United Nations
Department of Management

DM Guideline

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Fixed Asset Management Framework Manual for United Nations Property Management Administered by DM PMU

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Contact: Property Management Unit (PMU/OCSS/DM)

ANNEXURES

A. PURPOSE

The Fixed Asset Management Framework Manual for United Nations Property Management Administered by PMU presents practical examples of scenarios in the day-to-day management of property, plant and equipment, including intangible assets and inventory, that are relevant to UN entities and that support entities with the operational management and financial accounting of fixed assets under IPSAS.

The Fixed Asset Management Framework builds on the United Nations Corporate Guidance as issued by OPPBA, which provides detailed guidance on the implementation of IPSAS policies. The objective of the Fixed Asset Management Framework is not to issue duplicative guidance but to provide direction for entities in areas where interpretation or application of IPSAS is needed.

The Fixed Asset Management Framework also builds on the United Nations policy framework for IPSAS as issued under ST/IC/2013/36. The ST/IC supports the understanding of IPSAS and how IPSAS will be applied at the United Nations for IPSAS-compliant financial statements. The ST/IC is designed to be applicable to all reporting entities of the Secretariat.

Both the United Nations policy framework for IPSAS and the United Nations Corporate Guidance as issued by OPPBA are based on pronouncements as issued by the International Public Sector Accounting Standards Board (IPSASB), the final authority on all areas of IPSAS. The IPSASB pronouncements that are referenced in the United Nations policy framework for IPSAS and the United Nations Corporate Guidance as issued by the OPPBA that pertain to the Fixed Asset Management Framework are:

IPSAS 12 – Inventories
IPSAS 13 – Leases
IPSAS 14 - Events after the reporting date
IPSAS 17 - Property, plant and equipment
IPSAS 21 - Impairment of non-cash-generating assets
IPSAS 23 - Revenue from non-exchange transactions (taxes and transfers)
IPSAS 26 - Impairment of cash-generating assets
IPSAS 31 - Intangible assets

As with the United Nations policy framework and the United Nations Corporate Guidance, the Fixed Asset Management Framework is not exhaustive and therefore should be used as a means to complement the Standards and other professional accounting pronouncements as applicable. Professional judgement should always be used in attaining IPSAS compliance.

Every effort has been made to ensure the accuracy of this manual. In the event of discrepancies between this manual and documents of the General Assembly, other legislative bodies, instructions from IPSAS and instructions from OPPBA, these latter documents shall prevail over the manual. Concerned parties are urged to send such discrepancies as well as comments or suggestions for improvement, to the Chief of the Property Management Unit in DM which has primary responsibility for this publication (PMU/OCSS/DM).

All the chapters contained in this manual remain under review and may be modified from time to time as circumstances and changes in working conditions dictate at United Nations Headquarters and entities. Modifications to the guidelines will be authorized as necessary by the Chief, Property Management Unit, and promulgated in writing. Any authorized modified version of the guidelines will take precedence over the original.

This manual is intended for the United Nations internal purposes only.

B. SCOPE

The Fixed Asset Management Framework Manual applies to all persons and entities within the Secretariat (OAH's, HQ, Regional Commissions, DFS and Tribunals) with responsibilities that involve the financial and operational management of United Nations fixed assets - property, plant and equipment including intangibles and inventories.

C. RATIONALE

With the adoption of International Public Sector Accounting Standards (IPSAS), the United Nations is moving away from the United Nations System Accounting Standards (UNSAS) that was developed internally by accountants within the United Nations system. IPSAS represents internal best practices for public sector entities and intergovernmental international organizations, and its adoption would improve the quality, comparability and reliability of financial reporting.

Compliance with IPSAS requires the introduction of the full accrual basis of accounting, which is accepted best practice and is a significant change from the modified cash basis of accounting applied under UNSAS. The full accrual basis of accounting requires the recognition of transactions and events when they occur (not when cash or its equivalent is received or paid), and the reporting in the financial statements of the fiscal periods to which they relate.

IPSAS requires the presentation in the financial statements of all assets acquired, including real property, equipment and intangible assets, and their gradual deprecation or amortization over their period of use. Such detailed requirements will necessitate improved stewardship of the organizations' assets.

D. ROLES

The Fixed Asset Management Framework Manual is meant for all individuals who are responsible for the management, control and accounting of United Nations fixed assets and who are therefore responsible for ensuring that UN fixed assets are in compliance with IPSAS requirements. These individuals include those involved in the purchasing, receiving, operating, maintenance, asset accounting and disposal functions.

The Fixed Asset Management Framework Manual is also meant for the Fixed Asset Management Officer who has a crucial role in ensuring that the operations of the entity are correctly accounted for and are in financial compliance with the IPSAS Policy Framework for the generation of the financial statements of the entity.

The following paragraphs briefly explain the responsibilities of each individual/entity:

Department of Management (DM) / Property Management Unit (PMU)

The Under-Secretary General (USG) for Management has overall responsibility for United Nations property management and control, delegated to him or her by the Secretary General. The USG for Management delegates this authority to the Assistant-Secretary General (ASG)

for the Office of Central Support Services (OCSS). Under the United Nations Department of Management (DM), the Property Management Unit (PMU) oversees the implementation of the policies and procedures that encompass property management. This includes oversight, guidance and translation of IPSAS principles into the day-to-day operations and management of fixed assets.

Office of Programme Planning, Budget and Accounts (OPPBA)

OPPBA in the United Nations Department of Management is responsible for the review and acceptance of property management records for the generation of the financial statements of the organization.

Fixed Asset Management Officer

The Fixed Asset Management Officer has the overall responsibility of ensuring that the operations of the entity are correctly accounted and are in financial compliance with the IPSAS Policy Framework. The Fixed Asset Management Officer bridges the operational management of fixed assets with the financial accounting of fixed assets, with specific responsibilities that include overseeing the proper maintenance of the fixed asset register, ensuring the accurate compilation of assets under construction, investigating indicators of impairment of fixed assets and liaising with auditors on the accounting of fixed assets for the entity.

Receiving Unit

Each entity is responsible for receiving, inspecting and certifying acceptance or rejection of all items of fixed assets delivered or provided to the entity. The unit maintains a record of all incoming shipments in the register of the entity.

Asset Managers

Asset managers are responsible and accountable for assets and materials entrusted to them and issued to their section/department/office. The asset manager performs day-to-day property management duties and supports the receiving of property when requested by the Receiving Unit.

Property Management Unit

The Property Management Unit is responsible for the oversight of the fixed asset records of the entity, including control, inspection and fixed asset physical verification.

Offices and Entities Responsible for Real Estate (Facilities Management, Engineers, Operations)

Engineers are responsible for the design, development, operations and maintenance of fixed assets. Engineers are responsible for the technical operations of the organization, including determining the causes of property failure, supporting the assessment of impairment reviews and developing maintenance plans.

E. CHAPTERS

Each chapter of the Fixed Asset Management Framework Manual provides an overview, an outline of the related IPSAS guidance, and practical and pragmatic examples of scenarios in the day-to-day management of fixed assets.

Chapter	Title	Summary
1	Recognition and De-recognition of Fixed Assets	Control of asset needed for recognition in financial statements and approval of disposal for de-recognition.
2	Componentization and Sub-componentization of Buildings	Break-down of a building into practical parts to facilitate financial and operational management.
3	Leases and Donated Right-To-Use Arrangements	Identification and treatment of arrangements where a right is given to use an asset for a period of time.
4	Inventories	Recognition and impairment of inventories.
5	System Assets	Treatment of system assets composed of subunits that collectively perform a function.
6	Subsequent Costs (Repairs, Maintenance and Improvements)	Identification of when to capitalize or expense expenditures incurred on an existing asset.
7	Fixed Asset Physical Verification and Reconciliation Process	Confirmation and evidence to support the existence of fixed assets.
8	Asset Impairment	Indicators of assets that have lost value. Calculation of impaired value.
9	Errors, Changes in Policy and Changes in Estimates	Identification and treatment of financial accounting errors, changes and adjustments.

Chapter 1

Recognition and De-recognition of Fixed Assets

Overview:

1.1 The objective of this chapter is to provide an overview of recognition and de-recognition principles for fixed assets under the IPSAS Policy Framework ST/IC/2013/36. In addition, the objective of this guidance is to provide practical examples of recognition and de-recognition situations that the Fixed Asset Management Officer may encounter and their suggested solutions.

1.2 Recognition of a fixed asset in the financial statements occurs when an entity gains control of the fixed asset's economic benefits or service potential. Per IPSAS 17, "Assets are resources controlled by an entity as a result of past events and from which future economic benefits or service potential are expected to flow to the entity."

1.3 In addition, recognition of a finance lease as a fixed asset occurs when during a lease arrangement, the significant risks and rewards of ownership of the leased item are transferred to the entity.

1.4 De-recognition is the removal of the fixed asset from the financial records and, under the IPSAS Policy Framework ST/IC/2013/36, occurs once an asset's disposal is approved by the appropriate delegations of authority. Disposal includes the sale, transfer, donation, scrapping, destruction and write-off of an asset.

Guidance:

Recognition of Fixed Assets in the Financial Statements

1.5 Per IPSAS, "Assets are resources controlled by an entity as a result of past events and from which future economic benefits or service potential are expected to flow to the entity." IPSAS abides by the concept of control to determine if an asset is recognized in the financial statements of the entity. If it is determined that the entity has control over the economic benefits or service potential of the asset, and that the entity can regulate or deny access of others to the benefits or service potential of that asset, then the asset is controlled by the entity. Assets that are controlled by the entity are recognized in the financial statements.

1.6 While control is generally evidenced through ownership, this is not always the case. There are instances where an entity has control over the benefits of an asset, however, does not own the asset. These instances are where the economic substance of control of the transaction takes precedence over the legal form of ownership. An example is a sale-leaseback transaction where an entity sells its assets to a third-party in exchange for cash. The entity then leases back the assets from the third-party. In this example, although legal ownership has switched, the substance of the transaction is the same. The entity still has control over the assets. This transaction is akin to purchasing an asset with funding obtained thought a loan.

1.7 Similarly, if an entity owns an asset, however does not control the economic benefits or service potential of the asset, then the entity should not recognize the assets in its financial statements.

1.8 Judgement must be exercised and all facts and circumstances considered when establishing whether control of an asset exists. The two main criteria that must be fulfilled for control to exist are:

- The risks and rewards of ownership are transferred to the entity; and
- The entity ability to guide, influence or restrict the asset's use.

1.9 In addition to control, the following criteria are required to be fulfilled for recognition of an item as a fixed asset:

- The value of the item can be measured reliably;
- The item has a useful life of more than one year; and
- The item meets the asset threshold levels adopted by the UN.

1.10 Risks of ownership include devaluation of the asset due to technological obsolescence, costs of maintenance, damage and repair, costs to adhere to government regulations, costs of insurance, loss in value and losses from idle operations.

1.11 Rewards of ownership include appreciation in value, realization of gains in residual value, earning of rental income by sub-letting the asset and earning financial returns from the asset's use.

1.12 If an item is controlled by an entity but does not meet the capitalization threshold, then it is expensed.

1.13 When an item is recognized as a fixed asset in the financial statements of the organization, as part of its operations, it must be:

- Depreciated: A systematic amount representing a portion of the fixed asset's value allocated to the financial year in which the fixed asset is used is deducted from the asset and expensed. Depreciation occurs over the estimated useful life of the asset. Annexure III references estimated useful lives by asset sub class.

- Assessed for Impairment: If there is an indication that the fixed asset has lost value, then an assessment must be completed to determine if there was indeed an impairment and the fixed asset is written-down and recorded at its impaired value. (See Chapter on Asset Impairment)

- Maintained or upgraded: Costs that are incurred on an existing fixed asset represent either day-to-day costs of operations or enhancements to the fixed asset. Based on certain criteria, these costs are either expensed or capitalized as fixed assets. (See Chapter on Subsequent Costs – Repairs, Maintenance and Improvements)

- Physically verified: A fixed asset should be confirmed as to its existence at each reporting period date. (See Chapter on Fixed Asset Physical Verification and Reconciliation Process)

1.14 Depreciation is a systematic allocation of the fixed asset's value over its useful life. Under UN policy, depreciation is on a straight-line basis, where an equal allocation of the financial value of the fixed asset is booked as an expense in each financial year of the asset's useful life. Depreciation begins when there is control of the fixed asset up to when the fixed asset is fully depreciated or when the fixed asset is disposed.

***Umoja* Solution**

1.15 Under the Umoja solution, depreciation is calculated commencing from the 1st day of the month in which control of the asset occurs. For example, an asset for which control is gained on April 26th will have depreciation commence on the asset commencing on April 1st. Irrespective of the date of control of the asset, the calculation of depreciation expense begins on the 1st day of the month.

Capitalization Thresholds

1.16 Table 1.1 below identifies types of fixed assets and their respective capitalization threshold levels that are required to be met prior to recognition of an item as a fixed asset.

1.17 **Table 1.1: Fixed Asset Capitalization Thresholds**

Fixed Asset	Threshold
Equipment - Volumes I and II (other than vehicles, prefabricated buildings, satellite communication systems, generators and network equipment)	USD $20,000
Equipment - Volumes I and II - vehicles, prefabricated buildings, satellite communication systems, generators and network equipment	USD $5,000
All Equipment of certain smaller entities (e.g. UNEP, UN Habitat)	USD $5,000
Self-constructed assets	USD $100,000
Buildings, Leasehold Improvements, Infrastructure Assets, Major Upgrades	USD $100,000
Land	No threshold
Internally generated intangibles	USD $100,000
Purchased intangibles, other than Volume I and II and certain smaller entities	USD $5,000 per unit/user
Purchased intangibles – Volume I and II	USD $20,000 per unit/user
Finance Leases other than Volumes I and II	USD $5,000
Finance Leases Volumes I and II, except the following commodity groups: vehicles, prefabricated buildings,	USD $20,000

satellite communication systems, generators and network equipment.	
Finance Leases for the following commodity groups: vehicles, prefabricated buildings, satellite communication systems, generators and network equipment.	USD $5,000

Umoja Solution – Classification of items as a fixed asset or as an expense/consumption account

1.18 Under the _Umoja_ solution, establishment of an item's classification in the financial statements is actioned at the purchase order stage. The _Umoja_ Material Master is developed to support the purchasing process by pre-assigning a general ledger account to each item that is purchased. That is, each item in the Material Master is assigned to one of the fixed asset general ledger accounts, or is assigned to one of the expense/consumption accounts. The account pre-assignment of each item was determined based on an "indicative value", representing an analysis completed on the global average financial value of each item. An item with an indicative value above its capitalization threshold is capitalized as an asset; else the item is expensed.

1.19 As an example, the analysis of the financial values of all monitors procured by the UN concluded that the average financial value, or "indicative value", is below the capitalization threshold of $20,000 (the threshold for the equipment asset class). As such, monitors are set with a default account assignment of an expense/consumption account (as opposed to a fixed asset account). When the purchase order requisitioner chooses the monitor from the Material Master, the account assignment is defaulted to an expense account. As a comparison, certain items have indicative values that exceed their capitalization thresholds; these items are assigned a default account assignment of a fixed asset account. In the event that the default general ledger account assignment is not appropriate, then the requisitioner should override and replace the default general ledger account assignment with the correct one or the fixed asset accountant should perform a financial re-class.

1.20 The use of the Material Master to standardize general ledger account assignments facilitates the consistent application and recording of items in the financial statements across all UN entities. In addition to the correct general ledger account, this includes the items' descriptions, material codes, and unit of measures, all of which support the execution and tracking of downstream transactions in Umoja.

Timing of Control and Recognition

1.21 The point in time when control occurs is usually defined by the Incoterms if the shipment is not subject to installation by the seller. If goods are shipped subject to installation by the seller then the goods are only recognized upon completion of installation.

1.22 "Incoterms" is short for "International Commercial Terms" and represents a series of pre-defined commercial terms published by the International Chamber of Commerce (ICC) that are widely used in International commercial transactions. The Incoterms rules are accepted by governments, legal authorities, and practitioners worldwide for the interpretation of the most commonly used terms in international trade transactions. Incoterm rules define the

tasks, costs, and risks associated with the transportation and delivery of goods and are incorporated into contracts between the seller and buyer.

1.23 In order to demonstrate the different levels of risk that can be identified in the incoterms between the seller and the buyer, Table 1.2 highlights two incoterms, along with the risks to the seller/buyer, a description of the tasks, and the time of recognition. Additional incoterms can be found in the publication ICC Guide to Incoterms 2010 (source noted at the bottom of Table 1.2).

1.24 **Table 1.2: Incoterm Examples and Related Risks and Recognition**

Incoterm	Risks	Description	Recognition
Ex Works –EXW (named place)	Maximum obligation on buyer. Minimum obligation on seller.	The seller makes the goods available at seller premises for pickup. Buyer arranges for pickup, loading, duties, delivery to final destination.	Recognition by buyer occurs when the goods are removed from the seller's premises.
Delivered Duty Paid – DDP (named place of destination)	Maximum obligation on seller. Minimum obligation on buyer.	Seller is responsible for delivering the goods to the named place and is responsible for all import duties and taxes. Buyer is only Responsible for unloading.	Recognition occurs when the goods are delivered to the named place of destination.

Source: ICC Guide to Incoterms 2010, Understanding and practical use, Professor Jan Ramberg, International Chamber of Commerce, 2010, as well as http://www.iccwbo.org/products-and-services/trade-facilitation/incoterms-2010/the-incoterms-rules/

1.25 For example, if construction equipment is sold to a UN entity ex works, then the UN entity recognizes the construction equipment as assets in the financial statements once the freight/delivery service picks up the construction equipment from the seller's premises. Under the ex-works arrangement, all risks and benefits of ownership are transferred to the UN entity at the point in time when the item is removed from the seller's premises. At that point in time of removal from the seller's premises, the UN entity has control of the item and therefore should promptly record the fixed asset in the financial records.

1.26 However, if the construction equipment is sold to the UN entity under the terms delivered duty paid, control of the item is transferred to the UN entity when the goods are delivered to the place identified and agreed upon between the UN entity and the seller. At the point in time when the UN obtains control of the item, the item should be recorded as a fixed asset in the financial records.

1.27 Operationally, at that point in time when control of an asset is obtained, the entity has the ability to use the asset as part of its operations, including how to use the asset, when to use the asset and who can use the asset. The entity has the ability to use the asset for its intended use

and make decisions on the asset's maintenance and replacement plans and its disposal. In addition, the entity is responsible for the asset's damage and theft.

Measurement

1.28 Under IPSAS, all fixed assets recognized in the financial statements should be measured at cost (other than donated goods which are measured at fair value).

1.29 When recognizing a fixed asset, items that should be included in the cost of a fixed asset include (for details refer to the UN Corporate Guidance for IPSAS Property, Plant and Equipment and for IPSAS Intangible Assets):

- Purchase price including import duties, taxes, net of discounts and rebates;
- Directly attributable costs to bring the asset to its location of use and condition to be available-for-use, including employee salary and benefits, incremental rent, installation, testing and professional fees;
- Associated costs such as freight and insurance;
- Direct materials and direct labor costs;
- Initial estimate of dismantling costs and restoring the site to its original condition. This spreads the costs of dismantling and restoration over the asset's useful life through annual depreciation rather than as one lump sum charge; and
- Any rent paid prior to delivering the equipment to its intended location of use.

1.30 Items that are <u>not</u> included in the cost of a fixed asset are:

- General overhead and administration costs;
- Staff training;
- Marketing and promotion costs;
- Abnormal amounts of wasted material and labor (costs of spoilage);
- Repairs and maintenance costs;
- Costs incurred after the asset's available for use date such as relocating costs and temporary accommodation costs; and
- Extended warranty costs.

1.31 Costs must also be measured reliably. Where employee labor costs cannot be directly tied back to the cost of an asset (e.g. lack of time sheets, employee works on multiple projects of which none are tracked specifically), then the employee labor costs should be expensed.

1.32 As an example, the construction equipment sold ex works to the UN entity should include the costs of the delivery/freight service, as well as any damage insurance purchased, any rent paid to store the construction equipment prior to delivering the equipment to its intended location of use, direct labor costs that can be reliably measured, the costs of installation and the cost of testing the equipment.

1.33 Often the items noted above that should be recognized with the cost of the asset are provided by separate vendors from that of the asset. For example, delivery costs are rendered by a

freight company. Installation costs are rendered by a moving company. To support the identification and gathering of costs that are directly attributable and associated with the asset, the seller of the asset can incur the directly attributable cost sand associated costs and then subsequently pass them on through their invoice. However, the more likely scenario is to ensure that the purchase orders and invoices for the directly attributable and associated costs clearly identify the purchase order number of the main asset, such that these costs can be tied back to and be recorded in the cost of the main asset.

Associated Costs under the *Umoja* solution

1.34 In order to simplify the accounting for associated costs, the *Umoja* solution calculates an estimate of the associated costs of a purchased item and records the estimate as part of the purchased item's cost. The amount calculated provides an estimate of all associated costs (including freight, delivery, testing and installation costs) without the administration of tracking and recording each associated cost. Based on an analysis of historical associated costs, the Umoja solution will apply a rate of 4% of the purchase cost for non-Peacekeeping entities and a rate of 20% of the purchase cost for Peacekeeping entities.

Warranty Costs

1.35 A warranty is an agreement whereby the vendor/manufacturer promises to replace a fixed asset that is defective within a certain period of time. Warranty costs are not capitalized as part of the fixed asset because warranty costs are not directly attributable costs to bring the asset to its intended use.

1.36 In some cases, a warranty is embedded within the initial purchase price and cannot be separated from the purchase contract. In such cases, the warranty costs are capitalized with the cost of the fixed asset for the primary reason that a reliable estimate of the value of the warranty is not obtainable. However, if the warranty cost is listed as a separate item on the purchase order or vendor invoice, then the cost should be deferred and treated as a prepaid asset and expensed over the warranty term.

Land

1.37 Land refers to that part of surface of the Earth that is solid ground. Generally buildings and infrastructure assets are built on top of land and collectively called "real estate". Land can also be used for farming or for extracting mineral resources amongst other uses.

1.38 There is no capitalization threshold for land. All owned land is recognized and recorded as a fixed asset in the financial statements.

1.39 The cost of land includes the purchase price as well as all incidental and associated costs. This includes legal fees, title fees, survey costs, costs to tear down buildings, costs to clear the land and make it available for use as intended by management, zoning costs, grading costs,

costs to remove hazardous materials from the land and costs paid on behalf of the buyer. The cost of land does not include the costs of buildings on the land, costs of farming the land and costs of land improvements such as parking lots and roads.

1.40 Land is not depreciated because land has an unlimited useful life.

Buildings

1.41 Buildings are fixed assets and are generally structures that have a roof and exterior walls and are used as places for people to work, live in, do activities at or to provide protection or to store things.

1.42 Examples of buildings are administrative office buildings, warehouses, industrial facilities, hospitals, schools, houses, churches, farmhouses, residential buildings, theaters and embassy buildings.

1.43 Buildings can be temporary, mobile or fixed, such as a school classroom building or a warehouse. Buildings are depreciable, because buildings have a fixed life.

1.44 Buildings include in their classification all the machinery, equipment, apparatuses and fixtures that cannot be removed from a building without cutting into the ceiling, floors or walls and without causing significant damage to the building or the machinery, equipment, apparatuses or fixtures.

1.45 The capitalization threshold for a building expenditure is $100,000. Expenditures under $100,000 are expensed.

1.46 The Chapter on Componentization and Subcomponentization recommends the tracking and recording of buildings at the component and subcomponent levels. Refer to the chapter for definitions of components and subcomponents of buildings, as well as the useful lives of each.

1.47 Buildings purchased together with land should be accounted for and recorded separately. An apportionment of the purchase price is required to establish the value of the building separated from the value of the land.

Infrastructure Assets

1.48 Infrastructure assets are long-lived fixed assets and include transportation networks, communication networks, water management systems and energy distribution systems. Infrastructure assets are essential to the operations of the UN and/or the economic and social development of communities that the UN supports. The UN recognizes these assets as a separate asset class due their long operational lives as well as their unique characteristics.

1.49 Infrastructure Assets follow all the same rules of recognition as identified above. The UN has decided to separately identify Infrastructure Assets as a separate class of assets that display some or all of the following unique characteristics:

- They are part of a system or network;
- They are specialized in nature and do not have alternative uses;
- They are immovable; and
- They may be subject to constraints on disposal.

1.50 Similar to buildings, infrastructure assets include in their classification all the machinery, equipment, apparatuses and fixtures that cannot be removed without cutting into the infrastructure asset or without causing significant damage to the machinery, equipment, apparatuses and fixtures.

1.51 The capitalization threshold for an infrastructure expenditure is USD $100,000. Expenditures under USD $100,000 are expensed.

1.52 In many instances, infrastructure assets are critical to supporting the UN in developing and sustaining a local community. Infrastructure assets can provide a water management system to a community, support a transportation system or provide a health care system. Continuous monitoring and managing of infrastructure assets is required to ensure their sustainability and the sustainability of the community that the assets support. Therefore it is critical to understand the replacement costs of infrastructure assets as well as their associated operating and maintenance costs. Proper recording of infrastructure assets provides information of the assets in use and their availability. Proper tracking of operating and maintenance costs as well as asset condition provides a basis for developing future budgets to support a community's needs.

1.53 A network or system of assets is a group of items that work together to provide a service. For example, a hydroelectricity station is comprised of the following items: a reservoir, generators, turbines, penstocks, power lines, dams, concrete spillways and locks. Each of these items can be an infrastructure item in itself or be grouped as one system asset. In cases where the infrastructure item does not meet the $100,000 capitalization threshold on its own, it may be grouped with other infrastructure items to exceed the $100,000 capitalization threshold and where, in aggregate, they serve a common collective purpose as a system asset. Note that when it is practical to group and report multiple infrastructure items as one system asset, then the infrastructure items should be grouped by useful life in order to correctly account for deprecation of the infrastructure items. (See Chapter on System Assets for additional guidance and principles on system assets.)

1.53 Under the ***Umoja*** solution, the Infrastructure Asset Class is divided into Asset Sub Classes. The Sub Classes include Telecommunications, Energy, Protection, Transport, Waste Management, Water Management, Recreation and Landscaping systems. Full descriptions, the associated Umoja description and their Unit of Measure in ***Umoja*** are outlined in Table 1.3.

1.54 Table 1.3: Infrastructure Asset Classes and Sub Classes

Asset Class	Asset Sub Class	Full Description	Umoja Description	Unit of Measure
INFRASTRUCTURE	TELECOMMUNICATION (TC)	Telecom Network-IT Tower	TC-Network-IT Tower	linear meter
		Telecom Network-Voice & Data Cabling	TC-Network-Voice/Data Cabling	square meter
	ENERGY (EN)	Electrical System-Main Distribution System (Underground)	EN-Elec-Main Distrib Sys (Und)	kVA
		Electrical System-Main Distribution System (Overhead)	EN-Elec-Main Distrib Sys (Ovr)	kVA
		Electrical System-Main Distribution Board	EN-Elec-Main Distrbution Board	kVA
		Electrical System-Sub Station	EN-Elec-Sub Station	kVA
		Electrical System-Earthing System	EN-Elec-Earthing Syst	set
		Electrical System-Lightning Protection	EN-Elec-Lightning Protection	set
		Electrical System-Emergency Power System [HQ/OAH]	EN-Elec-Emergency Power [OAH]	kVA
		Lighting System-Security/Perimeter Light	EN Lighting-Security/Perimeter	each
		Lighting System-Road/Walkway/Parking Light	EN Lighting-Road/Walkwy/Parkng	each
		Lighting System-Helipad/Airfield Light	EN Lighting-Heli/Airfield	each
		Photovoltaic System	EN-Photovoltaic Syst	kW
		Solar Panel Farm System	EN-Solar Panel Farm Syst	kW
		Heating Distribution System	EN-Heating Distrbution Syst	BTU
		Cooling Distribution System	EN-Cooling Distrbution Syst	BTU
		Fuel Distribution System (Underground)	EN-Fuel Distrib Syst (Under)	set
		Fuel Distribution System (Overhead)	EN-Fuel Distrib Syst (Over)	set
		Oil/Lubricant Distribution System [HQ/OAH]	EN-Oil/Lubric Distrb Sys [OAH]	set
	PROTECTION (PR)	Barriers-Security Ditch	PR-Barrier-Security Ditch	square meter
		Barriers-Security Berm	PR-Barrier-Security Berm	square meter
		Barriers-Bollards (Concrete)	PR-Barrier-Bollard (Concrete)	each
		Barriers-Bollards (Metal)	PR-Barrier-Bollard (Metal)	each
		Barriers-Boom Gate	PR-Barrier-Boom Gate	each
		Barriers-Entrance Gate (Metal)	PR-Barrier-Entrance Gate (Mt)	each
		Barriers-Security Turnstile	PR-Barrier-Security Turnstile	each
		Barriers-Metal Tank Obstacle	PR-Barrier-Metal Tank Obstacle	each
		Barriers-Hydraulic Road Blocker	PR-Barrier-Hydrl Road Blocker	each
		Barriers-Dragon Teeth	PR-Barrier-Dragon Teeth	each
		Fencing-Wall (Concrete)	PR-Fencing-Wall (Concrete)	square meter
		Fencing-Wall (Reinforced Concrete)	PR-Fencing-Wall (Reinf Concrt)	square meter
		Fencing-Wall (Masonry)	PR-Fencing-Wall (Masonry)	square meter
		Fencing-Wall (Hesco Bastion/Gabion)	PR-Fencing-Wall (Hesco/Gabion)	cubic meter
		Fencing-Wall (T-Wall)	PR-Fencing-Wall (T-Wall)	cubic meter
		Fencing-Wire (Chain Link & Sniper Screen)	PR-Fencing-Wire (Chain&Sniper)	square meter
		Fencing-Wire (Chain Link)	PR-Fencing-Wire (Chain Link)	square meter
		Fencing-Wire (Concertina Wire)	PR-Fencing-Wire (Concertina)	linear meter
		Guard Post (Metal)	PR-Guard Post (Metal)	square meter
		Guard Post (Wood)	PR-Guard Post (Wood)	square meter
		Guard Post (Concrete)	PR-Guard Post (Concrete)	square meter
		Guard Post (Hesco Bastion/Gabion)	PR-Guard Post (Hesco/Gabion)	cubic meter
		Watch Tower (Metal)	PR-Watch Tower (Metal)	square meter
		Watch Tower (Wood)	PR-Watch Tower (Wood)	square meter
		Watch Tower (Masonry/Concrete)	PR-Watch Tower (Mason/Concrt)	square meter
		CCTV/Acc Ctrl/Intruder Detection	PR-CCTV/Acc Ctrl/Intruder Dtn	square meter
		Fire Voice Alarm System	PR-Fire Voice Alarm Syst	square meter
		Enclosed Structure-Protection Shed [Field Missions] (Metal)	EN-Struc-Prtcn Shed [PKO] (Mt)	square meter
		Enclosed Structure-Protection Shed [Field Missions] (Wood)	EN-Struc-Prtcn Shed [PKO] (Wd)	square meter

Asset Class	Asset Sub Class	Full Description	Umoja Description	Unit of Measure
INFRASTRUCTURE	TRANSPORT (TP)	Airfield-Apron (Paved)	TP-Airfield-Apron (Paved)	square meter
		Airfield-Runway (Concrete)	TP-Airfield-Runway (Concrete)	square meter
		Airfield-Runway (Earth)	TP-Airfield-Runway (Earth)	square meter
		Helipad (Concrete)	TP-Helipad (Concrete)	square meter
		Helipad (Earth)	TP-Helipad (Earth)	square meter
		Helipad (Gravel)	TP-Helipad (Gravel)	square meter
		Helipad (Asphalt)	TP-Helipad (Asphalt)	square meter
		Parking Area (Asphalt)	TP-Parking (Asphalt)	square meter
		Parking Area (Gravel)	TP-Parking (Gravel)	square meter
		Parking Area (Concrete)	TP-Parking (Concrete)	square meter
		Parking Area (Paved)	TP-Parking (Paved)	square meter
		Pedestrian Walkways (Concrete)	TP-Pedestrian Walkway (Concrt)	square meter
		Pedestrian Walkways (Paved)	TP-Pedestrian Walkway (Paved)	square meter
		Road (Asphalt)	TP-Road (Asphalt)	square meter
		Road (Concrete)	TP-Road (Concrete)	square meter
		Road (Dirt)	TP-Road (Dirt)	square meter
		Road (Gravel)	TP-Road (Gravel)	square meter
		Bridge (Concrete)	TP-Bridge (Concrete)	square meter
		Bridge (Steel)	TP-Bridge (Steel)	square meter
		Bridge (Wood)	TP-Bridge (Wood)	square meter
		Service Tunnels	TP-Service Tunnel	square meter
		Enclosed Structure-Passenger Terminal	TP-Struc-Passengr Termnl	square meter
	WASTE MANAGEMENT (WS)	Solid Waste System-Landfill	WS-Solid Waste-Landfill	square meter
		Solid Waste System-Incinerator	WS-Solid Waste-Incinerator	square meter
		Liquid Waste System-Oil/Fuel Spillage Retainer Basin	WS-Liquid Waste-Oil/Fuel Basin	square meter
		Sewage System-Disposal System	WS-Sewage-Disposal Syst	linear meter
		Sewage System- Septic Tank (Concrete)	WS-Sewage-Septic Tank (Concrt)	cubic meter
		Sewage System- Septic Tank (PVC)	WS-Sewage-Septic Tank (PVC)	cubic meter
		Sewage System- Soak Pit	WS-Sewage- Soak Pit	cubic meter
		Sewage System- Grease Trap	WS-Sewage- Grease Trap	cubic meter
		Sewage System- Leach Field	WS-Sewage- Leach Field	linear meter
		Sewage system- Oxidation Pond	WS-Sewage- Oxidation Pond	cubic meter
		Sewage System-Treatment System	WS-Sewage-Treatment Syst	Cubic meter
	WATER MANAGEMENT (WT)	Land Drainage System	WT-Land Drainage Syst	linear meter
		Water Supply System -Pipe line	WT-Water Supply-Pipeline	linear meter
		Water Supply System- Pumping Station	WT-Water Supply-Pump Station	horse power
		Water Supply System-Water Tank (Concrete) (Underground)	WT-Water Supply-Tank (Ct)(Und)	cubic meter
		Water Supply System-Water Tank Concrete) (Overhead)	WT-Water Supply-Tank (Ct)(Ovr)	cubic meter
		Water Supply Sytem-Water Well	WT-Water Supply-Water Well	linear meter
		Water Supply Sytem-Treatment System	WT-Water Supply-Treatment Syst	linear meter
		Snow Melting System	WT-Snow Melting Syst	linear meter
	RECREATION (RC)	RC-Recreation Ground (Green)	RC-Recreation Ground (Green)	square meter
		RC-Recreation Ground (Gravel)	RC-Recreation Ground (Gravel)	square meter
		RC-Recreation Ground (Concrete)	RC-Recreation Ground (Concrte)	square meter
		Pool	RC-Pool	cubic meter
		Gazebo	RC-Gazebo	each
	LANDSCAPING (LD)	Green Area	LD-Green Area	square meter
		Concrete Slab	LD-Concrete Slab	square meter

(Source: Real Estate Catalogue)

1.55 As infrastructure assets tend to be longer-lived than most assets due to their nature and their unique characteristics, their estimated useful lives may vary based on several variables. Assets are constructed specific to the needs of the community and to the local environment. For example, the useful life of a road will depend on factors including the construction material, the speed limit set for the road, the expected volume of traffic and the type of traffic. Further, local climate conditions should also be factored into the decision of useful life. For example, extreme temperatures will likely reduce the estimated useful life of the road.

1.56 Table 1.4 is a schedule of standard useful lives of infrastructure assets based on asset type and composition material. The useful lives in the schedule are recommended standards and assume an average quality of asset, temperate environmental conditions, average maintenance levels, and moderate usage of the asset. It is at the discretion of the entity to adjust the useful life if these factors vary for the subject infrastructure asset.

1.57 **Table 1.4: Schedule of Standard Useful Lives of Infrastructure Assets**

Schedule of Standard Useful Lives of Infrastructure Assets	
Asset Type	**Years**
Telecom, Electrical, Lighting and Distribution Systems	25
Low Voltage Systems	10
Minor Vertical Structures (Fences, Barriers, Enclosed Structures etc.)	
Reinforced concrete	35
Concrete	30
Metal	25
Wood	20
Masonry	20
Gates	20
Wire fencing	20
Hesco Gabion Bastion	10
Major Vertical Structures (Bridges, Tunnels)	
Steel	40
Reinforced concrete	40
Concrete	35
Metal	30
Wood	25
Horizontal Structures (Roads, Runways, Landscaping etc.)	
Concrete	30
Paved	30
Asphalt	20
Gravel	15
Earth/Dirt/Green	10
Water and Waste Management Systems	40
Miscellaneous	Refer to Real Estate Catalogue

1.58 As with all assets, the useful life of infrastructure assets should be regularly reviewed by taking into consideration its usage, improvements to the asset and adherence to maintenance schedules. Useful life should be modified if a review determines that the useful life should be extended or reduced.

Machinery and Equipment

1.59 Machinery and equipment are fixed assets that are tangible and that are not land, building or infrastructure assets. They are used for a particular purpose or activity.

1.60 Examples of machinery and equipment include equipment related to activities in engineering, construction, printing, publishing, water treatment, medical laboratories, transportation, safety, information technology, general office, audio-visual and communications. Machinery and equipment also includes furniture, fixtures, fittings and vehicles.

1.61 The capitalization threshold for machinery and equipment is USD $5,000 per unit for all reporting entities, other than Volumes I and II. For Volumes I and II, the threshold is USD $20,000 per unit, except for the following commodity groups which are USD $5,000 per unit – vehicles, prefabricated buildings, satellite communication systems, generators and network equipment.

Finance Leases

1.62 Finance leases are assets when the significant risks and rewards of ownership of the leased item are transferred from the lessor to the entity (lessee).

1.63 An example of a finance lease is when an entity enters into an arrangement where the lease term is greater than 75% of the economic life of the asset. The entity will realize the majority of the risks and rewards of the asset and therefore the economic substance of the transaction prevails. Although legally, the asset is owned by the lessor, the entity as lessee realizes the majority of the benefits generated by the asset. As a result, the lease is set up as a finance lease as a fixed asset in the financial statements of the entity.

