equipments and networks. Typically, many assets will have been upgraded, replaced and extended over a period of many years especially the networks. In most cases, valuing a network on an original cost bases does not yield meaningful results.

The components of cost comprises of:
- Purchase price delivered to site;
- The cost of site preparation
- Initial delivery and handling costs;
- Installation costs; and
- Professional fees such as for architects and engineers.

Estimated cost of dismantling the asset and restoring the site does not apply for electrical equipment.

6.5.1 Original Cost

If available for the components of cost mentioned above, Original Costs shall be used in accordance with Paragraph 2.5.

It is important that all documents (invoices, contracts, etc.) is documented by a copy and attached to the Evaluation Report.

6.5.2 Replacement Cost

If Original Cost could not available, estimation of Replacement Cost shall be established for all Asset Types.

For the purpose of establishing Replacement Cost for all Asset Types shown in Appendix 6-1, unit price list has to be established. Appendix 6-1 describes how the Unit Price should be established under columns Unit Price and Comments.

There are several methods to establish a unit price list for Replacement Cost. However, this should be done in close cooperation with experts with long experience from the electricity sector in Palestine. Bids, Contracts, locally established Price Lists and Authorities should be consulted to get the Unit prices as up to date as possible.

6.6 Registration of Assets

The process and effort involved in identifying the various categories and quantities of the various fixed assets by purchase date is expected to be substantial. Due to lack of supporting documentation, some municipal fixed
asset data items have to be estimated.

The system for asset grouping and level of asset types to be registered are shown in Appendix 6-1.

Researching of the necessary data as year of acquisition, quantities and references is a lot of work, but if it is done right, it only needs to be done once. If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.

The research for registering the assets should be done in close cooperation with the municipalities. Considerable help will have to come from the public works employees.

The necessary data to be defined or registered for valuation of assets are:

- **Asset Group** - In accordance with Appendix 6-1.
- **Asset Subgroup** - In accordance with Appendix 6-1.
- **Asset Type** - In accordance with Appendix 6-1.
- **Client ID** - Reference for the Asset Type like location, transformer number, line feeder number etc. Should be defined together with the municipality.
- **Quantity** - Quantity of the Asset Type. Can be a number, km, etc.
- **Year of Acquisition** - The year of acquisition of the Asset Type
  - **Asset historical (acquisition, actual) Cost**
  - **Asset Normal Useful Life**
  - **Asset Estimated Remaining Useful life**

These data are necessary to be entered into the Asset Register Software. Hence, the data collection in the field will be to collect enough data to classify the assets in accordance with Appendix 6-1 to enable valuation of the assets.

However, it is expected that a lot of the assets data required has to be estimated. Hence, the description below gives some ideas and procedures how to collect data and how to register them for later to be entered into the Asset Register Software.

**6.6.1 Land**
Land in connection with electricity systems is registered under the main class assets Land.

6.6.2 Buildings

Buildings in connection with electricity systems are registered under the main class assets Buildings.

6.6.3 Electrical Network and Equipment

The electrical systems will be one of the hardest to document. Consider help will have to come from the employees in the electrical department. If the municipality don't have data of the network registered, one option is to use a map of the system to get an overview of the system and use color coding of the map to indicate voltage and size of the lines and cables.

Normally the municipality have the year of acquisition for high voltage systems and also acceptable maps, single line diagrams etc. to verify the components.

Accurate data for transformers is normally available including years of acquisition and information about the type of arrangement.

Data for the low voltage system is normally not available, except for low voltage capacitors. The length of the 400 Volt lines could therefore be estimated by using a typical feeder as an average for each transformer. One example for estimation of the feeder from each transformer could comprise the following:

- Main feeder: 2.5 km; 3x95 mm$^2$ +1x50mm$^2$ + 2x25 mm$^2$, where 85% is ABC and 15% Al line
- Branches: 4 km; 4x50mm$^2$ + 2x25mm$^2$ +, where 85 is ABC and 15% is Al line
- Consumer Feeder: 4 km; 3x25 mm$^2$ + 3.5 km; NYY 3x10 mm$^2$

The total length of the low voltage lines for the municipality can then be calculated by multiplying the length of the typical feeder with the number of transformers.

The age of the low voltage system could be estimated by calculating the
average commissioning year for the high voltage system for the municipality. This average year could then be used as an average year of acquisition for the low voltage equipment.

When registering data for electrical network and equipment, it is normally practical to register some of the Asset Types on the same registering sheet. Hence, it is prepared some examples of registration forms to be used in the field as shown under Paragraph 6.5.6 below.

6.6.4 Machinery and Equipment

Machinery and Equipment in connection with electricity systems is registered under the main class assets Machinery and Equipment.

6.6.5 Office Equipment

Office Equipment in connection with electricity systems is registered under the main class assets Machinery and Equipment.

6.7 Capitalization & Depreciation

Infrastructure assets (Electricity Systems) are long-lived fixed assets that normally can be preserved for a significant greater number of years than most capital and that are normally stationary in nature. Infrastructure assets meeting the capitalization policy described in the fixed asset manual shall be capitalized. Infrastructure assets are considered to be exhaustible asset (with limited life) and therefore are depreciated.

6.8 Appendices

Appendix 6-1: Structure of Asset Groups, Asset Subgroups and Asset Types
Appendix 6-2: Registration form for Substation Kiosks, Network Switches, Transformers, Capacitors and Consumer Connections
Appendix 6-3: Registration form for Main Substations
Appendix 6-4: Registration form for Cables and Lines
7 VALUATION METHODOLOGY WATER SYSTEMS

The methodology described under this chapter has to be used in connection with the GENERAL description in Chapter 2.

7.1. Main steps in the valuation process

Below a brief summary of the main steps to be followed in the execution of the valuation are described. The table below is showing the main steps in logical sequence:

<table>
<thead>
<tr>
<th>Main Steps</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine LGU staff</td>
<td>Agree on the LGU staff to be assigned for the implementation of the valuation process</td>
</tr>
<tr>
<td>2. Prepare LGUs for Valuation</td>
<td>Define &amp; explain Methodology terms dealing with Water Systems through workshops &amp; training sessions</td>
</tr>
<tr>
<td>3. Determine types of assets</td>
<td>Find out and clarify which types of assets to be registered in the Municipality. (See 7.2 below)</td>
</tr>
<tr>
<td></td>
<td>Define which Categories, Asset Groups, Asset Subgroups and Types of Assets that will be included in the valuation. (See 7.2 below)</td>
</tr>
<tr>
<td>4. Organize Assets</td>
<td>Prepare structure of assets including useful life.</td>
</tr>
<tr>
<td></td>
<td>Delete Asset Groups, Asset Sub-groups and Asset Types that are not needed from the tables and add new if necessary. (See Appendix 7-1)</td>
</tr>
<tr>
<td>5. Preparation of registration sheets</td>
<td>Prepare sheets for registering assets showing necessary information. Examples of registration sheets are shown in Appendix 7-2, 3, 4 and 5.</td>
</tr>
</tbody>
</table>
Collect all available information such as maps, drawings etc. or/and technical background documents for the assets.

6. Physical visits

Execute physical inspection to determine and estimate year of acquisition and verify if the assets/system are in line with the useful life. It is important to state that the asset/system actually have the theoretical remaining life time or not.

Clarity if maintenance should be capitalized or not in accordance with Article 7.4 below.

7. Registering of data

Register the data and valuation start in accordance with the description in article 7.6 below.

8. Establishing replacement costs

Establish pricelists for the assets in accordance with the description in Article 7.5 below.

9. Asset Register

When all data are registered and replacement costs and valuation of Water Systems are established, the actual valuation and asset register can be established and asset register as shown in Appendix 2 can be prepared.

10. Review Asset Register

after the recording is completed LGUs should review the asset register so that any missing or inconsistent data is captured or clarified quickly

11. Amend Asset Register

Upon LGU reasonable comments. Comments will be analyzed and discussed then reflected into the asset register.
7.2. Assets Grouping and Types

For the purpose of registering, reporting and valuation, Water is divided into Asset Groups related to the operation of the water system and services in the municipality. The various Asset Groups for water systems are included in Paragraph 3.3.11.

See also Appendix 7-1 for further details.

The Asset Groups are then divided into Asset Subgroups and further into Asset Types as shown in Appendix 7-1. The Asset Type is the lowest level in the structure to enable estimating Replacement Cost and Useful life.

7.3. Useful Life

The general methodology described under Paragraph 2.3 should be followed.

7.4. Capital Maintenance

The general methodology described under Paragraph 2.4 should be followed.

Rehabilitation of the water network has been done time to time. Normally rehabilitation of the following Asset Groups is maintenance and will not change the Useful Life of the asset.