1.64 More on finance leases, including measurement of the present value of the minimum lease payments, can be found in the Chapter on Leases and Donated Right-To-Use Arrangements. In addition, it is highly recommended that all leases of a finance nature should be reviewed with the Property Management Unit or Accounts Division to confirm classification and treatment.

Donated Right-to-Use Arrangements

1.65 Donated Right-to-Use Arrangements are situations where a donor gives the United Nations the right of use and occupancy of an asset without transfer of ownership, and with zero or nominal payment in return.

1.66 More details on measuring and capitalizing a Donated Right-to-Use Arrangement can be found in the Chapter on Leases and Donated Right-To-Use Arrangements. In addition, it is highly recommended that all Donated Right-to-Use Arrangements should be reviewed with the Property Management Unit or Accounts Division.

Intangible Assets

1.67 Intangible assets are items of a non-physical nature and include patents, copyrights, landing rights, publications, internally developed websites and software and intellectual "know-how". Items are recognized as intangible assets when several specific criteria are met, the most stringent being the probability of expected future economic benefits. The Corporate Guidance for IPSAS – Intangible Assets details the criteria for recognition of an intangible asset.

1.68 As the criteria for economic benefits are quite stringent on measurement and probability of economic benefits, it is recommended that the Property Management Unit and Accounts Division are consulted for intangible assets.

Intangible Assets – Research / Pre-Development vs Development vs Post Development

1.69 There are many costs related to developing intangible assets. As it may be difficult to assess each cost and whether the recognition criteria are fulfilled, costs related to developing intangible assets can be separated into three phases – the research/pre-development phase, the development phase and the post development phase. The Corporate Guidance for IPSAS – Intangible Assets details the three phases, with only costs related to the development phase recognized as an asset.

Donated Items

1.70 The UN receives a significant number of donated items for use in its operations from third parties and from government. A donated item possesses financial value to the UN and is equivalent to the third party or government donating funds to the UN, and the UN subsequently using the funds to purchase an item.

1.71 A donated item should be measured at fair value. Fair value is best represented by the market price for the item. If market price is unavailable, then alternatives to valuation include, in order of preference, a recent acquisition cost of similar items, an indication of value from the donor that is assessed to be reasonable, similar donations made to other agencies or a valuation from an expert.

1.72 A donated item that is above its capitalization threshold is capitalized as a fixed asset based on its fair value. Contribution revenue is recorded for the same amount.

1.73 Donated items transferred from another UN entity should be recorded at the transferor's carrying value of the item.

***Umoja* Solution**

1.74 The Umoja Job Aid for creation of a fixed asset is **FI-AA JA-2-1 Manual Acquisition of Asset (Current Year)**.

Creation of a fixed asset in Umoja is required for property that is donated to the Organization and that exceeds the capitalization threshold. (Creation of a fixed asset is also required for leases or right-to-use arrangements that are of a finance nature (finance leases/capital leases)).

The transaction code to create a fixed asset in the Umoja system is **AS01 Create Asset Master Record**.

This transaction is within the role profile FA15 Asset Accounting User.

The amount to be capitalized as a fixed asset is the purchase cost of the property plus a standard 4% to account for associated costs (20%? for Peacekeeping). Associated costs covers freight, duty, installation, and other costs required to get the property to its place of intended use. However, if the purchase cost plus 4% associated costs does not exceed the capitalization threshold, then the property is expensed (rather than capitalized).

Self-Constructed Assets / Assets Under Construction, including Internally Developed Software, Systems Assets and Other Operational Projects

1.75 Self-constructed assets include both fixed assets that are constructed by the United Nations as well as contracted construction projects with an outside vendor. A self-constructed asset is an asset that the organization constructs under its own management. Examples of self-constructed assets include water management facilities, security facilities and telecommunication systems. Self-constructed assets generally are associated with a project management plan or work order and where all expenditures to construct the asset are tracked and accumulated. Expenditures can include raw materials of construction, professional costs including costs of engineers and construction workers, costs of dedicated UN staff, and costs of equipment that are part of the project. A self-constructed asset is reported as a fixed asset in the financial statements when the capitalization threshold of $100,000 is met.

1.76 Self-constructed assets should only include normal costs of production. That is, abnormal costs due to faulty design work, wasted material and idle labor should not be included in the cost of an asset.

1.77 In addition, only costs up to the date when the asset is available for use are capitalized, even if the asset may be used at a later date. In other words, when the asset becomes available for use, the capitalization of costs ceases; all costs incurred after the available for use date are expensed as incurred.

1.78 Self-constructed assets should not be confused with self-assembled assets. Self-assembled assets refers to furniture, equipment and other goods that are purchased in parts or that is purchased in a kit form, and where the parts are put together ("assembled"), often with the assistance of instructions. Examples of self-assembled assets include "do-it-yourself"

projects where assets are assembled together, ready-to-assemble furniture, knock-down furniture, flat pack furniture and modular furniture such as modular exhibition booths.

1.79 Self-constructed assets are not an asset class identified under IPSAS. Instead, self-constructed assets are associated with the IPSAS asset class "Assets Under Construction". The IPSAS asset class "Assets Under Construction" is used to accumulate the expenditures of a self-constructed asset project. The expenditures that are booked to the Assets Under Construction account represent costs that are accumulated up until the point in time when the asset is available for use. Only costs up to the date when the property is available for use are capitalized, even if the asset may be used at a later date. In other words, when the asset becomes available for use, the capitalization of costs ceases; all costs incurred after the available for use date are expensed as incurred.

1.80 A System Asset is defined as a collection of multiple subunits that function together to perform a collective purpose. Therefore, a system asset is essentially a self-constructed asset. More on the topic of system assets can be found in Chapter 5 System Assets.

***Umoja* Solution**

1.81 Under the *Umoja* solution, the Job Aids for self-constructed assets are: **FI-AA 3-1: AuC set up of the AuC cost collector (WBSE/IO)** and **FI-AA 3-2 Assets under Construction (review to monthly settlement)**. Under Umoja, a cost collector is set up to accumulate the costs of the asset under construction, either in the form of an internal order or project (WBSE). Transaction code **CJ20N** is used to create a project from a standard definition template.

1.82 An Internal Order account is used for simple projects that are generally short-term, are not comprised of multiple parts, do not require multiple funding sources, do not include multiple functions or cost centres and/or do not require the involvement of multiple departments.

1.83 In contrast, Work Breakdown Structure Elements (WBSE) buckets are set up for complex projects that are generally long-term and are comprised of multiple parts, require multiple funding sources, involve multiple functions or cost centres and/or involve the participation of multiple departments. WBSE buckets allow expenditures to be tracked and accumulated in hierarchical structures to facilitate multi-dimensional analysis by grouping and sub-grouping expenditures. Through the standard definition template, a Project Builder interface is created, where the project's hierarchy is defined. The hierarchy can capture costs by type, component and can even define which costs are capitalized and which costs are expensed.

1.84 All cost collectors should be closed on a monthly basis, using the Umoja transaction code **CJ88**, and transferred to the IPSAS Assets Under Construction account for reporting in the financial statements. In addition, the cost collectors should be closed when the project is complete.

1.85 In the absence of the *Umoja* solution, all costs of self-constructed assets can be accumulated and tracked in a Microsoft Excel spreadsheet prior to recording as an Asset Under Construction account. The Property Management Unit has also developed a spreadsheet to support the accumulation of costs for self-constructed assets.

1.86 In cases where an equipment item is purchased as part of the self-constructed asset project, and where the equipment item is listed in the Umoja material master with a pre-assigned fixed asset account codes (as opposed to expense/consumption account code), then the equipment item should subsequently be re-classed to the project's Internal Order or WBSE account.

1.87 Costs of self-constructed assets are held in the IPSAS Assets Under Construction because the asset is not yet available for use in the operations of the organization. Accordingly, costs held in the Assets Under Construction account are not depreciated. However, when the self-constructed asset project is substantially complete and at its intended location of use (hence it is "available for use"), then the costs under Assets Under Construction are transferred to the corresponding asset account (e.g. Buildings, Equipment, Machinery, Infrastructure Assets, etc.) and depreciated. "Substantially complete" refers to the point where the asset can be used for its intended purpose, even though minor work that does not impede use of the asset may still be unfinished. Note that costs of any remaining minor work are still to be capitalized when incurred.

Heritage Assets

1.88 Heritage assets are assets that have cultural, environmental and/or historical significance. Characteristics of heritage assets (but not exclusive to heritage assets) include:

- Their value in cultural, artistic, environmental, educational and historical terms is unlikely to be fully reflected in a financial value based purely on a market price;
- Legal and/or statutory obligations may impose prohibitions or severe restrictions on disposal by sale;
- They are often irreplaceable and their value may increase over time, even if their physical condition deteriorates;
- It may be difficult to estimate their useful lives, which in some cases could be several hundred years;
- They are generally expected to be preserved indefinitely; and
- They have significant architectural characteristics.

1.89 Examples of heritage assets include historical buildings and monuments, collections for exhibition, art collections, library collections, archaeological sites, conservation areas, parks, nature reserves and memorials.

1.90 The UN policy for heritage assets is that a heritage asset is not recognized as a fixed asset in the financial statements of the organization as long as it is not used primarily in operations of the UN. However in order to acknowledge the significance of heritage assets, the UN has decided to include a high level description of significant heritage assets in the financial statement note disclosures.

Heritage Assets that are used in Operations

1.91 In some instances a heritage asset may serve both a heritage function and an operations function, or solely an operations function. In cases where a heritage asset serves multiple purposes or solely an operations function, the heritage asset shall be considered a fixed asset reported under IPSAS if the primary use of the asset (>50% of its use) is for the operations of the entity, rather than for its heritage value. Heritage assets that have an incidental or sporadic use in the operations of the UN are not considered fixed asset for IPSAS reporting.

1.92 Examples of heritage assets that are reported as IPSAS fixed assets include furniture that may have a heritage value however is primarily used for in operations for its functional purpose. Another example is a heritage building that is primarily used for operations.

1.93 Heritage assets that are IPSAS fixed assets shall be measured at the asset's fair market value in the financial statements. Depreciation shall occur over the useful life of the asset, as defined by the estimated standard useful of the asset class.

1.94 In some instances, a heritage asset that is an IPSAS fixed asset may have a fair market value that is beyond that which the UN or any other reasonable purchaser would pay in the open market. In such instances, measurement of the heritage asset should be assessed at the value that the UN would pay to replace the heritage asset with a "normal" asset. For example, (as per the Corporate Guidance for PP&E, Section 6.1.2) an office table designed with unique artwork from the donating country that is used for the UN's operations should be valued at the amount as if the office table were replaced by a "normal" office table.

1.95 As with all fixed assets, a heritage asset that is an IPSAS fixed asset must meet the capitalization threshold of the asset class that it pertains to in order for recognition as a fixed asset in the financial statements to occur. Under the *Umoja* solution, a heritage asset that is used in operations is capitalized as a fixed asset using the same procedures as for Donations.

Inventory

1.96 IPSAS 12 defines inventories as goods:

- In the form of materials or supplies to be consumed in the production process;
- In the form of materials or supplies to be consumed or distributed in the rendering of services;
- Held for sale or distribution in the ordinary course of operations; or
- In the process of production for sale or distribution.

1.97 As with all assets, recognition occurs when there is control of the inventory item. The point in time when control occurs is defined by the incoterms when the significant risks and rewards of ownership are transferred. Further criteria that must be met in order for recognition to occur include:

- It is probable that the future economic benefits or service potential associated with the item will flow to the entity; and
- The value of the asset can be reliably measured.

1.98 Inventories are tested for impairment at each reporting date.

1.99 Further guidance on inventories can be found the Chapter on Inventories.

Asset Exchanges

1.100 When assets are exchanged for other assets or services with an external party, and where the other assets or services are dissimilar in nature and value, then the underlying transaction is a disposal of an existing asset and purchase of a new asset. A gain or loss is recorded for the assets that were exchanged (disposed). The assets received are recorded at their fair value.

1.101 An example of an asset exchange is a trade-in of a car with a carrying value of $30,000 for a boat priced at $35,000.

Assume the following:

Car:
Cost $40,000
Accumulated Depreciation $10,000
Carrying value $30,000

Boat:
Price/Fair Value $35,000

At approval from the appropriate delegation of authority for the asset's disposal, the car is de-recognized from the financial statements and any carrying value is recorded as a loss.

Dr. Loss on Disposal	$30,000	
Dr. Accumulated Depreciation (Car)	$10,000	
Cr. Vehicles (Car)		$40,000

When the trade is actually completed with the third-party, the boat is recognized at $35,000. A gain on disposal of $35,000 is recorded as a result of the exchange.
The journal entry is:

Dr. Vehicles (Boat)	$35,000	
Cr. Gain on Disposal		$35,000

When the two transactions are taken together, there is a net gain on the transaction of $5,000 ($35,000 gain less $30,000 loss).

It is likely that the trade date may occur in the fiscal year following the approval. In such instances, it may not be possible to link the financial transaction of the gain on disposal to the asset disposal transactions in Umoja, other than through notes/explanations of the transaction.

Any maintenance plans for the car should be reviewed and closed accordingly. New maintenance plans should be set up for the boat.

1.102 If assets are exchanged that are similar in nature and market value, then a gain or loss on the exchange should not be recognized. For example, if two organizations swap inventory that are of similar market value, then there is no material change in cash flow as a result of the trade. This is an example of a trade that lacks commercial substance and therefore gains or losses should not be recorded. The fixed asset description, serial number, vendor, location, tag number and other relevant information should be updated.

Fixed Assets Exchanged Under Warranty

1.103 A fixed asset that has become defective ("replaced asset") can be exchanged for a similar fixed asset ("replacement asset") with a vendor/manufacturer where a warranty agreement exists. In such instances, the defective/replaced asset is considered to be disposed. The replacement asset is considered to be acquired.

1.104 The defective/replaced asset is disposed and its net carrying value at the date of exchange with the vendor is de-recognized/removed from the fixed asset register. A corresponding loss on disposal is recorded for the net carrying value. Operationally, the defective/replaced asset is indicated as disposed in the equipment records. An approval for de-recognition is not required because one asset is exchanged for another.

1.105 The replacement asset is acquired and recorded as a fixed asset in the fixed asset register at its market value and depreciated over the fixed asset's standard useful life. Market value is best represented by the vendor's list price. An approval for the acquisition of the replacement asset is not required from the review boards.

1.106 Operationally the replaced asset can be utilized in operations up to the point in time of replacement. At replacement, the operational records of the replaced asset are removed. The replacement asset is used and its operational records including description, serial number, vendor, location, tag number, asset condition and other relevant information should be recorded.

Asset Impairment

1.107 Prior to disposal of the asset, if it is established that an asset no longer has future economic benefit or service potential, then the asset should be written down to its impaired value in the financial statements. Refer to the Chapter on Asset Impairment.

Disposal and De-recognition of Fixed Assets from the Financial Statements

1.108 Disposal of an asset represents the sale, transfer, exchange or donation of an asset to another party. Disposal of an asset also includes the scrapping or destruction of an asset. In the event

of theft of an asset, an additional investigation process is administered. In all cases, if an asset is impaired, it should be written down to its impaired value prior to its disposal.

1.109 Prior to the disposal of an asset, approval from the appropriate delegations of authority should be obtained based on the following approval matrix and according to asset class and carrying value:

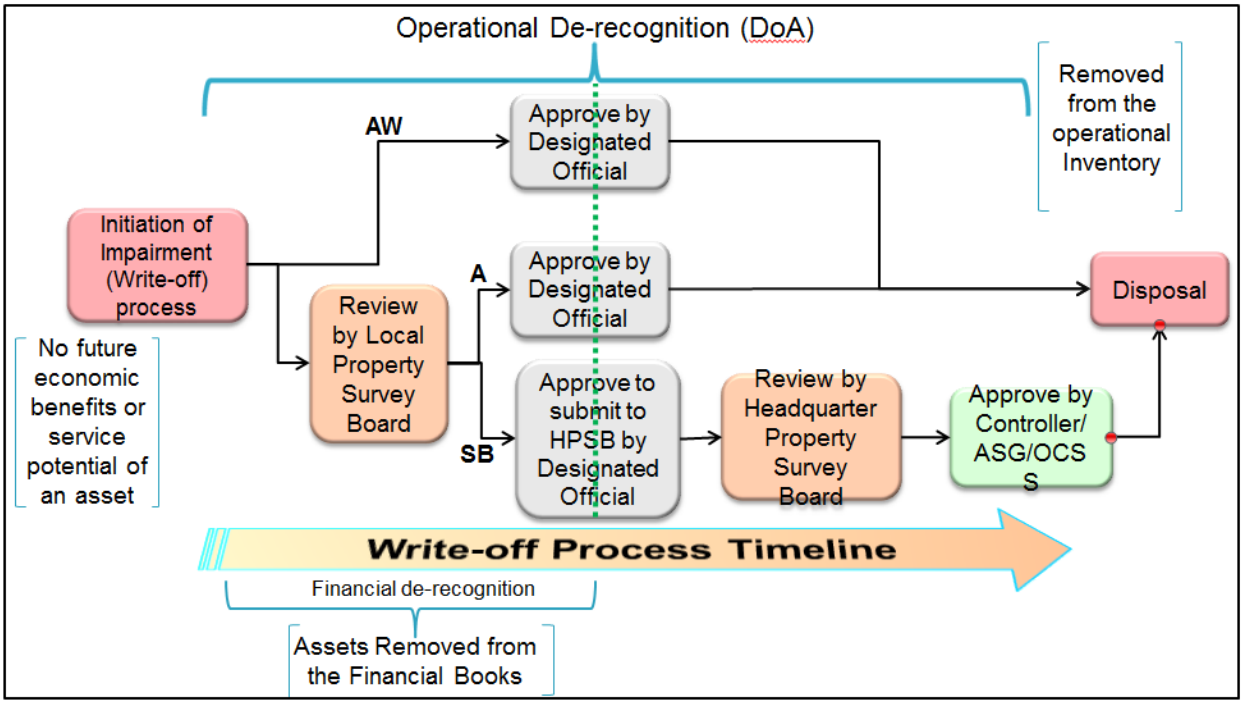
Asset class	Reviewed by BoS	Reviewed by LPSB	Additional reviewed by HPSB
Computer and IT equipment, vehicles, machinery and equipment, furniture and fittings	<$3,000	> $3,000	>$25,000
Land, buildings and infrastructure assets	<$100,000	>$100,000	>$500,000

1.110 De-recognition is the action of removing the financial records of an asset from the fixed asset register/financial statements of the entity.

1.111 In accordance with the UN Policy Framework and ST/IC/2013/36, financial de-recognition of an asset occurs when the asset's disposal is approved under the appropriate delegation of authority.

1.112 Chart 1.5 provides a summary of the various levels of approval and the financial de-recognition of fixed assets at point of approval.

1.113 **Chart 1.5: Levels of approval and financial de-recognition of fixed assets. (To be updated to new proposal)**



1.114 Upon approval and the consequent de-recognition of the asset, all measures should be taken to ensure that the asset is promptly disposed of. For assets that are not able to be promptly disposed of, every effort should be made to discontinue use of the asset by the UN and for the asset to be set aside with clear indication of its approved disposal.

1.115 It is recognized that at the financial reporting date there may exist assets that have been approved for disposal and financially de-recognized, however, are pending actual disposal. These assets should still be operationally tracked until their actual disposal. Under the *Umoja* solution, these assets should continue to be tracked in the Equipment module. In addition, any scheduled maintenance plans or orders for replacement parts should be accordingly reviewed, continued or closed.

1.116 In addition, when disposing fixed assets, UN markings and equipment that are not part of the disposal should be removed (e.g. satellite phones that are part of vehicles if not part of the disposal). For computer equipment, IST should be involved in the disposal process, including ensuring the removal of all UN information from computer equipment.

1.117 Table 1.6 below summarizes the methods of disposal and the related financial impact of de-recognizing the asset from the Fixed Asset Register upon approval of disposal

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1.118 **Table 1.6: Methods of Disposal and Related Financial Accounting**

Method of Disposal	Financial Accounting

Sale	On approval of the sale, any carrying value of the asset is closed out and a loss on disposal is recorded. On transfer of the asset to the third party, any revenue received is recorded as a gain on disposal (or netted against the loss on disposal). **
Transfer	On approval of the transfer, any carrying value of the asset is closed out and a loss on disposal is recorded.
Exchange	On approval of the exchange, any carrying value of the asset is closed out and a loss on disposal is recorded.
Donation	On approval of the donation, any carrying value of the asset is closed out and a loss on disposal is recorded.
Scrapping	On approval of the scrapping, any carrying value of the asset is closed out and a loss on disposal is recorded. Any revenue received from scrapping the asset is recorded as a gain on disposal (or netted against the loss on disposal). **
Write-off (to zero value)	On approval of the write-off, any carrying value of the asset is closed out and a loss on disposal is recorded.
Destruction	On approval of the destruction, any carrying value is closed out and a loss on disposal is recorded. Any destruction costs incurred are also recorded to the loss on disposal account.

1.119 ** If revenues from an asset's disposal are received in a subsequent financial statement year, then the gain (revenue) on disposal will not be in the same financial statement year as any loss on disposal related to the asset. The gain will also not be linked to the asset under *Umoja* and therefore will be recorded as miscellaneous income.

1.120 In situations where an asset has been approved for disposal to a third-party by ways of a sale, transfer, exchange or donation and where the third-party defaults and the disposal is not consummated, then the asset shall continue to be de-recognized from the financial statements. The fixed asset continues to not bring any future economic benefit to the organization and continues its status as approved for disposal. A replacement third party should be found in order to complete the actual disposal.

1.121 **Example:**

An entity decides to dispose of a copyright that gives the holder the right to issue certain types of publications. Once approval is obtained for the disposal, de-recognition of the asset occurs from the financial statements and any related loss on disposal is recorded.

Assume that the cost of the copyright is $200,000 and accumulated depreciation is $120,000 for a carrying value of $80,000.

When the copyright is approved for disposal, the entity de-recognizes the asset and records a loss in the amount of the carrying value of the copyright.

Dr. Accumulated Depreciation – Copyrights	$120,000	
Dr. Loss on Disposal	$80,000	
Cr. Copyrights		$200,000

When the copyright is actually disposed to another entity, any monetary compensation received is recorded as a gain on disposal. Assume that cash of $30,000 is received:

Dr. Cash	$30,000	
Cr. Gain on Disposal		$30,000

Umoja Fixed Asset Financial Module

1.122 Prior to any disposal, the depreciation on asset should be reviewed and ensured that it is up-to-date.

1.123 The approval process for disposals by the appropriate delegation of authority, that is, approval by the LPSB, HPSB and/or Controller occurs outside of the Umoja solution. Therefore it is important to remember that all documentation should be obtained prior to any de-recognition of an asset from the fixed asset register.

1.124 Under _Umoja_, disposal by sale of a fixed asset to a customer is performed through the Sales Order process in the Sales and Distribution module. A sales order is created. After approval of the sales order, sale of the asset is processed and the fixed asset is de-recognized from the Fixed Asset Financial Module.

1.125 For transfers of fixed assets across funds, business areas, segments or grants, a financial accounting posting is created to record the transfer at net carrying value in order to de-recognize the asset from the Fixed Asset Financial Module.

1.126 For donations, scrapping, write-offs and destruction, the fixed asset is manually de-recognized from the Fixed Asset Financial Module under Assets Master Data Maintenance.

Umoja Equipment Module

1.127 Whereas approval of a fixed asset's disposal results in its de-recognition from the Fixed Asset Financial Module, the fixed asset should continue to be tracked in the Equipment Module until the actual disposal occurs. The fixed asset continues to be controlled by the UN until it is sold, transferred, exchanged or donated to the third party or until the asset is actually scrapped or destroyed.

1.128 In addition, maintenance and replacement schedules in the Equipment Module should be reviewed and adjusted accordingly for each asset pending actual disposal. For example, if an asset no longer requires maintenance prior to its actual disposal, then the maintenance schedule should be terminated. Similarly, any replacement plans should be reviewed and removed if decision is made to not replace the asset.

Subsequent Costs after Acquisition

1.129 Subsequent costs after acquisition include repairs, maintenance, upgrades, improvements and inspections on an existing asset. Treatment of these costs can fall into two categories: costs that are expensed and costs that are capitalized as part of the asset that the costs relate to. Refer to the Chapter on Subsequent Costs (Repairs, Maintenance and Improvements) for specific guidance.

Fully Depreciated Assets

1.130 A fully depreciated asset should be de-recognized from the Fixed Asset Register only if there is no expected future benefit from the asset. If a future benefit is expected, then the asset should continue to be reported in the financial statements for asset verification purposes and at its carrying value of zero ($0). Future benefit includes operational economic benefit from the asset's use as well as financial benefit from a future disposal involving incoming financial consideration or financial equivalent.

1.131 The presence of a significant amount of accumulated depreciation in the fixed asset register of the Organization is an indication that the assets have been retained for an extended period of time, thereby reflecting favourable maintenance practices and/or reflecting an asset base that may require to be replaced in the immediate short-term.

Examples:

1.132 The following examples have been included to further demonstrate the principles and concepts of recognition and de-recognition.

1.133 **Example 1: Purchase of assets on behalf of another entity.**

Entity A purchases fixed assets on behalf of other UN entities. Entity A purchases generators for Entity B, fuel tanks and generators for Entity C and roofing components for Entity D. Further, Entity A purchases materials and professional construction services for Entity E's construction of a building. Should the items purchased by Entity A be recognized in the financial books of Entity A?

If Entities B, C D and E have hired Entity A to perform their procurement functions on their behalf, then this is an example of a principal-agency relationship. Entity A, as an agent in the relationship, performs tasks on behalf of the principals, Entities B, C, D and E. Entity A only performs the function of purchasing assets, however, ownership and control of the assets is retained by the respective principals – Entities B, C, D and E. Entity A never obtains control of the items. Regardless of the type of item purchased, as control of the items is retained by Entities B, C, D or E, the items are recognized in the financial records of Entities B, C, D and E respectively. Control in these cases represents the ability by the respective entity to realize the benefits of the generators, fuel tanks, roofing components or materials.

However, if Entity A purchases the items for the purpose of adding more components to build a final item for sale or transfer to Entity B, then Entity A has control of the items until the sale

or transfer to Entity B. Entity A is not hired by Entity B to perform a task on behalf of Entity B (hence a principal-agency relationship does not exist). Entity A is in the business of building items for transfer/sale - Entity A purchases an item, and adds components to make it a finished product. Entity A controls the benefits of the generator up to the sale/transfer point, at which control is transferred to Entity B.

1.134 **Example 2: Donated right-to-use on a temporary basis.**

The Nigerian government has granted a UN entity the right to use a building for two years for its peacekeeping operations. Should the building be recognized as a fixed asset?

The use of the benefits and risks related to the building should be reviewed, along with which party participates in the benefits and the risks.

The UN entity would benefit from the use of the building for two years, which would suggest recognition of an asset. However, the building is likely to exist for a number of years well in excess of two years for which the government will use the building; therefore the government retains the majority of the benefits derived from use of the building. Since the government realizes the majority of the benefits of the building, the entity should not recognize the building as a fixed asset.

The government is also likely to retain the risks related to repair and replacement of the building. Therefore the entity should not recognize the building as a fixed asset.

In addition, the right to sell the building and the benefits from sale of the building during its useful life is retained by the Nigerian government, and therefore as these benefits are not realized by the entity, the entity should not recognize the building as a fixed asset.

Since the Nigerian government has control of the building for the reasons stated above, the entity only has a right to use the building and therefore use of the building should be treated similar to that of an operating lease. The fair value of the rent is recorded as an in-kind contribution with a corresponding fair value rent expense. Assuming the fair value of the rent is $6,000, then the journal entry is:

Debit	Rent Expense	$6,000	
Credit	Revenue in Kind		$6,000

1.135 **Example 3: Donated right-to-use over majority of useful life.**

The Chinese government has granted a UN entity the exclusive right to use for 20 years one of its technology patents for inclusion in a machine that the UN entity is constructing. The machine will be used to produce inventories for sale. The patent has a life of 25 years. Should the patent be recognized as a fixed asset?

The Chinese government has granted exclusive rights to the entity. If another innovative technology causes the patent to become obsolete, then the loss of economic benefit is borne by the entity. Therefore substantial risk lies with the entity.

In addition, the entity has the right to use the patent for >75% of its useful life. Since substantially all of the benefits of the patent are realized by the entity, the entity should recognize the patent in its financial records as an intangible asset.

The challenge is measurement of the intangible asset in the fixed asset register. Measurement can be determined by the resources to develop a similar patent internally, the price paid to a third party to obtain a similar patent, or the present value of the income stream that would be generated by the patent. A patent valuation service can support the valuation process. Assume that the patent is valued at $300,000, then the journal entries are:

Debit	Intangible Asset - Patent	$300,000	
Credit	Revenue in Kind		$300,000

1.136 **Example 4: Purchase of an asset shared among entities.**

Entity A has purchased and installed a communication network and equipment system that supports the entire UN Country Team (multiple UN entities) at the duty station. The costs of purchase and installation amounted to $100,000, and is used by Entities A, B, C and D.

If Entity A only acted as a purchasing agent, then the cost of the communication network and equipment system should be allocated among the entities, based on proportionate use.

Assume the proportion of use is:

Entity A – 25% ($25,000)
Entity B – 25% ($25,000)
Entity C – 40% ($40,000)
Entity D - 10% ($10,000)

However, since the recognition threshold of $100,000 for infrastructure assets is not met at an entity level, each entity should expense its portion. The journal entries are:

Entity A:

Dr.	IT Expense	$25,000	
	Cr. Accounts Payable		$25,000

Entity B:

Dr.	IT Expense	$25,000	
	Cr. Accounts Payable		$25,000

Entity C:

Dr.	IT Expense	$40,000	
	Cr. Accounts Payable		$40,000

Entity D:

Dr. IT Expense	$10,000	
Cr. Accounts Payable		$10,000

1.137 **Example 5: Local government pays rent on behalf of an entity.**

A local government and UN entity enter into a MOU (Memorandum of Understanding) where the local government pays the monthly rent of $8,000 to the landlord of the building on behalf of the UN entity.

Control of the building remains with the building owner/landlord. Neither title transfers to the UN entity nor do the full benefits of using the building over its useful life.

The arrangement is more akin to the local government donating funds to the UN entity and in turn, the UN entity utilizes the funds to pay for rental of the building.

Therefore the entity should record a donations revenue with a corresponding rent expense.

Dr. Rent Expense	$8,000	
Cr. Donations Revenue		$8,000

1.138 **Example 6: Construction of a research facility with condition to dismantle and restore original site at end of agreement.**

A UN Entity has been allowed to build a research facility within a restricted area to study its rare earth minerals for the next ten years. Two conditions exist: that none of the minerals are to be removed from the restricted area and that the research facility is dismantled and the site restored at the end of ten years. The costs to build the research facility are estimated at $500,000. The anticipated future cost to dismantle the facility and restore the site to its original condition is $70,000.

The construction costs should be accumulated in an Assets Under Construction account. These costs are reported as assets in the financial statements of the UN entity, however, are not depreciated until the construction project is substantially completed. The costs are transferred to the Buildings account when the facility is available for use.

In addition to the construction costs, the present value of the estimated costs to dismantle should be recognized and included in the cost of the building as an asset. This is because the costs to dismantle should be allocated evenly throughout the life of the building asset. A corresponding provision (liability) should also be recorded to reflect the future costs to dismantle the research facility. Since the estimated dismantling costs are a best guess of future costs, it is likely that the support of technical experts will be required to estimate the future dismantling costs, of which also should be validated by Accounts Division and the Property Management Unit.

Normally the discount rate that would be used to determine present value is the borrowing interest rate from external parties. Since the United Nations does not borrow from external parties, the opportunity cost of earning a return on cash pool holdings should be used. The discount rate can be obtained from OPPBA. Assume that per OPPBA, a cash pool of

holdings earns an interest rate of 2.1% per annum; this rate would also be used as the discount rate.

Therefore present value of $70,000 in Year 10 in today's dollars is:

$70,000 x (1+ .021)^10 = $56,864

Therefore the journal entry is:

Dr. Buildings	$556,864	
Cr. Accounts Payable – Building Vendors		$500,000
Cr. Provision for Dismantling costs		$ 56,864

Depreciation is to occur over a useful life of 10 years, after which point the research facility is dismantled and the original site restored. ($556,864 / 10 years = $55,686 per year)

Dr. Depreciation Expense	$55,686	
Cr. Accumulated Depreciation		$55,686

1.139 **Example 7: Software licence that does not meet the capitalization threshold.**

An entity purchases a software licence to be used by the staff of 50. Each licence is $4,000 per year per user.

The total cost of software licences is $200,000 (50 users x $4,000 per user). Although a significant cost in total, the threshold for capitalization is $5,000 per user for a reporting entity outside of Volume I and II and $20,000 per user for Volume I and II reporting entities. Since the capitalization thresholds are not met on a per user basis, the cost of the software licences should be expensed.

Dr. Expense	$200,000	
Cr. Accounts Payable		$200,000

1.140 **Example 8: Asset to be grouped with another asset.**

A licence key is purchased for $4,000. It can be used as part of an existing modular switch.

Since the licence key is below the threshold for capitalization, it can be expensed. However, if the licence key is critical to the functioning of the modular switch, that is, the modular switch will not perform in the absence of the licence key, then the licence key should be capitalized with the switch.

Also, if it is the intent that the licence key be used together with the modular switch as one unit, then the licence key should be capitalized with the switch.

Dr. Equipment – Modular Switch	$4,000	
Cr. Accounts Payable		$4,000

If the licence key is can be used on a standalone basis and it is not intended or needed for the modular switch, then it can be expensed.

Dr. Software expense	$4,000	
Cr. Accounts payable		$4,000

1.141 **Example 9: Disposal of asset with cash outlay in exchange for replacement asset.**

An entity has decided that one of its vehicles does not have the capacity to service its operations. It decides it would purchase another vehicle and dispose of the existing vehicle. The entity finds a new vehicle priced by the seller at $120,000. In discussions with the seller, the new vehicle is purchased for $15,000 cash with a trade-in of the old vehicle.

Assume:
Cost of old vehicle: $100,000
Accumulated depreciation of old vehicle: $30,000
Carrying value: $70,000

There are two accounting steps in the transaction. The first is to de-recognize the asset on approval of disposal and the second to recognize the new asset at the point of exchange.

On receiving approval for disposal of the old vehicle, the old vehicle is de-recognized from the financial statements:

Dr. Accumulated Depreciation (Old Vehicle)	$30,000	
Dr. Gain/Loss on Disposal		$70,000
Cr. Vehicle (Old)		$100,000

For the exchange transaction, recall that:
Price/fair market value of new vehicle: $120,000
Cash paid for new vehicle: $15,000

The exchange should be measured at the fair market value of the new vehicle at the point in time when the trade-in is completed. Any cash outlay should be applied against the gain or loss on disposal.

The journal entry is:

Dr. Vehicle (New)	$120,000	
Cr. Cash		$15,000
Cr. Gain/Loss on Disposal		$105,000

The net gain on disposal from the transaction is $35,000, which can be summarized as follows:

The net gain or loss is calculated as:

Price/fair market value of new vehicle:	$120,000
Less Carrying value of old vehicle	($70,000)
Less cash paid to seller	($15,000)
Net Gain on disposal	$ 35,000

1.142 **Example 10: Costs to include and exclude in a self-constructed asset.**

A recreation facility is being constructed by the UN to support the community that it is servicing. The costs incurred include:

Site preparation	$10,000
Facility opening costs	$2,000
Marketing costs	$3,000
Professional consulting fees	$5,000
Materials	$200,000
Labor costs of construction	$100,000
Labor costs of rework due to engineering miscalculation	$20,000
General overhead costs	$10,000

General overhead costs are not directly attributable to the self-constructed asset and therefore is expensed.

Facility opening costs and marketing costs related to general overhead costs and are costs that are incurred after the infrastructure asset is made available for use. For both these reasons, these costs are expensed.

Costs of rework are abnormal costs due to spoilage and are expensed.

The costs that should be included in the cost of the infrastructure asset are the site preparation costs, professional consulting fees, material fees and labor costs of construction, totalling $315,000.

1.143 **Example 11: UN Agency procures and manages fixed assets in the field on half of UNHQ entities.**

A Memorandum of Understanding exists between a UNDP (a UN Agency) and DSS (a UNHQ entity) where UNDP is responsible for procuring and operationally managing equipment in the field on behalf of DSS.

Under the MOU, DSS forwards a quarterly payment to UNDP for the purpose of purchasing equipment. In addition, the quarterly payment reimburses UNDP for overhead costs and other charges established as part of the MOU.

Under the MOU, UNDP provides field services and is required to periodically report on the equipment assets to DSS.

The MOU represents an arrangement where UNDP acts as (i) a procurement agent to purchase equipment assets for field operations and (ii) an agent that operationally manages the equipment assets in the field on behalf of DSS.

As procurement agent, UNDP purchases equipment assets using funds provided by DSS. DSS owns and controls the equipment assets and therefore the equipment assets are reported in the financial statements of DSS, when the recognition threshold is met. Under the *Umoja solution*, as asset master record is set up for each equipment item that exceeds the recognition threshold.

The periodic report on the equipment assets held at UNDP enables DSS to effectively reconcile the equipment assets reported in the financial statements of DFS with those held in the field. To facilitate the reconciliation, the periodic report should include details on additions, cost (in order to assess whether the recognition threshold is met), impairments, improvements and dispositions.

Chapter 2

Componentization and Sub-Componentization of Buildings

Overview:

2.1 The objective of this chapter is to outline componentization and sub-componentization and to provide practical situations on componentization and sub-componentization that may be encountered by the Fixed Asset Management Officer and the suggested solution.

2.2 Componentization is the recognition that a fixed asset can be composed of various parts with varying useful lives and replacement patterns. Componentization is the break-down of an asset into these parts that are more manageable both financially and operationally.

2.3 Some assets, in particular buildings, are composed of many different parts with many different useful lives and replacement patterns. That is, each part of a building goes through a distinct wear-and-tear process and therefore has a distinct maintenance and replacement pattern. Finally, each part of a building is likely maintained by separate personnel possessing dissimilar expertise and technical backgrounds.

2.4 Financially, componentization allocates more precisely the depreciation of the fixed asset to the correct financial period based on each component's useful life. In addition, separating a fixed asset into its components according to replacement patterns facilitates the de-recognition of a component upon its replacement. Decisions on spending for upgrades and replacement of components are expedited when carrying values of components are readily available.

2.5 Operationally, componentization facilitates planning and executing of maintenance and upgrade schedules that are more directly correlated to the lifecycles and replacement patterns of the components of a fixed asset, rather than the fixed asset as a whole.

2.6 Under the IPSAS Policy Framework, componentization will apply to all major owned buildings that are not part of finance leases. The method of acquisition (i.e. a purchased building or a donated building) does not influence the componentization decision. Note that Peacekeeping Operations are exempt from componentization requirements.

Guidance:

2.7 Table 2.1 below presents Components and Sub-components of a building that have been adopted by the UN as a guideline to differentiate a building into its parts. Each component is also assigned an estimated standard useful life as adopted by the UN.

2.8 It is required by the UN that at minimum every building be broken- down to the component level, knowing that each component has a unique useful life for replacement and depreciation purposes. Recognition and de-recognition of parts of a building at the end of their useful lives are facilitated by componentization. In addition, each component is likely to be significant relative to the cost of the building. A building is broken down into the following four components: Exterior, Roofing, Interior and Services, with each component having a distinct useful life, maintenance plan and replacement schedule.

2.9 It is highly recommended where it is possible and practical, that the components be further separated down one more level to the sub-component level. There are ten sub-component levels that further breaks down the components and all of which support the replacement of parts and implementation of maintenance plans at the sub-component level.

2.10 Further, consideration should be given that the future *Umoja* solution will support a hierarchical structure that allows for sub-components to be rolled up into its components, of which in turn can be rolled up into the building asset class. Therefore it will be simple to view the building at any level, from a detailed sub-component view to a component view, and to a one building view. With the supporting *Umoja* solution and its alignment to componentization and sub-componentization, it is highly recommended that entities extend beyond the required four components to the sub-components. The ten sub-components should provide enough visibility to facilitate effective and efficient operational and financial management of the building; expanding any further may not yield any further added value at this point.

2.11 **Table 2.1: UN Guideline for Components and Sub-components with corresponding useful life**

Component	Sub-component	Useful Life
Exterior	1. Foundations & Basements	50/40/25*
	2. Superstructure	50/40/25*
	3. Exterior Closure	50/40/25*
Roofing	4. Roofing	20
Interior	5. Interior construction, staircases & interior finishes	20
Services	6. Conveying systems	25
	7. Plumbing	25
	8. HVAC	25
	9. Fire protection	25
	10. Electrical & low-voltage systems	25

*The UN has defined the useful life of the sub-components based on three classes of buildings, each with a distinct useful life (Class A - 50 years, Class B – 40 years, Class C – 25 years).

2.12 Note that as is evident from Table 1, useful life is the main driver that distinguishes one component from another. This is because useful life determines the financial years to allocate depreciation expense and because useful life determines replacement part planning.

2.13 Further definitions of each class can be found in Table2.2 below, where each class is defined by the Frame, Floor, Roof and Walls.

2.14 **Table 2.2: Definition of Class A, B and C of Buildings**

Class	Frame	Floor	Roof	Walls
A	Structural steel columns and beams, fireproofed with masonry, concrete, plaster, or other incombustible material	Concrete or concrete on steel deck, fireproofed	Formed concrete, precast slabs, concrete or gypsum on steel deck, fireproofed	Load-bearing masonry or stone, non-bearing curtain walls, masonry, concrete, metal and glass panels, stone
B	Reinforced concrete columns and beams <or> Masonry or concrete load-bearing walls with or without pilasters; masonry or concrete walls with steel, wood or concrete frame; fire-resistant construction	Concrete or concrete on steel deck, fireproofed	Formed concrete, precast slabs, concrete or gypsum on steel deck, fireproofed <or> Wood or steel joists with wood or steel deck; concrete plank	Nonbearing curtain walls, masonry, concrete, metal and glass panels, stone
C	Wood or steel studs in bearing wall, wood frame, primarily combustible construction	Wood or steel floor joists or concrete slab on grade	Wood or steel joists with wood or steel deck	Almost any material except masonry or concrete; generally combustible construction

2.15 **Table 2.3: Explanations of sub-components**

Component	Sub-component	Explanation
Exterior	1. Foundations & Basements	Foundation; slab to grade; basement excavation; basement walls
	2. Superstructure	Floor construction; roof construction
	3. Exterior Closure	Exterior walls; exterior windows & doors
Roofing	4. Roofing	Roof coverings; roof openings
Interior	5. Interior construction, staircases & interior finishes	Partitions; interior doors; stair construction; stair finishes; wall finishes; floor finishes; ceiling finishes
Services	6. Conveying systems	Elevators; escalators
	7. Plumbing	Plumbing fixtures; water distribution; sanitary waste; drainage
	8. HVAC	Heat generating systems; cooling generating systems; distribution systems; control and instrumentation
	9. Fire protection	Sprinkler systems; stand-pipe & hose systems; fire protection systems
	10. Electrical & low-voltage systems	Service & distribution; lighting & branch wiring; special electric systems; fire protection electric systems; audio-visual systems; security systems; communications & IT systems

Benefits and costs of componentization:

2.16 A building is made up of several components/sub-components. Each component/sub-component undergoes a different rate of use and deterioration. Therefore each component has a different useful life. Components with different useful lives will likely have different maintenance plans, repairs, upgrades as well as disposal and replacement plans. Operationally managing components separately facilitates active management, including the development of maintenance plans, upgrade plans and replacement plans. Therefore it is

practical to at the very least manage components with different useful lives separately; this is the first required level of the four components – Exterior, Roofing, Interior and Services.

2.17 Each of the sub-components identified have an identical useful life. For example, under the Services Component, each of the Conveying Systems, Plumbing, HVAC, Fire Protection and Electrical have a 25 year useful life. Therefore, when looking at useful life, it may appear reasonable to manage all five sub-components as one component. However, each sub-component is likely to have maintenance, repair and upgrade plans as well as disposal and replacement plan that are dissimilar from other sub-components.

2.18 For example, contrasting conveying systems and plumbing systems, conveying systems may likely have a higher number of maintenance plans due to more parts of a conveying system and more stringent government laws on testing and maintenance versus that of a plumbing system. Similarly, a fire protection system may face greater government inspections than an electrical system and therefore maintenance plans may be very different from each other in type and frequency. Therefore it is operationally practical to manage a building's sub-components separately in order to allow a clearer understanding and way forward for future planning and disposal/replacement activities. It should be noted that entities can manage their operations at this level but limit their financial reporting to the component level. This avoids the administration of allocating costs from projects that affect more than one sub-component down to the sub-component level. However, if operations relate to a sub-component item, then there may be an administrative task of identifying the sub-component when it has not been disaggregated from its component item.

2.19 Financially, sub-componentization supports the financial accounting for disposal, upgrades and replacement of the sub-components. Each sub-component is tracked financially with respect to cost, accumulated depreciation and therefore carrying value, supporting de-recognition calculations including transfers, donations and sale. If items were not sub-componentized, then it would be difficult financially to disaggregate a part of a larger asset to support a calculation related to a write-off, transfer, donation or sale. On the other hand, the requirement to allocate purchase costs among sub-components can generate additional financial administration for both the contractor and the UN administrative functions.

2.20 For example, if an entity decides to account for a building at the component level, then the total costs of the Conveying Systems, Plumbing, HVAC, Fire Projection and Electrical is accounted for under a single "Services" component. Suppose the entity replaces the Fire Protection system prior to the end of its useful life and upgrades to a new Fire Protection system. The old system is required to be written-off and de-recognized. To perform a write-off, the carrying value of the old Fire Protection system needs to be established. Since the carrying value is embedded within the single "Services" component, the carrying value will have to be established by determining the initial contribution of the Fire Protection system to the "Services" component. If the initial documents are not available, then a systematic approach would have to be followed to determine the carrying value of the Fire Protection. One method is to estimate the relative market values of the sub-components and perform an allocation. Once the cost of the Fire Protection is determined, then a calculation of the depreciation is determined in order to calculate the net carrying value and the write-off. Further, the "Service" component will require an adjustment in the financial records for the removal of the Fire Protection system, as well as related adjustments to depreciation. If sub-componentization was adopted at the initial set-up and sub-component costs identified, then many of the calculations of write-off would have been avoided.

Umoja **Solution**

2.21 The *Umoja* Fixed Asset Accounting module supports componentization and sub-componentization of assets, enabling a fully integrated financial and operational solution to managing assets. As identified previously, Umoja supports a hierarchical structure within the Asset Accounting module, where the sub-components roll up into their components which in turn roll up into the building asset class, facilitating the ability to view a building at multiple levels of reporting.

2.22 The *Umoja* solution equally supports tracking of components in the Plant Maintenance Equipment module for operational purposes. Descriptors in the Plant Maintenance module are used to link operational costs to the accounting records in the Asset Accounting module.

2.23 Finally, componentization allows for the monitoring of operating conditions. By tracking maintenance, repair and upgrades at a component level, the condition of the component can be easily assessed to support evaluations on impairment and remaining useful life assessments. Further, understanding historical maintenance and capital improvements on a component will support decisions on future maintenance and improvements.

2.24 Care should be taken not to base maintenance decisions primarily on the theoretical net book value of an asset. Since depreciation is calculated over an average life of many assets and components, it does not represent the decline in value or maintenance requirements of a specific asset or component. Maintenance decisions need to be primarily based on an engineering assessment of the physical condition of a given asset or component.

2.25 Entities should weigh costs and operational requirements, if any, that may be involved in applying sub-components. Costs should be assessed against the benefits of operationally managing maintenance, upgrades, replacements, write-downs and disposals at the sub-component level when determining the level of componentization

.

2.26 Even with full sub-componentization of a building, there may be instances where a part of a sub-component is disposed of. A methodology to split up the sub-component will have to be determined, and where the same methodology must be followed if a building is managed at the component level.

Measurement and valuation of components / sub-components:

2.27 Each component / sub-component should be recognized at purchase cost.

2.28 If the building is acquired, in order to support tracking the building according to its components and sub-components, a good start is to use the same format as identified in Table 1 to collect and identify costs for components and sub-components. Costs of each component should be established based on (in order) acquisition cost allocated to the components by the vendor, price in the active market, similar purchases by other entities, a valuation expert, or internal management estimates.

2.29 If a service contract is entered into for a building to be constructed, then to realize the benefits of componentization and sub-componentization, a table similar in format to Table 1 identifying components and sub-components should be included in the contract.

2.30 If a building is self-constructed, then at the planning stage all costs collected should be allocated to each of the sub-components, including directly attributable costs. For vendors that supply multiple components, the contract should clearly stipulate that the vendor invoice break-down the components in order to facilitate componentization. The vendor should also

be asked to separately determine the cost of providing this break-down so that a true cost benefit assessment can be made when structuring the contract.

2.31 The *Umoja* solution supports self-constructed assets and componentization by allowing for multiple "Internal Order" codes and "Work Breakdown Structure Elements" to accumulate costs by sub-component and/or component.

2.32 Once the components and the related costs are established, each component should be recognized as distinct fixed assets and and depreciated separately.

Examples:

2.33 In order to effectively demonstrate some of the principles of componentization and sub-componentization, below are examples that may be encountered by the entity and the Fixed Asset Management Officer and a proposed solution.

Example 1 looks at the acquisition of a building and the steps to componentize the parts of the building.

Example 2 looks at an entity that enters into a service delivery contract with a vendor to construct a building.

Example 3 looks at a building where the government has given the UN the right to use the building.

Example 4 looks at a leasehold improvement made to a leased building.

Example 5 looks at an entity that has componentized a building down to its first level of Exterior, Roofing, Interior and Services, only to replace its Fire Protection System before the end of its useful life.

Example 1:

2.34 **Entity A's management is in negotiations to acquire a building from a vendor for $50,000,000. The building is fully functional, all systems have been tested and the building is ready for use. The systems vary with respect to their remaining useful life.**

The Fixed Asset Management Officer should arrange with Entity A's management team to develop a break-down of the components of the building, using a template similar to that of Table 1. A review should be completed on the building to determine which level of componentization would be most beneficial to support managing the building operationally and financially.

The following facts are gathered:

- The building does not have elevators and escalators – therefore the sub-component for Conveying systems will not be utilized.

- 25% of the building uses a special cooling generating system for preserving medical specimens and supplies – therefore there exists two HVAC systems.

- The building is one concrete structure, where foundation, walls and roof are all one material and are planned to be part of one maintenance plan – therefore there will be one component /sub-component for Exterior.

- Roofing, Interior Construction, Fire Protection and Electrical each have their distinct useful lives and maintenance plans – therefore there will be a sub-component for each.

Upon analysis of the above, the following componentization/sub-componentization is determined to be most appropriate:

Component	Sub-component	Estimated Remaining Useful Life (Years)*	Purchase Cost	Annual Depreciation	Maintenance Dates	Replacement Date
Exterior	Exterior - concrete	50	$10,000,000	$200,000	September every two years	2065
Roofing	Roofing	20	$5,000,000	$250,000	September each year	2035
Interior	Interior Construction – staircases and interior finishes	20	$5,000,000	$250,000	August every two years	2037
Services	Plumbing	25	$3,000,000	$120,000	July each year	2038
Services	HVAC - regular	25	$4,000,000	$160,000	July each year	2040
Services	HVAC – special cooling	25	$8,000,000	$320,000	Semi-annually Feb and Aug	2035
Services	Fire protection	25	$5,000,000	$200,000	Annually Oct	2042
Services	Electrical and low-voltage systems	25	$10,000,000	$400,000	Four times per year: Jan, Apr, Jul, Oct	2045
	Total		**$50,000,000**	**$1,900,000**		

The
the

The purchase cost of $50,000,000 should be allocated to each of the sub-components identified. The costs by sub-component can be established with the support of the vendor. Where an allocation cannot be provided, then active market prices can be used where they exist. In the absence of market prices, a reasonable estimate can be obtained through similar purchases by other agencies, a valuation expert, or by internal management. Consideration

should be given to both financial and resources that would be required in order to complete an allocation to the sub-components. To the extent possible, the costs of componentizing a building should not exceed the benefits of financial and operational management.

Financially, each sub-component will be depreciated based on its useful life and cost. Under *Umoja*, depreciation will occur monthly for each sub-component in the Asset Accounting module. Operationally, each sub-component can managed with respect to maintenance planning and replacement planning.

Example 2:

2.35 **Entity B engages in a service contract with a vendor to construct a building. The vendor will manage all aspects of construction, including obtaining permits, developing the floor plan, sourcing of all materials, installing plumbing systems, installing HVAC systems, completing the interior walls and staircases, ensuring all local building codes are satisfied etc. Entity B is to provide specifications on the number of employees, number of enclosed offices, amount of kitchen space, number and size of boardrooms, number of bathrooms, minimum amount of square meters required per employee, etc. The amount of the service contract is $10,000,000.**

Similar to Example 1, the entity and the Fixed Asset Management Officer should, in conjunction with the buildings operation manager and the service contract vendor, identify the major components of the building. The vendor should be asked to provide a break-down of the purchase price as part of the service contract by component.

There will be "other" costs that are not attributable to the components/sub-components as identified in Table 3 such as building permits and floor plan design costs. An approximation can be made of the useful life of the costs based on their nature and the costs can be capitalized under a component with a useful life representative of these costs or proportionately allocated to each of the building's components that the costs relate to.

Example 3:

2.36 **The Nigerian government has donated the rights to use a building to the UN for its peacekeeping operations for the next 20 years. The remaining useful life of the building is 25 years.**

It is acknowledged that the building will have significant components with different useful lives. It is also acknowledged that the donated right to use the building should be capitalized in the financial records of the UN similar to that of a finance lease. This is because a criterion for a finance lease is met - the UN will realize over 75% of the economic benefits of the building by occupying 20 of the remaining 25 years.
However, the UN has adopted that finance leases for buildings are not subject to the componentization requirement. Therefore the building will be recognized as a single asset in the fixed asset register.

Example 4:

2.37 **An entity makes leasehold improvements to a leased building (under a finance lease) by adding a chiller.**

Subject to the threshold for leasehold improvements of $100,000, the chiller should be capitalized and depreciated over its useful life or the term of the leased building, whichever is shorter. The chiller should be recognized as asset as it provides benefits to the entity.

Although the remaining useful lives of the building and chiller may be identical, the cost of the chiller should not be added to the cost of the building lease, for the primary reason that the building lease is one transaction with the lessor and the chiller is a separate transaction with a separate vendor. The two items should be recorded separately.

Example 5:

2.38 **An entity has componentized a building down to the first Component level of Exterior, Roofing, Interior and Services, only to replace its Fire Protection System before the end of its useful life. It decides to replace the old Fire Protection System after 10 years in favor of a new system that is compliant with recent fire codes. The old system is written-off.**

Assume these facts:

At set up, the Services component was assigned a value from the vendor of $8,000,000 in the year of acquisition, Year 1. The useful life is 25 years. The $8,000,000 value was not further broken down into the sub-components of conveying, plumbing, HVAC, fire protection and electrical systems.

At the end of Year 10, the carrying value of the Services component is:
$8,000,000 – $8,000,000 x (10 years / 25 years) = $4,800,000

Also at the end of Year 10, the Fire Protection System is replaced by a new system. The old system is written off. The impact on the entity's financial statements must be determined.

The carrying value of the old Fire Protection System must be established. The original cost of the old Fire Protection System will be required to be estimated by reviewing past contracts and documents, discussing with the former vendor, allocating cost of the Service component based on market values or some other systematic approach. Assume that the original cost based on documents retrieved from the original transaction are found after several days. Based on a review of the documents, the cost of the old Fire Protection System is estimated at $1,000,000.

Therefore the carrying value at the end of Year 10 of the Fire Protection System is:

Cost $1,000,000 – Depreciation $1,000,000 x (10 years / 25 years) = $600,000
Therefore Fire Protection System is derecognized and the write-off is $600,000.

The adjusted carrying value of the Services component is: $4,800,000 – $600,000 = $4,200,000

Once a replacement Fire Protection System is installed, the costs should be recognized as an addition to the Services component of the building and depreciated along with the items in the Services component, for its remaining service life of 15 years.

Note: Even with full sub-componentization of a building, there can be instances where a part of a sub-component is disposed of. A methodology similar to the above scenario will still have to be completed in this case, even when the building is fully broken down to the sub-component level.

Chapter 3

Leases and Donated Right-To-Use Arrangements

Overview:

3.1 The objective of this chapter is to provide an overview of leases and donated right-to-use arrangements and their treatment under IPSAS. In addition, the objective of this chapter is to provide practical examples and situations of lease and donated right-to-use arrangements that the Fixed Asset Management Officer may encounter and to provide the steps and guidance to their solutions.

3.2 Reference is also made to United Nations Corporate Guidance for International Public Sector Accounting Standards for Leases and Donated Right-to-Use Arrangements (10 December 2013 Final Version), which outlines IPSAS 13 (Leasing) for treatment of leases and IPSAS 17 (Non-exchange revenues) for treatment of donated right-to-use arrangements.

Guidance:

3.3 A lease arrangement is an agreement whereby the lessor conveys to the lessee the right to use or occupy an asset for an agreed period of time in return for a payment or a series of payments at commercial value (fair value) and without legal transfer of ownership.

3.4 A donated right-to-use arrangement is similar to a lease agreement whereby the donor conveys to the donee the right to use or occupy an asset for an agreed period of time or indefinitely at no-cost, at nominal cost or at a subsidized cost and without legal transfer of ownership.

3.5 The lessor/donor is the owner of an asset that conveys the right to use the asset to the lessee/donee. The lessee/donee is the party that receives the right to use an asset from a lessor/donor.

3.6 A lease arrangement is beneficial to an entity when (as a lessee):

- Cash is tight. The entity does not have the funds to purchase the asset for its operations.
- The asset will not be used for the long term or for its expected useful life. That is, it does not make sense to purchase an asset when it is only going to be used for a short period of time.
- The asset is likely to become obsolete quickly. For an asset where technological changes may result in the asset's obsolescence or impairment, leasing allows for swift replacement of an outdated asset.

3.7 Examples of leases and donated right-to-use arrangements include the use of buildings, land, vehicles and office equipment that is owned by a lessor or donor but leased or donated to the UN for a period of time. The UN has the right to use the asset under arrangement for its operations unhindered during the period of the arrangement and without interference from the owner of the leased asset.

3.8 Financially, a lease or donated right-to-use arrangement can be classified as either a finance arrangement or an operating arrangement. Classification depends on which party bears the risks and rewards of the asset, regardless of which party has title/ownership of the asset. This is referred to as "substance over form", where the substance of the arrangement takes

precedence over the legal form of the arrangement. IPSAS provides financial guidance on establishing which party bears the risks and rewards of an asset by defining specific lease recognition and classification criteria to objectively determine if a finance lease exists. This topic will be addressed in the Finance Leases section of this chapter.

3.9 Operationally, when performing repairs or upgrades on an asset, consideration should be given as to whether the asset is under a lease or right-to-use arrangements. At the termination of an arrangement, any benefits remaining as a resulting from the costs expended for repairs or upgrades of the asset transfer to the owner of the asset. Consideration should also be given to the terms of the arrangement, on whether the owner of the asset is responsible for incurring the costs of repairs, maintenance and upgrades to the asset or if the responsibility resides with the lessee/donee.

Finance Leases

3.10 A finance lease (also known as a capital lease) is an arrangement that transfers substantially all the risks and rewards incidental to ownership of an asset from the lessor to the lessee. Title to the asset may or may not eventually be transferred. Finance leases are also often referred to as capital leases because finance leases are in substance capital borrowing arrangements disguised as leases.

3.11 Risks incidental to ownership include a devaluation of the asset due to technological obsolescence, costs of maintenance, damage and repair, costs to adhere to government regulations, costs of insurance, a loss in value and any losses from idle operations.

3.12 Rewards incidental to ownership include an appreciation in value, realization of gains in residual value, earning of rental income by sub-letting the asset and earning financial returns from the asset's use.

3.13 When substantially all the risks and rewards of ownership of the asset are transferred, control of the asset is essentially transferred. When control is transferred, then the lease arrangement is classified as a finance lease.

3.14 IPSAS 13 defines specific lease recognition and classification criteria to determine objectively if a finance lease exists. Only one of the following criteria is required to be fulfilled in order for a finance lease to exist:

- Ownership of the asset is transferred by the end of the lease term;
- Lease contains a bargain purchase option (where lessee has option to purchase the item at a price that is expected to be sufficiently lower than market value when the option becomes exercisable);
- Lease term is for the major part of the asset's economic life (≥ 75%); or
- Present value of the minimum lease payments amount to substantially all (≥ 90%) of the fair value of the leased asset.

3.15 Additional indicators that provide evidence and support that a finance lease may exist are:

- Lessee bears lessor's cancellation losses;
- Lessee bears the gains/losses from changes in fair value of residual;
- Lessee has option to extend rental at lower than market price;
- The leased asset is of a specialized nature; and
- The leased asset is not easily replaced.

3.16 As the provisions of a lease can be fairly complex, further judgement may be required to establish if an arrangement is a finance lease when considering the provisions of lease, the risks and rewards of the asset and the recognition and classification criteria as identified in IPSAS 13. The systematic approach taken and decision on the classification of the lease should be clearly documented for auditing purposes.

3.17 To support classification of the lease, the IPSAS team has developed a lease data template that should be used to outline and identify relevant provisions of the lease arrangement and the arguments that support the lease classification. (For flowcharts to support the decision on classification of a lease, refer to United Nations Corporate Guidance – Leases and Donated Right-to-Use Arrangements (IPSAS 13).)

Lessee Accounting for Finance Leases

3.18 To the lessee, a finance lease is regarded as essentially equivalent to owning an asset. The lessee acquires practically all the benefits of ownership such as use of the asset over the majority of its useful life as well as the risks of ownership such as cost to repair damage to the asset and loss in value of the asset. The lease payments effectively pay back the full cost of the leased asset to the lessor, including financing costs. Therefore the lease payments essentially represent paying down a finance loan.

3.19 Accounting rules require that when the arrangement results in a finance lease, that both an asset and a liability be recorded in the financial statements. Assets under finance leases shall be measured and recorded at the present value of the minimum lease payments. In addition, assets under finance leases shall be classified according to their nature (e.g. Buildings under finance leases shall be classified within the Buildings Asset Class). For the methodology to establish the present value of the minimum leases payments for a finance lease, refer to United Nations Corporate Guidance – Leases and Donated Right-to-Use Arrangements (IPSAS 13).)

3.20 The leased asset shall be recognized by the lessee at the lower of fair value of the asset and the present value of the minimum lease payments, plus any initial indirect costs incurred by the lessee such as set-up costs.

3.21 The amount to be capitalized as an asset under a finance lease is subject to meeting the same threshold requirements as applicable to owned assets. If the threshold is not met, then the arrangement is accounted for as an operating lease. See Table 3.2: Finance Lease Capitalization Thresholds.

3.22 A corresponding lease obligation for the same amount shall be recognized, with a split between current and non-current portions of the lease obligation to the lessor. (Non-current amounts are amounts not settled within one year.)

3.23 The present value of the minimum lease payments are the payments over the lease term that the lessee is required to make, together with the guaranteed residual value or the payment to exercise a bargain purchase option at the end of the lease, discounted to their current value. Minimum lease payments should include escalation clauses (annual increases in rent), if any. Minimum lease payments exclude contingent rent and costs for services and taxes to be paid by the lessee and reimbursed to the lessor.

3.24 The present value of the minimum lease payments are calculated based on the interest rate implicit in the lease, also known as the discount rate. This rate is generally the entity's borrowing rate, where it exists. As lessee, the United Nation's opportunity cost of earning a

return on cash pool holdings can be used as a proxy for the discount rate if the interest rate implicit in the lease is not practical to determine. For details on the formula for calculating the present value of the minimum lease payments, refer to the United Nations Corporate Guidance for International Public Sector Accounting Standards – Leases and Donated Right-to-Use Arrangements (IPSAS 13).

3.25 For each accounting period, the finance lease, as an asset, shall be depreciated over the shorter of the lease term or the useful life of the asset, unless ownership is expected to be transferred at the end of the lease term. For a finance lease where ownership is expected (e.g. through a bargain purchase option) to be transferred at the end of the lease term, depreciation shall occur over the useful life of the asset.

3.26 In addition, for each accounting period, the lease payments shall be apportioned between the finance expense (interest) related to the lease obligation and the reduction of the lease obligation. The finance expense is calculated at each rental period based on the outstanding lease obligation balance.

Lessor Accounting for Finance Leases

3.27 To the lessor, the finance lease is regarded as essentially equivalent to a sale of an asset (even though legal title does not transfer). The asset is derecognized from the financial statements and a lease receivable is recognized, reflecting both a current and non-current portion.

3.28 The lease receivable is calculated as the present value of the minimum lease payments plus the unguaranteed residual value. An unearned interest revenue account is set up.

3.29 The lease payments received should be applied against the lease receivable to reduce the principal and the unearned interest revenue account in order to realize the earned interest revenue on the lease receivable.

3.30 **Example: Finance leases (Lessee perspective)**

Entity A (lessee) enters into an agreement to lease transportation equipment from a lessor for 5 years. The details of the lease are as follows:
Annual payments: $10,000, payable in arrears
Escalation clause: 10% per year (rent increases at 10% per year)
Lease Term: 5 years
Purchase option at end of Year 5: $500
Implicit discount rate: 3%
Fair value of equipment: $65,000

Standard useful life of transportation equipment: 7 years

The lease term is 71% of the asset's economic life (5 years / 7 years) and therefore the IPSAS criterion that the lease term comprises a major part of the asset's economic life is not met. (Criterion required to be met is $\geq$75%.)

The lease contains a purchase option where Entity A can exercise the option to obtain ownership of the transportation equipment at the end of the lease term for $500. It is highly likely that Entity A will exercise the option as the value of the asset will likely be more than the $500 purchase option at the end of the lease term. Hence the purchase option is a bargain

purchase option and the IPSAS criterion that the lease contains a bargain purchase option is met. Therefore the lease arrangement is a finance lease.

The present value of the minimum lease payments is calculated as:
= $10,000/(1.03) + $11,000/(1.03)^2 + $12,100/(1.03)^3+ $13,310/(1.03)^4 + $14,641/(1.03)^5 + 500/(1.03)^5
= $56,037

The journal entries are:

Set up of lease:

Dr. Equipment - Finance lease	$56,037	
Cr. Lease Obligation		$56,037

Recording of depreciation ($56,037/7 years = $8,005 per year):

Dr. Depreciation Expense – Finance Leases	$8,005	
Cr. Accumulated Depreciation – Finance Leases		$8,005

(Depreciation is allocated over the 7 year useful life of the asset because ownership is expected to be transferred at the end of the lease term through the bargain purchase option.)

Recording of interest on the Lease Obligation ($56,037 x 3% = $1,681):

Dr. Interest Expense	$1,681	
Cr. Lease Obligation		$1,681

Lease payment to lessor:

Dr. Lease Obligation	$10,000	
Cr. Accounts Payable		$10,000

In the subsequent years to Year 1, the following table can be used for the journal entries:

	Lease obligation at the beginning of the year	**Lease Payments**	**Capital Portion**	**Interest Portion (@3%)**	**Lease obligation at the end of the year**
Year 1	$56,037	$10,000	$8,319	$1,681	$47,718
Year 2	$47,718	$11,000	$9,568	$1,432	$38,150
Year 3	$38,150	$12,100	$10,956	$1,144	$27,194
Year 4	$27,194	$13,310	$12,494	$816	$14,700
Year 5	$14,700	$14,641	$14,200	$441	$500
Year 5 – BPO	$500	$500	$500	$0	$0
Total		$61,551	$56,037	$5,514	

Note, for presentation purposes, the lease obligation should be split between the current and non-current portions. For example, at the end of Year 1, the lease obligation should be presented as:

Lease obligation – current	$9,568
Lease obligation – non-current	$38,150
Total lease obligation	$47,718

3.31 Table 3.1compares the accounting differences between the lessee and the lessor for finance leases.

3.32 **Table 3.1: Comparison of Lessee and Lessor Accounting – Finance Lease**

Financial Statement	**Finance Lease Lessee Accounting**	**Finance Lease Lessor Accounting**
Statement of Financial Position (Balance Sheet)	At initial set-up: • Leased Asset for present value of minimum lease payments (including initial direct costs). • Liability/ Lease Obligation for lease. During the lease term: • Reduction in the Liability/Lease Obligation when payment is made. • Accumulated depreciation of the asset. • Asset for any Leasehold Improvements if lessee incurs costs of enhancements to the leased asset. (See Leasehold Improvement section of this Chapter.)	At initial set-up: • Lease Receivable for present value of minimum lease payments (including initial direct costs and unguaranteed residual value). • Elimination of Asset leased under finance arrangement. • Set up of Unearned Revenue. During the lease term: • Reduction of the Lease Receivable when payment is received. • Reduction of Unearned Revenue when revenue is earned.
Statement of Financial Performance (Income Statement)	At initial set-up: • None.	At initial set-up: • None.

	During the lease term: • Periodic Lease/Rental Expense as accrued. • Finance/Interest charge on the Liability/Lease Obligation. • Executory expenses (insurance, maintenance) as incurred. • Depreciation expense on the Leased Asset.	During the lease term: • Periodic Lease/Rental Income as accrued. • Finance Revenue/Interest Income earned on Lease Receivable. • Executory expenses as incurred.

Donated right-to-use arrangements that are finance arrangements

3.33 Donated right-to-use arrangements that depict characteristics similar to that of finance leases are arrangements that transfer substantially all the risks and rewards incidental to ownership of an asset from the donor to the donee, at no cost, at nominal cost or at subsidized cost. Title may or may not eventually be transferred.

3.34 For donated right-to-use arrangements that are finance arrangements where the donee has substantially all the risks and rewards incidental to ownership of the asset, then the donee shall recognize and classify the arrangement as a donated right-to-use asset under a finance arrangement. The value of the asset is set up, along with a corresponding deferred revenue account for the same amount. The deferred revenue account is reduced by any payments required to be paid to the donor (in the event of a subsidized arrangement or where nominal payments are required).

3.35 A donee possesses substantially all the risks and rewards incidental to ownership if the term of the arrangement is >75% of the economic life of the asset, or if the term of the arrangement is indefinite.

3.36 The value recognized as an asset for a donated right-to-use arrangement that is a finance arrangement is measured at fair value (market value). The United Nations has adopted the depreciated replacement cost methodology to be the best proxy to measure fair value. (Recall from the United Nations Corporate Guidance for IPSAS on Property, Plant and Equipment, 10 May 2013, Section 3.1 that depreciated replacement cost is determined by replacement cost subtracting deprecation. Replacement cost is the cost to replace the asset with a functionally equivalent asset. Depreciation in the context of depreciated replacement cost is the sum of physical deterioration, functional obsolescence and economic obsolescence.)

3.37 The value recognized is subject to meeting the same threshold requirements applicable to owned assets. (See Table 3.2: Finance Lease Recognition Thresholds) If the threshold is not met, then the arrangement is accounted for as donated right-to-use arrangement that is an operating arrangement.

3.38 Per the UN Policy Framework, for arrangements that involve buildings, where there does not exist exclusive control (or joint exclusive control) e.g. a room of a building or a floor of a building versus the entire building or for when the arrangement is not for at least 35 years,

then the arrangement will be treated as a donated right-to-use arrangement that are operating arrangements.

3.39 Any capitalized asset should be depreciated over the lesser of the term of the arrangement or the useful life of the asset. The deferred revenue account is reduced by the same amount as the depreciation, offset by a contribution in-kind representing the value of the donated right-to-use arrangement from the donor.

Recognition thresholds for finance leases and donated right-to-use arrangements that are finance arrangements

3.40 Table 3.2 outlines the recognition thresholds for finance leases and donated right-to-use arrangements that are finance arrangements. Where the present value of the finance lease or fair value of the donated right-to-use arrangement that is a finance arrangement is above the recognition threshold, then the arrangement is recognized and reported in the financial statements. The recognition thresholds by asset class are the same as for owned assets. If the recognition threshold is not met, then the arrangement is accounted for as an operating lease or donated right-to-use arrangement that is an operating arrangement.

3.41 **Table 3.2: Finance Lease Recognition Thresholds (identical to all Fixed Assets)**

Fixed Asset	**Recognition Threshold**
All Property, Plant and Equipment, other than Volume I and II	USD $5,000
PP&E - Volumes I and II (except for the following commodity groups: vehicles, prefabricated buildings, satellite communication systems, generators and network equipment)	USD $20,000
PP&E - Volumes I and II – for the following commodity groups: vehicles, prefabricated buildings, satellite communication systems, generators and network equipment	USD $5,000
Self-constructed assets	USD $100,000
Buildings, Leasehold Improvements, Infrastructure Assets, Major Upgrades	USD $100,000
Land	No threshold **

****** Note: arrangements that involve land are generally treated as operating leases unless legal title is expected to pass to the lessee at the end of the lease term. Land is deemed to have an indefinite life and therefore the risks and rewards incidental to ownership of land are generally not transferred to the lessee.

3.42 Under the *Umoja* solution, the Umoja Job Aid for creation of a fixed asset is **FI-AA JA-2-1 Manual Acquisition of Asset (Current Year)**.

Both finance leases and donated right-to-use arrangements that are finance arrangements are required to be capitalized as fixed assets and presented in the financial statements.

The transaction code to create a fixed asset in the Umoja system is **AS01 Create Asset Master Record**.

This transaction is within the role profile FA15 Asset Accounting User.

The amount to be capitalized as a fixed asset is the present value of the minimum lease payments plus a standard 4% to account for associated costs (20%? for Peacekeeping). Associated costs covers freight, duty, installation, and other costs required to get the asset to its place of intended use. However, if the present value of the minimum lease payments plus 4% associated costs does not exceed the capitalization threshold, then the item is expensed (rather than capitalized).

3.43 **Example: Donated right-to-use arrangements that are finance arrangements**

A local government has granted an entity the right to use a building indefinitely. The fair value of the building is unknown.

When the arrangement is for an indefinite term, the arrangement should be recognized as an asset because essentially all of the risks and rewards incidental to ownership are transferred to the donee.

Under the depreciated replacement cost methodology (as adopted by the UN to be the best proxy to measure fair value), the fair value of the asset needs to be determined. Fair value can be determined through any of, or combination of, the following approaches:

- Values provided by host government that are reasonable.
- Commercial leases available for a similar kind of property.
- Values obtained from external sources for identical properties (e.g. market data).
- The equivalent self-constructed asset.

Assume that through a combination of the above approaches, it is assessed that the fair value of the building is $120,000.

Journal entry to set up the asset:

Dr. Building (Donated Right-to-Use)	$120,000	
Cr. Deferred Revenue		$120,000

Journal entry to record annual depreciation based on 50 year standard useful life ($120,000 / 50 years = $2,400/year):

Dr. Depreciation Expense	$2,400	
Cr. Accumulated Depreciation		$2,400

Journal entry to record the value of the donation by the local government each year (which is equal to the annual depreciation expense):

Dr. Deferred Revenue	$2,400	
Cr. Contribution In-Kind		$2,400

Operating leases

3.44 Leases that do not transfer substantially all the risks and rewards incidental to ownership of an asset from the lessor to the lessee are operating leases. The risks and rewards incidental to ownership remain with the lessor. More simply stated, a lease that is not considered a finance lease is an operating lease.

Lessee Accounting for Operating Leases

3.45 As lessee, an operating lease does not recognize an asset or a liability in the financial statements (other than any for any contract provisions for lease restoration costs, any indirect costs and subsequent leasehold improvements related to the leased asset). The amount paid under an operating lease is expensed on a straight line basis over the lease term which may or may not match the payments per the payment schedule. (That is, the annual expense per year is an identical amount, based on the total of all expected lease payments over the lease term allocated evenly to each year of the lease term.)