- Pump stations
- Valves on transmission mains
- Valves on distribution networks
- Water tanks
- Consumer connection

Rehabilitation of the Asset Groups transmission mains, distribution network, is normal procedures for the water departments.

For transmission mains and distribution lines rehabilitation is normally to replace a part of the system with new pipeline. Hence, the Valuator has to define if the rehabilitation is significant enough to be defined as capital maintenance in accordance with Paragraph 2.4. If it is defined as capital maintenance the normal
procedure should be to register the
new pipeline in the feeder with the new Useful Life and year of acquisition, and
reduce the old total length with the same.

For wells rehabilitation is normally to replace the major part of the system with
new submersible or suction pump. Hence, the Valuator has to define if the
rehabilitation is significant enough to be defined as capital maintenance in
accordance with Paragraph 2.4. If it is defined as capital maintenance the normal
procedure should be to register the new pump in the well with the new Useful Life
and year of acquisition.

7.5. Valuation

The general methodology described under Paragraph 2.5 should be followed in
addition to the following specific characteristics for valuation of water sector assets.

The water sector is characterized by a high level of sunk costs for water equipments
and networks. Typically, many assets will have been upgraded, replaced and
extended over a period of many years especially the networks.

In most cases, valuing a network on an original cost bases does not yield
meaningful results.

The components of cost comprises of:

- Purchase price delivered to site;
- The cost of site preparation
- Initial delivery and handling costs;
- Installation costs; and
- Professional fees such as for architects and engineers.

Estimated cost of dismantling the asset and restoring the site applies for only heavy
water equipment (i.e.; submersible pumps in wells).
7.5.1. Original Cost
If available for the components of cost mentioned above, Original Costs shall be used in accordance with Paragraph 2.5.

It is important that all documents (invoices, contracts, etc.) is documented by a copy and attached to the Evaluation Report.

7.5.2. Replacement Cost

If Original Cost is not available, estimation of Replacement Cost shall be established for all Asset Types.

For the purpose of establishing Replacement Cost for all Asset Types shown in Appendix 7-1, unit price list has to be established. “Appendix 7-1 describes how the Unit Price should be established under columns Unit Price and Comments.

There are several methods to establish a unit price list for Replacement Cost. However, this should be done in close cooperation with experts with long experience from the water sector in Palestine. Bids, Contracts, locally established Price Lists and Authorities should be consulted to get the Unit prices as up to date as possible.

7.6. Registration of Assets

The process and effort involved in identifying the various categories and quantities of the various fixed assets by purchase date is expected to be substantial. Due to lack of supporting documentation, some municipal fixed asset data items have to be estimated.

The system for asset grouping and level of asset types to be registered are shown in Appendix 7.1

Researching of the necessary data as year of acquisition, quantities and references is a lot of work, but if it is done right, it only needs to be done once. If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.

The research for registering the assets should be done in close cooperation with MDLF – Updated Version, Dec.2010
the municipalities. Considerable help will have to come from the public works employees.

The necessary data to be defined or registered for valuation of assets are:

- **Asset Group** - In accordance with Appendix 7-1
- **Asset Subgroup** - In accordance with Appendix 7-1
- **Asset Type** - In accordance with Appendix 7-1
- **Client ID** - Reference for the Asset Type like location, well number, pump number etc. Should be defined together with the municipality.
- **Quantity** - Quantity of the Asset Type. Can be a number, km, etc.
- **Commissioning Year** - The year of acquisition of the Asset Type
- **Asset historical (acquisition, actual) Cost**
- **Asset Normal Useful Life**
- **Asset Estimated Remaining Useful life**

These data are necessary to be entered into the Asset Register Software. Hence, the data collection in the field will be to collect enough data to classify the assets in accordance with Appendix 7-1 to enable valuation of the assets.

However, it is expected that a lot of the assets data required has to be estimated. Hence, the description below gives some ideas and procedures how to collect data and how to register them for later to be entered into the Asset Register Software.

**7.6.1. Land**

Land in connection with water systems is registered under the main class assets Land.

**7.6.2. Buildings**

Buildings in connection with water systems are registered under the main class assets Buildings.

**7.6.3. Water Network and Equipment**

The water systems will be one of the hardest to document. Consider help will
have to come from the employees in the water department. If the municipality don't have data of the network registered, one option is to use a map of the system to get an overview of the system and use color coding of the map to indicate wells, pump stations and size of the pipelines.

Normally the municipality have the year of acquisition for water wells, water tanks, pump stations, distribution networks and transmission lines and also acceptable maps, etc. to verify the components. Such maps may include as-built drawings for the main facilities constructed recently and or contract drawings.

Data for most of water wells, water tanks, pump stations, distribution networks and transmission lines is normally available including year of acquisition and types and sizes of these elements.

For the old facilities with no data, municipalities usually carry out field surveys and prepare the appropriate data in several formats upon need.

When registering data for water network and equipment, it is normally practical to register some of the Asset Types on the same registering sheet. Hence, it is prepared some examples of registration forms to be used in the field as shown under Paragraph 7.5.6.

7.6.4. Machinery and Equipment

Machinery and Equipment in connection with water systems is registered under the main class assets Machinery and Equipment.

7.6.5. Office Equipment

Office Equipment in connection with water systems is registered under the main class assets Machinery and Equipment.

7.7 Capitalization & Depreciation

Infrastructure assets (Water Systems) are long-lived fixed assets that normally can be preserved for a significant greater number of years than most capital and that are normally stationary in nature. Infrastructure assets meeting the capitalization policy described in the fixed asset manual shall be capitalized.

MDLF - Updated Version, Dec.2010
Infrastructure assets are considered to be exhaustible asset (with limited life) and therefore are depreciated.

7.8 Appendices

Appendix 7-1: Structure of Asset Groups, Asset Subgroups, and Asset Types
Appendix 7-2: Registration form for valves on transmission lines and distribution network, Consumer connections
Appendix 7-3: Registration form for water tanks
Appendix 7-4: Registration form for pump stations & Water Well
Appendix 7-5: Registration form for transmission mains and distribution lines

8. VALUATION METHODOLOGY SEWAGE SYSTEMS

The methodology described under this chapter has to be used in connection with the GENERAL description in Chapter 2.

8.1. Main steps in the valuation process

Below a brief summary of the main steps to be followed in the execution of the valuation are described. The table below is showing the main steps in logical sequence:

<table>
<thead>
<tr>
<th>Main Steps</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine LGU staff</td>
<td>Agree on the LGU staff to be assigned for the implementation of the valuation process</td>
</tr>
<tr>
<td>2. Prepare LGUs for Valuation</td>
<td>Define &amp; explain Methodology terms dealing with Sewage Systems through workshops &amp; training sessions</td>
</tr>
<tr>
<td>3. Determine types of assets</td>
<td>Find out and clarify which types of assets to be registered in the Municipality. (See 8.2 below)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Define which Categories, Asset Groups, Asset Subgroups and Types of Assets that will be included in the valuation. (See 8.2 below)</td>
<td>4. Organize Assets</td>
</tr>
<tr>
<td>Prepare structure of assets including useful life in accordance with Article 8.3 and Appendix 8-1. Delete Asset Groups, Asset Sub-groups and Asset Types that are not needed from the tables and add new if necessary. (See Appendix 8-1)</td>
<td></td>
</tr>
<tr>
<td>Prepare sheets for registering assets showing necessary information. Examples of registration sheets are shown in Appendix 8-2, 3, and 4. Collect all available information such as maps, drawings etc. or/and technical background documents for the assets.</td>
<td>5. Preparation of registration sheets</td>
</tr>
<tr>
<td>Execute physical inspection to determine and estimate year of acquisition and verify if the assets/system are in line with the useful life. It is important to state that the asset/system actually have the theoretical remaining life time or not.</td>
<td>6. Physical visits</td>
</tr>
<tr>
<td>Register the data and valuation start in accordance with the description in article 8.6 below.</td>
<td>7. Registering of data</td>
</tr>
<tr>
<td>Establish pricelists for the assets in accordance with the description in Article 8.5 below.</td>
<td>8. Establishing replacement costs</td>
</tr>
</tbody>
</table>
### 9. Asset Register
When all data are registered and replacement costs and valuation of Sewage Systems are established, the actual valuation and asset register can be established and asset register as shown in Appendix 2 can be prepared.

### 10. Review Asset Register
after the recording is completed LGUs should review the asset register so that any missing or inconsistent data is captured or clarified quickly

### 11. Amend Asset Register
Upon LGU reasonable comments. Comments will be analyzed and discussed then reflected into the asset register.