Lessor Accounting for Operating Leases

3.46 As lessor, the revenues from operating leases are recognized on a straight line basis over the lease term. Revenue for the lessor on a straight line basis, even if the payments are not on that basis. For example, if the lease contains free rent periods or rent escalations, then the total rent expense/revenue is calculated and spread equally over the lease term, balanced by a Lease Straight Line account.

3.47 **Example: Operating leases**

An operating lease is set up over 4 years such that the annual rent is $12,000. The operating lease arrangement stipulates that the first month in Year 1 is free, as well as the last 2 months in Year 4. The arrangement includes a clause for rent escalation at 6% per annum.

As lessee, the stipulations for free rent are inducements to encourage the lessee to enter into the lease agreement. To calculate the annual rent expense, the inducements are spread ("straight-lined") over the term of the lease, such that the rent expense is recognized evenly over the term of the lease. Any difference each is captured and accumulated in a Lease Straight Line Liability account.

As lessor, the same principle applies - the inducement is straight-lined over the term of the lease, such that the lease revenue is recognized evenly over the term of the lease.

The table below outlines the lessee rent expense and lessor revenue each year and the related journal entries:

	Year 1	**Year 2**	**Year 3**	**Year 4**	**Total**
Payments	$11,000	$12,720	$13,483	$11,910	$49,113
Average Payment	$12,278	$12,278	$12,278	$12,278	$49,113
Journal Entries (lessee perspective):					

Dr. Rent Expense	$12,278	$12,278	$12,278	$12,278	$49,113
Cr. Cash Paid	($11,000)	($12,720)	($13,483)	($11,910)	($49,113)
Cr. Lease Straight Line Liability	($1,278)	$442	$1,205	($368)	$0
Note: Cumulative Lease Liability	($1,278)	($836)	$368	$0	
Journal Entries (lessor perspective):					
Dr. Cash Received	$11,000	$12,720	$13,483	$11,910	$49,113
Dr. Lease Straight Line Liability	$1,278	($442)	($1,205)	$368	$0
Cr. Rent Revenues	($12,278)	($12,278)	($12,278)	($12,278)	($49,113)
Note: Cumulative Lease Liability	$1,278	$836	($368)	$0	

3.48 Table 3.3 outlines the accounting differences between lessee and lessor accounting for operating leases.

3.49 **Table 3.3: Comparison of Lessee and Lessor Accounting - Operating Lease**

Financial Statement	**Operating Lease Lessee Accounting**	**Operating Lease Lessor Accounting**

Statement of Financial Position (Balance Sheet)	• Provisions for "lease restoration costs" where lessee is required to restore the leased asset to its original condition. (See Lease Restoration Costs section of this Chapter.) Then:
	  • Asset (for value of anticipated restoration cost).
	  • Liability (for future obligation of restoration cost).
	• Asset for any initial direct costs (legal fees and set-up fees, credit checks).
	• Lease Straight Line Liability to account for inducements, abatements and rent escalation
		• Asset that has been leased to lessee.
		• Asset for any initial direct costs (legal fees, set-up fees).
		• Accumulated Depreciation of the Asset.

	clauses in the lease agreement. • Asset for any Leasehold Improvements if lessee incurs costs of enhancements to the leased asset. (See Leasehold Improvement section of this Chapter.)	
Statement of Financial Performance (Income Statement)	• Periodic lease/rental expense as accrued. • Depreciation expense related to initial direct costs (legal fees, set-up fees, credit checks). • Executory expenses (insurance, maintenance) as incurred. • Depreciation expense related to Leasehold Improvements.	• Periodic lease/rental income as accrued. • Depreciation expense related to initial direct costs (legal fees, set-up fees). • Executory expenses as incurred. • Depreciation expense of the Asset that has been leased to the lessee.

Donated right-to-use arrangements that are operating arrangements

3.50 When a donor grants an entity the rights to use an asset under a short-term donated right-to-use arrangement, the benefits of ownership are temporary and the term of the arrangement is not a major part of the asset's economic life. The donee does not obtain the significant risks and rewards of ownership of the asset. The donor typically retains the risks of repairs and replacement and hence treatment is the same as that of an operating lease.

3.51 An expense shall be recorded by the donee equal to the fair value (the amount equivalent to commercial rent for a similar asset) of the arrangement. In addition, the entity recognizes a corresponding amount to revenue as Contribution In-Kind representing the value of the asset from the donor.

Recognition thresholds for donated right-to-use arrangements that are operating arrangements

3.52 Table 3.4 outlines the recognition thresholds for the expensing (and the corresponding revenue) of the value of the donated right-to-use arrangements that are operating arrangements. For an operating arrangement where the fair value (commercial value) of the donated right-to-use arrangement based on one year's worth of payments is above the recognition threshold, then the arrangement is reported in the financial statements by expensing the fair value of the arrangement. In cases where the threshold is not met, then the value of the donated right-to-use arrangement is not recognized as an expense and not reported in the financial statements. Note that even though arrangements that do not meet the recognition threshold are not reported in the financial statements, it is good operational practice to statistically track such arrangements to support management of such arrangements. It is also at the discretion of the entity if arrangements that are not reported in the financial

statements should be disclosed in the notes to the financial statements where the arrangements are significant (e.g. multiple arrangements where in aggregate the value is significant).

3.53 **Table 3.4: Recognition thresholds for donated right-to-use arrangements that are operating arrangements**

Fixed Asset	**Recognition threshold per arrangement, per year (based on fair value)**
Buildings - Volumes I and II	USD $20,000
Buildings – All other than Volumes I and II	USD $5,000
Land (where title not granted to UN) – Volumes I and II	USD $20,000
Land – All other than Volumes I and II	USD $5,000
Infrastructure Assets - Volumes I and II	USD $20,000
Infrastructure Assets – All other than Volumes I and II	USD $5,000
Machinery and Equipment – All Volumes	USD $5,000

3.54 For example, if an entity receives the right to use a machine at a fair value of $6,000 per year, then the entity would recognize a rent expense of $6,000 and a contribution-in-kind revenue of $6,000. However, in the same situation where the fair value to rent the machine is less than $5,000 per year, then the entity would not recognize a rent expense or contribution-in-kind in the financial statements.

3.55 **Example: Donated right-to-use arrangements that are operating arrangements**

A local government donates to an entity the right-to use a waste water treatment system for two years for its mission. The waste water treatment system has a life beyond the two years and the risks and rewards of ownership of the treatment system remain with the local government.

The arrangement is a donated right-to-use arrangement that is an operating arrangement. For the two years of the arrangement, the entity does not bear the significant risks and rewards incidental to ownership of the waste water treatment system.

The entity must estimate the equivalent value of renting the waste water management system. The entity is able to obtain a rental value estimate of $25,000 per year from the local government. The entity assesses similar rents within the same location and concludes that the $25,000 per year is reasonable. As the annual equivalent is above the recognition threshold, the annual journal entry to recognize the donated right-to-use arrangement is:

Dr. Rent Expense	$25,000	
Cr. Contribution-in-Kind		$25,000

Rent Escalation / Rent Increases

3.56 Leases often have scheduled rent escalation clauses or rent increases. Rent escalation clauses and rent increases should be recognized on a straight-line basis over the lease term, such that rent increases are spread evenly throughout the lease term, representing the time pattern in which use benefit is derived from the leased asset.

3.57 Under the straight-line basis, the total amount of all payments in the lease is calculated and the divided early over the life of the lease. Therefore rent expense each period is a constant value.

3.58 A straight-line liability account is used to accumulate differences between the periodic rent expense booked on a straight-line basis and the actual payments made. At the early term or the lease, the straight-line expense will be greater than the periodic payments, resulting in a liability (also known as deferred rent). Towards the end of the lease term the straight-line liability account is eventually reduced to zero due to the straight-line expense gradually becoming lower than the periodic payments.

3.59 **Example: Rent Escalation / Rent Increases**

Entity A enters into an operating lease for a 4-year term with rent payable each year of $100,000, $110,000, $130,000 and $140,000 respectively.

Entity A should report a straight-line rent expense based on the average rent. The average of all rent payments is $120,000 per year ($100,000 + $110,000 + $130,000 + $140,000)/4.

The journal entry in the first year is:

Rent expense	120,000	
Accounts Payable		100,000
Straight-Line Liability		20,000

The straight line liability account is used to accumulate the differences between the rent payment to the lessor and the rent expense reported on the financial statements and will have a zero balance at the end of the lease term.

The journal entry in the second year is:

Rent expense	120,000	
Accounts Payable		110,000
Straight-Line Liability		10,000

The accumulated balance in the Straight-Line Liability account is $30,000 and will be offset and reduced in the third and fourth years of the lease term.

Subsidized leases

3.60 Subsidized leases are leases where the amount paid is less than the commercial value (fair value) that would have been required to be paid for the lease term. The amount of the subsidy can be explicitly stated in the agreement or not be part of the agreement at all. The fact that the amount paid is less than commercial value implies that a subsidy exists.

3.61 A subsidy exists because the lessor/landlord offers the leased asset at a lower price than commercial value lower as a form of financial aid or support.

3.62 The subsidized portion should be recognized as revenue (contribution income). The commercial value of the lease should be recognized as rent expense, such that the net impact is equal to the amount of rent paid. The subsidized portion should be recognized as revenue contribution on a straight-line basis such that the subsidy is spread evenly throughout the lease term.

3.63 **Example: Subsidized leases**

A building lease is entered into at a rate of $44/square foot as per the lease contract. However, the market rate for comparable properties is $68/square foot. The total square footage of the building is 10,000 square feet.

Since the lease rate is below commercial value, there is a subsidy implicit in the lease.

Per the contract, the amount paid is $440,000 per year ($44/square foot x 10,000 square feet).

The commercial value of lease is $680,000 per year ($68/square foot x 10,000 square feet).

Therefore the subsidy is $240,000 per year ($680,000 - $440,000).

The annual journal entry to record the rent expense and subsidy are:

Dr. Rent expense	$680,000	
Cr. Contribution income from subsidy		$240,000
Cr. Accounts payable (rent paid)		$440,000

Rent Abatements (Discounts)/ Rent Holidays

3.64 In some cases, a lessor/landlord will offer a discounted price or some other form of discount on the price of the lease. The discount can be for a percentage or dollar amount off the market price for one payment or even for multiple payments ("rent holidays").

3.65 A discount exists because the lessor/landlord is offering an inducement for the lessee to enter the lease agreement. The discount is an inseparable element of the agreement and is factored into the lease payment.

3.66 Such discounts are accounted for on a straight-line basis over the lease term. That is, the discount is equally applied each year over the lease term because the discount benefits the entire term of the lease. Therefore the rent expense should be a consistent charge over the lease term. Applying straight-line rent can result in differences between the rent expense booked and the actual amount paid. The Straight Line Liability account in the financial statements is used to accumulate the differences between the rent expense booked and the payment to the lessor and will have a zero balance at the end of the lease term when the differences net each other out.

3.67 **Example: Rent Abatement (Discounts) with Rent Escalation**

A new commercial tenant moves into a building complex in January 2015. A 5 year lease is agreed, which includes payment of base rent as well as utilities at standard rates of $190 and $25 per square meter per month respectively, charged on an annual basis for a total rented area of 100 square meters. Inflation on the rent amount is 5% per year. The lease agreement requires that the commercial tenant undertake certain new construction of the space to be occupied. It is agreed that a rent abatement will be applied to a portion of the construction. The cost of the construction is valued at $50,000. Rent abatement/amortization of $20,000 per year for the first 3 years will be applied. Following the rent abatement period, regular rent and utilities charges become applicable.

Assume that the lease arrangement is an operating lease as the term of the lease is less than 75% of the building's economic life (50 years). (Also assume for the purpose of this example, that the present value of the minimum lease payments does not exceed 90% of the fair value of the building.)

The abatement for the first three years is an essential clause in the agreement and significant to the tenant's decision to enter into the lease. The incentive is an inseparable element of the agreement and therefore should be factored into the lease payment and applied on a straight-line basis.

Rent is 5% increase per year									
Construction starts in Year 1 and finishes at end of Year 3									
Assume Rent Abatement of $20,000 applied during construction years (Years 1 to 3).									
Cost of construction works is $50,000									
	Rate/Meter	**Sq. Meters**	**Per Month**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Rent	$ 190	100	$ 19,000	$ 228,000	$ 239,400	$ 251,370	$ 263,939	$ 277,135	$ 1,259,844
Abatement				$ (20,000)	$ (20,000)	$ (20,000)			$ (60,000)
Net Rent Payments per year				$ 208,000	$ 219,400	$ 231,370	$ 263,939	$ 277,135	$ 1,199,844
Average Rent to expense (straight-line)				$ 239,969	$ 239,969	$ 239,969	$ 239,969	$ 239,969	$ 1,199,844
Utilities	$ 25	100	$ 2,500	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	
Journal entries (lessee perspective):									
Dr. Rent Expense				$ 239,969	$ 239,969	$ 239,969	$ 239,969	$ 239,969	$ 1,199,844
Dr. Utilities Expense				$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 150,000
Cr. Cash				$ (238,000)	$ (249,400)	$ (261,370)	$ (293,939)	$ (307,135)	$ (1,349,844)
Cr. Lease Straight-Line Liabiility				$ (31,969)	$ (20,569)	$ (8,599)	$ 23,970	$ 37,167	
Cumulative lease liability				$ (31,969)	$ (52,538)	$ (61,136)	$ (37,167)	$ (0)	
Leasehold Improvement:									
Dr. Leasehold Improvements						$ 50,000			$ 50,000
Cr. Cash/Asset Under Construction						$ (50,000)			$ (50,000)
Amortization of Leasehold Improvement									
Dr. Amortization Expense							$ 25,000	$ 25,000	$ 50,000
Cr. Accumulated Amortization - Leasehold Improvments							$ (25,000)	$ (25,000)	$ (50,000)

Embedded leases

3.68 An embedded lease is the right to use an asset in return for financial payments, however, the arrangement does not take the legal form of a lease.

3.69 For example, an outsourcing arrangement that includes assets that are solely used for the United Nations is an embedded lease. In other words, if the supplier is required to use a specified asset to fulfil the outsourcing arrangement, then there is existence of an embedded lease. The financial portion of the embedded lease must be split from the other financial payments made in the arrangement (such as maintenance and insurance). This split is made based on the relative fair values of the asset and other elements in the arrangement.

3.70 In some cases, a specified asset may not be identified. However, if the supplier only has one asset to fulfil the arrangement and it is not economically feasible or practicable for the supplier to use alternative assets to fulfil the arrangement, then the asset is implicitly specified, and the arrangement is an embedded lease.

3.71 An embedded lease also occurs in an arrangement where the entity has the right to control the use of the underlying asset, that is, the asset's availability. The right to control an asset is met when the entity has:

- direct physical control over the asset (ability or right to operate);
- the ability to direct others to operate a specific asset;
- the ability to control physical access to the asset; or
- the ability to take a significant part of the output and the price that the entity pays for the output is not:
    - a contractually fixed price per unit of output; or
    - the current market price per unit of output as of the time of delivery of the output.

3.72 **Example: Embedded leases**

Entity A outsources its production and printing functions for its publications to Vendor X. The term of the agreement is for 5 years and is non-cancellable by Vendor X. Vendor X is to enter into an exclusive contract for the production and printing of publications and Entity A has the right to inspect the equipment used by Vendor X at all times. Vendor X charges cost plus mark-up on the basis of a guaranteed minimum number of publications from Entity A.

The contract contains an embedded lease because Entity A has the right to direct use of the equipment for the publications. In addition, the price that Entity A will pay is neither a fixed price per unit of output nor based on market price, but based on a cost plus mark-up structure.

Therefore the portion of the payment made to Vendor X that is related to the asset should be identified and separated from the rest of the payment.

For the purpose of this example, based on the guaranteed minimum number of publications per year, the split of the payment as provided by Vendor X is assumed to be as follows on a per year basis:

Minimum publications: 500,000

Estimated cost per year:	
Depreciation of fixed equipment	$60,000
Labor and overhead costs	$100,000
Mark-up (at 25%)	$40,000
Total payment per year (guaranteed minimum)	$200,000

The portion of the annual outsource payment that represents an embedded lease is the depreciation component of $60,000 per year. This amount must be separated from the payment and treated as a lease arrangement.

In this case, the equipment is used exclusively for Entity A and is not transferable. Since the agreement is over the entire economic life of the equipment, the arrangement is a finance lease.

The fair value of the fixed asset is assumed to be $300,000 ($60,000 annual depreciation x 5 year term).

Assuming a discount rate of 3%, then the present value of the minimum lease payments is:

= $60,000/(1.03) + $60,000/(1.03)^2 + $60,000/(1.03)^3+ $60,000/(1.03)^4 + $60,000/(1.03)^5
=$274,782

The journal entry to set up the finance lease portion is:

Dr. Equipment - Finance Lease	$274,782	
Cr. Lease Obligation		$274,782

The journal entry to record depreciation ($274,782/5years = $54,956 per year):

Dr. Depreciation Expense – Finance Leases	$54,956	
Cr. Accumulated Depreciation – Finance Leases		$54,956

The journal entry to record interest on the Lease Obligation ($274,782 x 3% = $8,243) for the first year is:

Dr. Interest Expense	$8,243	
Cr. Lease Obligation		$8,243

The journal entry to record the contracted payment to Vendor X is:

Dr. Lease Obligation	$ 60,000	
Dr. Inventory	$140,000	
Cr. Accounts Payable		$200,000

If the number of publications exceeds 500,000 copies, then any amounts above $200,000 charged by vendor X are booked directly to the Inventory account.

Common premises

3.73 Common premises are premises occupied by more than one UN entity/agency, generally to gain efficiencies in cost.

3.74 There are generally two types of common premises:

- A head lease is an arrangement where a lead agency signs the agreement with the landlord on behalf of all participating agencies. In this case, the lead agency is the head lessee to the landlord. Whether the head lease is a finance or operating lease is dependent on the terms of the agreement. In addition, the lead agency will become a "sub-lessor" to the participating agencies, "sub-lessees", that will ultimately sign a MoU (Memorandum of Understanding) establishing the terms and conditions for occupation of the common premises. The MoU between the lead agency and the participating agencies will be classified as an operating lease since the risks and rewards of ownership are not transferred to the participating agencies.

- If all participating agencies sign the agreement with the landlord, they are all independent common tenants resulting in joint control. Whether the arrangement is a finance or operating lease is dependent on the terms of the agreement.

3.75 **Example: Common premises - lead agency under finance lease**

An agency enters into a commercial lease with a landlord. The agency acts as a lead agency, which in turn subleases certain floors of the building to participating agencies for either $1,500 per year or for no charge. There does not exist joint control by the agencies.

Leased item: Building
Lease term: 10 years
Annual payments: $10,000 payable at the end of each year to the lessor
Implicit rate of interest: 5%
Remaining life of building: 12 years

Since the lease term is ≥75% of the remaining life of the building, the lease is a finance lease (calculated as 10 years lease term / 12 years remaining life = 83%).

The present value of the minimum lease payments is calculated as:
= $10,000/(1.05) + $10,000/(1.05)^2 + $10,000/(1.05)^3+ $10,000/(1.05)^4 + $10,000/(1.05)^5 + $10,000/(1.05)^6 + $10,000/(1.05)^7 + $10,000/(1.05)^8 + $10,000/(1.05)^9 + $10,000/(1.05)^10
= $77,217

The journal entries for the lead agency are:

Set up of lease:

Dr. Building - Finance lease	$77,217	
Cr. Lease Obligation		$77,217

Recording of depreciation ($77,217/10 years = $7,722 per year):

Dr. Depreciation Expense – Finance Leases	$7,722	
Cr. Accumulated Depreciation – Finance Leases		$7,722

Recording of interest on the Lease Obligation ($77,217 x 5% = $3,861):

Dr. Interest Expense	$3,861	
Cr. Lease Obligation		$3,861

Lease payment to landlord

Dr. Lease Obligation	$10,000	
Cr. Accounts Payable		$10,000

For situations where the lead agency charges each participating agency an amount of $1,500 per year:

The journal entry for the lead agency to record the rent receivable is:

Dr. Rent receivable	$1,500

Cr. Rental revenue		$1,500

The journal entry for each participating agency to record the rent payable is:

Dr. Rent expense	$1,500	
Cr. Lease payable		$1,500

3.76 **Example: Common premises - joint control under finance lease**

Suppose that instead of one agency entering into the commercial lease, that all the agencies sign the agreement with the landlord, resulting in joint control. The annual payments, interest rate and terms are the same as in the previous example. However, each agency has a different share of the agreement as follows:

Agency A: 50%
Agency B: 30%
Agency C: 20%

Each agency would recognize their proportionate share of the finance lease and all related expenses. Using Agency B as the example, its 30% share of the present value of the minimum lease payment is $23,165 (30% x $77,217).

The journal entries for Agency B are:

Set up of lease:

Dr. Building - Finance lease	$23,165	
Cr. Lease Obligation		$23,165

Recording of depreciation on the finance lease ($23,165/10 years = $2,317 per year):

Dr. Depreciation Expense – Finance Leases	$2,317	
Cr. Accumulated Depreciation – Finance Leases		$2,317

Recording of interest on the lease obligation ($23,165 x 5% = $1,158):

Dr. Interest Expense	$1,158	
Cr. Lease Obligation		$1,158

Recording the lease payment to landlord ($10,000 x 30% portion):

Dr. Lease Obligation	$3,000	
Cr. Accounts Payable		$3,000

3.77 **Example: Common premises - joint control under operating lease**

Using the above examples for common premises, for arrangements where the head lease is classified as an operating lease, the journal entry for the lead agency is:

Dr. Rent expense	$10,000	
Cr. Accounts Payable		$10,000

For where the lead agency charges the participating agency $1,500 rent:

The journal entry for the lead agency is:

Dr. Rent receivable	$1,500	
Cr. Rental revenue		$1,500

The journal entry for each participating agency is:

Dr. Rent expense	$1,500	
Cr. Lease payable		$1,500

Subleases

3.78 A sublease is an arrangement whereby a tenant/lessee that has an existing agreement with a landlord/lessor for a leased asset, in turn leases the asset to another party (the "subtenant" or "sub-lessee"). Subleases can occur where the lessee no longer requires the leased asset for the remainder of the lease term and where it would be more beneficial to sublease the leased asset to a sub-lessee rather than cancel and bear the cancellation charges of terminating the main lease agreement. At the United Nations, subleases occur when a UN agency, such as UNDP or WFP enters into a lease arrangement with the landlord . The UN agency then subleases the asset to a UN entity or field office such as DPA, DPI or DSS. In general, the UN entity issues rental payment to the UN Agency; in turn the UN Agency issues rental payment to the landlord.

3.79 A sublease arrangement has a:

- Lessor;
- Head lessee (acts as a Sub-lessor);
- Sub-lessee.

3.80 The head lease arrangement is between the Lessor and the Head lessee. The sublease is between the Head lessee and the Sub-lessee.

3.81 Where the head lease is an operating lease, then the sub-lease must also be an operating lease.

3.82 Where the head lease is a finance lease, then the sublease could be either a finance lease or an operating lease.

- Where the sub-lease is an operating lease, the Head lessee/Sub-lessor will retain the leased asset as a finance lease
- Where the sub-lease is a finance lease, the Head lessee/Sub-lessor will derecognize the leased asset and recognize a lease receivable in respect of the finance sub-lease. The finance lease liability is retained in the books of the Head lessee/Sub-lessor. The Sub-lessee records the finance sub-lease.

3.83 **Example: Subleases**

A head lessee (e.g. UNDP) enters into a lease contract with a lessor (e.g. Landlord) for use of an entire building. The lease between the lessor and head lessee is a finance lease as it contains a bargain purchase option of $1 at the end of the 10 year lease term.

The head lessee (e.g. UNDP) subsequently enters into a lease contract with the sublessee (e.g. DPI).

Other details are as follows:

Annual lease payments: $10,000
Discount rate/implicit interest rate: 5%
PV of minimum lease payments $77,217
Assume a straight flow-through of costs from sub-lessee to head lessee to lessor.

As Head lessee (e.g UNDP):

Set up of lease:

Dr. Building - Finance lease	$77,217	
Cr. Lease Obligation		$77,217

When the finance lease is transferred to the Sub-lessee (e.g. DPI):

Dr. Receivable from sub-lessee	$77,217	
Cr. Building - Finance lease		$77,217

Note: The Lease Obligation remains with the Head lessee.

To record the interest expense on the lease obligation:

Dr. Receivable from sub-lessee	$3,861	
Cr. Lease Obligation		$3,861

To record the lease payment to the lessor:

Dr. Lease Obligation	$10,000	
Cr. Cash		$10,000

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To record when Sub-lessee reimburses the Head lessee for the interest on the obligation:

Dr. Cash	$3,861	
Cr. Receivable from sub-lessee		$3,861

To record when Sub-lessee reimburses the Head lessee for the lease payment to the lessor:

Dr. Cash	$10,000	
Cr. Receivable from sub-lessee		$10,000

As Sub-lessee (e.g DPI):

Set up the finance lease as transferred from the Head lessee:

Dr. Building - Finance lease	$77,217	
Cr. Payable to head lessee		$77,217

To record depreciation on the finance lease ($77,217/10 years = $7,722 per year):

Dr. Depreciation Expense – Finance Leases	$7,722	
Cr. Accumulated Depreciation – Finance Leases		$7,722

To record interest expense on the on the Lease Obligation/Payable to Head lessee ($77,217 x 5% = $3,861):

Dr. Interest Expense	$3,861	
Cr. Payable to Head lessee		$3,861

To record the reimbursement of the lease made by Head lessee:

Dr. Payable to head lessee	$10,000	
Cr. Cash		$10,000

To record the reimbursement of the interest payment made by the Head lessee:

Dr. Payable to head lessee (lease)	$3,861	
Cr. Cash		$3,861

Sale and leaseback transactions

3.84 A sale and leaseback transaction involves the sale of an asset by the lessee to the lessor and the leasing back of the same asset by the lessee from the lessor at an agreed rate. A sale and leaseback transaction is essentially a financing tool. The sale to the lessor allows the lessee to raise money for financing of other operational activities. As a result of the sale, the lessee will de-recognize the asset. Any gain or loss on sale of the asset is deferred and amortized over the term of the lease.

3.85 The leaseback by the lessee can be for all or part of the remaining economic life of the asset.

3.86 The leaseback of the asset can be either set up as an operating lease or a finance lease depending on the terms of the lease.

3.87 **Example: Sale and leaseback transaction**

Assume a sale and leaseback transaction where equipment with a carrying value of $25,000 ($35,000 cost less $10,000 accumulated depreciation) is sold to the lessor at fair value for $50,000. The same equipment is leased back over a term of 5 years at an annual payment of $10,000. The interest rate implicit in the lease is 2%. The present value of the minimum lease payments is calculated at $47,135, which is greater than 90% of the fair value and therefore is set up as a finance lease.

The journal entry for the sale is below. The carrying value of the equipment is derecognized as a result of the sale:

Dr. Cash	$50,000	
Dr. Accumulated Depreciation	$10,000	
Cr. Equipment		$35,000
Cr. Deferred Gain		$25,000

Since the leaseback is a finance lease, an asset is recognized with a corresponding lease obligation.

Dr. Equipment - Finance Lease	$47,135	
Cr. Lease Obligation		$47,135

The journal entries in the first year are:

Recording of depreciation ($47,135/5 years = $9,427 per year):

Dr. Depreciation Expense – Finance Leases	$9,427	
Cr. Accumulated Depreciation – Finance Leases		$9,427

Recording of interest on the Lease Obligation ($47,135 x 2% = $943):

Dr. Interest Expense	$943	
Cr. Lease Obligation		$943

Lease payment to lessor:

Dr. Lease Obligation	$10,000	
Cr. Accounts Payable		$10,000

The gain on sale is deferred for amortization over the term of the lease.
Amortization of the deferred gain is $5,000 per year ($25,000 deferred gain / 5 years).

The annual entry is:

Dr. Deferred Gain	$5,000	
Cr. Gain on Sale (income)		$5,000

If the leaseback is an operating lease, any gain or loss on sale of the asset is booked immediately (if the selling price is equal to the fair value of the asset):

The equipment carrying value of $25,000 is derecognized, cash received of $50,000 on sale is recognized, and a gain on sale of $25,000 recorded.

Dr. Cash	$50,000	
Dr. Accumulated Depreciation	$10,000	
Cr. Equipment		$35,000
Cr. Gain on Sale		$25,000

Leasehold Improvements

3.88 In some cases, an entity may wish to add partitions, install new flooring, install new drywall, install new furniture and fixtures or perform other enhancements to a leased asset. A leasehold improvement is an enhancement to an asset and is usually is paid for by the lessee. In the case of a building, the tenant of the leased space pays for the leasehold improvement.

3.89 The costs of leasehold improvements are capitalized subject to a capitalization threshold of $100,000. Depreciation of a leasehold improvement occurs over the shorter of the life of the leasehold improvement and remaining term of the lease.

3.90 A leasehold improvement is a fixed asset and therefore follows all the rules of recognition and measurement of a fixed asset. Direct costs of material, labor and associated costs should

be capitalized as part of the leasehold improvement. Cost related to minor operations, remodeling (minor re-painting and re-carpeting), repairs, day to day servicing and cleaning should not be capitalized, but expensed.

Contingent rent

3.91 Contingent rent is the portion of the lease payments that is not fixed in amount, but is based on the future amount of a factor that changes other than with the passage of time (e.g. percentage of future sales, amount of future use, future prices indices, and future market rates of interest). Contingent rent is recorded only when the factor that changes occurs.

3.92 Contingent rent is not included in the present value of minimum lease payments calculation. It is not an interest payment as it is not connected with the passage of time. The minimum lease payments should include only the fixed rent.

3.93 **Example: Contingent rent**

A lessor has incorporated into the lease arrangement that after five years into the term of the lease, that for any year where the average inflation index exceeds that of the preceding year by greater than 10 percentage points, that the lessee shall pay the lessor an amount calculated as the excess above 10 percentage points multiplied by the year's rent.

Since the amount to be paid is dependent on a future event, it is recorded as an expense only when the event occurs. If and when the event occurs, the rent amount will be multiplied by the number of percentage points for which the average inflation index exceeds that of the preceding year by greater than 10 percentage points.

Lease Restoration Costs

3.94 In some leases, there may exist a restoration clause indicating a legal obligation for the lessee to restore the leased asset to its original condition. For instance, a lessee (i.e. tenant) may wish to perform certain improvements such as removal or addition of walls, adding of a kitchen or gym facility, etc. The lessor of the building (i.e. landlord) may include a restoration clause in the agreement that requires the tenant to return the premises back to their original state at the end of the lease term.

3.95 A provision/liability (based on present value of the future obligation) for the restoration cost is required to be recorded. The amount of the obligation can be estimated by obtaining quotations from the contractor that installed the improvements to the building. A fixed asset is also set up corresponding to the obligation amount and depreciated over the lease term. Depreciating the cost over the lease term allocates evenly the anticipated cost of restoration over the life of the lease.

Dr. Fixed Asset – Restoration Costs	xxx	
Cr. Accrual for Restoration Obligation		xxx

Examples:

3.96 In addition to the examples provided above, the following examples have been included to further demonstrate the principles and concepts of leases and donated right-to-use arrangements.

Example 1: Common premises and sublease arrangement

3.97 **Entity Y leases a building at a rate of $44 per square foot from a landlord under an operating lease for the next five years. Entity Y agrees to subsequently sublease two floors of the building to Entity Z, at a rate of $55 per square foot for a term of 3 years. The building provides 50,000 square feet of space over 50 floors, with each floor at 1,000 square feet.**

For demonstration purposes, this situation represents a common premise arrangement with a sublease where the terms are different than that of the head lease. A lead entity has signed an agreement with the landlord and subleases space to another entity at a dissimilar rate and for a dissimilar duration.

Entity Y retains all the risks of the main lease, with no risk transferring to Entity Z. In addition, Entity Z will only sublease for a term of 3 years, less than that of 5 years. The different lease rates may be a result of a mutual agreement between the two entities. Entity Z may have concluded in a discussion with Entity Y a slightly higher rate reflecting Entity Y's risk if damage occurs to the premises, as well as Entity Y's risk if a succeeding sublessee is not found as a replacement at the end of the sublease term with Entity Z.

Entity Y pays an annual lease payment for the building of: $2,200,000 (50,000 square feet x $44 per square foot) for 5 years.

Entity Y subsequently rents to Entity Z, for an annual amount of: $110,000 (1,000 square feet x 2 floors x $55 per square foot) over the next 3 years.

The main lease is a short-term lease with a term of 5 years. Assuming the life of the building is 50 years, the lease is an operating lease as none of the criteria for a finance lease are met.

Since the main lease and the sublease arrangement are both operating leases, the journal entries for Entity Y are:

Lease payment to lessor:

Dr. Rent expense	$2,200,000	
Cr. Cash		$2,200,000

Lease payment received from Entity Z:

Dr. Cash	$110,000	
Cr. Rental revenue		$110,000

The journal entry for Entity Z is:

Lease payment to Entity Y:

Dr. Rent expense	$110,000	
Cr. Cash		$110,000

Example 2: Payments of insurance, maintenance and taxes reimbursed to the lessor by the lessee

3.98 **A lease stipulates that all insurance, maintenance and taxes are to be reimbursed to the lessor by the lessee. The lease provides estimates of the amounts for each year of the lease term.**

Costs of insurance, maintenance and taxes to be paid by the lessee are treated as operating costs and expensed when incurred. These costs are not to be included in the calculation of the present value of the minimum lease payments for finance lease determination. Only the fixed rents, the guaranteed residual value and the payment to exercise a bargain purchase option at the end of the lease are included to determine the present value of the minimum lease payments.

Example 3: Lease that includes both land and building

3.99 **Entity K leases land and a building from the local government. The lease stipulates a term of 45 years and an annual payment of $200,000 per year.**

When a lease includes both land and building elements, the classification of each element as a finance or operating lease must be assessed separately. Allocation of the payment should be based on the relative fair values of the land and building. Assume that the relative values are 60% land and 40% building respectively (based on market values of comparable land and buildings in the area, as well as input from valuation experts). The annual rent payment for the land is $120,000 and the annual rent payment for the building is $80,000.

The land should be classified as an operating lease because legal title is not expected to pass to the UN; the land has an indefinite economic life and none of the criteria of a finance lease are met. The annual payment of $120,000 per year is expensed as incurred.

However, the building should be classified as a finance lease as the lease term is for a major portion (90%) of the building's economic life (assuming a standard useful of buildings of 50 years). The lease arrangement for the building portion should therefore be recognized as a finance lease.

Example 4: Reimbursement stipulations

3.100 **Entity J enters into a lease agreement with a lessor for a building at a rate of $100 per square meter per year. The term of the lease is 20 years. A stipulation in the lease agreement states that the landlord will reimburse the tenant in the form of a reduction in rent of $25 per square meter in the event that the tenant completes certain leasehold improvements in the year that the leasehold improvement is completed. The building has a capacity of 5,000 square meters. The actual cost of the leasehold improvement is $175,000.**

Annual rent: 5,000 square meters x $100 per square meter = $500,000
Rent reduction in year that leasehold improvement is completed: 5,000 square meters x $25 = $125,000

The lease arrangement is an operating lease as the term of the lease is less than 75% of the building's economic life (50 years). (Also assume for the purpose of this example, that the

present value of the minimum lease payments does not exceed 90% of the fair value of the building.)

The reimbursement up to a certain amount for leasehold improvements by the landlord to the tenant is a stipulation that is an essential clause in the agreement and significant to the tenant's decision to enter into the lease. The incentive is an inseparable element of the agreement and likely influenced the tenant to enter the lease and hence represents a rent reduction that is straight-lined over the lease term.

Therefore, the incentive to reimburse $125,000 to the tenant for the leasehold improvements should be recorded as a liability in the financial statements and drawn down during the life of the lease.

Hence, the journal entry to set up the liability is:

Dr. Accounts Receivable - Landlord	$125,000	
Cr. Lease Straight Line Liability		$125,000

The Lease Straight Line Liability is amortized over the lease term. The annual amortization is $6,250 ($125,000 / 20 years). The annual lease expense is reduced by the amortized lease liability amount on a straight-line basis.

The annual lease payment journal entry is:

Dr. Lease expense	$493,750	
Dr. Lease Straight Line Liability	$ 6,250	
Cr. Accounts Payable		$500,000

When the leasehold improvement is completed, the journal entry is:

Dr. Leasehold Improvement	$175,000	
Cr. Accounts Payable		$175,000

Note that it is assumed in this example that the lessee owns the leasehold improvements. The assumptions are that the lessee supervises the contracts to construct the leasehold improvements and bears the risk of cost overruns, any improvements to the lease are the liability of the lessee, the improvements are unique and only have value to the lessee and that the life of the leasehold improvement does not extend beyond that of the lease.

In the year that the leasehold improvement is completed, the rent reduction is applied against the amount payable to the landlord. The journal entry is:

Dr. Accounts Payable	$125,000	
Cr. Accounts Receivable – Landlord		$125,000

Note: In the case where the lease may be a finance lease, incentives should be excluded from the minimum lease payments calculation.

Note: In the case where the lessee co-ordinates the leasehold improvement on behalf of the lessor, and the lessor reimburses the lessee for the leasehold improvement, then the leasehold improvement is owned by the lessor and recorded in the lessor's financial records.

Example 5: Subleases

3.101 **UNDP leases space from UNON within a building complex. In turn, UNDP sub-leases to other smaller UN agencies or sub-programmes, with the agreement of UNON. Overall payments for rent and utilities are made by UNDP to UNON, however UNON may be are asked to prepare individual bills per sublet area to facilitate payment to UNDP from the other smaller UN agencies.**

The lessor/lessee relationship is between UNON and UNDP and therefore the accounting for leases will occur between these two entities.

UNON may perform the administrative tasks of preparing bills to facilitate payment to UNDP by the smaller agencies, however, ultimately UNDP bears the risk and responsibility of paying rent and utilities to UNON as part of the lease arrangement.