#### 8.2. Assets Grouping and Types
For the purpose of registering, reporting and valuation, Sewer is divided into Asset Groups related to the operation of the sewer system and services in the municipality. The various Asset Groups for sewer systems are included in Paragraph 3.3.12.

See also Appendix 8-1 for further details.

The Asset Groups are then divided into Asset Subgroups and further into Asset Types as shown in Appendix 8-1. The Asset Type is the lowest level in the structure to enable estimating Replacement Cost and Useful life.

#### 8.3. Useful Life
The general methodology described under Paragraph 2.3 should be followed.

#### 8.4. Capital Maintenance
The general methodology described under Paragraph 2.4 should be followed.

Rehabilitation of the sewer network has been done time to time. Normally rehabilitation of the following Asset Groups is maintenance and will not change the Useful Life of the asset.

MDLF – Updated Version, Dec.2010
• Pump stations
• Treatment plants

Rehabilitation of the Asset Groups transmission mains, distribution network, is normal procedures for the electricity departments.

For transmission mains and distribution lines rehabilitation is normally to replace a part of the system with new pipeline. Hence, the Valuator has to define if the rehabilitation is significant enough to be defined as capital maintenance in accordance with Paragraph 2.4. If it is defined as capital maintenance the normal procedure should be to register the new pipeline in the network with the new Useful Life and year of acquisition, and reduce the old total length with the same.

8.5. Valuation

The general methodology described under Paragraph 2.5 should be followed in addition to the following specific characteristics for valuation of sewer sector assets.

The sewer sector is characterized by a medium level of sunk costs for sewer equipments and networks. Typically, many assets will have been upgraded, replaced and extended over a period of many years especially the networks. In most cases, valuing a network on an original cost bases does not yield meaningful results.

The components of cost comprises of:

• Purchase price delivered to site;
• The cost of site preparation
• Initial delivery and handling costs;
• Installation costs; and
• Professional fees such as for architects and engineers.

Estimated cost of dismantling the asset and restoring the site applies for only heavy sewer equipment (i.e.; submersible pumps).

8.5.1. Original Cost

If available for the components of cost mentioned above, Original Costs shall be used in accordance with Paragraph 2.5.
It is important that all documents (invoices, contracts, etc.) is documented by a copy and attached to the Evaluation Report.

8.5.2. Replacement Cost

If Original Cost is not available, estimation of Replacement Cost shall be established for all Asset Types.

For the purpose of establishing Replacement Cost for all Asset Types shown in Appendix 8-1, unit price list has to be “established. “Appendix” 8-1 describes how the Unit Price should be established under columns Unit Price and Comments.

There are several methods to establish a unit price list for Replacement Cost. However, this should be done in close cooperation with experts with long experience from the sewer sector in Palestine. Bids, Contracts, locally established Price Lists and Authorities should be consulted to get the Unit prices as up to date as possible.

8.6. Registration of Assets

The process and effort involved in identifying the various categories and quantities of the various fixed assets by purchase date is expected to be substantial. Due to lack of supporting documentation, some municipal fixed asset data items have to be estimated.

The system for asset grouping and level of asset types to be registered are shown in Appendix 8-1

Researching of the necessary data as year of acquisition, quantities and references is a lot of work, but if it is done right, it only needs to be done once. If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.

The research for registering the assets should be done in close cooperation with the municipalities. Considerable help will have to come from the public works employees.

The necessary data to be defined or registered for valuation of assets are:
- **Asset Group** - In accordance with Appendix 8-1
- **Asset Subgroup** - In accordance with Appendix 8-1
- **Asset Type** - In accordance with Appendix 8-1
- **Client ID** - Reference for the Asset Type like location, treatment plant, pump number etc. Should be defined together with the municipality.
- **Quantity** - Quantity of the Asset Type. Can be a number, km, etc.
- **Commissioning Year** - The year of acquisition of the Asset Type
- **Asset historical (acquisition, actual) Cost**
- **Asset Normal Useful Life**
- **Asset Estimated Remaining Useful life**

These data are necessary to be entered into the Asset Register Software. Hence, the data collection in the field will be to collect enough data to classify the assets in accordance with Appendix 8-1 to enable valuation of the assets.

However, it is expected that a lot of the assets data required has to be estimated. Hence, the description below gives some ideas and procedures how to collect data and how to register them for later to be entered into the Asset Register Software.

**8.6.1. Land**

Land in connection with sewer systems is registered under the main class assets Land.

**8.6.2. Buildings**

Buildings in connection with sewer systems are registered under the main class assets Buildings.

**8.6.3. Sewer Network and Equipment**

The sewer systems will be one of the hardest to document. Consider help will have to come from the employees in the sewer department. If the municipality don’t have data of the network registered, one option is to use a map of the system to get an overview of the system and use color coding of the map to indicate pump stations and size of the pipelines.

Normally the municipality have the year of acquisition for treatment plants,
pump stations, distribution networks and transmission lines and also acceptable maps, etc. to verify the components.

Data for treatment plants, pump stations, distribution networks and transmission lines is normally available including year of acquisition and types and sizes of these elements.

For the old facilities with no data, municipalities usually carry out field surveys and prepare the appropriate data in several formats upon need.

When registering data for sewer network and equipment, it is normally practical to register some of the Asset Types on the same registering sheet. Hence, it is prepared some examples of registration forms to be used in the field as shown under Paragraph 8.5.6.

8.6.4. Machinery and Equipment
Machinery and Equipment in connection with sewer systems is registered under the main class assets Machinery and Equipment.

8.6.5. Office Equipment
Office Equipment in connection with sewer systems is registered under the main class assets Machinery and Equipment.

8.7 Capitalization & Depreciation
Infrastructure assets (Sewage Systems) are long-lived fixed assets that normally can be preserved for a significant greater number of years than most capital and that are normally stationary in nature. Infrastructure assets meeting the capitalization policy described in the fixed asset manual shall be capitalized. Infrastructure assets are considered to be exhaustible asset (with limited life) and therefore are depreciated.

8.8 Appendices

Appendix 8-1: Structure of Asset Groups, Asset Subgroups, and Asset Types.
Appendix 8-2: Registration form for pump stations.
Appendix 8-3: Registration form for treatment plant.
Appendix 8-4: Registration form for transmission mains and distribution lines.

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9 VALUATION METHODOLOGY STORM WATER SYSTEMS

The methodology described under this chapter has to be used in connection with the GENERAL description in Chapter 2.

9.1. Main steps in the valuation process

Below a brief summary of the main steps to be followed in the execution of the valuation are described. The table below is showing the main steps in logical sequence:

<table>
<thead>
<tr>
<th>Main Steps</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine LGU staff</td>
<td>Agree on the LGU staff to be assigned for the implementation of the valuation process</td>
</tr>
<tr>
<td>2. Prepare LGUs for Valuation</td>
<td>Define &amp; explain Methodology terms dealing with Storm Water Systems through workshops &amp; training sessions</td>
</tr>
<tr>
<td>3. Determine types of assets</td>
<td>Find out and clarify which types of assets to be registered in the Municipality. (See 9.2 below)</td>
</tr>
<tr>
<td></td>
<td>Define which Categories, Asset Groups, Asset Subgroups and Types of Assets that will be included in the valuation. (See 9.2 below)</td>
</tr>
<tr>
<td>4. Organize Assets</td>
<td>Prepare structure of assets including useful life in accordance with Article 9.3 and Appendix 9-1. Delete Asset Groups, Asset Sub-groups and Asset Types that are not needed from the tables and add new if necessary. (See Appendix 9-1)</td>
</tr>
<tr>
<td>5. Preparation of registration sheets</td>
<td>Prepare sheets for registering assets showing necessary information. Examples of registration sheets are shown in Appendix 9-2, and 3. Collect all available information such as maps, drawings etc. or/and technical background documents for the assets.</td>
</tr>
<tr>
<td>6. Physical visits</td>
<td>Execute physical inspection to determine and estimate year of acquisition and verify if the assets/system are in line with the useful life. It is important to state that the asset/system actually have the theoretical remaining life time or not. Clarify if maintenance should be capitalized or not in accordance with Article 9.4 below.</td>
</tr>
<tr>
<td>7. Registering of data</td>
<td>Register the data and valuation start in accordance with the description in article 9.6 below.</td>
</tr>
<tr>
<td>8. Establishing replacement costs</td>
<td>Establish pricelists for the assets in accordance with the description in Article 9.5 below.</td>
</tr>
<tr>
<td>9. Asset Register</td>
<td>When all data are registered and replacement costs and valuation of Storm Water Systems are established, the actual valuation and asset register can be established and asset register as shown in Appendix 2 can be prepared.</td>
</tr>
<tr>
<td>10. Review Asset Register</td>
<td>after the recording is completed LGUs should review the asset register so that any missing or inconsistent data is captured or clarified quickly</td>
</tr>
<tr>
<td>11. Amend Asset Register</td>
<td>Upon LGU reasonable comments. Comments will be analyzed and discussed then reflected into the asset register.</td>
</tr>
</tbody>
</table>

9.2. Assets Grouping and Types
For the purpose of registering, reporting and valuation, Storm is divided into Asset Groups related to the operation of the storm system and services in the municipality. The various Asset Groups for storm systems are included in Paragraph 3.3.13.
See also Appendix 9-1 for further details.

The Asset Groups are then divided into Asset Subgroups and further into Asset Types as shown in Appendix 9-1. The Asset Type is the lowest level in the structure to enable estimating Replacement Cost and Useful life.

9.3. Useful Life
The general methodology described under Paragraph 2.3 should be followed.
9.4. **Capital Maintenance**

The general methodology described under *Paragraph 2.4* should be followed. Rehabilitation of the storm network has been done time to time. Normally rehabilitation of the following Asset Groups is maintenance and will not change the Useful Life of the asset.

- Pump stations

Rehabilitation of the Asset Groups transmission mains, *distribution network*, is normal procedures for the sewage departments.

For transmission mains and distribution lines rehabilitation is normally to replace a part of the system with new pipeline. Hence, the Valuator has to define if the rehabilitation is significant enough to be defined as capital maintenance in accordance with *Paragraph 2.4*. If it is defined as capital maintenance the normal procedure should be to register the new pipeline in the network with the new Useful Life and year of acquisition, and reduce the old total length with the same.

9.5. **Valuation**

The general methodology described under *Paragraph 2.5* should be followed in addition to the following specific characteristics for valuation of storm sector assets.

The storm sector is characterized by a low level of sunk costs for storm equipments and networks. Typically, many assets will have been upgraded, replaced and extended over a period of many years especially the networks. In most cases, valuing a network on an original cost bases does not yield meaningful results.

The components of cost comprises of:

- Purchase price delivered to site;
- The cost of site preparation
- Initial delivery and handling costs;
- Installation costs; and
- Professional fees such as for architects and engineers.

Estimated cost of dismantling the asset and restoring the site applies for only heavy storm equipment (i.e.; submersible pumps).
9.5.1. Original Cost

If available for the components of cost mentioned above, Original Costs shall be used in accordance with Paragraph 2.5.

It is important that all documents (invoices, contracts, etc.) is documented by a copy and attached to the Evaluation Report.

9.5.2. Replacement Cost

If Original Cost is not available, estimation of Replacement Cost shall be established for all Asset Types.

For the purpose of establishing Replacement Cost for all Asset Types shown in Appendix 9-1, unit price list has to be “established. “Appendix 9-1 describes how the Unit Price should be established under columns Unit Price and Comments.

There are several methods to establish a unit price list for Replacement Cost. However, this should be done in close cooperation with experts with long experience from the storm sector in Palestine. Bids, Contracts, locally established Price Lists and Authorities should be consulted to get the Unit prices as up to date as possible.

9.6. Registration of Assets

The process and effort involved in identifying the various categories and quantities of the various fixed assets by purchase date is expected to be substantial. Due to lack of supporting documentation, some municipal fixed asset data items have to be estimated.

The system for asset grouping and level of asset types to be registered are shown in Appendix 9-1

Researching of the necessary data as year of acquisition, quantities and references is a lot of work, but if it is done right, it only needs to be done once. If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.
The research for registering the assets should be done in close cooperation with the municipalities. Considerable help will have to come from the public works employees.

The necessary data to be defined or registered for valuation of assets are:

- **Asset Group** - In accordance with Appendix 9-1
- **Asset Subgroup** - In accordance with Appendix 9-1
- **Asset Type** - In accordance with Appendix 9-1
- **Client ID** - Reference for the Asset Type like location, pump number etc. Should be defined together with the municipality.
- **Quantity** - Quantity of the Asset Type. Can be a number, km, etc.
- **Commissioning Year** - The year of acquisition of the Asset Type
- **Asset historical (acquisition, actual) Cost**
- **Asset Normal Useful Life**
- **Asset Estimated Remaining Useful life**

These data are necessary to be entered into the Asset Register Software. Hence, the data collection in the field will be to collect enough data to classify the assets in accordance with Appendix 8-1 to enable valuation of the assets.

However, it is expected that a lot of the assets data required has to be estimated. Hence, the description below gives some ideas and procedures how to collect data and how to register them for later to be entered into the Asset Register Software.

**9.6.1. Land**

Land in connection with storm systems is registered under the main class assets Land.

**9.6.2. Buildings**

Buildings in connection with storm systems are registered under the main class assets Buildings.

**9.6.3. Storm Network and Equipment**

The storm systems will be one of the hardest to document. Consider help will have to come from the employees in the storm department. If the municipality don't have data of the network registered, one option is to use a map of the system to
get an overview of the system and use color coding of the map to indicate pump stations and size of the pipelines.

Normally the municipality has the year of acquisition for pump stations and transmission lines and also acceptable maps, etc. to verify the components.

Data for pump stations, distribution networks and transmission lines is normally available including year of acquisition and types and sizes of these elements.

For the old facilities with no data, municipalities usually carry out field surveys and prepare the appropriate data in several formats upon need.

When registering data for storm network and equipment, it is normally practical to register some of the Asset Types on the same registering sheet. Hence, it is prepared some examples of registration forms to be used in the field as shown under Paragraph 9.5.6.

9.6.4. Machinery and Equipment
Machinery and Equipment in connection with storm systems is registered under the main class assets Machinery and Equipment.

9.6.5. Office Equipment
Office Equipment in connection with storm systems is registered under the main class assets Machinery and Equipment.

9.7 Capitalization & Depreciation
Infrastructure assets (Storm Water Systems) are long-lived fixed assets that normally can be preserved for a significant greater number of years than most capital and that are normally stationary in nature. Infrastructure assets meeting the capitalization policy described in the fixed asset manual shall be capitalized. Infrastructure assets are considered to be exhaustible asset (with limited life) and therefore are depreciated.

9.8 Appendices
Appendix 9-1: Structure of Asset Groups, Asset Subgroups, and Asset Types
Appendix 9-2: Registration form for pump stations
Appendix 9-3: Registration form for transmission mains and distribution lines
10 VALUATION METHODOLOGY  GENERAL INFRASTRUCTURE

The methodology described under this chapter has to be used in connection with the GENERAL description in Chapter 2.

10.1 Main steps in the valuation process

Below a brief summary of the main steps to be followed in the execution of the valuation are described. The table below is showing the main steps in logical sequence:

<table>
<thead>
<tr>
<th>Main Steps</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine LGU staff</td>
<td>Agree on the LGU staff to be assigned for the implementation of the valuation process</td>
</tr>
<tr>
<td>2. Prepare LGUs for Valuation</td>
<td>Define &amp; explain Methodology terms dealing with General Infrastructure through workshops &amp; training sessions</td>
</tr>
<tr>
<td>3. Determine types of assets</td>
<td>Find out and clarify which types of assets to be registered in the Municipality. (See 10.2 below)</td>
</tr>
<tr>
<td></td>
<td>Define which Categories, Asset Groups, Asset Subgroups and Types of Assets that will be included in the valuation. (See 10.2 below)</td>
</tr>
<tr>
<td>4. Organize Assets</td>
<td>Prepare structure of assets including useful life in accordance with Article 10.3 and Appendix 10-1.</td>
</tr>
<tr>
<td></td>
<td>Delete Asset Groups, Asset Sub-groups and Asset Types that are not needed from the tables and add new if necessary. (See Appendix 10-1)</td>
</tr>
</tbody>
</table>
| 5. Preparation of registration sheets | Prepare sheets for registering assets showing necessary information. Examples of registration sheets are shown in Appendix 10-2, 3 and 4.

Collect all available information such as maps, drawings etc. or/and technical background documents for the assets. |
| 6. Physical visits | Execute physical inspection to determine and estimate year of acquisition and verify if the assets/system are in line with the useful life. It is important to state that the asset/system actually have the theoretical remaining life time or not.

Clarify if maintenance should be capitalized or not in accordance with Article 10.4 below. |
| 7. Registering of data | Register the data and valuation start in accordance with the description in article 10.6 below. |
| 8. Establishing replacement costs | Establish pricelists for the assets in accordance with the description in Article 10.5 below. |
| 9. Asset Register | When all data are registered and replacement costs and valuation of General Infrastructure are established, the actual valuation and asset register can be established and asset register as shown in Appendix 2 can be prepared. |
| 10. Review Asset Register | After the recording is completed LGUs should review the asset register so that any missing or inconsistent data is captured or clarified quickly |
11. Amend Asset Register

Upon LGU reasonable comments. Comments will be analyzed and discussed then reflected into the asset register.