Example 6: Contingent Rent Arrangements and Leases Tied to Sales or Profits (Sales/Profit Based Leases)

3.102 **A commercial catering tenant moves into the building complex. It is agreed that rent will only be applied for a portion of the space occupied and will exclude the front of house space. The tenant will also be charged for actual utilities, water and electricity usage. Therefore the amount charged will vary month to month. The lease is also established as a sales based lease, where a percentage of the profits are payable to the landlord.**

The tenant should record the monthly rent for the space occupied as rent expense.

All utilities usage should be recorded as utilities expense when incurred.

The agreement to pay a percentage of profits to the landlord is a contingent rent arrangement. The amount to be paid is dependent on a future event (future profits). The amount to be paid, if any, is recorded as an expense only when the future profits are realized.

Example 7: Lessor accounting for Finance Leases.

3.103 **The UN purchases a vehicle for $100,000 and leases the vehicle to Company B for 5 years. The standard useful life of the building is 5 years. Based on a specified interest rate of 10%, and based on periodic payments at the beginning of each year, the annual lease payment $23,982. Assume no residual value.**

On the purchase of the vehicle, the journal entry is:

Dr. Vehicle	100,000	
Cr. Cash		100,000

Initial set-up of lease at the beginning of the year:

Dr. Lease Receivable ($23,982 x 5 payments)	119,910	
Cr. Vehicle		100,000
Cr. Unearned Revenue		19,910

Upon receipt of payment at the beginning of the year (no interest component exists because initial payment by company B is made on first day of lease):

Dr. Cash	23,982	
Cr. Lease Receivable		23,982

End of year to accrue the interest income:

Dr. Unearned Revenue	7,602	
Cr. Interest Income ($100,000 – 23,982) x 10%		7,602

Beginning of second year receipt of payment:

Dr. Cash	23,982	
Cr. Lease receivable		23,982

End of second year to accrue the interest income (First application of $23,982 represents first receipt of payment with no interest component. Second application of $23,982 netted of $7,602 interest component represents second receipt of payment with interest component.).

Dr. Unearned Revenue	5,963	
Cr. Interest Income ($100,000 – 23,982 – (23,982-7602)) x 10%=		5,963

Assume that, instead the UN decides to not charge Company B for the use of the vehicle. In this case, then a donated right-to-use arrangement that is a finance type arrangement is being entered into. Assuming the same parameters as above, the financial accounting entries are:

On the purchase of the vehicle, the journal entry is:

Dr. Vehicle	100,000	
Cr. Cash		100,000

Initial set-up of the donated right-to-use arrangement at the beginning of the year and accounting for loss of control of the vehicle:

Dr. Deferred Expense	100,000	
Cr. Vehicle		100,000

At the end of each year:

Dr. Expense (100,000/5 years)	20,000	
Cr. Deferred Expense		20,000

Example 8: Lessee accounting for Donated Right-to-Use Arrangements.

3.104 **A local government grants the UN the right to use 50% of the floors of the building indefinitely. The market value of the building is $1,000,000.**

Since the UN will be using its portion of the building for more than 75% of its useful life, and control of a majority of the building is significant (50%), the arrangement is a donated right-to-use arrangement that is a finance type arrangement.

The UN should capitalize that portion of the building that it controls:

Dr. Buildings	500,000	
Cr. Deferred Revenue		500,000

Each year based on 50 years, depreciation is applied:

Dr. Depreciation expense	10,000	
Cr. Accumulated Depreciation		10,000

Each year, an amount equa`l to the deprecation expense should be recognized as revenue:

Dr. Deferred Revenue	10,000	
Cr. Revenue		10,000

Example 9: UN Agency acquires assets and building space to fulfill its MOU agreement with UNHQ entity.

3.105 **UN Agency (e.g. UNDP or WFP) enters into lease agreement for equipment or use of a building space with a lessor in order to fulfill its MOU obligations with a UNHQ entity (e.g. DSS or DPI) to provide services in the field. <Also refer to example under Embedded Lease section of this Chapter, Section 3.72>**

The UNHQ entity and UN Agency have entered into a Memorandum of Understanding (MOU) where the UN Agency will perform services on behalf of the UNHQ entity. The UN Agency acquires equipment or building space either through purchase or entering into lease arrangements with third-party lessors in order to fulfill its services under the MOU.

The MOU is an example of a MOU that is an outsourcing arrangement with embedded assets and embedded leases. The equipment or building space acquired through purchase or lease by the UNHQ Agency are specifically used to fulfill the MOU. The equipment or building space are not used for any other customers of UNDP.

Since the equipment or building space are used solely for the UNHQ entity, in the case where the asset is purchased by the UN Agency, the asset is an embedded asset. In the case where a lease is entered into by the UN Agency, the lease is an embedded lease. In both cases, purchase or leased item is recognized in the financial records of the UNHQ entity and reported. For an item under lease, it must be further determined whether the UN Agency entered into an operating lease or finance lease for its proper classification by the UNHQ entity. <Also refer to example under Embedded Lease section of this Chapter, Section 3.72>

Under the ***Umoja*** solution, all embedded leases and embedded assets should be recognized and recorded accordingly (embedded leases as an operating lease or finance lease; embedded asset as a fixed asset under the corresponding asset class) in the fixed asset financial module and reported as part of the financial statements.

Chapter 4

Inventories

Overview:

4.1 The UN IPSAS Policy Framework defines inventory as assets in the form of materials or supplies held for sale or distribution, to be consumed or distributed in the rendering of services or to be consumed in the production process (as raw materials or work in progress).

4.2 The objective of this chapter is to provide examples of inventory scenarios on recognition, measurement and costing under the IPSAS Policy Framework.

Guidance:

4.3 Below is a summary of major inventories held at the United Nations. Inventory can be purchased from a vendor, donated by a third-party, or internally manufactured by the UN.

Table 4.1: UN IPSAS Policy Framework (Section 15.4) - Financial Inventory Classes and Sub-classes:

Inventory Class	Inventory Sub-class
Held for sale	Books and Publications Stamps Liquor Rations Other
Strategic Consumables & Supplies including UN Reserves	Fuel – strategic and local reserves Medical and emergency supplies Rations Bottled water Uniforms and badges Safety and security supplies Motor vehicle spare parts Electrical spare parts All other SDS stock
Raw Materials and Work in progress	Printing supplies Construction material and supplies Work in progress

Initial Recognition

4.4 An inventory item is recognized as part of the financial statements when there is control of the item. As with all assets, control of an item exists when:

- The risks and rewards of ownership are transferred to the entity; and
- The entity ability to guide, influence or restrict the asset's use.

The timing of control occurs as per the Incoterms with the vendor or donor from which the inventory is received.

4.5 At the point of acquisition, measurement of inventories is at cost (fair value if the inventory is donated in-kind) and includes:

- purchase price (net of discounts and rebates)
- conversion costs (direct materials, labor and allocated fixed and variable overhead) in the case of internally manufactured inventory;
- associated costs (freight, insurance, import duties and handling costs)

4.6 Measurement of inventory excludes (these are expensed when incurred):

- storage costs
- administration costs
- selling costs
- abnormal amounts of wasted materials

4.7 Donated inventory is measured at fair value, with donation income recognized for the same amount.

Subsequent Measurement

4.8 Subsequent measurement of inventories at reporting dates after the point of acquisition must assess if any impairment has occurred. Subsequent measurement should be at the lower of cost and net realizable value, or current replacement cost.

4.9 For inventories that are held for sale, measurement should be at the lower of cost or net realizable value. For inventories held for distribution or consumption at no charge, measurement should be at the lower of cost or current replacement cost. (See United Nations Corporate Guidance on Inventories for detailed explanations of each.) For inventories that are obsolete, the inventories should be written-off to zero value.

4.10 All losses and write-downs are recognized as an expense.

4.11 In the case of inventory that has been written-down and where the circumstances that caused the inventory to be written-down no longer exists, then the write-down can be reversed.

4.12 When converting work-in-progress inventories into finished goods, only those costs that are directly related to the units of production are included in inventory. For fixed production overhead costs, allocation to inventory using fixed overhead absorption rates should be based on normal (standard) capacity. Any impacts of plant inefficiencies, idle plant, cost overruns, overtime costs, weekend production costs etc. should be expensed (not be allocated to inventory).

***Umoja* Solution**

4.13 Under *Umoja*, a perpetual inventory system will keep up-to-date records of inventory costs on an on-going basis by using the moving average price of inventory (MAP) method. All purchases and sales issues of goods are recorded directly in the inventory account as they occur, including both the number of units and all related costs. A perpetual inventory system includes:

- An Inventory account that records all purchases, as well as purchase discounts, returns and allowances and that re-calculates the cost per unit following each inventory purchase.
- A Cost of Goods account (or In-Kind Donations account) that is debited at each sale or distribution, with a credit to Inventory.

4.14 Inventory is subject to physical verification at each reporting date. Physical verification can be on an annual basis at the reporting date or by means of cycle counting using a perpetual cycle counting system. Cycle counting has the advantages of reduced disruption to operations, monitoring of inventories throughout the year and less complexity than performing an annual count.

De-recognition of Inventory

4.15 Inventory is de-recognized when the inventory is sold, distributed or consumed. The de-recognition point is at the point in time when control is passed to the receiving party. Control is governed by the incoterms and generally occurs when the inventory is out of physical custody of the entity. Upon de-recognition, the value of the inventory is expensed.

Examples:

4.16 The following examples are identified to demonstrate the principles and concepts related to inventory under IPSAS.

Example 1: Moving Average Price method and inventory count write-down

4.17 **The UN provides rations to the military in Country X throughout the year. On January 1, it had 9,800 units of rations at a cost of $12.00 per unit in inventory. It distributed 7,000 units on January 17 and another 1,000 units on February 15.**

On June 30, the UN started to replenish its inventory by purchasing 10,000 units at $11.00 per unit. Shortly thereafter on July 31, it distributed 10,000 units. On August 25, it purchased 6,000 units at $14.00 per unit.

From August 25 to December 31, no activity occurred. On December 31, the price per unit of ration listed by the vendor was $11.00 per unit.

Also, on December 31, an inventory count completed by the UN identified that there were 7,400 units of rations on hand.

The moving average price method for determining the cost of inventory will be adopted under *Umoja*, and therefore is used here for demonstration purposes.

The moving average price method re-calculates the average cost of each inventory item after each inventory purchase. The units purchased are added to the number of units on hand for a total of all units. Similarly, the cost of the purchase is added to the extended cost of the units on hand for a total of cost. The total cost is divided by total units to establish the moving

average cost per unit. The moving average cost per unit is used to measure the value of the inventory at any point in time. The calculations and journal entries are below.

Date	Transaction	Units of Rations	Cost per Unit	Extended Cost	Journal Entries:			
Jan-01	Inventory on hand	9,800	12.00	117,600				
Jan-17	Distribution	(7,000)	12.00	(84,000)	Dr.	In-Kind Donation Expense	84,000	
	Inventory on hand	2,800	12.00	33,600	Cr.	Inventory		84,000
Feb-15	Distribution	(1,000)	12.00	(12,000)	Dr.	In-Kind Donation Expense	12,000	
	Inventory on hand	1,800	12.00	21,600	Cr.	Inventory		12,000
Jun-30	Purchase	10,000	11.00	110,000	Dr.	Inventory	110,000	
	Inventory on hand	11,800	11.15	131,600	Cr.	Cash		110,000
Jul-31	Distribution	(10,000)	11.15	(111,525)	Dr.	In-Kind Donation Expense	111,525	
	Inventory on hand	1,800	11.15	20,075	Cr.	Inventory		111,525
Aug-25	Purchase	6,000	14.00	84,000	Dr.	Inventory	84,000	
	Inventory on hand	7,800	13.34	104,075	Cr.	Cash		84,000
Dec 31 - Revaluation: Lower of Cost or Current Replacement Cost					Dr.	Inventory Write-down Expense	18,275	
	Inventory on hand	7,800	11.00	85,800	Cr.	Inventory		18,275
					To write-down inventory ($104,075 - $85,800)			
Dec 31 - Inventory count adjustment					Dr.	Inventory Loss	4,400	
	Inventory on hand	7,400	11.00	81,400	Cr.	Inventory		4,400
					To record inventory loss from count ($85,800 - $81,400)			

At the reporting date of December 31, inventory held for distribution at no charge is measured at the lower of cost or current replacement cost. Therefore, with 7,800 units on hand and a current replacement cost of $11.00 listed by the vendor, the value of the inventory is $85,800. A journal entry is required to write-down the inventory by $18,275, from $104,075 down to $85,800.

Also at December 31, the inventory count noted 7,400 units. An investigation is conducted and it is concluded that the difference is due to theft. A journal entry is required to write-off the difference in inventory of 400 units, or $4,400.

<u>Example 2:</u> Capitalization of publication costs, sale and subsequent digital distribution

4.18 **The UN decides to produce a book on the impact of the US political system on the rest of the world. 1,000 hard copies are produced and stored for shipment. The costs of production and related costs are outlined below.**

It was noted that 30% of the binding costs resulted from a malfunction of the binding machine and related materials.

300 copies are shipped in the first year. The book sells for $100.

In the second year, the UN decides to produce a soft copy / digital form of the book and sell it on the UN's on-line portal. 250 digital versions are sold through the portal. In addition, 400 hard-copy books are sold in the second year.

In the third year, the UN decides to make the soft copy for free download, that is, for distribution without charge.

Production	Cost
Paper	$ 8,000
Printing	$ 10,000
Inks	$ 5,000
Cover, spine, back cover	$ 15,000
Dust jacket	$ 6,000
Binding costs	$ 10,000
Labor costs	$ 9,500
Depreciation of printing machine	$ 800
Storage costs in warehouse facility	$ 1,000
Administrative costs to process invoices	$ 2,000
Sales and marketing costs	$ 1,500
Total Cost	$ 68,800

Since 30% of the binding costs were due to inefficient operations, then that portion of the cost should be expensed in the current period and not included in the costs of production. Only normal costs of production should be included in the cost of inventory.

Storage costs, unless they are costs necessary in the production process before a further production stage, should not be included in the publication cost. These storage costs are post production costs and therefore are expensed.

Similarly, administrative costs to process invoices and sale and marketing costs are to be expensed in the current period. They are overhead period costs and not to be included in the costs of production.

The remaining costs are all valid costs of production as they are costs either directly related to production.

Production	Cost	Absorbed into Inventory	Expense in current period	
Paper	$ 8,000	$ 8,000		
Printing	$ 10,000	$ 10,000		
Inks	$ 5,000	$ 5,000		
Cover, spine, back cover	$ 15,000	$ 15,000		
Dust jacket	$ 6,000	$ 6,000		
Binding costs	$ 10,000	$ 7,000	$ 3,000	Only absorb costs as part of normal operations; do not include wastage.
Labor costs	$ 9,500	$ 9,500		
Depreciation of printing machine	$ 800	$ 800		
Storage costs in warehouse facility	$ 1,000		$ 300	Not a production cost because books have been fully produced and printed.
Administrative costs to process invoices	$ 2,000		$ 600	Not a production cost; is an overhead cost.
Sales and marketing costs	$ 1,500		$ 450	Not a production cost; is an overhead cost.
Total Cost	$ 68,800	$ 61,300	$ 4,350	
Cost per unit (1,000 books)		$ 61.30		
Cost of developing soft copy / digital form:	$ 2,000			

The total cost of production to be absorbed into inventory is $61,300. Based on a volume of 1,000 books, the cost per copy held inventory is $61.30. All other costs are expensed.
sale price per copy).

For the first 300 copies that are shipped at $100 each, Inventory will be reduced by $18,390 (300 copies x $61.30 per copy). Revenues will be $30,000 (300 copies x $100 selling price per copy).

Dr. Cash	$30,000	
Dr. Cost of goods sold	$18,390	
Cr. Inventories		$18,390
Cr. Revenues		$30,000

In Year 2, the digital version of the book costs $2,000 to produce. The cost is minimal and should be expensed as incurred.

Dr. Overhead Expense	$2,000	
Cr. Cash		$2,000

Also in Year 2, 250 digital versions are sold. Therefore revenues are $25,000 (250 x $100 sale price). Since the costs of the digital version were expensed, there is no cost of goods sold.

Dr. Cash	$25,000	
Cr. Revenues		$25,000

In addition, 400 hard copies were sold. Therefore revenues from the sale are $40,000 (400 copies x $100 per copy). Inventory will be reduced by $24,520 (400 copies x $61.30 per copy).

Dr. Cash	$40,000	
Dr. Cost of goods sold	$24,520	
Cr. Inventories		$24,520
Cr. Revenues		$40,000

At the end of Year 2, the inventory balance is $18,390, calculated by:

Opening balance (1,000 copies):	$61,300
Less 300 copies shipped	(18,390)
Less 400 copies shipped	(24,520)
Closing balance (300 copies):	$18,390

In Year 3, the decision to make the publication free of charge for download essentially reduces the value of the hard copies down to $0. It is unlikely that the remaining 300 hard copies will be sold. Therefore the UN will absorb an inventory write-off expense of the balance.

Dr. Inventory Write-off Expense	$18,390	
Cr. Inventories		$18,390

Example 3: Inventory count and FOB shipping point

4.19 **An inventory count was completed on December 31. On January 3, when reviewing invoices and bills of lading, it is noticed that items were shipped on December 28 and arrived on January 2. The terms of the shipment were FOB vendor shipping point. The cost of the inventory items were $60,000. Associated freight costs were $3,000.**

Since the items were delivered FOB shipping point, the risks and rewards of ownership were transferred to the UN when the freight company picked up the items from the vendor's port. Therefore the items should be included in inventory.

Dr. Inventory	$63,000	
Cr. Accounts Payable – Vendor		$60,000
Cr. Accounts Payable – Freight		$ 3,000

Example 4: Recognition at realizable value and write-down reversal

4.20 **A UN Agency sells an Asia travel and language guide publication. The production cost is $121,950 for 5,000 copies. The selling price is $40.00. In Year 1, the agency sold 500 copies. At the end of Year 1, it was assessed that the net realizable value of the publication is $20 due exceptionally slow sales. The Agency plans to lower the price for Year 2.**

In Year 2, the price was lowered to $20 and 1,500 copies were sold between January and October. 50 copies were returned. In November of Year 2, demand accelerated as a large number of Asian countries began marketing and promoting travel to their countries. 1000 copies were sold. Management believes that it can raise the price up to $30 and sell the remaining stock.

The production cost is capitalized in inventory.

Dr. Inventories	$121,950	
Cr. Accounts Payable		$121,950

The unit production cost of the publication is $24.39 ($121,950 production cost / 5,000 copies).

In Year 1, sales of 500 copies generated revenue of $20,000 (500 copies x $40.00 per copy). Inventory was reduced by $12,195 ($24.39/copy x 500 copies). The journal entry is:

Dr. Cash	$20,000	
Dr. Cost of Goods Sold	$12,195	
Cr. Inventories		$12,195
Cr. Revenues		$20,000

The inventory balance at the end of Year 1 is 4,500 copies (5,000 copies produced – 500 copies sold).

At the end of Year 1, net realizable value was assessed at $20 due to exceptionally slow sales. Since inventory held for sale must be measured at the lower of cost or net realizable value, the inventory must be written down to the new realizable value at the year-end reporting date. The write-down amount is $19,755 (4,500 copies x ($20 NRV - $24.39 cost)) or $4.39 per copy.

Dr. Write-down on Inventories	$19,755	
Cr. Inventories		$19,755

In Year 2, sales of the 1,500 copies are recorded as follows:

Dr. Cash	$30,000	
Dr. Cost of Goods Sold	$30,000	
Cr. Inventories (1,500 x $20 NRV)		$30,000
Cr. Revenues (1,500 x $20 price)		$30,000

The return of copies is booked as a reversal of the sale journal entry for 50 copies:

Dr. Inventories (50 x $20 NRV)	$1,000	
Dr. Revenues (50 x $20 price)	$1,000	
Cr. Cost of Goods Sold		$1,000
Cr. Cash		$1,000

The sale in the last two months of Year 2 of 1,000 copies is recorded as:

Dr. Cash	$20,000	
Dr. Cost of Goods Sold	$20,000	
Cr. Inventories (1,000 x $20 NRV)		$20,000
Cr. Revenues (1,000 x $20 price)		$20,000

Management believes that it can raise the price up to $30 and sell the remaining stock. Therefore the $30 is the net realizable value of the stock. The amount of the write-down can be reversed, limited to the amount of the original write-down of $4.39 per copy. Therefore the write-down is reversed back up to original cost of $24.39. The write-down reversal is booked at the end of Year 2. The write-down reversal is not booked retroactively to Year 1 as the reversal is due to market conditions that have changed and is not due to correction of an error.

There are 2,050 copies at the end of Year 2. Applying maximum reversal of $4.39 per copy, the total write-down reversal is:

Dr. Inventories	$9,000	
Cr. Write-down on Inventories		$9,000

At the end of Year 2, the total number of copies is 2,050, with a value of $50,000.

Under a perpetual inventory system such as *Umoja*, the flow of the inventory account is summarized as follows:

Date	Transaction	Copies	Cost/Copy	Extended Cost
Year 1	Production	5,000	$ 24.39	$ 121,950
Year 1	Sale	(500)	$ 24.39	$ (12,195)
Balance		*4,500*	*$ 24.39*	*$ 109,755*
Year 1	Write-down to NRV			$ (19,755)
Balance		*4,500*	*$ 20.00*	*$ 90,000*
Year 2	Sale	(1,500)	$ 20.00	$ (30,000)
Balance		*3,000*		*$ 60,000*
Year 2	Returns	50	$ 20.00	$ 1,000
Balance		*3,050*		*$ 61,000*
Year 2	Sale	(1,000)	$ 20.00	$ (20,000)
Balance		*2,050*		*$ 41,000*
Year 2	Reverse Write-down			$ 9,000
Balance		*2,050*	*$ 24.39*	*$ 50,000*

Example 5: Normal (standard) allocation of fixed overhead costs

4.21 **Agency X has a manufacturing plant that produces books to be sold to other agencies and to the general public. At standard capacity, the number of machine hours per year is 4,200 hours. Based on standard capacity, the fixed overhead costs total $285,000, and include depreciation of equipment, supervisor salaries, rent, etc., all of which are outlined below.**

	Cost
Depreciaton of equipment	$ 50,000
Administrative costs	$ 30,000
Plant supervisor	$ 40,000
Materials and supplies	$ 20,000
Indirect labor wages	$ 50,000
Maintenance costs	$ 20,000
Rent	$ 40,000
Repair expenses	$ 10,000
Utiilties	$ 15,000
Quality control and inspection	$ 10,000
Total fixed overhead costs:	$ 285,000

Any production beyond the standard 4,200 hours will incur additional costs related to supervisor overtime, incremental utilities costs, additional materials and supplies, etc., all measureable at the end of the financial year. The maximum capacity of the manufacturing plant is 6,000 machine hours.

Agency X produces 3 publications – identified as Projects A, B and C, of which utilizes 2,000, 1,500 and 1,600 hours respectively.

Variable production costs are those costs that vary directly with the volume of production, including labor costs (wages of production line employees) and material costs (paper, glue, etc.). The variable costs for Projects A, B and C are $200,000, $150,000 and $85,000 respectively.

At the end of year, it was calculated that the actual fixed overhead costs were $395,000 for the year.

Agency X wishes to determine the value that should be recognized in inventory for each the projects.

The allocation of fixed overhead costs of conversion should be based on the normal (standard) capacity of the manufacturing plant. At a standard fixed overhead cost of $285,000 and standard machine hours of 4,200 hours, the standard fixed overhead absorption rate is $67.86 per machine hour.

The fixed overhead absorption rate is multiplied by the number of machine hours of each project to establish the fixed overhead cost to allocate to each project.
The variable costs are directly allocated to each project.

Production at standard capacity:	4,200	machine hours		
Fixed overhead costs based on standard capacity:	$ 285,000			
Fixed overhead absorption rate per machine hour	$ 67.86	per machine hour		
Max capacity (includes overtime, weekend shifts)	6,000	machine hours		
Actual fixed overhead costs (including overtime, cost over-runs)	$ 395,000			
	Project A	**Project B**	**Project C**	**Total**
Machine hours	2,000	1,500	1,600	**5,100**
Fixed production costs allocated to Inventory (@$67.86/h rate)	$ 135,714	$ 101,786	$ 108,571	**$ 346,071**
Total Variable production costs (based on labor timesheets)	$ 200,000	$ 150,000	$ 85,000	**$ 435,000**
Total in inventory	**$ 335,714**	**$ 251,786**	**$ 193,571**	**781,071**

The journal entries are:

Dr.	Inventory A	$ 135,714	
Dr.	Inventory B	$ 101,786	
Dr.	Inventory C	$ 108,571	
Cr.	Fixed Overhead (Expense)		$346,071
Dr.	Fixed Overhead (Expense)	$ 395,000	
Cr.	Accounts Payable		$395,000
Dr.	Inventory A	$ 200,000	
Dr.	Inventory B	$ 150,000	
Dr.	Inventory C	$ 85,000	
Cr.	Variable Overhead		$435,000
Dr.	Variable Overhead	$ 435,000	
Cr.	Accounts Payable		$435,000

Hence, the value in Inventory A is $335,715, Inventory B is $251,786 and Inventory C is $193,571.

The net amount for which the actual fixed overhead costs exceed the fixed overhead costs absorbed into inventory is expensed in the period. As per the journal entries above, the net amount expensed in the period is $48,929 ($395,000-$346,071).

Chapter 5

System Assets

Overview:

5.1 The objective of this chapter is to provide guidance on System Assets that are comprised of multiple subunits and their treatment in the financial records and operational records.

5.2 A system asset is defined as a collection of multiple subunits that function together to perform a collective purpose and therefore can be reported as a single fixed asset financial record. Subunits are items such as machinery, equipment, furniture and fixtures that can, on their own each function as a fixed asset. Subunits also include the labor costs, installation costs, delivery costs and parts that may not be a of a fixed asset nature yet are directly attributable to the system asset.

5.3 System assets are often self-constructed assets. Self-constructed assets are considered to be assets that are constructed by the United Nations as well as contracted construction projects (i.e. built by third parties). (United Nations Corporate Guidance for IPSAS, Property, Plant and Equipment, 10 May 2013) See also Chapter 1 Recognition and De-recognition of Fixed Assets for guidance on self-constructed assets and the related financial accounting.

5.4 An example of a system asset is a video conferencing system where the monitors, cameras, servers, digital video recorder, microphones, speakers, furniture and related installation and delivery costs collectively function together as subunits to enable the simultaneous two-way video and audio transmission of data among multiple locations.

5.5 A system asset does not refer to any collection of items. A fixed asset manufactured from multiple parts is not a system asset. For example, a vehicle made up of parts such as a gas tank, tires, wipers, doors, etc. is not a system asset; it is a vehicle fixed asset. Similarly, an equipment item that is composed of parts such as a mould, electronic wiring, levers, etc. is not a system asset; it is an equipment fixed asset. A system asset is comprised of multiple subunits that include fixed asset items such machinery and equipment items that work together to form a system asset.

5.6 Financially, a system asset is generally recorded and reported as a single fixed asset financial record and assigned a single standard useful life. Operationally, however, a system asset is often recorded and tracked by its multiple subunits in order to make possible repairs and maintenance planning as well as other operational decisions of each subunit.

5.7 Financially, if the total of all expenditures of the system asset project is planned to exceed the capitalization threshold, then the IPSAS asset class "Assets Under Construction" is used to accumulate the expenditures of the system asset project during its construction. The expenditures that are booked to "Assets Under Construction" represent costs that are accumulated for the project and that are accrued up until the point in time when the system asset becomes available for use. At the point in time when the system asset is available for use, the costs in the Assets Under Construction account are transferred to a corresponding fixed asset class and recorded as a single fixed asset financial record (e.g. Buildings, Equipment, Infrastructure Assets, etc.) and subsequently depreciated. Under the Umoja solution, the Asset Accounting tracks and reports the system asset as a single financial record.

5.8 Operationally, a system asset's subunits are assessed as to whether tracking is required for each of the subunits; an operational equipment record can be created for each subunit as needed in order to manage the operational requirements of each subunit of the system asset. Not all subunits are required to be tracked; the determination of which subunits are tracked is often related to financial, operational/stewardship, maintenance, legal, safety and/or local requirements. Under the Umoja solution, the Material Master data will support and provide guidance on the identification of subunits that are subject to tracking and serialization (Reference: Guidelines on Equipment Serialization, distributed by the Property Management Unit) Serialization is the identification of items/subunits using serial numbers (barcodes). Under the Umoja solution, the Equipment Module operationally tracks as many of the subunits of the system asset as needed by way of the serial numbers assigned to the subunits.

Guidance:

5.9 Reporting a system asset in the financial records as a single fixed asset allows for the grouping of related subunits into one financial record. Subunits have similar useful lives or are to be replaced at similar points in time. By grouping subunits with similar lives as single assets, there are less items to report financially. Grouping the subunits together simplifies on-going financial recordkeeping because financial decisions and transactions are often made on the system asset as a whole.

5.10 Decisions made on the management of subunits of a system asset are often made as one collective decision rather than individual, disparate decisions. That is, a system asset is seen as a group of subunits working together and is managed together through the life-cycle of the system asset, including its depreciation, use, replacement and disposal. For example, the maintenance, replacement or disposal of a system asset is often made for the group of subunits rather than on a individual subunit basis.

5.11 In order to realize the benefits of financially recording a system asset comprised of its subunits as a single fixed asset, the subunits of the system asset should generally have the following shared characteristics:

- The subunits function together to perform a collective purpose;
- The cost of each subunit is not individually significant compared to the total cost of the system asset;
- The useful lives of each of the subunits are generally similar to the useful life of the system asset;
- Replacement of a subunit will generally not extend the overall useful life of the system asset; and
- The subunits are not likely to be disaggregated and used separately for other functions.

5.12 In order to support the identification of system assets and to drive consistency in reporting, Table 5.1 outlines the more common system assets at the UN, including their estimated useful lives.

5.13 Table 5.1: Common System Assets of the United Nations

Common System Assets	Examples of Subunits	Asset Class / Sub class	Estimated Useful Life (Years)
Broadcast Systems	Monitors, cameras, servers, digital video recorder, microphones, furniture, LAN switches, labor and other directly attributable costs	Communication and IT Equipment / Audio Visual Equipment	7
Video Conferencing Systems	Monitors, cameras, servers, digital video recorder, microphones, speakers and furniture, labor and other directly attributable costs	Communication and IT Equipment / Communications Equipment	7
Satellite Systems	Digital camera, antennae, image sensors, flight computer, solar arrays, thermal blanket, labor and other directly attributable costs	Communication and IT Equipment / Audio Visual Equipment	7
Data Centers	Raised flooring, electrical back-up systems, specialized HVAC, fire suppression systems, computer equipment, server racks, furniture, labor and other directly attributable costs	Communication and IT Equipment / IT Equipment	7
CCTV Networks	Monitors, cameras, servers, digital video recorder, microphones, furniture, labor and other directly attributable costs	Communication and IT Equipment / Audio Visual Equipment	7
Computer IT Networks	Servers, desktops, computers, monitors, server racks, modems, switches, labor and other directly attributable costs	Communication and IT Equipment / IT Equipment	4

Capitalization Threshold of System Assets

5.14 As self-constructed assets, system assets are subject to the capitalization threshold adopted by the UN of $USD 100,000.

5.15 If the aggregate financial value of the system asset project (that is, the total of all the subunits that comprise the system asset) equals or exceeds $USD 100,000, then the system asset should be capitalized and recorded as a single financial record for financial reporting purposes.

5.16 If the aggregate financial value of the system asset project (that is, the total of all the potential subunits that comprise the system asset project) does not exceed $USD 100,000, then a system asset should not be set up as a single financial record. However, each of the items that were once potential subunits to a single system asset should now be reviewed against their respective capitalization thresholds in order to determine if each item should be capitalized as a fixed asset or not. For example, where the project does not meet the capitalization threshold

of $USD 100,000, any equipment item of the project that has a purchase cost equal or exceeding its $20,000 capitalization threshold should itself be capitalized as a fixed asset. If the capitalization threshold is not met, then the equipment item should be expensed. Note also that the available for use rules still apply. That is, if the equipment item is part of a project, then the equipment item should only begin depreciating when the project becomes operational, i.e. available for use (and not at the point of goods receipt of the equipment item).

Umoja **Solution – Asset Accounting Module for System Assets**

5.17 Under the ***Umoja*** solution, establishment of an item's classification in the financial statements is actioned at the purchase order stage. The ***Umoja*** Material Master is developed to support the purchasing process by pre-assigning a general ledger account to each item that is purchased. That is, each item in the Material Master is assigned to one of the fixed asset general ledger accounts, or is assigned to one of the expense/consumption accounts. The account pre-assignment of each item was determined based on an "indicative value", representing an analysis completed on the global average financial value of each item. An item with an indicative value above its capitalization threshold is capitalized as an asset; else the item is expensed.

5.18 As an example, the analysis of the financial values of all monitors procured by the UN concluded that the average financial value, or "indicative value", is below the capitalization threshold of $20,000 (the threshold for the equipment asset class). As such, monitors are set with a default account assignment of an expense/consumption account (as opposed to a fixed asset account). When the purchase order requisitioner chooses the monitor from the Material Master, the account assignment is defaulted to an expense account. As a comparison, certain items have indicative values that exceed their capitalization thresholds; these items are assigned a default account assignment of a fixed asset account. In the event that the default general ledger account assignment is not appropriate, then the requisitioner should override and replace the default general ledger account assignment with the correct one or the fixed asset accountant should perform a financial re-class.

5.19 The use of the Material Master to standardize general ledger account assignments facilitates the consistent application and recording of items in the financial statements across all UN entities. In addition to the correct general ledger account, this includes the items' descriptions, material codes, and unit of measures, all of which support the execution and tracking of downstream transactions in Umoja.

5.20 Where an entity decides to engage in a project to construct a system asset, the entity should follow the process for self-constructed assets. As part of a project, self-constructed assets are constructed over a period of time. As such, Umoja Work Breakdown Structure Elements (WBSE) buckets are used in the Umoja solution to accumulate all the expenditures of the system asset project (in the case of short-term or simple projects, Internal Orders may be sued). Expenditures include materials, equipment, labor, installation, freight, delivery and other directly attributable costs of the system asset project.

5.21 Whereas the Material Master provides standardized default account assignments for materials under either an "expense/consumption" or a "fixed asset" account assignment, in the cases where materials are purchased for a system asset project, the default account assignment will require to be subsequently re-classed to the WBSE or Internal Order account of the system asset project. Therefore the designated WBSE or Internal Order account accumulates all the costs of the project for the system asset. If a WBSE or Internal Order account cannot be used at the purchasing stage, then the Fixed Asset Management Officer should note the purchase

requisition and financially re-class the purchase from the default account assignment into the WBSE or Internal Order account as early in the process as possible in order to maintain an accurate summary of all expenditures incurred for the system asset project and to also ensure that depreciation does not commence incorrectly on an item.

5.22 At completion of the system asset project (that is, when the system asset becomes available for use), if the total of all the costs in the project's WBSE or Internal Order account exceed the capitalization threshold of $100,000, then all costs in the project's WBSE or Internal Order account should be transferred to the Asset Under Construction account, if not done so already (i.e. in the cases of year-end reporting where WBSE and Internal Order accounts must be cleared to Assets Under Construction accounts). When the project is complete and the system asset is available for use, the amount in the Asset Under Construction account should be subsequently transferred and capitalized as a single fixed asset record in the appropriate asset class (e.g. Building, Equipment, Infrastructure assets, etc.). A system asset is available for use when the system asset project is substantially complete, that is, when the asset can be used for its intended purpose, even though minor work that does not impede use of the asset may still be unfinished. Note that costs of any remaining minor work are still capitalized when incurred.

5.23 In the event that a project is not completed at a reporting period (for example, at financial year-end), then it is necessary to account for the system asset project costs accumulated in the WBSE or Internal Order account as either an expense or fixed asset in the reported financial statements. If the total of all the costs of the system asset project is not planned to exceed the capitalization threshold of $100,000, then the costs in the WBSE or Internal Order account should be treated as an expense. If the total of all costs of the system asset project is planned to exceed the capitalization threshold of $100,000, then the costs in the WBSE or Internal Order account should be transferred to the Assets Under Construction account, and reported as a fixed asset in the financial statements.

5.24 In the highly exceptional cases (due to legal or local requirements) where a subunit (or subunits) is required to be recorded and reported separately from the main system asset, then two (or more) WBSE / Internal Order / Assets Under Construction accounts can be used to accumulate the costs of the subunit(s) required to be reported separately. However, at the point in time when the system asset project is complete, the total of all costs of the system asset project should be reviewed against the capitalization threshold. If the total of all costs of the system asset project exceed the $100,000 capitalization threshold, then each subunit that is required to be reported separately as well as remaining subunits (as a single financial record for the system asset) should be recorded as fixed assets, irrespective of if individually the subunit or system asset meet the capitalization threshold or not.

5.25 Note that the WBSE/Internal Order tracking mechanism and the Asset Under Construction account is not depreciated; only after the costs are transferred to the appropriate depreciable asset class (Building, Equipment, Infrastructure assets) does depreciation commence.

Umoja **Solution – Equipment Module for Stewardship and Operational Tracking**

5.26 In the Asset Accounting Module, system assets are recorded as a single financial record for financial reporting purposes. However, operationally, the entity is still able to view and manage the system asset by its subunits through a supplementary tracking system. Under *Umoja*, the Equipment Module fulfils the role of a supplementary tracking system. The Equipment Module can track the physical existence of each subunit that comprises the system

asset, as well as the maintenance and replacement schedules of each subunit through the use of operational equipment records (and a link to the Plant Maintenance Module).

5.27 The use of a single financial record does not preclude the action to create many operational records to manage or maintain each of the subunits. The decision of whether to create or not to create operational equipment records is supported and established by the serialization principles of the Material Master ("Guidelines on Equipment Serialization" distributed by the Property Management Unit). In general, the Guidelines summarize the instances when operational equipment records and barcoding thereof are required; these instances relate primarily to financial, operational/stewardship, maintenance, legal, safety and local requirements.