10.2 Assets Grouping and Types

For the purpose of registering, reporting and valuation, General infrastructure is divided into Asset Groups related to the kind of infrastructure and operation of services in the municipality. The various Asset Groups are included in Paragraph 3.3.14.

See also Appendix 10-1 for further details.

The Asset Groups are then divided into Asset Subgroups and further into Asset Types as shown in Appendix 10-1. The Asset Type is the lowest level in the structure to enable estimating Replacement Cost and Useful life.

10.3 Useful Life

The general methodology described under Paragraph 2.3 should be followed.

10.4 Capital Maintenance

The general methodology described under Paragraph 2.4 should be followed.

10.4.1 Street Lights

Rehabilitation of the street lights has been done time to time. Normally rehabilitation of the following Asset Groups is maintenance and will not change the Useful Life of the asset.

- Electrical conduits

Rehabilitation of the Asset Sub-Groups lighting fixtures is normal procedures for the electricity departments.

For lighting fixtures rehabilitation is normally to replace the fixture of the system
with new one. If for example only the lighting fixture has been replaced with new one, but the poles are still the old, the method should be that extension of Useful life should be used.

For poles rehabilitation is normally painting, conductors which not increase the Useful life time of the pole. While if rehabilitation will be replacement of the pole, then the Useful life time should be extended.

10.4.2 Asphalt Roads and Sidewalks

Rehabilitation of the asphalt roads and Sidewalks has been done normally several times. Minor rehabilitation which is considered as is maintenance will not change the Useful Life of the asset.

- Patching
- Painting

Rehabilitation of the Asset Groups asphalt roads is normal procedures for the civil departments.

For Asphalt roads and Sidewalks rehabilitation is normally either to remove the top asphalt layer (milling) and install a new layer or complete rehabilitation (replacement of asphalt and base layers). For both rehabilitation procedures, the Useful life time should be extended as appropriate. For complete rehabilitation, the Useful life time will be longer than for milling.

10.4.3 Base course Roads

Rehabilitation of the Asset Groups base course roads is normal procedures for the civil departments.

For base course roads rehabilitation is normally complete rehabilitation (installation of new layers). The Useful life time should be extended as appropriate.

10.4.4 Dirt Roads

Rehabilitation of the Asset Groups dirt roads is normal procedures for the civil departments.

For dirt roads rehabilitation is normally minor rehabilitation (levelling). The Useful life time should be extended as appropriate.
10.4.5 Bridges

Rehabilitation of the bridges has been done time to time. Rehabilitation of the Asset Groups bridges is normal procedures for the civil departments.

For bridges rehabilitation is normally minor rehabilitation-other than structural (isolation, painting). No effect on The Useful life time. If structural components were rehabilitated (foundations, supports, etc), then the Useful life time should be extended.

10.4.6 Retaining Walls

Rehabilitation of the Asset Groups bridges is normal procedures for the civil departments.

For retaining walls rehabilitation is normally minor rehabilitation-other than structural (isolation, painting). No effect on The Useful life time. If structural components were rehabilitated (foundations, supports, etc), then the Useful life time should be extended.

10.4.7 Road Signs

Rehabilitation of the Asset Groups road signs is normal procedures for the civil departments.

For traffic signs rehabilitation is normally complete rehabilitation/replacement of the signs. The Useful life time should be extended.

For traffic signals rehabilitation is normally minor rehabilitation (wires, lamps, etc). The Useful life time should not be extended.

10.5 Valuation

The general methodology described under Paragraph 2.5 should be followed in addition to the following specific characteristics for valuation.

For Street Lights:
- Type of fixture
- Type of pole

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For Asphalt Roads
- Side walks
- Intermedians
- Thickness of asphalt layer

For Bas course Roads:
- Thickness of base course layer

The focus should be to arrive at a large estimated figure for the whole municipality. It is not necessary to calculate values for each street or each block for each street. The first step would be to quantify the length of existing roads, etc. The next step is to determine the average width of the roads, etc. Then the sqm can be estimated and then do the valuation in accordance with Appendix 10-1.

10.5.1 Original Cost

If available for the components of cost mentioned above, Original Costs shall be used in accordance with Paragraph 2.5.

It is important that all documents (invoices, contracts, etc.) is documented by a copy and attached to the Evaluation Report.

10.5.1 Replacement Cost

If Original Cost could not available, estimation of Replacement Cost shall be established for all Asset Types.

The Replacement Cost is defined as the estimated cost of acquiring a new or modern substitute asset having the same characteristics as that existing asset, the same technical requirements as that existing asset, together with the associated expenses directly related to the construction of the asset.

For the purpose of establishing Replacement Cost for all Asset Types shown in Appendix 10-1, unit price list has to be “established. “Appendix” 10-1 describes how the Unit Price should be established under columns Unit Price and Comments.

There are several methods to establish a unit price list for Replacement Cost. However, this should be done in close cooperation with experts with long experience from the sector in Palestine. Bids, Contracts, locally established Price

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Lists and Authorities should be consulted to get the Unit prices as up to date as possible.

10.6 Registration of Assets
The system for asset grouping and level of asset types to be registered are shown in Appendix 10-1.
Researching of the necessary data as year of acquisition, quantities and references is a lot of work, but if it is done right, it only needs to be done once. If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.

The research for registering the assets should be done in close cooperation with the municipalities. Considerable help will have to come from the public works employees.

The necessary data to be defined or registered for valuation of assets are:

- **Asset Group** - In accordance with Appendix 10-1.
- **Asset Subgroup** - In accordance with Appendix 10-1.
- **Asset Type** - In accordance with Appendix 10-1.
- **Client ID** - Reference for the Asset Type like location, pole type, name, etc. Should be defined together with the municipality.
- **Quantity** - Quantity of the Asset Type. Can be a number, unit, sqm, cum,
- **Year of Acquisition** - The year of acquisition of the Asset Type
- **Asset historical (acquisition, actual) Cost**
- **Asset Normal Useful Life**
- **Asset Estimated Remaining Useful life**

These data are necessary to be entered into the Asset Register Software. Hence, the data collection in the field will be to collect enough data to classify the assets in accordance with Appendix 10-1 to enable valuation of the assets.

However, it is expected that a lot of the assets data required has to be estimated. Hence, the description below gives some ideas and procedures how to collect data and how to register them for later to be entered into the Asset Register Software.

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10.7 Capitalization & Depreciation

Infrastructure assets (General Infrastructure) are long-lived fixed assets that normally can be preserved for a significant greater number of years than most capital and that are normally stationary in nature. Infrastructure assets meeting the capitalization policy described in the fixed asset manual shall be capitalized. Infrastructure assets are considered to be exhaustible asset (with limited life) and therefore are depreciated.

10.8 Appendices
Appendix 10-1: Structure of Asset Groups, Asset Subgroups and Asset Types
Appendix 10-2: Example of form for registration of Traffic signs
Appendix 10-3: Example of form for registration of Roads
Appendix 10-4: Example of form for registration of Bridges & Retaining Walls.

11 VALUATION METHODOLOGY- FURNITURE

The methodology described under this chapter has to be used in connection with the GENERAL description in Chapter 2.

11.1 Main steps in the valuation process

Below a brief summary of the main steps to be followed in the execution of the valuation are described. The table below is showing the main steps in logical sequence:

<table>
<thead>
<tr>
<th>Main Steps</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine LGU staff</td>
<td>Agree on the LGU staff to be assigned for the implementation of the valuation process</td>
</tr>
<tr>
<td>2. Prepare LGUs for Valuation</td>
<td>Define &amp; explain Methodology terms dealing with Furniture through workshops &amp; training sessions</td>
</tr>
</tbody>
</table>

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<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3. Determine types of assets</strong></td>
<td>Find out and clarify which types of assets to be registered in the Municipality. (See 11.2 below) Define which Categories, Asset Groups, Asset Subgroups and Types of Assets that will be included in the valuation. (See 11.2 below)</td>
</tr>
<tr>
<td><strong>4. Organize Assets</strong></td>
<td>Prepare structure of assets including useful life in accordance with Article 11.3 and Appendix 11-1. Delete Asset Groups, Asset Sub-groups and Asset Types that are not needed from the tables and add new if necessary. (See Appendix 11-1)</td>
</tr>
<tr>
<td><strong>5. Preparation of registration sheets</strong></td>
<td>Prepare sheets for registering assets showing necessary information. Examples of registration sheets are shown in Appendix 11-2. Collect all available information and technical background documents for the assets.</td>
</tr>
<tr>
<td><strong>6. Physical visits</strong></td>
<td>Execute physical inspection to determine and estimate year of acquisition and verify if the assets/system are in line with the useful life. It is important to state that the asset/system actually have the theoretical remaining life time or not. Clarify if maintenance should be capitalized or not in accordance with Article 11.4 below.</td>
</tr>
<tr>
<td><strong>7. Registering of data</strong></td>
<td>Register the data and valuation start in accordance with the description in article 11.6 below.</td>
</tr>
</tbody>
</table>
8. Establishing replacement costs

Establish pricelists for the assets in accordance with the description in Article 11.5 below.

9. Asset Register

When all data are registered and replacement costs and valuation of Furniture are established, the actual valuation and asset register can be established and asset register as shown in Appendix 2 can be prepared.

10. Review Asset Register

After the recording is completed LGUs should review the asset register so that any missing or inconsistent data is captured or clarified quickly.

11. Amend Asset Register

Upon LGU reasonable comments. Comments will be analyzed and discussed then reflected into the asset register.

<table>
<thead>
<tr>
<th>11.2 Assets Grouping and Types</th>
</tr>
</thead>
</table>
For the purpose of registering, reporting and valuation, Furniture is divided into Asset Groups related to the operation of the electricity system and services in the municipality. The various Asset Groups are included in Paragraph 3.3.15. See also Appendix 11-1 for further details.

The Asset Groups are then divided into Asset Subgroups and further into Asset Types as shown in Appendix 11-1. The Asset Type is the lowest level in the structure to enable estimating Replacement Cost and Useful life.

<table>
<thead>
<tr>
<th>11.3 Useful Life</th>
</tr>
</thead>
</table>
The general methodology described under Paragraph 2.3 should be followed.

<table>
<thead>
<tr>
<th>11.4 Capital Maintenance</th>
</tr>
</thead>
</table>
The general methodology described under Paragraph 2.4 should be followed.

Rehabilitation of furniture is not expected or assumed to be the case. Rehabilitation would normally be to replace the furniture and shall then be capitalized.

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11.5 Valuation

The general methodology described under Paragraph 2.5 should be followed in addition to the following specific characteristics for valuation of furniture assets.

Furniture should be recorded as groups and valuated accordingly. For example, if a municipality have 100 chairs at USD 20 at an auditorium, it should be recorded as a group because they were probably purchased at the same time.

Office furniture is the most common furniture in the municipality. For registration and valuation purposes, office furniture should be recorded and valuated as per item with determining the location. One office place is defined consisting of one chair, one table and required shelves. Two Subgroups are established, one for regular office places and one for managers.

Similar classification is established as shown in Appendix 11-1 for the asset groups under this category.

The components of cost comprises of:

- Purchase price delivered to site;
- Initial delivery and handling costs;

Estimated cost of dismantling the asset and restoring the site does not apply for furniture.

11.5.1 Original Cost

If available for the components of cost mentioned above, Original Costs shall be used in accordance with Paragraph 2.5.

It is important that all documents (invoices, contracts, etc.) is documented by a copy and attached to the Evaluation Report.

11.5.2 Replacement Cost

If Original Cost could not available, estimation of Replacement Cost shall be
established for all Asset Types. The Replacement Cost of furniture is defined as the estimated cost of acquiring a new or modern substitute asset having the same productive capacity as that existing asset, the same technical requirements as that existing asset, together with the associated expenses directly related to the installation of the asset.

For the purpose of establishing Replacement Cost for all Asset Types shown in Appendix 11-1, unit price list has to be established. Appendix 11-1 describes how the unit price should be established under columns Unit Price and Comments.

There are several methods to establish a unit price list for Replacement Cost. The method recommended is to get pricelist from suppliers of furniture in Palestine and prepare an average Unit Price.

11.6 Registration of Assets

Due to lack of supporting documentation, some municipal fixed asset data items have to be estimated.

The system for asset grouping and level of asset types to be registered are shown in Appendix 11-1.

Researching of the necessary data as year of acquisition, quantities and references is a lot of work, but if it is done right, it only needs to be done once. If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.

The research for registering the assets should be done in close cooperation with the municipalities. Considerable help will have to come from the public works employees.

The necessary data to be defined or registered for valuation of assets are:

- **Asset Group** - In accordance with Appendix 11-1.
- **Asset Subgroup** - In accordance with Appendix 11-1.
- **Asset Type** - In accordance with Appendix 11-1.
- **Client ID** - Reference for the Asset Type like location, transformer number, line feeder number etc. Should be defined
together with the municipality.

- **Quantity** - Quantity of the Asset Type. Can be a number, km, etc.
- **Year of Acquisition** - The year of acquisition of the Asset Type
- **Asset historical (acquisition, actual) Cost**
- **Asset Normal Useful Life**
- **Asset Estimated Remaining Useful life**

These data are necessary to be entered into the Asset Register Software. Hence, the data collection in the field will be to collect enough data to classify the assets in accordance with Appendix 11-1 to enable valuation of the assets.

To register the furniture asset can be done either by physical visits or by requesting the municipality to list up how many office places they have, how many managers, how many meeting rooms and size and so forth.

Normally the municipality have the year of acquisition or can estimate based on the year of offices, grants received etc. It should also be registered for which department in the municipality the furniture is used for, to be able to relate the furniture to the correct *Infrastructure* categories.

When registering data for furniture, it is normally practical to register all the Asset Types on the same registering sheet. Hence, it is prepared example of registration form to be used in the field as shown under *Paragraph 11.5.1 below.*

### 11.7 Capitalization & Depreciation

Equipment and Machinery (Furniture) includes fixed or movable personal property to be used for operations.

Equipment meeting the capitalization policy described in the fixed asset manual shall be capitalized. Equipments are considered to be exhaustible asset (with limited life) and therefore are depreciated.

### 11.8 Appendices

- Appendix 11-1: Structure of Asset Groups, Asset Subgroups and Asset Types
- Appendix 11-2: Example of form for registration of Furniture.
12 VALUATION METHODOLOGY OFFICE EQUIPMENT

The methodology described under this chapter has to be used in connection with the GENERAL description in Chapter 2.

12.1 Main steps in the valuation process

Below a brief summary of the main steps to be followed in the execution of the valuation are described. The table below is showing the main steps in logical sequence:

<table>
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<tr>
<th>Main Steps</th>
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</thead>
<tbody>
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<td>1. Determine LGU staff</td>
<td>Agree on the LGU staff to be assigned for the implementation of the valuation process</td>
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<tr>
<td>2. Prepare LGUs for Valuation</td>
<td>Define &amp; explain Methodology terms dealing with Office Equipment through workshops &amp; training sessions</td>
</tr>
<tr>
<td>3. Determine types of assets</td>
<td>Find out and clarify which types of assets to be registered in the Municipality. (See 12.2 below)</td>
</tr>
<tr>
<td></td>
<td>Define which Categories, Asset Groups, Asset Subgroups and Types of Assets that will be included in the valuation. (See 12.2 below)</td>
</tr>
<tr>
<td>4. Organize Assets</td>
<td>Prepare structure of assets including useful life in accordance with Article 12.3 and Appendix 12-1.</td>
</tr>
<tr>
<td></td>
<td>Delete Asset Groups, Asset Sub-groups and Asset Types that are not needed from the tables and add new if necessary. (See Appendix 12-1)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td><strong>5. Preparation of registration sheets</strong></td>
<td>Prepare sheets for registering assets showing necessary information. Examples of registration sheets are shown in Appendix 12-2. Collect all available information and technical background documents for the assets.</td>
</tr>
<tr>
<td><strong>6. Physical visits</strong></td>
<td>Execute physical inspection to determine and estimate year of acquisition and verify if the assets/system are in line with the useful life. It is important to state that the asset/system actually have the theoretical remaining life time or not. Clarify if maintenance should be capitalized or not in accordance with Article 12.4 below.</td>
</tr>
<tr>
<td><strong>7. Registering of data</strong></td>
<td>Register the data and valuation start in accordance with the description in article 12.6 below.</td>
</tr>
<tr>
<td><strong>8. Establishing replacement costs</strong></td>
<td>Establish pricelists for the assets in accordance with the description in Article 12.5 below.</td>
</tr>
<tr>
<td><strong>9. Asset Register</strong></td>
<td>When all data are registered and replacement costs and valuation of Office Equipment are established, the actual valuation and asset register can be established and asset register as shown in Appendix 2 can be prepared.</td>
</tr>
<tr>
<td><strong>10. Review Asset Register</strong></td>
<td>after the recording is completed LGUs should review the asset register so that any missing or inconsistent data is captured or clarified quickly</td>
</tr>
</tbody>
</table>
11. Amend Asset Register

Upon LGU reasonable comments. Comments will be analyzed and discussed then reflected into the asset register.