5.28 It is recommended that each operational equipment record (i.e. the subunit that is required to be tracked operationally), be linked to its related financial record. This can be achieved by a unique common identifier, by tagging or by noting the operational records connected to each financial record and vice-versa. Connecting the operational records to the financial records will facilitate IPSAS requirements such as asset impairment assessments and the physical verification processes. For example, when a system asset appears to be impaired, each of the subunits, or operation equipment records, can be analysed as to their impact to an impairment. As a responsibility of the Fixed Asset Management Officer, the Officer should ensure that a link exists between the operational records and the financial records.

5.29 The Equipment Module with its operational equipment records contains operational information about the subunits. This information includes their maintenance plans, their physical conditions, as well as other attributes and characteristics. The Equipment Module does <u>not</u> naturally contain financial data. All financial data is reported as part of the system asset financial record found in the Financial Module. The Equipment Module does however, have select data fields where inputs of values can be included, however, must be manually inputted. It is recommended that values for each operational record/subunit be included in these data fields in order to support any future assessments required for impairment testing, or to support any future investigations for costs of subunits to support future planning. These select data fields are for informational purposes and are not reported in the financial statements.

Consistent Treatment: System Asset constructed by Third-Party Vendor and Self-Constructed Internally

5.30 Irrespective of the method of acquisition, whether a system asset that is self-constructed by a third-party vendor or a system asset that is self-constructed using internal resources, the accounting treatment for each should be consistent. That is, regardless of the method of construction or acquisition, both system assets should follow the same process, that a single fixed asset financial record is created that includes the costs of all subunits. .

5.31 OCSS, by way of a Memorandum distributed 09 May 2014, on "Materials to support the reporting of Assets Under Construction under IPSAS accounting", circulated Microsoft Excel templates that provide assistance on planning for the costs of a self-constructed asset.

<u>Examples:</u>

5.32 The following examples are identified to further expand on system assets and their treatment.

Example – Security tower for a community >$100,000

5.33 **An entity self-constructs a security tower system for a community. The entity purchases the cameras, DVR, monitors and cables on its own. The entity hires a third-party vendor to build the tower and the central monitoring facility building. The vendor manages all aspects of integrating the towers, cameras and cables with the central monitoring facility building. The security tower is housed with several security cameras. The security tower is connected by underground cables to a central monitoring facility built on the outskirts of the community.**

The security tower and monitoring facility can be considered a system asset that provides security services for the community. When compiling the subunits that make up the security tower system, assume the following costs and useful lives:

Subunit / System Asset	**Cost**	**Useful Life**
Camera 1	$8,000	7
Camera 2	$8,000	7
Cables	$3,000	4
Monitor 1	$10,000	7
Monitor 2	$10,000	7
DVR	$15,000	4
Tower	$120,000	7
Central monitoring facility	$100,000	7
Contract labor	$30,000	7
Total Cost Security Tower System Asset	**$304,000**	**7**

The security tower is composed of multiple subunits, which include items of a fixed asset nature such as cameras, towers, and a central monitoring facility. The security tower also includes contract labor costs to assemble the security tower system asset. The collection of multiple subunits that function together as a security system constitutes a system asset.

Since the cost of the security tower system asset is above the capitalization threshold of $100,000 for self-constructed assets, the total cost of all the subunits is capitalized as a single fixed asset financial record. That is, $304,000 is capitalized as a system asset (as a single financial record) and depreciated over the estimated useful life of 7 years.

Where there are maintenance, operational or legal requirements, equipment records may be created for any of the subunits. The Guidelines on Equipment Serialization distributed by the Property Management Unit identifies which subunits should be serialized based on the Material Master.

It is highly recommended that even though operational equipment records of the subunits do not naturally contain the financial data (cost) of the subunits, that financial data be included where possible to support potential future needs for financial data (e.g. for future planning of similar systems, for impairment assessments). In this example, if operational equipment records are established for the tower and central monitoring facility, then their values of $120,000 and $100,000 should be respectively noted as part of the equipment records in the event that their original purchase values are required.

In the case where a third-party vendor constructs an entire system asset and provides a single invoice amount, it is recommended that a break-down of the subunits and their costs be obtained and included as part of any operational equipment records that are set-up. A break-

down of costs of the subunits is preferred from the vendor, else an estimate based on market costs can be prepared.

Example – Security towers for a community <$100,000

5.34 **The details of this example are the same as the previous example, however, the construction of the security towers is on a smaller scale and as a result, the total construction cost is under $100,000.**

The security tower and monitoring facility can be considered a system asset that provides security services for the community.

Subunit / System Asset	**Cost**	**Useful Life**
Camera 1	$8,000	7
Camera 2	$8,000	7
Cables	$3,000	4
Monitor 1	$2,000	7
Monitor 2	$2,000	7
DVR	$7,000	4
Tower	$30,000	7
Central monitoring facility	$30,000	7
Contract labor	$7,000	7
Total Cost Security Tower System Asset	**$97,000**	**7**

Since the cost of the security tower system is below the capitalization threshold of $100,000 for self-constructed assets, the total cost of the tower system should not be capitalized as a single fixed asset financial record.

However, each part should be assessed as to whether individually the part is subject to capitalization as a financial fixed asset. By assessing each part individually, treatment of the parts is applied consistently across entities. That is, by assessing each part individually, the assessment ensures that irrespective of the method of acquisition, whether a system asset is self-constructed by a third-party vendor or a system asset is self-constructed using internal resources, the accounting treatment for each should be consistent.

To demonstrate, take as an example a case where an entity decides to internally self-construct the entire security tower system. Based on the construction budget/plan, the entity has assessed that the cost will be below the capitalization threshold of $100,000. With the knowledge that the tower system will not be capitalized as a single fixed asset financial record, the entity must assess at the purchase point of each item, whether to capitalize or expense the item. In this example, when purchasing cameras 1 and 2, they will be expensed because they are each under the $20,000 capitalization threshold. Similarly, when purchasing the cables, monitors, and DVR, they will also be expensed because they are each under the capitalization threshold of $20,000. The tower and central monitoring facility will be recognized as two separate financial records because they are both above the capitalization threshold. The contract labor is expensed for simplicity and because it is not of a significant value. Therefore in total, $60,000 is capitalized in the form of two fixed asset financial records.

Therefore, regardless of if this system asset project was entirely internally self-constructed, partially internal and partially vendor constructed or entirely vendor constructed, the financial value recognized as fixed assets in the fixed asset records created should be the same. In this case, two financial records are created, at $30,000 each (tower and central monitoring facility).

In this case, operational equipment records may be created for each subunit where there are maintenance, operational or legal requirements. The Guidelines on Equipment Serialization distributed by the Property Management Unit identifies which subunits should be serialized based on the Umoja Material Master.

Example – Vendor constructs an exhibition booth on behalf of entity

5.35 **An entity hires Modular Experts Co., a company that specializes in modular exhibition booths. The company is asked to create an exhibition booth that can be used for multiple showings at multiple venues. Therefore the exhibition booth must be capable of multiple configurations that adapt to new and varied layouts. The exhibition booth consists of metal beams, flooring, shelving, walls, seating and other items that can be assembled, disassembled and then reinstalled at multiple locations.**

The total cost of the exhibition booth is $25,000. How should the exhibition booth be treated?

In this example, the exhibition booth is manufactured from multiple parts, including metal beams, flooring, shelving and walls. The exhibition booth functions as a display fixture for the UN entity's products and services. The exhibition booth falls in the asset class of "Furniture and Fixtures", with a capitalization threshold of $20,000 and an estimated useful life of 7 years.

Therefore the $25,000 cost of the exhibition system should be capitalized as a fixed asset and depreciated over 7 years.

Note: The exhibition booth is not a system asset. The parts that comprise the exhibition booth are metal beams, flooring, shelves, walls and other items. None of these items are equipment that would individually function on their own; none of these items would normally be considered fixed assets on their own. Therefore there does not exist a collection of fixed assets that come together to perform a collective purpose and therefore system asset does not exist.

The exhibition booth can be compared to a car. A car is made of many parts and include the steering wheel, windows, wipers, etc. None of these parts would individually function on their own; none of these items would normally be considered fixed assets on their own. It is only when these parts are assembled together, that the benefit is realized in the form of a car. Cars are not system assets. Cars fall into the asset class "Vehicles" that have a capitalization threshold of $20,000 and are depreciated over 6 years (Light Wheeled Vehicles).

In addition, the exhibition booth is not a self-constructed asset. The exhibition booth has already been constructed, however, requires "self-assembly" to one configuration out of many possible configurations.

Chapter 6

Subsequent Costs (Repairs, Maintenance and Improvements)

Overview:

6.1 Subsequent costs refer to expenditures that are incurred on an asset after its acquisition. These expenditures, which include labor and parts, are often referred to as repairs, maintenance, updates, improvements, inspections or upgrades.

6.2 There are two types of subsequent costs related to expenditures, both of which are treated differently in the financial statements:

- Subsequent costs that keep the asset operational in the working condition that the asset was originally intended are expensed when incurred.

- Subsequent costs that increase the future economic benefit, service potential, functionality or the remaining useful life of the asset are either recognized in the carrying value of the asset (as part of the fixed asset).

6.3 Therefore, costs incurred on an existing asset must undergo an assessment as to whether they add value to the asset or merely return the asset to its intended working condition. The outcome determines the treatment of the costs of the expenditures – whether to expense the costs or recognize them as an asset.

6.4 The objective of this chapter is to provide examples of subsequent costs and their treatment under the IPSAS Policy Framework.

Guidance:

Subsequent costs that keep an asset operational as part of day-to-day servicing

6.5 Subsequent costs that maintain an asset at its original capacity or service output or that restore an asset to its original capacity or service output are costs of day-to-day operations of an asset. These costs do not provide additional economic benefit or service potential beyond an asset's expected original capacity or service output. As a result, these costs are expensed as incurred. Some examples include repairs, maintenance, day-to-day servicing (including labor and small parts), minor inspections and updates.

6.6 Any warranties or agreements with vendors should be reviewed prior to any type of repair, maintenance, servicing, inspection etc. Some agreements may stipulate that the vendor will perform basic repairs or maintenance as part of the agreement for a certain period after the acquisition date.

6.7 For repair, maintenance, day-to-day servicing requirements, etc. the full costs including parts and labor should be estimated. Internal and external resources should be assessed to establish the most optimal approach to returning the asset to its original working condition.

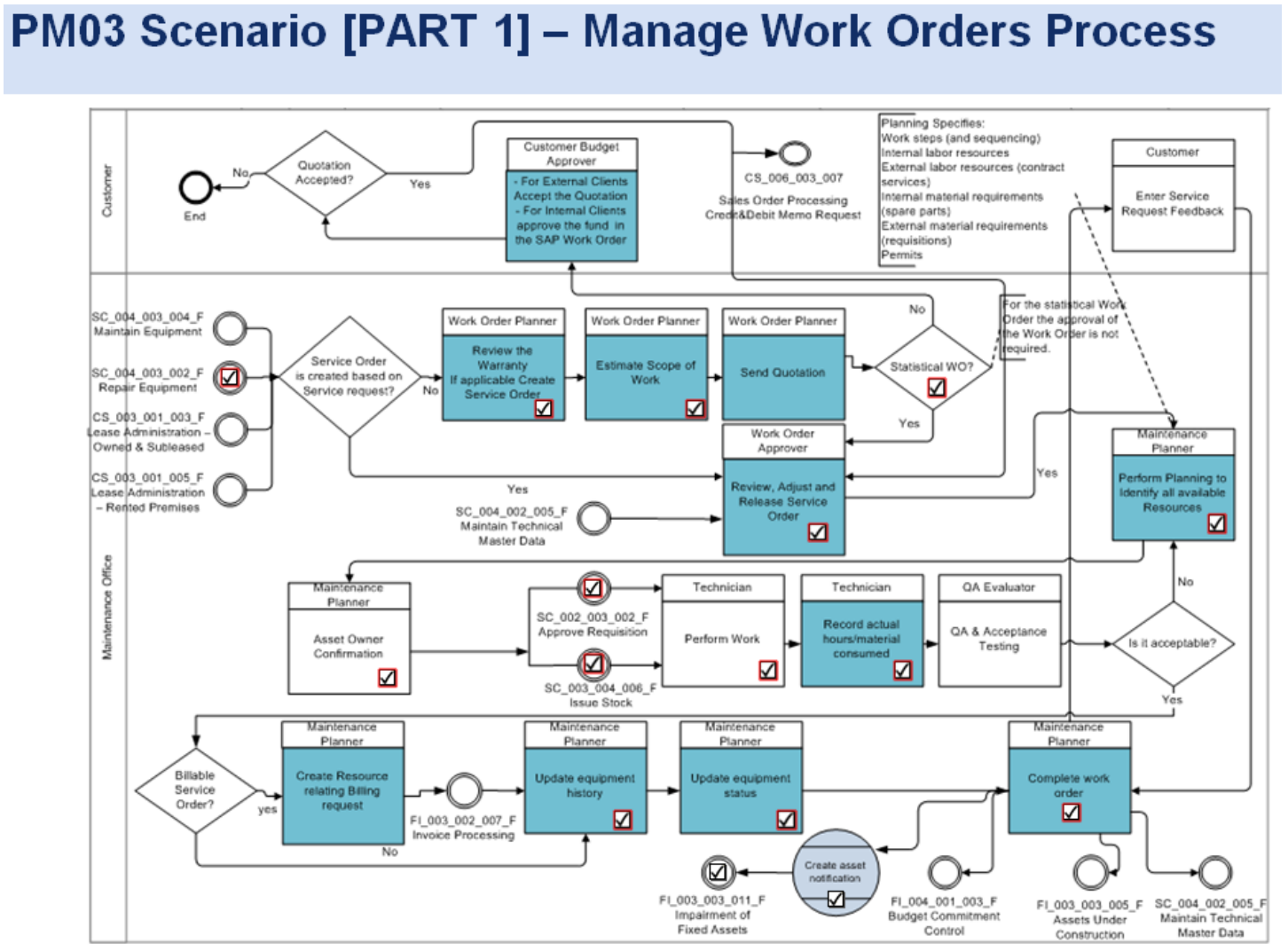
6.8 After the repair/maintenance work has been completed, a quality review should be completed and the details of the work performed should be documented in the records of the asset.

Keeping a comprehensive record of work performed will support repairs and maintenance planning as well as support any damage or replacement claims to vendors or insurance providers.

6.9 In addition, after the repair/maintenance has been completed, a review should be performed to assess if impairment indicators exist. Some repairs/maintenance will not return the asset back to their original working condition and may warrant as asset impairment review. An asset impairment includes an impairment in value and/or a reduction in the asset's remaining useful life. See the chapter on Asset Impairment for indicators of impairment and the procedures to follow should an indicator of impairment exist.

6.10 Carrying out repairs, maintenance and other day-to-day servicing costs is supported by the *Umoja* solution. Table 6.1 outlines the work order process for a repair in *Umoja*.

6.11 **Table 6.1: *Umoja* Work Order Process for Repairs***



*Provided by Umoja, Plant Maintenance Team

6.12 Under the *Umoja* Work Order Process for Repairs, a work order is created outlining the costs of the service (including parts and labor). Approval of the service is obtained, as well as funding approval. Quotations are received and once the work order requisition is approved, the work and hours of internal technicians or external vendors are tracked and recorded. A final quality assurance check is performed prior to updating the asset's service history in the asset records.

Subsequent costs that increase the future economic benefit or service potential of an asset

6.13 Subsequent costs that improve the capacity or service output of an asset beyond its original expected capacity or service output increase the future economic benefit or service potential of the asset. Some examples include improvements, major inspections and upgrades, all of which can extend the life of an asset and/or increase an asset's output or capacity.

6.14 Subsequent costs that increase the future economic benefit or service potential of an asset are either recognized in the carrying value of the related asset or are capitalized as a separate asset. Some examples include replacement of a major part, major refurbishments that increase the service potential or life of an asset and major inspection costs.

6.15 The full costs of the planned improvement including parts and labor should be estimated. Internal and external resources should be assessed to establish the most optimal approach to completing the improvement.

6.16 Where the useful life of the expenditure is identical to the remaining useful life of the asset that it relates to, or where the expenditure is an integral part of the asset where the benefits of the expenditure is dependent on the related asset's existence, then the costs of the expenditure should be recognized in the carrying value of the related asset. An item is integral to an asset if the item is intended to or can only be used solely with that asset.

6.17 If the expenditure has a separate identity and is capable of being used on its own or after the asset that it relates to is disposed of, then the costs of the expenditure should be capitalized and accounted for as a separate asset and depreciated based on the useful life of the expenditure.

6.18 Subsequent costs that are to be recognized in the carrying value of an asset or capitalized as a separate asset must meet the same capitalization thresholds as for all fixed assets (else the expenditure is expensed):

6.19 **Table 6.2: Thresholds for Capitalization**

Subsequent cost relates to:	**Threshold for capitalization:**
Buildings, leasehold improvements, infrastructure assets and self-constructed assets	USD $100,000
Land	No threshold (all land is capitalized)
Property and Equipment – Volumes I and II except for Commodity Groups (noted below)	USD $20,000
Commodity Groups – Vehicles, pre-fabricated buildings, satellite communication systems, generators, network equipment	USD $5,000
Internally generated intangibles	USD $100,000
Purchased intangibles, other than Volume I and II	USD $5,000 per unit/user

Purchased intangibles – Volume I and II	USD $20,000 per unit/user

6.20 In addition for capitalization to occur, the subsequent costs must meet the recognition criteria of assets – that of reliable measurement, have a useful life of more than one year and have a high probability of future economic benefits.

6.21 After improvement work has been completed, a quality review should be completed and the details of the work performed should be documented in the records of the asset. Keeping a comprehensive record of work performed will support future repairs, maintenance and improvement planning as well as support any damage or replacement claims to vendors or insurance providers.

6.22 The capitalized cost of the expenditure is depreciated over its useful life or the remaining useful life of the asset that it relates to, whichever is shorter. It is recommended that the remaining useful life of the subject asset be reviewed after each expenditure.

6.23 Carrying out improvements that increase the capacity or service output of an asset beyond its original expected capacity is supported by the ***Umoja*** solution. .

6.24 Under the ***Umoja*** solution, notification is released of a service request. A work order is created outlining the capital improvement and the related costs. Funds are requested and approval for funding is obtained. The work order is released and materials (e.g. roof tiles) and labor are either released from the organization's inventory or requisitioned from an external vendor. The work and hours of the project are documented and recorded. Upon completion of the work order, a quality review is performed. The costs are capitalized and included in the cost of the subject fixed asset or capitalized as a separate asset. The remaining useful life of the asset is reviewed.

Leasehold Improvements

6.25 Leasehold improvements are enhancements made to a leased space. Leasehold improvements include partitions, flooring, drywall, painting, light fixtures and other costs. See the Leasehold Improvements section in the Chapter on Recognition and De-recognition of Fixed Assets for a further description and the accounting treatment of leasehold improvements.

Examples:

6.26 The following examples are identified to demonstrate subsequent costs and their treatment.

Example 1: Repairs

6.27 Subsequent costs of repair represent routine costs to fix any damage to an asset in order to restore the asset back to its original expected capacity or service output. As there does not exist any additional future economic benefit from the asset as a result of the repair, the costs are expensed.

<Note: In cases where an asset is not repairable to its original expected capacity or service output, then its value has been impaired. For details on treatment of impairments under IPSAS, see Chapter on Asset Impairment.>

Several windows of the Secretariat building were damaged due to a severe storm. Contractors were hired to repair the windows and the organization paid $150,000 to the contractors.

Since the expenditure was to repair the windows to their original condition with no added benefit provided by the repair, the cost is expensed immediately.

Dr. Expense	$150,000	
Cr. Payable		$150,000

Any insurance proceeds from the damage should be recorded separately and not netted against the cost of the repair. The insurance claim is a separate economic transaction and any amount received should be recorded as insurance income.

Example 2: Maintenance

6.28 Subsequent costs of maintenance represent day-to-day servicing of an asset to continue the asset at its intended level of performance. Additional economic benefits are not derived from day-to-day servicing of an asset and therefore maintenance costs are expensed.

The vehicles of Peacekeeping Unit K are required to support the operations of a high priority initiative. A maintenance plan is in place for the vehicles to service their general upkeep, including oil changes, routine tire changes and emissions testing. The maintenance plan costs $130,000 per year.

Since the maintenance plan serves to keep the vehicles at their intended level of operation and does not improve the performance or service capacity of the vehicles, the cost of the maintenance plan is expensed.

Dr. Expense	$130,000	
Cr. Payable		$130,000

Example 3: Capital Improvements including Renovations that increase the performance of an asset

6.29 A capital improvement is a permanent structural addition or restoration that enhances or improves the economic value of the asset by increasing its benefits or service capacity beyond its previously assessed standard of performance. As the future economic benefit of the asset is enhanced, the cost of the capital improvement is either recognized in the carrying value of the asset to which the improvement relates to or is recognized as a separate asset. Depreciation is calculated over the remaining life of the asset or the life of the improvement, whichever is shorter. Some examples of capital improvements include installing a new bathroom in the building, installing new kitchen and replacing single-glazed windows with double-glazed windows.

If the capital improvement relates to a replaced part, such as double glazed windows replacing single glazed windows, then the carrying value of the replaced part should be de-

recognized, regardless of whether the replaced part had been depreciated separately from the building. That is, if single glazed windows were part of a building and capitalized within the building asset class, then an estimate of the carrying value of the single glazed windows will have to be assessed and the carrying value de-recognized.

If it is not practical to determine the carrying value of the replaced part, then the cost of the improvement can be used as an indicator of what the cost of the replaced part was at the time it was acquired or constructed and the carrying value calculated using the depreciated replacement cost approach.

Example 4: Capital Improvements including Renovations that increase the performance of an asset

6.30 **Warehouse X ran out of space to store its equipment to support field missions. It was decided to build an addition to Warehouse X, increasing storage space by 15%. The cost was $200,000.**

Since the building addition has increased the capacity to provide storage space, the addition has brought economic benefit to Warehouse X. As the cost of the capital improvement exceeds the capitalization threshold, the cost is recognized in the carrying value of the warehouse building fixed asset.

Dr. Building	$200,000	
Cr. Payable		$200,000

Example 5a: Capital Improvements

6.31 **A peacekeeping unit is planning for a new mission. The unit is planning to source a special, technologically advanced bullet-proof coating to apply to two of its vehicles in order to provide added security and protection to its occupants. The coating in total costs $250,000 and is expected to last for 5 years.**

Since the coating improves the service potential of the vehicle, the improvement cost should be capitalized, subject to meeting the threshold for capitalization. At a cost of $125,000 per vehicle, the capitalization threshold is met. Assuming that the service vehicle has a remaining useful life of more than 5 years, then the coating should be capitalized as a separate asset in order to correctly depreciate the coating over its 5 year useful life.

Dr. Vehicles	$250,000	
Cr. Payable		$250,000

Example 5b: Capital Improvements

6.32 **Five years later, the peacekeeping unit applies a fresh coat of the same bullet-proof coating to the two vehicles, at the same cost.**

Since the expenditure applies a new coating and extends the life of the coating for another five years, the costs of the new coating should be capitalized.

`Dr. Vehicles	$250,000	
Cr. Payable		$250,000

It should be verified that any carrying value of the old coating in the financial records is written off.

Example 6: Major Inspections

6.33 All subsequent costs of major inspections that meet the capitalization threshold are capitalized as part of the carrying value of the asset inspected. Major inspections are generally not annually performed, and include non-routine inspections for compliance with building, plumbing, electrical, mechanical and other specialty codes. Major inspections are necessary to continue the building's use and continue the service benefit that it provides. Foregoing a major inspection may result in a major violation and a building shut-down. Therefore major inspection costs are necessary in order for the building to continue to be in use. Major inspection costs are capitalized as assets.

Capitalized major inspection costs should be depreciated over the shorter of the period until the next inspection or the remaining life of the building. To the extent that the major inspection replaced a prior inspection, any carrying value of the prior inspection should be de-recognized and expensed.

Inspections that are regular maintenance inspections should be expensed as incurred.

(Example taken from Corporate Guidance) This is the first year that a UN office building requires a major inspection. The inspection is done in compliance with building, plumbing, electrical, mechanical and other specialty codes. Additionally, consulting engineers are hired to inspect and assess the structure of the building. The major inspection costs $101,000.

The costs of the major inspection should be recognized as an asset or part of the building that the inspection relates to. The major inspection was necessary to continue the building's use and service that it provides; not continuing with the major inspection will result in a shut-down of the building. Because this is the first year that a major inspection has occurred, there do not exist costs of previous inspections to de-recognize. The $101,000 of inspection costs will be depreciated over the shorter of the period until the next inspection if known (expected to be 10 years) or the remaining useful life of the building.

Dr. Building	$101,000	
Cr. Payable		$101,000

Eight years have passed and the building is due for another major inspection. The inspection will cost $150,000. The inspection cost will be recognized in the carrying amount of the building because it meets the recognition criteria and is above the $100,000 threshold for capitalization. The carrying amount of the previous inspection is $20,200 and will need to be derecognized.

As a result the United Nations will derecognize the previous inspection, resulting in a loss in the statement of financial performance of $20,200. The $150,000 cost of the most recent inspection is capitalized and depreciated over the shorter of the period until the next inspection or the remaining useful life of the building.

Dr. Accumulated depreciation	$80,800	
Dr. Loss	$20,200	
Cr. Building		$101,000
Dr. Building	$150,000	
Cr. Payable		$150,000

Example 7a: Software Updates

6.34 Subsequent costs related to software updates are generally expensed because there is no additional material functionality or benefit added to the asset. Software updates generally represent fixes that enhance the stability, compatibility and security. There may some other minor fixes but generally do not increase the capability or benefit of the asset.

The organization has installed Activa software Version 2.2 on the computers of 100 employees. The software provider has issued Activa version 2.3 which provides the same functionality for Version 2.2 with minor patches. The cost of the update was $100,000.

The software version update provides no material additional functionality to the software and is therefore a cost of software maintenance. As such, the cost of the update is expensed.

Dr. Expense	$100,000	
Cr. Payable		$100,000

Example 7b: Software Upgrades

6.35 Software upgrades to software are generally new software system releases that provide additional functionalities and hence increased economic benefit to the user. Upgrades are generally major, standalone versions of a software product. Upgrade costs that exceed the capitalization threshold are recognized as assets depreciated over the expected useful life of the upgrade.

The software provider decides to issue Activa version 3.0 which contains enhanced features including advanced computer graphics, automated design capabilities and a much more user friendly interface. The organization purchases the upgraded software for $105,000.

Version 3.0 represents a software upgrade that provides material incremental capability and benefits to its users.. Since the cost of the upgrade represents an improvement to functionality, the cost of the upgrade would normally be capitalized.

However, an assessment on whether the capitalization threshold is fulfilled on a per user basis is required. The cost of the software upgrade is $1,050 per employee, which does not meet the capitalization threshold requirement. (Per Table 6.1 – Thresholds for Capitalization, purchased intangibles, other than Volume I and II have a threshold of $5,000 per unit/user.) Therefore for the reason that the threshold is not met, the costs of the software upgrade are expensed.

Dr. Expense	$105,000	

	Cr. Payable	$105,000

Example 8a: Maintenance

6.36 **Entity A patches potholes on an airstrip that is made of tar. The cost of the patching is $150,000 per year.**

Since the patching does not enhance the service capacity that the airstrip was intended to provide and only keeps the airstrip at its intended level of performance, the cost is expensed.

Dr. Expense	$150,000	
Cr. Payable		$150,000

Example 8b: Capital Improvement

6.37 **Entity A decides to modernize the airstrip by removing and replacing it with 12-inch reinforced concrete at a cost of $600,000. The new airstrip is expected to have a useful life of 25 years. The cost of the existing airstrip has been fully depreciated (its original cost was $450,000).**

The existing airstrip should be de-recognized as it is replaced by the new airstrip and therefore it will no longer provide benefit to Entity A.

Dr. Accumulated Depreciation	$450,000	
Cr. Infrastructure Assets		$450,000

The costs of installation of the reinforced concrete airstrip should be capitalized as the installation provides future economic benefit for an additional 25 years.

Dr. Infrastructure Assets	$600,000	
Cr. Payable		$600,000

Example 9: Upgrades

6.38 **A special licence key was purchased that significantly increases the processing speed of a computer system. The key costs $150,000. Further, the key has a useful life of 7 years and the computer system that it is used with has a remaining useful life of 5 years. The key is not transferable to another computer system.**

Since the expenditure increases the service capability of the computer system and it meets the capitalization threshold, the cost of the licence key should be capitalized. Since the key is not transferable, it forms an integral part of the computer system. The cost of the licence key should be capitalized as part of the computer system and depreciated along with the computer system over the remaining useful life of the computer of 5 years.

Dr. IT Equipment	$150,000	
Cr. Payable		$150,000

Suppose that the key is transferable to another computer system.

If it is the intention that the key will be used at some point on another computer system, the cost of the licence key should be recognized and capitalized as a separate asset. Depreciation should be recorded based on the useful life of the key of 7 years.

Dr. Intangible Asset (Software Key)	$150,000	
Cr. Payable		$150,000

Suppose that the key costs $80,000.
Since the cost of the key does not meet the capitalization threshold, it should be expensed.

Dr. Expense	$80,000	
Cr. Payable		$80,000

Example 10: Repair and Upgrade

6.39 **It was noticed that a building's pipe system had rusted and been damaged, as indicated by the reduced flow of liquid from the pipe system down to 50% of its original intended output. The Fixed Asset Management Officer along with the engineer assess that the pipe system should be repaired and at the same time it was decided to increase the output capability of the pipe to 120% of its original capacity. The vendor is estimating a cost of $1,600,000.**

The pipe system will be upgraded to increase flow beyond its original intention of 100% up to 120%, at a cost of $1,600,000. Normally, any upgrades to an asset should be capitalized as the upgrade represents an increase in the service potential of the pipe. However, the vendor estimate involves both a repair portion and an upgrade portion. The repair portion returns the pipe back to 100% capacity. The upgrade adds +20% to capacity. Therefore, to estimate the portion allocate to each, it can be determined:

- The repair fixes the pipe from 50% to 100% output, or +50%.
- The upgrade increases the capacity of the pipe to 120%, or by +20%
- Therefore the $1,600,000 can be split as follows:
  - Repair portion: $1,600,000 x (50/(50+20)) = $1,142,857
  - Upgrade portion: $1,600,000 x (20/(50+20)) = $457,143

Upon completing the repair and upgrade, the journal entry is:

Dr. Repairs	$1,142,857	
Dr. Building component-Services (Plumbing)	$ 457,143	
Cr. Payable		$1,600,000

Chapter 7

Fixed Asset Physical Verification and Reconciliation Process

Overview:

7.1 The objective of this chapter is to provide an overview of the fixed asset physical verification process that supports the IPSAS accounting requirement to confirm the existence of the fixed assets of an entity. In addition, the objective of this chapter is to identify practical situations that may relate to the fixed asset physical verification exercise as well as potential findings from the physical verification exercise that require follow-up by the Fixed Asset Management Officer and the action steps to take.

7.2 The fixed asset physical verification targets all fixed assets under the control of an entity and includes land, buildings, infrastructure assets, assets under construction, machinery, communication and information technology equipment, furniture, fixtures, vehicles and intangible assets. A fixed asset physical verification includes a planning phase, an execution phase and a findings and reconciliation phase.

7.3 The fixed asset physical verification process provides assurance that the fixed asset resources of the entity exist. As a result, the entity can establish the benefits / service capabilities that are available from the fixed assets for use by the entity as part of its operations.

7.4 Per the IPSAS Policy Framework as adopted by the United Nations, fixed assets are subject to physical verification "based on significance of values and associated risks assessed by management". That is, priority of the physical verification should be given to fixed assets that are of high value and are of high risk of loss or theft versus fixed assets that are of low value and low risk of loss or theft.

Guidance:

7.5 Management of fixed assets is the responsibility of the entity/office to which the assets are assigned, and includes safeguarding of assets, ensuring the assets are tracked as part of a Fixed Asset Register and ensuring that the Fixed Asset Register is reliable and up-to-date. The entity/office is responsible for certifying the accuracy of the Fixed Asset Register.

7.6 Day-to-day management of fixed assets and associated records is the responsibility of the individual entities and include the Asset Focal Points and Fixed Asset Management Officers of each entity.

7.7 It is recommended that the physical verification exercise be completed as close as possible to the year-end reporting date. Sufficient time should be allowed for reconciliation of discrepancies that may result from the exercise.

7.8 It is good practice, if resources allow and if practical for the assets in question, to conduct sample or cycle verification counts throughout the year. Sample counts check a portion of the fixed assets and allow for the correction of any fixed asset records prior to a more comprehensive verification exercise. In some cases, on-going cycle counts may replace a one-time annual physical verification exercise.

7.9 To the extent possible, the fixed asset physical verification process should be conducted by an independent unit that is not involved in the entity's purchasing, receiving, safeguarding and asset accounting functions to ensure segregation of duties between the verification exercise and the fixed asset management functions. If an independent unit is not feasible to confirm the assets of the entity, then verification teams should be organized to confirm the assets, other than the assets that are managed directly by the verification team. At minimum, fixed assets should not be verified for existence by their day-to-day owners/managers in order to segregate ownership and verification.

7.10 This segregation between managing assets and verifying assets has been a well-established practice in entities prior to IPSAS implementation for verifying non-expendable property. Under UNSAS, each entity had appointed an independent unit to perform a physical verification exercise on non-expendable property.

7.11 Independence and segregation of duties is highly recommended in order to minimize the possibilities of errors and irregularities, including misappropriation and fraud. Segregation of duties is an internal control that supports the accurate recognition and reliable measurement of assets in the financial statement under IPSAS.

7.12 Prior to *Umoja*, and in the absence of an integrated system that manages and tracks the fixed assets of the entity from acquisition to maintenance and disposal, the physical verification should be comprehensive and encompass, to the extent possible, 100% of the fixed assets of the entity. Where verification of all assets is not possible, then consideration should be given to thresholds, significance, and risk of the asset when prioritizing the verification of assets.

7.13 Post *Umoja* implementation, with the support of an integrated solution that manages and tracks the fixed assets of the entity, prioritizing the extent of verification of the entity's fixed assets should be based on the significance of the fixed assets and the associated risks of each fixed asset. Significance is based on carrying value at the reporting date; the greater the carrying value the higher the importance of verifying the condition and existence of the fixed asset. Risk is based on whether a fixed asset is a movable property or an immovable property; fixed assets that are movable property are of greater risk of loss and theft and therefore should be subject to more frequent verification than immovable property. The entity should assess if the *Umoja* solution may have the capabilities to implement strategic and statistical stocktaking that supports verification of assets based on significance and risk. .

7.14 As part of the fixed asset physical verification exercise, the fixed asset's description, location, bar code (if applicable), serial number (if easily viewable) and condition should be verified (of which much of this information is available as part of *Umoja's* Equipment and Real Estate Modules). Note that verification of condition as part of the exercise should be a simple visual observation on whether the fixed asset appears damaged, faulty or idle and nothing more. The physical verification team is not expected to possess the technical skills to assess impairment.

7.15 Some examples where fixed asset conditions involving a simple visual observation that a fixed asset is either damaged, faulty or idle include: unplugged generators stacked on top of each other in the basement of a building that appears to be storage area, an HVAC system with a large corroded hole, a building under construction that appears to be abandoned, a warehouse where the roof has collapsed, a military vehicle that is missing its wheels and a fuel tank that shows signs of leakage. It is not expected that the verification team perform an examination or technical evaluation of the fixed asset, but only to provide an initial observation of the asset's condition when visually confirming its existence.

7.16 Given that an asset impairment review is required under IPSAS to be completed on an annual basis and given that a step in the fixed asset physical verification exercise is to record the condition of the fixed asset, it is recommended that to maximize the use of resources and to capitalize on synergies between the two processes, the fixed asset physical verification be combined with the asset impairment review to the extent possible. Corporate Guidance for Impairment outlines that as part of the physical verification, fixed assets with carrying values above certain thresholds should be specifically reviewed for indicators of impairment. Only for fixed assets above the threshold and for which an indicator exists, then qualified personnel are to assess the technical and functional performance of the fixed asset for impairment. The thresholds are as follows:

Asset class	Threshold
Computer and IT equipment, vehicles, machinery and equipment, furniture and fittings	>$25,000
Land, buildings and infrastructure assets	>$500,000

7.17 While the Fixed Asset Management Officer shall be aware of the asset verification plan and process, he/she should not be lead the execution phases of the physical verification exercise. The Fixed Asset Management Officer is involved in the accounting functions of asset management and therefore his/her duties are not fully segregated from the verification exercise. The Fixed Asset Management Officer, however, can be consulted on planning and the providing primary or secondary evidence to support the verification of assets. The Fixed Asset Management Officer will be involved in the reconciliation process and will process adjustments arising from the verification.

The Fixed Asset Physical Verification:

7.18 The three main components of a fixed asset physical verification exercise are the Planning Phase, the Execution Phase and the Findings and Reconciliation Phase.

a) Planning Phase

7.19 Documenting and creating a plan of the fixed assets physical verification exercise is good practice. It provides evidence of a structured approach ensuring that all fixed assets are accounted for their existence and verified as required under IPSAS as effectively and efficiently as possible. All documents that are generated as part of the physical verification, including reconciliation documents, should be kept for audit purposes.

7.20 The fixed asset register which centrally lists and maintains all the fixed assets over which the entity has control forms the basis of the fixed assets verification plan. It is of a paramount importance that assets are promptly recognized and recorded in the Fixed Asset Register as per the delivery principle – as that point in time when the entity gains control of the fixed asset.

7.21 The entity's list of all the fixed assets and related information that will support the verification (such as description, location, bar code, serial number and condition) should be carefully reviewed as part of the planning phase.

7.22 The plan of the fixed assets physical verification exercise should be shared with the receiving, shipping and accounting departments. Sharing the plan should minimize the absence of fixed assets from the asset register by triggering an advance review by departments to ensure that all fixed assets (where appropriate) are part of the physical verification. Receiving should

ensure that all items are received and recorded. Shipping should ensure that all items are shipped and not included in the physical verification.

7.23 To the extent possible the adopted methodology verifying the existence of an asset should be through visual confirmation (observation). Visual confirmation is the most reliable and conclusive method and is often the most cost efficient. However, it is recognized that in some cases it may not be cost effective or feasible to do so. For instance, fixed assets in remote locations, fixed assets that are in areas where access is restricted (e.g. military zones or quarantine zones), fixed assets that are enclosed (e.g. within walls, or other structures) may be either too costly or not feasible to access.