12.2 Assets Grouping and Types

For the purpose of registering, reporting and valuation Office Equipment is divided into Asset Groups related to the operation of the electricity system and services in the municipality. The various Asset Groups are included in Paragraph 3.3.16.

See also Appendix 12-1 for further details.

The Asset Groups are then divided into Asset Subgroups and further into Asset Types as shown in Appendix 12-1. The Asset Type is the lowest level in the structure to enable estimating Replacement Cost and Useful life.

12.3 Useful Life
The general methodology described under Paragraph 2.3 should be followed.

12.4 Capital Maintenance
The general methodology described under Paragraph 2.4 should be followed.

Rehabilitation of photocopiers, computers, etc. is not expected or assumed to be the case. Rehabilitation would normally be to replace the equipment and should then be capitalized.

12.5 Valuation
The general methodology described under Paragraph 2.5 should be followed in addition to the following specific characteristics for valuation of furniture assets.

For registration and valuation purposes, office equipment should be recorded and valuated as per unit.

Classification is established as shown in Appendix 12-1 for the asset groups under this category.

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The components of cost comprises of:

- Purchase price delivered to site;
- Initial delivery and handling costs;

Estimated cost of dismantling the asset and restoring the site does not apply for Office Equipment.

12.5.1 Original Cost

If available for the components of cost mentioned above, Original Costs shall be used in accordance with Paragraph 2.5.

It is important that all documents (invoices, contracts, etc.) is documented by a copy and attached to the Evaluation Report.

12.5.2 Replacement Cost

If Original Cost could not available, estimation of Replacement Cost shall be established for all Asset Types.

The Replacement Cost of furniture is defined as the estimated cost of acquiring a new or modern substitute asset having the same productive capacity as that existing asset, the same technical requirements as that existing asset, together with the associated expenses directly related to the installation of the asset.

For the purpose of establishing Replacement Cost for all Asset Types shown in Appendix 12-1, unit price list has to be established. Appendix 12-1 describes how the unit price should be established under columns “Unit Price” and “Comments”.

There are several methods to establish a unit price list for Replacement Cost. The method recommended is to get pricelist from suppliers of furniture in Palestine and prepare an average “Unit Price”.

12.6 Registration of Assets

Due to lack of supporting documentation, some municipal fixed asset data items
have to be estimated.

The system for asset grouping and level of asset types to be registered are shown in Appendix 12-1.

If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.

The research for registering the assets should be done in close cooperation with the municipalities. Considerable help will have to come from the public works employees.

The necessary data to be defined or registered for valuation of assets are:

- **Asset Group** - In accordance with Appendix 12-1.
- **Asset Subgroup** - In accordance with Appendix 12-1.
- **Asset Type** - In accordance with Appendix 12-1.
- **Client ID** - Reference for the Asset Type like location, transformer number, line feeder number etc. Should be defined together with the municipality.
- **Quantity** - Quantity of the Asset Type. Can be a number, km, etc.
- **Year of Acquisition** - The year of acquisition of the Asset Type
- **Asset historical (acquisition, actual) Cost**
- **Asset Normal Useful Life**
- **Asset Estimated Remaining Useful life**

These data are necessary to be entered into the Asset Register Software. Hence, the data collection in the field will be to collect enough data to classify the assets in accordance with Appendix 12-1 to enable valuation of the assets.

To register office equipment assets can be done either by physical visits or by requesting the municipality to list up equipment they have.

To define the year of acquisition should normally not be difficult due to the equipment is normally too old. This kind of equipment has normally also a plate showing the model and in some cases the year of production. By contacting s supplier of the type of equipment it should be possible to state the year of acquisition. It should also be registered for which department in the municipality
the furniture is used for, to be able to relate the office equipment to the correct Infrastructure categories.

When registering data for office equipment, it is normally practical to register all the Asset Types on the same registering sheet. Hence, it is prepared example of registration form to be used in the field as shown under Paragraph 12.5.1 below.

12.7 Capitalization & Depreciation
Equipment and Machinery (Office Equipment) includes fixed or movable personal property to be used for operations.

Equipment meeting the capitalization policy described in the fixed asset manual shall be capitalized. Equipments are considered to be exhaustible asset (with limited life) and therefore are depreciated.

12.8 Appendices
Appendix 12-1: Structure of Asset Groups, Asset Subgroups and Asset Types.
Appendix 12-2: Example of form for registration of Office Equipment.

13 VALUATION METHODOLOGY VEHICLES

The methodology described under this chapter has to be used in connection with the GENERAL description in Chapter 2.

13.1 Main steps in the valuation process

Below a brief summary of the main steps to be followed in the execution of the valuation are described. The table below is showing the main steps in logical sequence:

<table>
<thead>
<tr>
<th>Main Steps</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine LGU staff</td>
<td>Agree on the LGU staff to be assigned for the implementation of the valuation process</td>
</tr>
<tr>
<td>2. Prepare LGUs for Valuation</td>
<td>Define &amp; explain Methodology terms dealing with Vehicles through workshops &amp; training</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>3. Determine types of assets</strong></td>
<td>Find out and clarify which types of assets to be registered in the Municipality. (See 13.2 below) Define which Categories, Asset Groups, Asset Subgroups and Types of Assets that will be included in the valuation. (See 13.2 below)</td>
</tr>
<tr>
<td><strong>4. Organize Assets</strong></td>
<td>Prepare structure of assets including useful life in accordance with Article 13.3 and Appendix 13-1. Delete Asset Groups, Asset Sub-groups and Asset Types that are not needed from the tables and add new if necessary. (See Appendix 13-1)</td>
</tr>
<tr>
<td><strong>5. Preparation of registration sheets</strong></td>
<td>Prepare sheets for registering assets showing necessary information. Examples of registration sheets are shown in Appendix 13-2. Collect all available information and technical background documents for the assets.</td>
</tr>
<tr>
<td><strong>6. Physical visits</strong></td>
<td>Execute physical inspection to determine and estimate year of acquisition and verify if the assets/system are in line with the useful life. It is important to state that the asset/system actually have the theoretical remaining life time or not. Clarify if maintenance should be capitalized or not in accordance with Article 13.4 below.</td>
</tr>
<tr>
<td><strong>7. Registering of data</strong></td>
<td>Register the data and valuation start in accordance with the description in article 13.6 below.</td>
</tr>
<tr>
<td><strong>8. Establishing replacement costs</strong></td>
<td>Establish pricelists for the assets in accordance with the description in Article 13.5 below.</td>
</tr>
</tbody>
</table>
9. Asset Register

When all data are registered and replacement costs and valuation of Vehicles are established, the actual valuation and asset register can be established and asset register as shown in Appendix 2 can be prepared.

10. Review Asset Register

After the recording is completed LGUs should review the asset register so that any missing or inconsistent data is captured or clarified quickly.

11. Amend Asset Register

Upon LGU reasonable comments. Comments will be analyzed and discussed then reflected into the asset register.

13.2 Assets Grouping and Types

For the purpose of registering, reporting and valuation Vehicles is divided into Asset Groups related to the operation of the electricity system and services in the municipality. The various Asset Groups are included in Paragraph 3.3.17 through 3.3.20.

See also Appendix 13-1 for further details.

The Asset Groups are then divided into Asset Subgroups and further into Asset Types as shown in Appendix 13-1. The Asset Type is the lowest level in the structure to enable estimating Replacement Cost and Useful life.

13.3 Useful Life

The general methodology described under Paragraph 2.3 should be followed.

13.4 Capital Maintenance

The general methodology described under Paragraph 2.4 should be followed.

Rehabilitation of vehicles, etc. is not expected or assumed to be the case. Rehabilitation would normally be to replace the equipment and should then be capitalized.
13.5 Valuation

The general methodology described under Paragraph 2.5 should be followed in addition to the following specific characteristics for valuation of vehicles assets.

For registration and valuation purposes, office equipment should be recorded and valuated as per unit.

Classification is established as shown in Appendix 13-1 for the asset groups under this category.

The components of cost comprises of:

- Purchase price delivered to site;
- Initial delivery and handling costs;

Estimated cost of dismantling the asset and restoring the site does not apply for vehicles.

13.5.1 Original Cost

If available for the components of cost mentioned above, Original Costs shall be used in accordance with Paragraph 2.5.

It is important that all documents (invoices, contracts, etc.) is documented by a copy and attached to the Evaluation Report.

13.5.2 Replacement Cost

If Original Cost could not available, estimation of Replacement Cost shall be established for all Asset Types.

The Replacement Cost of vehicles is defined as the estimated cost of acquiring a new or modern substitute asset having the same productive capacity as that existing asset, the same technical requirements as that existing asset, together with the associated expenses directly related to the installation of the asset.

For the purpose of establishing Replacement Cost for all Asset Types shown in Appendix 13-1, unit price list has to be established. Appendix 13-1 describes how the unit price should be established under columns Unit Price and Comments.
There are several methods to establish a unit price list for Replacement Cost. The method recommended is to get pricelist from suppliers of vehicles in Palestine and prepare an average Unit Price. It should be clarified if taxes (custom tax and others) apply for the type of car in questions and should if so also be included in the Replacement Cost.

13.6 Registration of Assets

The system for asset grouping and level of asset types to be registered are shown in Appendix 13-1.

If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.

The research for registering the assets should be done in close cooperation with the municipalities. Considerable help will have to come from the public works employees.

The necessary data to be defined or registered for valuation of assets are:

- **Asset Group** - In accordance with Appendix 13-1.
- **Asset Subgroup** - In accordance with Appendix 13-1.
- **Asset Type** - In accordance with Appendix 13-1.
- **Client ID** - Reference for the Asset Type like location, transformer number, line feeder number etc. Should be defined together with the municipality.
- **Quantity** - Quantity of the Asset Type. Can be a number, km, etc.
- **Year of Acquisition** - The year of acquisition of the Asset Type
- **Asset historical (acquisition, actual) Cost**
- **Asset Normal Useful Life**
- **Asset Estimated Remaining Useful life**

These data are necessary to be entered into the Asset Register Software. Hence, the data collection in the field will be to collect enough data to classify the assets in accordance with Appendix 13-1 to enable valuation of the assets.

To register vehicle assets can be done either by physical visits or by requesting the municipality to list up vehicles they have. Year of acquisition could be found on
the registering scheme and in addition determine the plate showing the model and in some cases the year of production of the vehicle. It should also be registered for which department in the municipality the vehicle is used for, to enable to relate the vehicle to the correct *Infrastructure* categories. Registration number on the plate of the car should also always be registered.

When registering data for vehicles, it is normally practical to register all the Asset Types on the same registering sheet. Hence, it is prepared example of registration form to be used in the field as shown under *Paragraph 13.5.1 below.*

**13.7 Capitalization & Depreciation**

Vehicles meeting the capitalization policy described in the fixed asset manual shall be capitalized. Vehicles are considered to be exhaustible asset (with limited life) and therefore are depreciated.

**13.8 Appendices**

Appendix 13-1: Structure of Asset Groups, Asset Subgroups and Asset Types  
Appendix 13-2: Example of form for registration of Vehicles

### 14 VALUATION METHODOLOGY

**HERITAGE ASSETS**

The methodology described under this chapter has to be used in connection with the *GENERAL* description in *Chapter 2.*

**14.1 Main steps in the valuation process**

Below a brief summary of the main steps to be followed in the execution of the valuation are described. The table below is showing the main steps in logical sequence:

<table>
<thead>
<tr>
<th>Main Steps</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine LGU staff</td>
<td>Agree on the LGU staff to be assigned for the implementation of the valuation process</td>
</tr>
</tbody>
</table>

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<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2. Prepare LGUs for Valuation</strong></td>
<td>Define &amp; explain Methodology terms dealing with Heritage assets through workshops &amp; training sessions</td>
</tr>
<tr>
<td><strong>3. Determine types of assets</strong></td>
<td>Find out and clarify which types of assets to be registered in the Municipality. (See 14.2 below) Define which Categories, Asset Groups, Asset Subgroups and Types of Assets that will be included in the valuation. (See 14.2 below)</td>
</tr>
<tr>
<td><strong>4. Organize Assets</strong></td>
<td>Prepare structure of assets including useful life in accordance with Article 14.3 and Appendix 14-1. Delete Asset Groups, Asset Sub-groups and Asset Types that are not needed from the tables and add new if necessary. (See Appendix 14-1)</td>
</tr>
<tr>
<td><strong>5. Preparation of registration sheets</strong></td>
<td>Prepare sheets for registering assets showing necessary information. Examples of registration sheets are shown in Appendix 14-2. Collect all available information and technical background documents for the assets.</td>
</tr>
<tr>
<td><strong>6. Physical visits</strong></td>
<td>Execute physical inspection to determine and estimate year of acquisition and verify if the assets/system are in line with the useful life. It is important to state that the asset/system actually have the theoretical remaining life time or not. Clarify if maintenance should be capitalized or not in accordance with Article 14.4 below.</td>
</tr>
<tr>
<td><strong>7. Registering of data</strong></td>
<td>Register the data and valuation start in accordance with the description in article 14.6 below.</td>
</tr>
</tbody>
</table>
Establishing replacement costs

Establish pricelists for the assets in accordance with the description in Article 14.5 below.

9. Asset Register

When all data are registered and replacement costs and valuation of Vehicles are established, the actual valuation and asset register can be established and asset register as shown in Appendix 2 can be prepared.

10. Review Asset Register

After the recording is completed LGUs should review the asset register so that any missing or inconsistent data is captured or clarified quickly.

11. Amend Asset Register

Upon LGU reasonable comments. Comments will be analyzed and discussed then reflected into the asset register.

14.2 Assets Grouping and Types

For the purpose of registering, reporting and valuation Heritage Assets is divided into Asset Groups. The various Asset Groups are included in Paragraph 3.3.21. See also Appendix 14-1 for further details.

The Asset Groups are then divided into Asset Subgroups and further into Asset Types as shown in Appendix 14-1. The Asset Type is the lowest level in the structure to enable estimating Replacement Cost and Useful life.

14.3 Useful Life

The general methodology described under Paragraph 2.3 should be followed.

14.4 Capital Maintenance

The general methodology described under Paragraph 2.4 should be followed.

Rehabilitation of heritage assets, etc. is not expected or assumed to be the case. Rehabilitation would normally be expensed and not capitalized.

14.5 Valuation

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The general methodology described under Paragraph 2.5 should be followed in addition to the following specific characteristics for valuation of heritage assets.

Classification is established as shown in Appendix 14-1 for the asset groups under this category.

The components of cost comprises of:

- Purchase price delivered to site;
- Initial delivery and handling costs;

Estimated cost of dismantling the asset and restoring the site does not apply for Heritage Assets.

Works of Art and Historical treasurers not held for financial gain but for publication, exhibition, education or research in furtherance of public service.

Reproducible Heritage assets should be valued using the replacement cost approach, while the non-reproducible Heritage assets should be valued using the market selling price.

There are several methods to establish a unit price list for Replacement Cost. The method recommended is to get pricelist from professional evaluators.

**14.6 Registration of Assets**

The system for asset grouping and level of asset types to be registered are shown in Appendix 14-1.

If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.

The research for registering the assets should be done in close cooperation with the municipalities. Considerable help will have to come from the public works employees.
The necessary data to be defined or registered for valuation of assets are:

- **Asset Group** - In accordance with Appendix 14-1.
- **Asset Subgroup** - In accordance with Appendix 14-1.
- **Asset Type** - In accordance with Appendix 14-1.
- **Client ID** - Reference for the Asset Type like location, transformer number, line feeder number etc. Should be defined together with the municipality.
- **Quantity** - Quantity of the Asset Type. Can be a number, km, etc.
- **Year of Acquisition** - The year of acquisition of the Asset Type
- **Asset historical (acquisition, actual) Cost**
- **Asset Normal Useful Life**
- **Asset Estimated Remaining Useful life**

These data are necessary to be entered into the Asset Register Software. Hence, the data collection in the field will be to collect enough data to classify the assets in accordance with Appendix 14-1 to enable valuation of the assets.

To register Heritage assets can be done either by physical visits or by requesting the municipality to list up the heritage assets they have. Researching of the necessary data as year of acquisition, quantities and references is a lot of work, but if it is done right, it only needs to be done once. If the original cost is found in the minutes or locate the voucher make a copy of it! Then when the capital asset listing is created in the Asset Register Software, a column can be established that references back to the supporting documentation.

When registering data for heritage assets, it is normally practical to register all the Asset

Types on the same registering sheet. Hence, it is prepared example of registration form to be used in the field as shown under Paragraph 14.6.1 below.

**14.6.1 Appendices**

Appendix 14-1: Structure of Asset Groups, Asset Subgroups and Asset Types

Appendix 14-2: Example of form for registration of heritage assets.

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