7.24 If a visual confirmation of a fixed asset is not performed, then secondary evidence can be gathered to provide assurance of the fixed asset's existence, including but not limited to maintenance records and vendor invoices demonstrating work done on the asset, assessments of impairment reviews on assets, property billings, etc.

7.25 The following table identifies some examples of primary and secondary evidence that can be gathered for each fixed asset class. In addition, the last column of the table identifies the risk level associated with each asset class for conducting a physical verification post *Umoja* implementation (Refer to section 2.7).

7.26 **Table 7.1: Primary and Secondary Evidence to Support Physical Verification**

Asset Class	**Primary Evidence**	**Secondary Evidence**	**Risk Level**
Machinery, Equipment, Communication Equipment, IT, Furniture, Fixtures, Vehicles	Visual confirmation	• Date-stamped photos. • Date-recorded maintenance records on the fixed asset. • Documentation that identify outputs that are dependent on the existence of the fixed asset.	High because majority of fixed assets are movable. Therefore frequency of verification is high.
Assets Under Construction	Visual confirmation	• Date-stamped photos. • Obtain a confirmation from the program manager on the existence of the fixed asset under construction.	Low because assets under construction are not movable. Therefore frequency of verification is low.
Land, Building, Infrastructure Assets, Leasehold Improvements	Visual confirmation	• Date-stamped photos. • Date-recorded purchase contracts, installation contracts, title deeds, land registry documents, and/or property tax records on file.	Low because fixed assets are not movable. Therefore frequency of verification is low.

Intangible Assets	• Legal contract for patents, copyrights, trademarks, goodwill and rights. Document registration dates and patent renewal dates. • For self-constructed software, visual verification of software interface.	• Documentation of payment for the patents and copyrights. • Confirmation from the legal department on the existence of the patent, copyrights, trademarks, etc. • Confirmation from the program manager on the constructed software and its existence.	Low because fixed assets are not movable. Therefore frequency of verification is low.

References of "high" and "low" to frequency of verification refer to the relative number of verifications among assets. "High" does not refer to multiple times per year, only to greater frequency of verification versus assets identified as "low".

7.27 In cases where there are fixed assets in transit but under control of the entity, the bills of lading must be obtained as documentation and evidence to support that the fixed asset was received by the freight forwarder.

7.28 Regardless of the method of verification, it is good practice to document the verification method used confirm the existence of the assets, including the evidence gathered as part of the verification process. All documentation should be kept for audit purposes.

b) Execution Phase

7.29 The unit in charge of carrying out the physical verification exercise should review the list of fixed assets to be verified including description, location, owner, bar code, serial number and condition. The unit in charge should assemble verification teams where the members are well-matched and trained to verify the fixed assets, based on the type of asset, the location of the fixed asset, the complexity of the fixed asset and the primary or secondary evidence that needs to be gathered.

7.30 It is assumed that all fixed assets have been received through the central receiving unit, been properly bar coded and entered into the Fixed Assets Register.

7.31 Fixed assets should be visually verified and agreed with the list of assets. Where visual confirmation is not cost effective or feasible, then the alternative methods found in Table 7.1 should be used and documented.

7.32 During the fixed asset verification, a log of all discrepancies should be recorded, including:

- fixed assets that are found but are not in the Fixed Asset Register;
- fixed assets that are not found but part of the Fixed Asset Register; and
- fixed assets where damage is clearly evident (noted as part of the asset condition).

c) Findings and Reconciliation Phase

7.33 Any discrepancies between the data collected during the physical verification exercise and the Fixed Asset Register should be reviewed and reconciled with the involvement of the Fixed

Asset Management Officer. The following are potential discrepancies that the Fixed Asset Management Officer may encounter and possible steps for resolution.

Fixed Assets that are found as part of the physical verification exercise but are not in the Fixed Asset Register

7.34 The Fixed Asset Management Officer should investigate the reason as to why the fixed asset is not part of the Fixed Asset Register.

7.35 If the fixed asset is part of an operating lease, then under IPSAS accounting, operating leases are not part of the Fixed Asset Register. For example, a building, a vehicle or an equipment item may be leased to the entity as an operating lease and therefore correctly should not be included in the Fixed Asset Register.

7.36 If the fixed asset is under control by another entity, then the fixed asset should not be part of the Fixed Asset Register. Only fixed assets controlled by the entity are recognized as assets in the entity's Fixed Asset Register. For example, a furniture or fixture may be temporarily on loan to the entity. Since the entity does not control the asset, it is not part of the Fixed Asset Register. Similarly, vehicles may be temporarily on loan from another entity that has retained control of the vehicles. The vehicles should not be part of the Fixed Asset Register.

7.37 If the fixed asset did not meet the threshold recognition rules by type of asset as adopted by the UN at the time of purchase, then the fixed asset should not be part of the Fixed Asset Register.

7.38 If the fixed asset is part of a larger system asset, then the fixed asset will be tied to the larger system asset that is found in the fixed asset register.

7.39 If the fixed asset is not in the Fixed Asset Register because of an accounting error, processing error and/or mistake, then the Fixed Asset Management Officer should ensure the fixed asset is properly processed as a fixed asset. This includes obtaining the purchase order or purchasing document that includes the authorization to purchase the fixed asset. Bills of lading and receiving documents should also be obtained. The depreciation expense of prior year and accumulated depreciation up to the reporting period should be obtained. The financial records should be corrected back to the date of the recognition date of the fixed asset, and depreciation calculated from that date. This should be completed prior to year-end reporting.

7.40 If a reporting date for the entity has occurred in between the correct recognition date and the date of the discovery of the discrepancy, then there is an error in the financial reporting of the entity at that reporting date. This should be reported to the Accounts Division in New York or the relevant OAH, with a quantification of the error, to assess the materiality and appropriate course of action.

Fixed Assets that are not found as part of the physical verification exercise but are in the Fixed Asset Register

7.41 The Fixed Asset Management Officer should investigate the reason as to why the fixed asset is not found.

7.42 The Fixed Asset Management Officer should review the actions taken by the independent unit to verify the fixed asset's existence. Based on the actions taken and evidence gathered by the independent unit, the Fixed Asset Management Officer may wish to re-perform the

verification or perform secondary verification processes including confirming with the owner or operations manager on existence, confirming that the fixed asset was moved to another location and for assets that are difficult to verify directly, confirming that the outputs of the fixed asset exist or confirming the maintenance schedules of the asset.

7.43 If the fixed asset had been disposed of, then the fixed asset should have been removed from the Fixed Asset Register at the time of approval of disposal. The Fixed Asset Management Officer should confirm that approval of disposal has occurred and follow up on the reason that the fixed asset has not been de-recognized from the Fixed Asset Register. The date of the disposal approval, carrying value of the fixed asset at the transaction date should be determined and the disposal booked retroactively to the transaction date.

7.44 If the fixed asset is in transit between two entities, then the bills of lading should be obtained to confirm existence of the fixed asset.

7.45 If the fixed asset is concluded to be missing (not due to disposal, write-off or sale) then, the Fixed Asset Management Officer should file a formal security investigation report and provide a copy for insurance purposes. The Fixed Asset Management Officer should obtain approval as required to write-off the fixed asset, considering the type of asset, value of asset and appropriate delegations of authority. The cost and accumulated depreciation should be de-recognized from the Fixed Asset Register and the loss expensed to the financial statements.

7.46 For intangible assets that are part of the Fixed Asset Register, their existence should be documented through contracts and confirmation from the legal department or program managers (in the case of self-constructed assets). If the intangible asset has expired, then the intangible asset should be written-off and de-recognized from the Fixed Asset Register.

Fixed Assets where it is evident that the fixed assets are damaged, faulty or idle:

7.47 The Fixed Asset Management Officer should review the conditions of assets as reported during the fixed asset physical verification exercise. Conditions that identify that the asset is damaged, faulty or idle are indicators that the value of the asset is potentially impaired and an impairment review is triggered.

7.48 For each asset where there is an indication of damage, faulty operations or idleness, the Fixed Asset Management Officer should consult with the relevant operational specialists to jointly assess the damage. For buildings, the building operations manager should be consulted; for plants and warehouses, the plant operations manager should be consulted, for computer equipment, the information technology support group should be consulted, for assets under construction, the program manager should be consulted, etc. It should be determined if the fixed asset will undergo repair, write-off or impairment. If it is determined that the fixed asset will undergo a repair, then the repair cost will be booked as an expense in the period for which the repair occurs. If the fixed asset is not usable, approval for the write-off should be obtained and booked as an expense in the current financial period with de-recognition from the Fixed Asset Register. If the fixed asset is to be left in its condition then an impairment review must be conducted to assess its new carrying value and the amount of the impairment expense (see Chapter on Asset Impairment). The impairment should be expensed to the financial statements.

7.49 For intangible assets where the patents or copyrights may have expired, then the entity's lawyers should be consulted as to the value of the intangible assets. Any write-down or

write-off of the intangible asset to its updated carrying value should be approved and be expensed in the financial statements.

7.50 The independent unit conducting the fixed asset physical verification shall prepare a comprehensive report detailing the findings of the physical verification. The report should include all differences between the fixed asset physical verification and the Fixed Asset Register and their resolution.

Umoja solution:

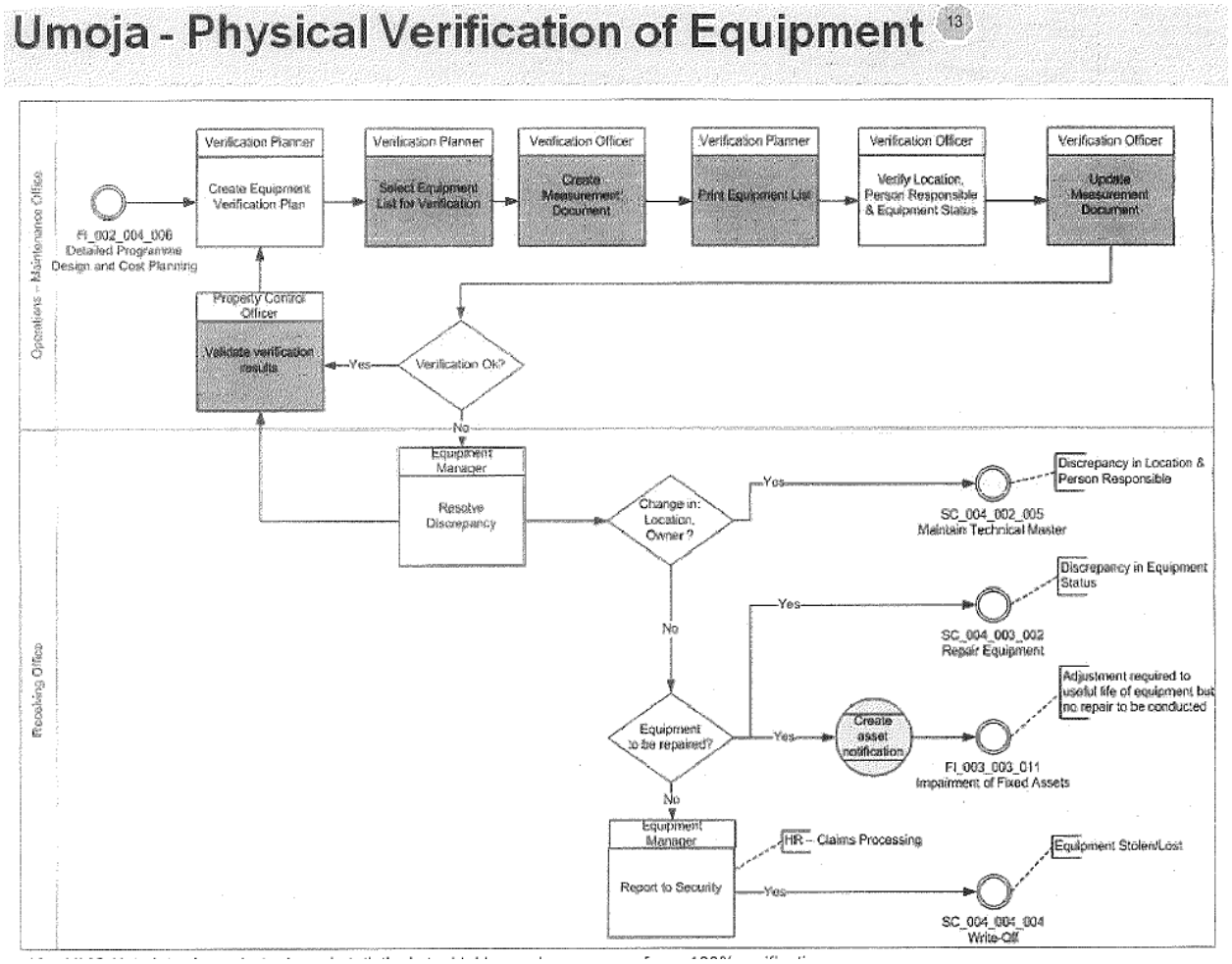
7.51 Under the *Umoja* solution, the assets in the fixed asset register can be sorted according to location, value, type of asset etc. An asset list/"measurement document" can be printed with pertinent information including serial number, location, asset condition, etc. Once the asset list is verified, the results are entered in to the *Umoja* solution and variances generated. The variances are subsequently resolved outside of the *Umoja* solution by the Fixed Asset Management Officer and Asset Managers. Any resolution is updated in the Umoja solution and a final list of discrepancies is generated.

7.52 Any discrepancies should follow the correct process and procedures as established by the Regulations and Rules of the United Nations. For example, where theft of an asset is established, approval from the appropriate delegation of authority is required to write-off the asset as well as LPSB and HPSB review.

7.53 Where an asset's condition is noted to be possibly impaired, in addition to considering repair of the asset, the asset impairment process as outlined in the Chapter on Asset Impairment should be followed.

7.54 Table 7.2 outlines the process flow for the physical verification of equipment under the *Umoja* solution.

7.55 **Table 7.2: *Umoja* Process flow for Physical Verification of Equipment**



Examples:

7.56 In order to demonstrate the guidance identified above, the following are examples of situations that relate to the fixed asset physical verification exercise and discrepancies that may be encountered between the results of the exercise and the Fixed Asset Register.

Example 1 examines an entity that has not tracked its fixed asset purchases since the beginning of the year.
Example 2 examines a damaged generator that is found as part of the asset verification.
Example 3 examines verifying the existence of components and subcomponents of a building.
Example 4 examines the existence of an asset under construction.
Example 5 looks at a drone that has been located and appears to be UN property, but is not part of the Fixed Asset Register. The drone was also purchased in a prior financial year.

Example 1:

7.57 **The financial year end is approaching and the entity has not tracked its fixed asset purchases since opening balances were established for 1 January 2014. A fixed asset physical verification is required as part of the annual verification process.**

A list of the fixed assets that the entity controls is critical for fixed assets verification. Without a list of fixed assets, the verification process is ineffective as there lacks a central catalogue to reconcile the physical fixed asset verification results against. Also, IPSAS requires that fixed assets are promptly recognized and recorded as soon as the organization gains control of the fixed assets.

The first step is to identify the physical fixed assets at the beginning of the year; this can be fulfilled by retrieving the opening balance documents from the opening balance exercise completed at 1 January 2014.

The next step is to identify all the fixed assets that were purchased during the year and add these to the fixed asset list. This can be achieved by retrieving all the PO's that were issued through the year for fixed assets along with the corresponding authorized invoices. The related PO's and invoices for associated costs should also be retrieved and matched to the asset. For each asset, it should also be noted the PO reference, vendor, vendor invoice, bar code, date of receipt, serial number, location and condition. Any disposals should also be identified and removed from the fixed asset list.

Once the fixed asset list is created of all the fixed assets that the entity controls, a fixed asset physical verification should be performed as identified in the guidance to this document.

Example 2:

7.58 **During the physical asset verification exercise, a generator was found that was correctly recorded in the fixed assets register, however, the generator appeared unusable as it was located in a corner of a room, unplugged and with a crack on its side panel.**

The crack on the side of the generator and the observation that the generator was unplugged and not in use are indicators of possible impairment. The generator's condition should be noted as part of the fixed asset physical verification and the Fixed Asset Management Officer should be made aware. The Fixed Asset Management Officer should confirm the extent of

the damage and determine with the operations manager the action plan which may include repair, impairment write-off or impairment write-down of the asset.

Example 3:

7.59 **Physical verification of a building involves confirming existence of the component and sub-component parts booked. These component parts include piping, HVAC systems, roofing, and vertical cabling and other infrastructure fixed assets which are difficult to identify. How are these components and sub-components physically verified?**

Visual verification is the preferred and best method of verifying the existence of assets. For specialized parts and components where support is required to identify the item, an expert or an operations manager should be requested to help locate and identify the items for visual verification. In the absence of physical verification, if there exists maintenance programs which show work performed on an asset, documents of a recent impairment review of an asset or documents that identify the outputs of the asset, then these secondary forms of evidence are may be sufficient to confirm the existence of an asset. The gathering of secondary forms of evidence may be more practical for assets that are behind walls or that are in enclosed areas. For example, the water dispensed from a plumbing system can prove the existence of the plumbing system.

Example 4:

7.60 **A building is under construction. How should it be verified for physical existence?**

Visual verification is the best method to confirm the existence of assets under construction. If visual verification is not feasible (such as the asset is in a location where the costs of getting to the location are overly expensive), then secondary evidence can be gathered to prove existence. Secondary evidence includes a combination of a date-stamped photo of the asset under construction and/or a confirmation from the program manager on the existence of the asset under construction. Documents that support the measurement of the asset under construction (e.g. invoices and bills of lading) can also be used as confirmation of existence.

Example 5:

7.61 **A drone was found as part of the physical verification exercise however cannot be located in the Fixed Asset Register. The purchase was in a prior financial year.**

The Fixed Asset Management Officer should investigate the explanation of why the drone is not part of the Fixed Asset Register. If the drone is part of an operating lease or not controlled by the entity then it is correct that the drone should not be in the Fixed Asset Register. Also, if the drone did not meet the capitalization threshold then it should not be part of the Fixed Asset Register for IPSAS reporting purposes.

If the drone is not in the Fixed Asset Register because of an accounting error, a processing error and/or a mistake, then the purchase order of the vehicle should be obtained. The cost, accumulated depreciation and cumulative depreciation expense should be booked to the financial statements. Also, the corrections should be reported to OPPBA for assessment of materiality and whether any further accounting action is required.

Chapter 8

Asset Impairment

Overview:

8.1 Under IPSAS 21, an impairment is a loss in the future economic benefits or service potential of an asset, over and above that of depreciation. An asset is impaired when it experiences a decrease in its output/capacity or service potential from that of what was originally intended by management. Decreases in output/capacity can result from events such as damage, accidents, technology changes and natural disasters. Consequently, the asset should be identified, its new output/capacity or service potential analysed and its value be written down to its true diminished value for financial statement reporting.

8.2 Periodic reviews on whether indicators of impairment exist should be completed. If there is an indication of impairment, then there should be an impairment review of the related assets and an Asset Impairment Form completed where impairment does exist. Approvals must be obtained prior to the asset write-down to its new impaired value under the appropriate delegation of authority. For audit purposes, records must be kept of all assets reviewed and all impairment indicators identified regardless of whether an impairment write-down was taken or not.

8.3 Per the IPSAS Policy Framework, at each statement of financial position date, assessments should be completed on the existence of indicators of impairment on all significant assets.

Guidance:

8.4 IPSAS does not require a detailed impairment review of each asset on a regular basis. IPSAS requires that an impairment review be undertaken when there is an indication of possible impairment. Where indicators do exist, then an impairment review should be completed on the assets identified by the indicator, subject to financial thresholds based on the carrying value of the asset pre-impairment.

8.5 United Nations IPSAS Corporate Guidance Impairment of Non-Cash Generating Assets (IPSAS 21) identifies three processes , as well as indicators within each process, that would lead to a subsequent impairment review (for a comprehensive list of indicators, refer to the Corporate Guidance – Impairment of Non-Cash Generating Assets - Overview of Impairment Indicators <flowchart>):

8.6 i) Events that trigger impairments throughout the year are non-scheduled, non-routine realizations that identify that an asset is potentially impaired. These indicators include physical damage of an asset including cracks, corrosion, leakage, erosion and instability as well as declines in service output of an asset. The Fixed Asset Management Officer should confirm any events and follow up on the potential impairment.

8.7 ii) The physical verification process is an annual verification of the existence of the assets of the organization. As part of the physical verification process, verification staff along with entity operations managers should assess whether an asset possesses an indication of impairment for assets that have a carrying value (net book value) above a specified threshold. The UN adopted financial thresholds (based on carrying value of the asset pre-impairment)

are found in Table 8.1 Thresholds (based on carrying value) to proceed with assessment pf impairment indicators.

8.8 **Table 8.1: Thresholds (based on carrying value) to Proceed with Assessment of Impairment Indicators**

Asset class	Threshold
Computer and IT equipment, vehicles, machinery and equipment, furniture and fittings	>$25,000
Land, buildings and infrastructure assets	>$500,000

8.9 Verification staff should communicate to the Fixed Asset Management Officer all assets where an indicator of impairment exists, who in turn should confirm the indicator, follow up on the potential impairment with the entity operations manager and assess if an impairment review is to be performed.

8.10 iii) An annual strategic impairment review should be executed and include all functional groups, as well as Unit Chiefs that are directly linked to policy review and setting. The annual strategic impairment review should discuss and identify internal policies, directives and changes in the organization as well as external changes in legal, technological, government and political environments that would impact projects and missions, and hence be potential indicators of impairment. The Fixed Asset Management Officer should assess potential impairment of all assets impacted by internal policy changes and external environment changes.

8.11 For each of these processes, if an impairment indicator exists, then an impairment review is required on the impacted asset, subject to the threshold. The Fixed Asset Management Officer/Asset Accountant should be notified. Any existing warranties should be reviewed for repair or replacement by the vendor. Any insurance policies that may cover the cost of repairing the asset should be reviewed for coverage. The Fixed Asset Management Officer should consult the relevant experts (engineers, consultants, operations managers etc.) and perform a joint inspection to assess whether damage has indeed occurred and capacity/output/service potential or value has been compromised. If so, then consideration should be given to whether the asset should be repaired prior to an impairment write-down.

8.12 If an impairment loss/write-down is to be taken, then the impairment loss should be calculated and summarized in the Asset Impairment Form including information on carrying value, impairment date, impairment amount, description of event and authorizations under the appropriate delegation of authority. A comprehensive repository of all Asset Impairment Forms should be kept for audit and tracking purposes. The impairment /write-down should be recognized immediately in the financial statements.

8.13 In addition, a comprehensive record of all assets reviewed, all impairment indicators identified and the related assets where an impairment review was performed should be documented and kept for audit purposes, regardless of if there was an actual write-down or not.

8.14 To calculate impairment loss, the Recoverable service amount is subtracted from the Carrying value (net book value) pre impairment. If the Carrying value is less than the Recoverable service amount, then the asset is not impaired (or an impairment reversal, if applicable, is warranted). If the Carrying value is greater than the Recoverable service amount, then the asset is impaired. Recoverable service amount is the higher of the Fair Value less costs to sell

and the Value in use. Value in use is the present value of the asset's remaining service potential, calculated by one of the Depreciated replacement cost approach, the Restoration cost approach or the Service units approach, depending on the nature of the impairment and the availability of data. For further information and the detailed methodologies to calculating impairment, see United Nations IPSAS Corporate Guidance Impairment of Non-Cash Generating Assets (IPSAS 21).

8.15 In addition to reviewing whether events have occurred that might require impairment, a review of the estimates and indicators that were used to establish an asset's impairment in the past should be completed in order to assess if an impairment reversal is required (or additional impairment is warranted). Only if estimates have changed should a review assessment be completed; the passage of time is not a basis for an impairment reversal. Also note that any impairment reversal is limited to increasing the carrying amount to what the carrying amount would have been at the current point in time, as if the original impairment had never been recognized in the first place.

8.16 It is highly recommended that approval of an asset's impairment write-down value is promptly obtained and that the write-down value is recorded in the fixed asset register as soon as authorization from the appropriate delegation(s) of authority is(are) received, as outlined in Table 8.2 Delegation of authority for write-downs (partial asset impairment) and write-offs (full asset impairment).

8.17 **Table 8.2 Delegation of authority for write-downs and write-offs (Note Delegation of approval authority and required Board Review is pending approval as at 5/26/15)**

Criteria	DOA Approval	LPSB Review	HPSP Review	Controller Approval
$0 Carrying Value or 0 Remaining Useful Life	X			
Carrying Value between $0 and $25,000 and Remaining Useful Life <25% of Standard Useful Life	X	X		X
Carrying Value ≥$25,000 or Remaining Useful Life ≥25 % of Standard Useful Life	X	X	X	X
All cases involving staff incidents/potential liability	X	X	X	X

8.18 Under the *Umoja* solution, the Umoja Job Aid for asset impairments is **FI-AA-JA6 Impairment of Asset**.

Notifications of the impairment process are performed using transaction code is **IW59.**

Under the *Umoja* solution, the majority of the tasks of the impairment process are performed outside of the solution. The validation of impairment indicators, the impairment reviews, the impairment assessment calculations and the authorization by the individual with delegated authority are all outside of the Umoja solution. These tasks are completed by the Umoja

Role Profile FA15 Asset Accounting User. However, throughout the process, notifications of the impairment review on the asset are indicated in the *Umoja* solution.

Since the majority of tasks are outside of the *Umoja* solution, it is critical to keep all supporting records (including indicators, review process and assessment process) of the write-down/write-off. Annex I contains and Asset Impairment Form to support the asset impairment write-down/write-off calculation.

Once the impairment has been approved by the individual with delegated authority, a notification is sent to Umoja Role Profile FA15 Senior Accounting User. Within the Umoja solution, the FA15 Senior Accounting updates the Master Data record by posting the impairment amount, the effective date of the impairment (Asset Valuation Date) and the description in text to reference the impairment. Impairment of an asset is performed using transaction code **ABAA**.

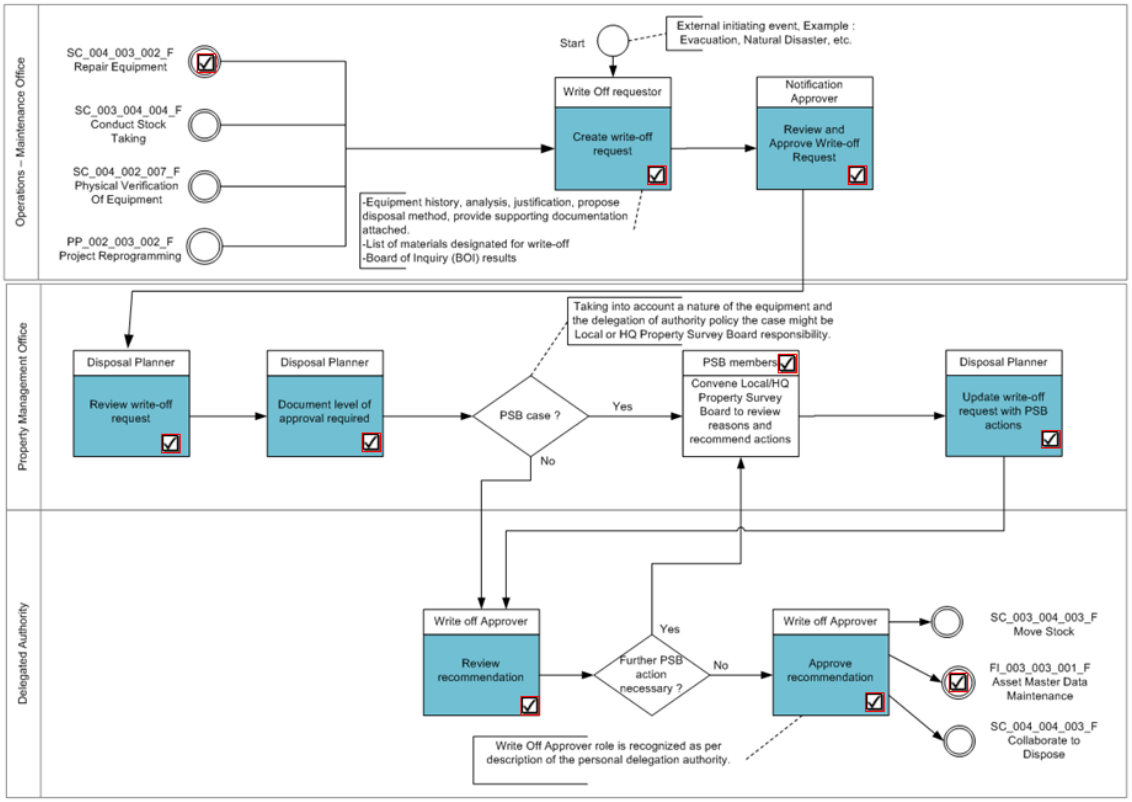
The Umoja solution identifies the impairment value of an asset as "Special depreciation" (or Unplanned depreciation). The transaction code **AW01N** is used to review the Special Deprecation for an asset.

The useful life should also be reviewed at this point to reflect any updates to the remaining useful life of the asset. Adjusting the remaining useful life of an asset is performed using transaction code **AS02**.

8.19 The process flow for asset impairments in ***Umoja*** is summarized in Table 8.3.

Table 8.3: *Umoja* Work Order Process for Asset Impairment*

PM03 Scenario [PART 2] – Impair Asset Work Orders Process



*Provided by Umoja, Plant Maintenance Team

Financial Inventories:

8.23 Inventories are also subject to impairment reviews. An impairment expense is booked when recoverable value falls below cost. Situations where this can occur include damage, obsolescence and if selling price/replacement cost has declined.

8.24 Inventories held for sale are measured at lower of cost and net realizable value. Inventories held for distribution at no charge or nominal charge are measured at lower of cost and current replacement cost. More on inventories can be found in the Chapter on Inventories.

Summary Checklist for Asset Impairment:

8.25 A summary check list for asset impairment can be summarized as follows:

- Is the carrying value greater than the threshold identified in Table 8.1? If so, then assess if an indicator of impairment exists.
- Is there an indicator of impairment? If so, continue to the impairment assessment and calculate the impairment value.

- Inform the Fixed Asset Management Officer of any assets with indicators of impairment.
- Identify any existing warranties prior to repair or replacement of the asset.
- Identify any insurance policies that provide coverage for the asset, i.e. does the insurance policy cover costs to repair or replace the asset?
- Consult relevant experts (engineers, operations managers, etc.) to assess whether impairment/damage has occurred and whether capacity/output/service potential of the asset has been compromised.
- Where impairment/damage occurred, then an impairment assessment should be performed using one of the three impairment approaches.
- Calculate the impairment value using one of the Depreciated replacement cost approach, the Restoration cost approach or the Service units approach, depending on the nature of the impairment and the availability of data.
- Obtain approval(s) from appropriate delegations of authority for the impairment value.
- Record the impairment value and adjust carrying value of the fixed asset to its new impaired value in the fixed asset register.
- Keep for audit purposes all records including the indicator of impairment, review, assessment, approvals and adjustment in the fixed asset register.

Examples:

8.26 The following are some practical examples that entities may encounter and that highlight the IPSAS policy on Impairment.

Example 1 demonstrates an impairment indicator triggered as part of the physical verification process. The example outlines scenarios to manage a potential impairment of a pipe system and its related components, including repair and restoration, upgrades, replacement and recognition of an impairment. Changes in remaining useful life and residual value are also demonstrated, as well as the impact of an insurance reimbursement.

Example 2 demonstrates an impairment triggered by a strategic review. A military vehicle is used for surveillance in a war zone, however changing political conditions result in a permanent long-term change in strategy and an impairment review.

Example 3 demonstrates an impairment that is recognized for an intangible asset as a result of an annual strategic impairment review.

Example 4 demonstrates a write-down of financial inventories.

Example 5 demonstrates a decision to replace a software system where support by the external vendor has ceased.

Example 1:

8.27 This example identifies an impairment to a pipe system (Property, Plant & Equipment) and a potential impairment to a related building foundation. Multiple scenarios are analysed, including repair and restoration, upgrades, replacement and recognition of impairment. The impairment method used in this example is the Restoration cost approach. The example also considers changes in remaining useful life and residual value.

It was noticed that as part of the physical verification process, that a building's pipe system had rusted and the building foundation around the pipe system appeared to be unstable, possibly due to the accumulation of rust from the pipe system. The Fixed Asset Management Officer was notified and an employee questioned if there was a warranty that existed or general insurance for the building.

Several alternatives can be taken, and are subject to the thresholds adopted by the UN. The impairment thresholds for an impairment review (based on carrying value) are:

Asset class	Threshold
Computer and IT equipment, vehicles, machinery and equipment, furniture and fittings	>$25,000
Land, buildings and infrastructure assets	>$500,000

In this example, the rusted pipe system and unstable building foundation are indicators of impairment. Assume that the carrying value of the pipe system is above the threshold and therefore the damage is subject to an impairment review.

The Fixed Asset Management Officer should confirm impairment to the pipe system and the building foundation. The Officer should also assess if other assets may have been impacted in addition to the pipe system and the foundation. An assessment should be made as to whether there are any assets that are dependent on the pipe system and that were impacted due to potential rust in the transported liquid. How was flow impacted and did the flow impact a downstream or upstream asset? For this example, it is assumed that only the pipe system and the foundation were affected.

The Fixed Asset Management Officer should arrange for an expert opinion on whether damage to the pipe system and foundation actually exists. An operations manager or technical expert should be called upon, the damage assessed, and third-party estimates / quotations obtained for the cost to fix the pipe and the foundation. Furthermore, an analysis should be made to determine if the output or service delivery were impacted.

For this example, assume:

It is November 1, Year 1

Review of technical reports indicate that the flow of liquid through the pipes is 50% of what was originally intended.

The financial records indicate:

For the pipe system:
Cost was $5,000,000
Accumulated Depreciation is $750,000
NBV is $4,250,000
Months already owned and depreciated: 12 months
Remaining useful life is 5 years, 2 months (62 months)
Residual value is $500,000

For the building foundation:
Cost was $43,000,000

Accumulated Depreciation is $3,000,000
NBV is $40,000,000
Remaining useful life is 10 years, 2 months (122 months)
Residual value is $2,000,000

Third-party estimates are obtained. In order to fix the pipe system, the cost is $1,050,000. The cost to fix the foundation is $7,500,000.

A third-party estimate is also obtained for repairing the pipe system to its original 100% output, but also to increase the velocity of flow, essentially increasing output capacity to 120%. The cost estimate is $1,600,000.

A third-party estimate is also obtained to replace the pipe system entirely with a new system, at a cost of $6,000,000

The alternatives are:

Alternative no. 1: Repair pipe system and restore original flow to 100%

- The pipe can be repaired to its original flow and the foundation repaired to its original structure. All repair costs should be expensed as the repair will restore the pipe system's capacity to its original flow as intended and the foundation to its original structure as intended, with no additional output or benefit from either repair.
  - Debit Repairs Expense $8,550,000
  - Credit Accounts Payable – pipe repair vendor $1,050,000
  - Credit Accounts Payable – foundation repair vendor $7,500,000

- If a manufacturer's warranty exists on the pipe system or foundation, then the warranty should be pursued. If successful, the manufacturer should replace or fix the parts and to cover all costs, up to the provisions of the warranty.

Alternative no.2: Repair pipe system, restore original flow to 100% and add 20% of output

- The pipe system can be upgraded to increase flow beyond its original intention of 120%, at a cost of $1,600,000. Normally, any upgrades to an asset should be capitalized into the cost of the asset as the upgrade represents an increase in the service potential of the pipe, in this case by +20%. However, this third-party estimate involves both a repair portion and an upgrade portion. The repair portion returns the pipe back to 100% capacity. The upgrade adds +20% to capacity. Therefore, to estimate the allocation between repair and upgrade, it can be determined:

  - The repair fixes the pipe from 50% to 100% output, or +50%.
  - The upgrade increases the capacity of the pipe to 120%, or by +20%
  - Therefore the $1,600,000 can be split as follows:
    - Repair portion: $1,600,000 x (50/(50+20)) = $1,142,857
    - Upgrade portion: $1,600,000 x (20/(50+20)) = $457,143

  - The journal entry is:
    - Debit Repairs expense $1,142,857
    - Debit Component Pipe Asset $457,143
    - Credit Accounts Payable Pipe Repair Vendor $1,600,000
  - The updated monthly depreciation on the component pipe based on the new NBV of the pipe is:
    - Updated depreciation expense = (NBV original pipe $4,250,000 + Upgrade $457,143 – Residual value $500,000) / 62 months remaining = $67,857 per month

- The updated monthly depreciation journal entry is:
  - Debit Depreciation Expense $67,857
  - Credit Accumulated Depreciation $67,857

- Assume that, for the above example, both the residual value and the useful life were affected by the upgrade of the pipe. Through a combination of expert advice and input from the operations manager, the upgrade to a technologically advanced material in the pipe system resulted in a longer life and higher residual value.
- Assume useful life added was an additional 13 months.
- Assume the residual value was increased by $200,000
- The updated monthly depreciation on the component pipe based on the new NBV of the pipe is:
  - Updated depreciation expense = (NBV original pipe $4,250,000 + Upgrade $457,143 – Residual value $700,000) / 75 months remaining = $53,428 per month
- The updated monthly depreciation journal entry is:
  - Debit Depreciation Expense $53,428
  - Credit Accumulated Depreciation $53,428

Alternative no.3: Full replacement of pipe system

- The pipe system can be fully replaced. The NBV of the old pipe would be written off the financial books with Asset Disposal/Write-off Form completed and appropriate authorizations obtained. The new replacement pipe system would be procured and managed as a new asset in the financial books.
- The journal entry for the asset disposal is:
  - Debit Accumulated Depreciation $750,000
  - Debit Loss on Write-off $4,250,000
  - Credit Component Pipe Asset $5,000,000
- The journal entry to acquire the new replacement pipe is:
  - Debit Component Pipe Asset $6,000,000
  - Credit Accounts Payable Pipe Repair Vendor $6,000,000

Alternative no.4: Keep pipe system "as is" and account for impairment at 50%

- Assume it is determined that the rust did not impact the sturdiness of the pipe system. It is decided to leave the pipe system as is and accept the output capacity of 50%. Given that the original intention was for a capacity of a 100% flow factor, the component pipe asset has been impaired. An impairment value must be completed, determining the asset's recoverable service amount and comparing it to the asset's carrying value in accordance with United Nations IPSAS Corporate Guidance Impairment of Non-Cash Generating Assets (IPSAS 21). The impairment calculation is as follows:

- Determine Fair value less costs to sell:
  - For the pipe system, it was determined that the last arm's length transaction for the pipe system was $5,000,000, representing what the organization had purchased the pipe system for. However, the pipe system is damaged, and unlikely to sell for the full $5,000,000 and therefore the fair value using this method is inconclusive.
  - There does not exist an active market for the damaged pipe system and therefore the fair value using this method is inconclusive.

- Given the prior two methods to determine fair value are inconclusive, then the amount obtainable from disposal of the asset should be used. It is unlikely that much value would be obtained from a damaged pipe system, other than a scrap value. Management estimates a scrap value of $500,000 is obtainable from selling the pipe system.
- The costs to sell including dismantling costs are estimated at $200,000.
- Therefore Fair value less costs to sell = $500,000 – $200,000 = $300,000

- Determine the Value in use:
- In this example, given that the impairment is due to physical damage, the Restoration cost approach is used.

Replacement cost	$6,000,000
Accumulated depreciation $6,000,000 x 12 / 74 months =	$ 972,973
Depreciated replacement cost (undamaged)	$5,027,027
Less: restoration cost	$1,050,000
Value in use	$3,977,027

The Recoverable service amount is:	
Asset's Value in use	$3,977,027
Asset's Fair value less costs to sell	$300,000
Recoverable service amount (higher of both)	$3,977,027

Calculation of impairment amount:	
Asset's carrying amount (NBV) pre impairment	$4,250,000
Recoverable service amount	$3,977,027
Impairment	$ 272,973

Therefore the journal entry to book the impairment amount is:		
Debit Impairment expense	$272,973	
Credit PP&E Accumulated impairment (Allowance)		$272,973

- An Asset Impairment Form (Annex I) should be completed, identifying the impairment booked, the reason and appropriate authorizations obtained. The impairment should then be booked to the financial records.

As a result, the new NBV of the pipe system is:	
Cost	$5,000,000
Accumulated Depreciation	$750,000
Accumulated Impairment	$272,973
New NBV	$3,977,027

- As part of the review, both the remaining useful life and residual value have changed as it was assessed by management and experts that the damage impacted both factors. Remaining useful life was assessed to 4 years (or 48 months) and residual value reassessed to $200,000. Therefore the new monthly depreciation is calculated to be:
  - ($3,977,027 New NBV - $200,000 Residual value) / 48 months = $78,688 / month
  - The updated monthly depreciation journal entry is:

Debit Depreciation Expense	$78,688	
Credit Accumulated Depreciation		$78,688

- As the building foundation was also impacted and determined to be unstable, a similar systematic analysis of the foundation (similar to that of the pipe system) can be completed to support the decision of which action to take -- repairing the foundation,

assessing if a manufacturer's warranty exists, upgrading the foundation, replacing the foundation and leaving the foundation as is and recognizing an impairment. As in all of the cases, the residual value and remaining useful life should be reassessed after a choice is made.

- An insurance claim was submitted by the entity to the insurers for damage of the foundation and pipe system. The claim was partially successful, resulting in compensation from the insurer of $500,000. The compensation should not be included in any impairment calculations because the impairment and the compensation are considered to be two separate economic events. The journal entry upon receiving notice of the compensation is:

  - Debit Accounts receivable – Insurance (Stmt of Fin Position) $500,000
  - Credit Compensation Income – Insurance (Stmt of Fin Perf) $500,000

Example 2:

8.28 This example demonstrates an impairment indicator triggered through an annual strategic impairment review. An impairment is taken due to a long-term diminished use of the asset and a strategy change that is long-term. The impairment method used in this example is the Service units approach.

A large military vehicle has been used by a UN entity for military surveillance of a war zone over the past three years. In the third year, after progressive improvement in the last past three years, the political environment has become favourably stable due to the government in power and the high support from its citizens. The need for surveillance by the military vehicle has continued to decline each year. The local government is set to implement additional policies that further support a stable environment. The local government is expected to continue its term for the next 5 years.

Following a review of the UN entity's strategy, the UN entity decides to permanently reduce its surveillance services to the area in the fourth year, reflecting the improved environment over the last three years and forecasted permanent reduction in long-term need for the services of the vehicle. In addition, there has not been any recent requests for this type of military vehicle and the costs of transporting this vehicle out of the country would be onerous. As a result, half of the existing military vehicle is to be used for surveillance; the other half is to be left vacant or used for general storage.

The details are as follows:

Vehicle cost: $300,000
Useful life: 8 years
Residual value: $0
Years depreciated: 3 years
Accumulated Depreciation: 3 years x ($300,000 cost / 8 years useful life) = $112,500
Carrying value: $300,000 cost - $112,500 accumulated depreciation = $187,500

- A change in strategy is an indicator that an impairment review should be conducted. An impairment is only to have occurred if there is a "cessation or near cessation" (IPSAS 21, Paras 27(a) and 28) or "a significant long term decline" (IPSAS 21, Para 29(b)) in demand or need for the asset's services. In this example, demand for military surveillance has declined year over year and the political environment points to further declines in the long-term. Both

these conditions support the UN entity's direction of a permanent change in strategy. In addition, demand for the vehicle does not exist from other units or operations and the high costs of transporting to another country suggest that the vehicle will not be used elsewhere. Therefore based on the cumulative facts, the military vehicle is impaired.

- An impairment value should be calculated, comparing the asset's recoverable service amount with the asset's carrying value in accordance with United Nations IPSAS Corporate Guidance Impairment of Non-Cash Generating Assets (IPSAS 21). The impairment calculation is as follows:

  - Determine Fair value less costs to sell:
    - As there does not exist a demand for the existing military vehicle, it cannot be sold and does not trade in an active market. Therefore the fair value of the military vehicle is $0.

  - Determine the Value in use:
    - In this example, given that the impairment is due to a change in the long-term use of an asset, the Service units approach is used.

Replacement cost of a new vehicle	$320,000
Accumulated depreciation $320,000 x 3/8 years =	$120,000
Depreciated replacement cost before adjustment for remaining service units	$200,000
Value in use $200,000 x 50% use of vehicle = (see *Note at end of this example)	$100,000

The Recoverable service amount is:	
Asset's Value in use	$100,000
Asset's Fair value less costs to sell	$0
Recoverable service amount (higher of both)	$100,000
Calculation of impairment amount:	
Asset's carrying amount (NBV) pre impairment	$187,500
Recoverable service amount	$100,000
Impairment	$ 87,500

  - Therefore the journal entry to book the impairment amount is:

Debit	Impairment expense	$87,500
Credit	PP&E Accumulated impairment	$87,500

  - An Asset Impairment Form should be completed, identifying the impairment to be booked, the reason and appropriate authorizations obtained. The impairment should then be booked to the vehicle.

  - As a result, the new NBV of the military vehicle is:

Cost	$300,000
Accumulated Depreciation	$112,500
Accumulated Impairment	$ 87,500
New NBV	$100,000

  - As part of the review, both the useful life and residual value are determined to be unchanged. Therefore the new annual depreciation is:
    - ($100,000 New NBV - $0 Residual value) / 5 years = $20,000 / year
    - The updated annual depreciation journal entry is:

Debit	Depreciation Expense	$20,000

- Credit Accumulated Depreciation $20,000

(*Note: An example submitted by an entity used an alternative approach. Instead of comparing to a like vehicle, the entity looked at the replacement cost of a vehicle that was 50% the size of the original vehicle. The vehicle, although half the size, was used at 100% capacity. This approximated the same result for the value in use calculation.)

Example 3:

8.29 This example demonstrates an assessment of impairment to an intangible asset when there is an indication that the intangible asset might be impaired.

UN HQ developed internally generated software to track both the physical location of computer equipment and employee usage of computer equipment. Development stage costs of the software were appropriately capitalized and pre-development and post-development costs were appropriately expensed.

The details are as follows:

Software development costs: $500,000
Useful life: 5 years
Residual value: $0 per UN policy
Therefore annual depreciation is: Cost $500,000 / 5 years = $100,000 per year.

At the end of two years, a UN policy was enacted in response to UN officers using the software's tracking of computer usage as a factor when determining staff performance evaluations. Some officers incorrectly correlated low computer usage to inefficient staff performance. In response, UN policy was enacted that disallowed software that tracked employee use. As a result of this internal policy change, an impairment review should be performed on the software because the intended benefit of tracking employee usage no longer exists.

The impairment calculation is as follows:

- Determine Fair value less costs to sell:
  - For the software, there does not exist an existing arm's length transaction to estimate the fair value as the software was internally developed. Therefore the fair value using this method is inconclusive.
  - There does not exist an active market for the software that was internally developed and therefore the fair value using this method is also inconclusive.
  - Given the two methods to determine fair value are inconclusive, then the disposal value should be estimated. Management estimates that the internally developed software is unlikely to be purchased by an outside customer and therefore has assigned a disposal value of $0.

- Determine the Value in use:
  - In this example, given that the impairment is due to a change in policy, the Depreciated replacement cost approach is used.
- Replacement cost of the location tracking software only $400,000
- Accumulated depreciation $400,000 x 2/5 years = $160,000
- Value in use $240,000

- The Recoverable service amount is:
- Asset's Value in use $240,000
- Asset's Fair value less costs to sell (based on disposal value) $0
- Recoverable service amount (higher of both) $240,000

- Calculation of impairment amount:
- Asset's carrying amount (NBV) pre impairment
  $500,000 – 2 years x $100,000 depreciation per year $300,000
- Recoverable service amount $240,000
- Impairment $ 60,000

- Therefore the journal entry to book the impairment amount is:
- Debit Impairment expense $60,000
- Credit PP&E Accumulated impairment $60,000

- An Asset Impairment Form should be completed, identifying the impairment to be booked, the reason and appropriate authorizations obtained. The impairment should then be booked to the financial records.

- As a result, the new NBV of the software system is:
- Cost $500,000
- Accumulated Depreciation $200,000
- Accumulated Impairment $ 60,000
- New NBV $240,000

- As part of the review, both the remaining useful life and residual value were reassessed. Remaining useful life was assessed to 4 years. Residual value was left at $0 in line with UN policy. Therefore the new annual depreciation is calculated to be:
  - ($240,000 New NBV - $0 Residual value) / 4 years = $60,000 / year
  - The updated annual depreciation journal entry is:
  - Debit Depreciation Expense $60,000
  - Credit Accumulated Depreciation $60,000

Example 4:

8.30 This example demonstrates an assessment of a write-down for financial inventories using the current replacement cost method. (For extensive examples, see the Chapter on Inventories).

UN Entity X holds financial inventories, primarily printed publications, for distribution at no charge. At the reporting date, the price of replacing the publications has fallen, due to printing efficiencies passed on by the vendor.

The details are as follows:
Price of publication at acquisition date: $45 per publication.
Number of publications purchased: 100
Value in financial statements: $4,500

Assume 30 publications were distributed throughout the year.
As a result of printing efficiencies passed on by vendor, the price of publications falls to $35 per publication.
Number of publications at reporting date: 70 (100 acquired – 30 distributed).

Therefore the write-down of inventory is = $700 (70 publications x ($45 cost - $35 current replacement cost))
The journal entry is:

Debit	Write-down on inventories	$700	
	Credit Inventories		$700

Example 5:

8.31 This example demonstrates a decision to replace a software system where support by the external vendor has ceased.

Entity K's software system has been in use over the last 2 years. The software vendor recently filed bankruptcy proceedings. As a result, vendor service support ceased. The entity has reviewed the alternatives of either keeping the unsupported system or replacing the system entirely.

The loss of future software support from the vendor and the absence of support from any other software support provider are indicators of impairment. An impairment review is completed and it is concluded that as a result of the loss of support, the software is technologically obsolete. Therefore an impairment write-down should be taken on the software system, using the depreciated replacement cost approach similar to that in Example 3.

However, instead of facing the operational risks of using an unsupported software, Entity K decides to replace the software system. As a result of this decision, the value of the software system should be written-off.
Assuming a cost of $200,000 and an accumulated depreciation of $40,000, the journal entry is to write-off the entire system is:

Debit	Write-off expense	$160,000	
Debit	Accumulated Depreciation – Software	$40,000	
	Credit Software assets		$200,000

Chapter 9

Errors, Changes in Policy and Changes in Estimates

Overview:

9.1 The objective of this chapter is to provide examples of situations where errors may exist and that will require corrections to the financial records or where adjustments may be required to the financial records due to changes in policy and estimates.

Guidance:

Accounting Error

9.2 An accounting error is an unintentional, non-fraudulent discrepancy in the financial records. Examples of accounting errors include:

- Errors in omission – where a valid transaction is not recorded.
- Errors in calculation – where a transaction is not computed properly.
- Errors in posting/classification – where a transaction is not recorded to the correct account.
- Errors in following policy or principle – where the transaction does not follow the IPSAS Policy Framework with respect to recognition, classification or measurement.

9.3 When an accounting error in the current financial year is discovered, adjusting journal entries should be booked to correct the error. Adjusting journal entries are necessary because errors would otherwise continue incorrectly through the periodic financial statements if not corrected.

9.4 Simply stated, when preparing correcting journal entries, the original entries booked should be identified. The correct entries that should have been recorded should then be determined. By comparing the correct entries to the original entry, the adjusting journal entries can be established.

9.5 Under the *Umoja* solution, when an accounting error is found, the *Umoja* solution calculates the cumulative impact of the adjustment and records the adjustment to the current period (period when the adjustment is made) in the Asset Accounting module.

9.6 Accounting errors that are found and that apply to prior year financial statements require special attention as correction of accounting errors are applied retroactively to prior year financial statements. Each year is required to be corrected as if the error had not occurred.

9.7 All accounting errors found that apply to a prior year should be brought to the attention of the OPPBA. The OPPBA will determine if the error is material to the overall organization's financial statements for the year impacted, and if needed, adjust the comparative financial statements for presentation purposes.

9.8 Since the entity's financial books of the prior year(s) have been closed, the OPPBA will determine the cumulative effect of the error on each financial account impacted. If material, the cumulative effect will be applied to the current year opening balances in the Statement of

Financial Position. The net impact on the Statement of Financial Performance should be booked to the Accumulated Surplus or Deficit current year opening balance.

9.9 Fraud is an intentional error in the financial records, usually to hide or alter data. All fraud should be reported to the OPPBA and the Controller's office for escalation. From an accounting standpoint, corrections of fraud are treated in the same manner as corrections of errors.

Accounting Estimate

9.10 An accounting estimate is an approximation made in the financial statements related to an amount for which there is no precise means of measurement. The estimate is made based on judgement, experience and/or specialized knowledge at a point in time. Examples of accounting estimates include useful life estimates and residual value estimates as part of depreciation calculations.

9.11 An adjustment to an accounting estimate results when there is new information, there is more reliable information, there is new experience gained or when previous uncertainties are resolved. Adjustments to accounting estimates are applied prospectively, adjusting the current and future financial statements. Adjustments to accounting estimates do not require restatement of prior period financial statements.

9.12 Adjustments to accounting estimates include changes to a fixed asset's estimated useful life or residual value.

Accounting Policy

9.13 An accounting policy is the group of principles, rules and practices followed in preparing and reporting financial statements. For the UN, the accounting policy followed is the UN IPSAS Policy Framework (ST/IC/2013/36). Accounting policies should be applied consistently across similar transactions and be consistent year-on-year.

9.14 Accounting policies change if there is a change in the IPSAS Policy Framework where a new policy may be adopted that provides more relevant and reliable information. OPPBA would communicate any changes in accounting policy and the related treatment in the financial statement disclosures. Changes in accounting policy will generally require restatement of prior year financial statements. Each year is presented as if the new policy had always been in place.

9.15 Examples of changes in accounting policy include changes in inventory valuation and changes in method of depreciation.

Events after the financial year-end reporting date

9.16 Significant events that occur after the year-end reporting date (but before the date that the Secretary General authorises the financial statements for issue to the BOA) should be identified and brought to the attention of the OPPBA and Controller.

9.17 Such events may merit a financial adjustment in the financial statements if the event relates to a condition that existed at the year-end reporting date. However, if the event relates to a condition that was not present at the reporting date, then the event does not require a financial adjustment but may require a disclosure in the notes to the financial statements if deemed significant.

9.18 Significant events after the year end reporting date include settlement of a court case, discovery of fraud or errors, a determination of proceeds of assets sold or cost of assets purchased before the reporting date, the receipt of information of an impairment of an asset held at the reporting date, an earthquake, a flood, a fire or a major purchase of assets.

Materiality

9.19 The OPPBA prepares the consolidated financial statements for the United Nations. The OPPBA considers materiality as it applies to the consolidated financial statements. "Information is material if its omission or misstatement could influence the economic decisions or assessment made on the basis of the financial statements…Materiality depends on the nature or size of the item or error judged in the particular circumstances of its omission or misstatement." (Corporate Guidance – Events After Reporting Date, 30 June 2013, Final Version)

Examples:

9.20 The following examples are outlined to demonstrate situations where correcting journal entries or adjustments may be required due to errors or due to changes in estimates.

Example 1:

9.21 **A purchase order was created on January 23, 2014 for the acquisition of a furniture item with a cost of USD $35,000. (Furniture has a capitalization threshold of USD $20,000.) Under *Umoja*, based on the master data list for fixed assets, a furniture item is assigned an expense account by default unless there is a manual override to assign the furniture item to a fixed asset account. A manual override was not triggered at the purchase order stage and therefore the furniture item was incorrectly expensed. The furniture item should have been capitalized because its value is above the capitalization threshold. It is now 9 months later, October 14, 2014.**

As the furniture item is above the $20,000 capitalization threshold, the furniture item should have been capitalized. The example represents an error in posting/classification.

Assume a financial year end of December 31, 2014. The error occurs within the current financial year and therefore should be corrected in the financial statements.

The original entry was:

Dr. Operating Expense	35,000	
Cr. Accounts Payable		35,000

The correct entry should have been to record the cost to the Furniture Asset as follows:

Dr. Furniture	35,000	
Cr. Accounts Payable		35,000

Therefore the adjusting journal entry is:

Dr. Furniture	35,000	
Cr. Operating Expense		35,000

The standard useful life of furniture is 10 years (or 120 months); therefore depreciation up to the current date in October is calculated as: $35,000 x 10 months / 120 months = $2,917

Dr. Depreciation Expense	2,917	
Cr. Accumulated Depreciation		2,917

Assume the financial year end is June 30, 2014 and therefore at October 14th, the 2014 financial records have already been closed (also assume that the financial statements have been authorized by the Secretary General to be issued to the Board of Auditors). Therefore, the error cannot be corrected in the financial statements for June 30, 2014.

For the June 30, 2014 financial statements, the entity should establish the impact on the opening balances. A summary of impact is as follows:

Furniture:	+35,000
Accumulated Depreciation:	-1,750 ($35,000 x 6 months / 120 months)
Accumulated Surplus/Deficit:	-33,250

The above amounts should be brought forward to the OPPBA for assessment as to its materiality in the consolidated financial statements, that is, whether the error would influence any decisions or assessments made by the reader if the financial statements.

If at the consolidated level the OPPBA establishes that the impact on the financial statements is material, then the financial statement comparative for June 30, 2014 would be restated. For example:

<Consolidated at OPPBA level>	2014 (restated)
Statement of Financial Position:	
Fixed Assets	+35,000
Accumulated Depreciation	-1,750
Changes in Net Assets	+33,250
Statement of Financial Performance:	
Depreciation expense	+1,750
Operations expense	-35,000
Net change in Statement of Performance	-33,250

Under the *Umoja solution*, in order to correct the transaction, the original purchase order is adjusted by triggering the manual override to treat the furniture item as a fixed asset. The cumulative impact is reflected in the period in which the adjustment is made. In this case, the manual override will set up the furniture item as a fixed asset and calculate the accumulated depreciation and total depreciation expense up to the adjustment period.

Example 2:

9.22 **A purchase order was issued by a Volume II entity for security equipment in the amount of $19,000. The account codes assigned to the equipment were expense codes, as the equipment item was determined to be below the capitalization threshold of $20,000 for the Volume II entity. The equipment was received. Shortly after, the equipment was put into service.**

Two months later, it was discovered during an audit, that direct attributable labor costs of $900 were incurred to install the security equipment. In addition, a bill for delivery costs was discovered in the amount of $300 to deliver the equipment.

A summary of the costs are as follows:

Security equipment	$19,000
Labor installation	900
Delivery	300
Total:	$20,200

As the total of all costs for the security equipment including direct costs and associated costs exceed the $20,000 threshold, the total cost should be capitalized as a fixed asset.

Properly executed, the requisitioner should have identified the total of all costs of the security equipment in order to establish if the capitalization threshold is met and identified this on the requisition(s) serving as the basis of the purchase order(s). The purchase orders should also identify the fixed asset accounts for the security equipment to link the direct labor and associated costs.

The original entries that expensed all of the security equipment, labor costs and delivery should be corrected to establish the security equipment.

The original journal entry was for the security equipment was:

Dr. Operating expense	19,000	
Cr. Accounts payable		19,000

The journal entries for the labor installation and the delivery expense that were subsequently discovered were:

Dr. Contractor expense	900	
Cr. Accounts payable		900
Dr. Delivery expense	300	
Cr. Accounts payable		300

The correct journal entries should have been:

Dr. Equipment – Security	19,000	
Cr. Accounts payable		19,000
Dr. Equipment – Security	900	
Cr. Accounts payable		900
Dr. Equipment – Security	300	
Cr. Accounts payable		300

Therefore, the adjusting journal entry is:

Dr. Equipment – Security	20,200	
Cr. Operating expense		19,000
Cr. Contractor expense		900
Cr. Delivery expense		300

Depreciation relating to the first two months of the asset's useful life should also be recognized. Based on a useful life of 5 years or 60 months, the depreciation expense is $673 for the two months ($20,200 cost / 60 months x 2 months depreciation)

Dr. Depreciation expense	673	

Cr. Accumulated depreciation		673

Under the *Umoja* solution, a transfer transaction would be required to be completed in order to move all of the expensed items to fixed asset accounts, with a specified start date so that *Umoja* calculates the cumulative impact of the adjustment.

Example 3:

9.23 **A purchase order was issued for a generator in the amount of $5,150. As the generator is greater than the $5,000 threshold, it was correctly assigned fixed asset codes and capitalized. When the invoice was received, the vendor indicated that due to the entity's loyalty to the vendor and historical purchase volume, that all generators will be discounted by 10%, including the current purchase. The price on the invoice was noted as $5,150 less a 10% discount of $515 for a net payable of $4,635.**

The cost of the generator, net of discounts, is $4,635. Since the net cost is below the capitalization threshold, the costs should be expensed.

The original journal entry was:

Dr. Equipment	5,150	
Cr. Accounts Payable		5,150

The correct journal entry should have been:

Dr. Expense	4.635	
Cr. Accounts Payable		4,635

Therefore the correcting journal entry is:

Dr. Expense	4,635	
Dr. Accounts Payable	515	
Cr. Equipment		5,150

Any depreciation that may have been recorded on the generator is required to be reversed. Under the *Umoja* solution, the purchase order amount should be amended to $4,635. Also, the account assignments within the purchase order should be amended (if not already) from the fixed asset account to an expense account. Depreciation should be automatically adjusted by the *Umoja* solution.

Example 4:

9.24 **A purchase order is issued to a vendor for medical equipment where the catalogue price is $85,000. The medical equipment is received and the asset is put in use. A month later, the invoice is received and the amount on the invoice is $90,000.**

A discrepancy exists between the purchase order amount and the invoice amount of $5,000. Currently the fixed asset medical equipment is recorded in the Fixed Asset Register with a value equivalent to its PO amount of $85,000.

The individual that requisitioned the PO (requisitioner) should follow up with the vendor on the discrepancy.

If the new invoice amount is accepted (because of agreement between the requisitioner and vendor to pay for a medical system substituted for the original, or an updated price due to an old catalogue price, etc.) then under the *Umoja* solution, the requisitioner should request a PO change to reflect the invoice amount. Once approved, the updated PO amount should be reflected in the Fixed Asset Register and the invoice submitted for payment.

If the new invoice amount is not accepted (because the requisitioner chooses not to pay for the upcharge or agrees with vendor that the old catalogue price should be honored), then the requisitioner should request the vendor re-issue the invoice for the PO amount. The medical system will continue to be recorded in the Fixed Asset Register at the original PO amount that was committed to.

Example 5:

9.25 A heavy engineering and construction equipment item was damaged due to a severe storm. An impairment review indicated that the equipment is operational, however at reduced capacity. The recoverable service amount was assessed at $400,000 with a remaining service life of no more than 5 more years if the equipment is left as is.

The equipment was purchased in January 2011, with a standard useful life of 12 years. The storm occurred in December 2013. The impairment review and fair value were assessed shortly after the storm (the impairment event) in December 2013. The original purchase price was $600,000. Actions resulting from the impairment review are prospectively applied to the financial statements. This is because impairment reviews generally provide new information that did not exist historically.

The impairment adjustment and change in remaining useful life are changes in estimates and are applied prospectively.

The first step is to determine the carrying value of the equipment item:
Accumulated Depreciation = $600,000 cost / 12 years x 3 years
= $150,000

Carrying Value = $600,000 - $150,000
= $450,000

Impaired items are measured at the lower of carrying value or recoverable service amount. Since the recoverable service amount is $400,000, the new value of the equipment is $400,000. An impairment loss of $50,000 is booked:

Dr. Impairment Loss	50,000	
Cr. Accumulated Impairment		50,000

The remaining useful life is revised from 9 years down to 5 years, as a result of the change in estimate. Therefore the depreciation expense for the next 5 years onwards is $80,000 per year ($400,000 updated carrying value/ 5 years).

Example 6:

9.26 In 2014, Entity X discovers that a heavy wheeled vehicle that it had purchased in January 2013 was incorrectly classified as a light wheeled vehicle. The cost of the vehicle was $150,000. The standard useful life of a light wheeled vehicle is 6 years. The standard useful life of a heavy wheeled vehicle is 12 years.

The classification and depreciation represent an error in accounting and therefore a correction should be made and applied retroactively. However, since the 2013 financial books are closed, an adjustment should be made to the 2014 opening balances.

The incorrect depreciation expense calculated in the first year was $150,000 / 6 years = $25,000 The correct depreciation expense in the first year is $150,000 / 12 years = $12,500.

Therefore the adjusting journal entry to 2014 opening balances is:

Dr. Accumulated Depreciation (Light Wheeled Vehicles)	25,000	
Cr. Accumulated Depreciation (Heavy wheeled vehicles)		12,500
Cr. Accumulated Surplus or Deficit		12,500

Since the error occurred in the prior year, the error should be brought to the attention of OPPBA. The OPPBA will establish whether the error is material and if the error requires that the financial statements of the entity need to be adjusted.

OPPBA will also provide direction on the accounting treatment of the error at the entity level.

F. REFERENCES

The **Fixed Asset Management Framework Manual for United Nations Property Management Manual Administered by DM PMU** must be read in conjunction with:

United Nations policy framework for International Public Sector Accounting Standards, United Nations Secretariat (ST/IC/2013/36), 31 December 2013

United Nations Corporate Guidance for International Public Sector Accounting Standards – Property, Plant and Equipment (excluding infrastructure assets),10 May 2013

United Nations Corporate Guidance for International Public Sector Accounting Standards – Infrastructure Assets, 10 May 2013

United Nations Corporate Guidance for International Public Sector Accounting Standards – Leases and Donated Right-to-Use Arrangements (IPSAS 13)

United Nations Corporate Guidance for International Public Sector Accounting Standards, Events After Reporting Date, 30 June 2013, Final Version (IPSAS 14)

United Nations Corporate Guidance for IPSAS, Impairment of Non-Cash Generating Assets (IPSAS 21) 19 April 2013.

United Nations Corporate Guidance for IPSAS, Inventories (IPSAS 12, 27 September 2013.

United Nations Corporate Guidance for International Public Sector Accounting Standards – Intangible Assets (IPSAS 31), 26 June 2013

International Public Sector Accounting Standards Board, IPSAS 3 - Accounting Policies, Changes in Accounting Estimates and Errors

The Financial Rules and Regulations (ST/SGB/2003/7)

G. DOCUMENT HISTORY AND VERSION CONTROL

Version Manual	Date (MM/DD/YY)	Author	Description
1.0	03/19/15	PMU	Submission for Executive review in preparation for promulgation.
1.1	03/27/15	PMU	Minor edits on fixed asset exchanges and asset impairment.
1.2	05/21/15	PMU	Clarification for System Assets confirmed by OPPBA: record as one single asset with one useful life. Clarification by OPPBA: equipment that is part of assets under construction/system asset are not depreciated until available for use; request for *Umoja* team to ensure alignment with *Umoja* solution.

			Clarification by OPPBA: exchanges of assets under warranty are treated two separate transactions – disposal of replaced asset and acquisition of replacement asset. Insertion of process flows for impairment write-down, repair and physical verification.
1.3	06/22/15	PMU	Update on managing and accounting for System Assets; update for Umoja application of standard rate for associated costs (4% non-Peacekeeping, 20% Peacekeeping), excluding donations
1.4	08/21/15	PMU	Further definition to self-constructed assets versus self-assembled assets Add use of indicative values for classification of items in Umoja as fixed assets or as expense. System asset on example added.
1.5	08/29/15	PMU	Updated for lease and donated right-to-use arrangement examples.
1.6	09/01/15	PMU	Updated to specifically note UNDP and DPI in sub-lease arrangement (Example of a building under sublease under Section 3.83).
1.7	09/16/15	PMU	Updated to outline treatment of UNDP procurement and operational management of equipment on behalf of DSS (Example under Section 1.143). Updated to identify that value of DRTU's (both operating and finance arrangements) above the recognition thresholds are capitalized (Section 3.40 and 3.52). Added example to identify embedded assets and embedded leases in case of UN Agency acquiring assets or building space to fulfill obligations under MOU with UNHQ entity (Example in 3.105)
1.8	12/14/15	PMU	Added references and brief summaries of Umoja Job Aids for asset impairment, asset creation and assets under construction.

H. MONITORING AND COMPLIANCE

Property Management Unit, OCSS, DM

I. CONTACT

Property Management Unit, OCSS, DM

J. ANNEXURES

I. **Asset Impairment Form**
II. **Remaining Useful Life (Example)**
III. **Schedule of Estimated Useful Lives of Asset Sub Classes**
IV. **Schedule of Standard Useful Lives of Infrastructure Assets**
V. **Flowchart – Building versus Machinery & Equipment**
VI. **Flowchart – Machinery & Equipment versus Infrastructure Assets**
VII. **Flowchart – Building versus Infrastructure Assets**

I. ASSET IMPAIRMENT FORM

ASSET IMPAIRMENT FORM

INFORMATION RELATED TO THE IMPAIRED ASSET

Entity/Department:	Entity A
Location:	Place
Indicator of Impairment:	Annual Physical Verification
Impairment "Trigger" / Reason:	This jet fuel storage tank is no longer suitable for its intended use due to special operating and maintenance considerations. The cost to refurbish the tank to an acceptable operating condition is not cost effective. Instead, the tank will be repurposed to store diesel fuel for generators which require much less stringent operating conditions.
Barcode:	OCI 37619215464613152
Recognition Date:	September 22, 2009
Impairment Date:	November 26, 2014
Status:	IN USE
Generic Description of Asset:	FUEL STORAGE HARD
IPSAS Class / Sub-class:	Buildings / Fixed or Temporary
Estimated Useful Life (Years):	50
Months of Estimated Useful Life (Max):	600
Months of Estimated Useful Life (Consumed):	63
Cost of Impaired Asset:	$68,979.59
Monthly Depreciation:	$114.97
Net Book Value (NBV):	$61,736.73
Impairment Approach:	(1A) Depreciated Replacement Cost Approach Long-term changes in the technological, legal or government policy environment.
Restoration Cost:	~~$10,000.00~~ Required ONLY for (1b) Restoration Cost Approach. Enter **0** if (1a) is selected.

INFORMATION RELATED TO THE EQUIVALENT REPLACEMENT ASSET

Replacement Cost:	$44,514.00
Monthly Depreciation:	$74.19
Accumulated Depreciation:	$4,673.97
Restoration Cost:	$0.00
Value in Use:	$39,840.03

FAIR VALUE LESS COST TO SELL

Fair Value:	$5,000.00
Disposal Cost:	$1,000.00
Fair Value less Costs to Sell:	$4,000.00

RECOVERABLE SERVICE AMOUNT

Recoverable Service Amount (RSA): **(Higher of Value in Use and FV)**	$39,840.03

RESULT

Impairment Amount (NBV less RSA):	$21,896.70

Authorization: Entity Chief Officer	DD/MM/YYYY
Authorization: Fixed Assets Management Officer	DD/MM/YYYY
Authorization: DOA, BoS, LPSB or HPSB as applicable	DD/MM/YYYY

II. REMAINING USEFUL LIFE (EXAMPLE)

Remaining Useful Life

This document outlines the methodology of determining Remaining useful life in accordance with IPSAS by using the example of a building. The principles and methodology presented are applicable to all assets.

The following terms are used along with their related definitions:

Remaining useful life is the outstanding period over which an asset is to be available for use at a specific measurement date, and where

Remaining useful life = Standard useful life of the asset – Chronological age +/- Adjustment

and**,**

Standard useful life is the estimated useful life of an asset that is recommended by IPSAS and adopted by the United Nations; a list of estimated useful life by asset class and subclass can be found in the United Nations Corporate Guidance for IPSAS for Property, Plant and Equipment. The Standard useful life is fixed and does not change (unless the UN revises its policy on Standard useful lives).

Chronological age is the actual age of an asset calculated based on the passage of time from its earliest date of recognition to its current date.

Adjustment is the number of years where the life of the asset is extended or reduced due to a change in the future benefit or service potential of the asset, from factors including a renovation to the asset or excessive deterioration of the asset. An adjustment may also be warranted if management feels that the useful life of the asset is enhanced or lowered compared to the Standard useful life due to features that are beyond the definition of a typical and ordinary asset. For example, a technological development or technical advance may result in the useful life of an asset to exceed the estimated Standard useful life.

Example

Building Acquisition

A building is acquired in Year 0. On the date of acquisition, in accordance with IPSAS, the building is assigned a Standard useful life of 50 years (assuming a Class A building – structural steel columns and beams). The Standard useful life is fixed and does not change.
Assume that management concludes that an adjustment to the life of the building is not required, that is, the building is indeed expected to be in service for 50 years. Then:
Remaining useful life = Standard useful life of 50 years - Chronological age 0 years +/- Adjustments 0 years

= 50 years

10 Years Pass

Assume it is 10 years later and management believes that an adjustment is not required to adjust the useful life as the building has functioned as expected and is expected to function as intended in the future. Then:

Remaining useful life = Standard useful life of 50 years - Chronological age 10 years +/- Adjustments 0 years

= 40 years

Building Renovation in Year 25

Assume that at the beginning of Year 25, a major renovation is completed on the building. Management and experts including structural engineers determine that the major renovation will extend the life of the building by 20 years as the renovation has greatly improved the structural integrity of the building. Hence it makes sense that the Remaining useful life is increased.

Therefore:

Remaining useful life = Standard useful life of 50 years - Chronological age 25 years + Adjustments 20 years

= 45 years

As a result of the renovation, the Remaining useful life of the building is increased by 20 years.

In other words, the renovation increased the Remaining useful life of the building from 25 years to 45 years.

Umoja

Under *Umoja*, when a fixed asset is initially created, the Standard Useful Life is entered into the system.

When an event occurs, the Standard Useful Life value is adjusted accordingly in *Umoja* to reflect the new Remaining Useful Life.

That is, to change the Remaining Useful Life in *Umoja*, the Standard Useful Life value must be adjusted. The Chronological Age is automatically calculated in Umoja based on the acquisition date.

For example, using the Building Renovation in Year 25 identified above,
Remaining Useful Life = Adjusted Standard Useful Life value in *Umoja* – Chronological Age
= 70 years – 25 years
= 45 years.

Therefore to obtain a Remaining Useful Life of 45 years as a result of the renovation, the Standard Useful Life value in *Umoja* must be adjusted from 50 years to 70 years.
In other words, to reflect the increase in useful life by 20 years, the Standard Useful Life value in *Umoja* must be adjusted from 50 years to 70 years.

III. SCHEDULE OF ESTIMATED USEFUL LIFE BY ASSET SUB CLASS

Asset Classes	Asset sub class	Estimated Useful Life (In Years)
Communication and IT Equipment	IT Equipment	4
	Communications Equipment	7
	Audio Visual Equipment	7
Vehicles	Light Wheeled Vehicles	6
	Heavy Wheeled Vehicles and Engineering Support Vehicles	12
	Specialized Vehicles, Trailers and Attachments	Set*(6-12 year range)
Machinery and equipment	Light Engineering and Construction Equipment	5
	Heavey Engineering and Construction Equipment	12
	Printing and Publishing Equipment	20
	Water Treatment and Fuel Distribution Equipment	7
	Medical Equipment	5
	Transportation Equipment	7
	Security and Safety Equipment	5
Furniture and fixtures	Office Equipment	4
	Furniture	10
	Library Reference Material (incl. Books)	3
	Fixtures and Fittings	7
Leasehold improvements	Fixtures and Fittings (shorter of lease term /5 years)	5
	Minor Construction Works (shorter of lease term /5 years)	5
Infrastructure assets	Telecommunication	Set * (up to 50 years)
	Energy	
	Protection	
	Transport	
	Waste management	
	Water management	
	Recreation	
	Landscaping	
Assets under construction	Buildings under construction	No depreciation
	Infrastructure assets under construction	
	Other assets under construction	
Buildings	Buildings - Fixed	See section 6.2.1.1
	Buildings - Temporary and Mobile	7
	Buildings - commercial finance lease	Lower of term of arrangement or useful life of buildings
	Buildings - donated rights to use	
Land		No depreciation

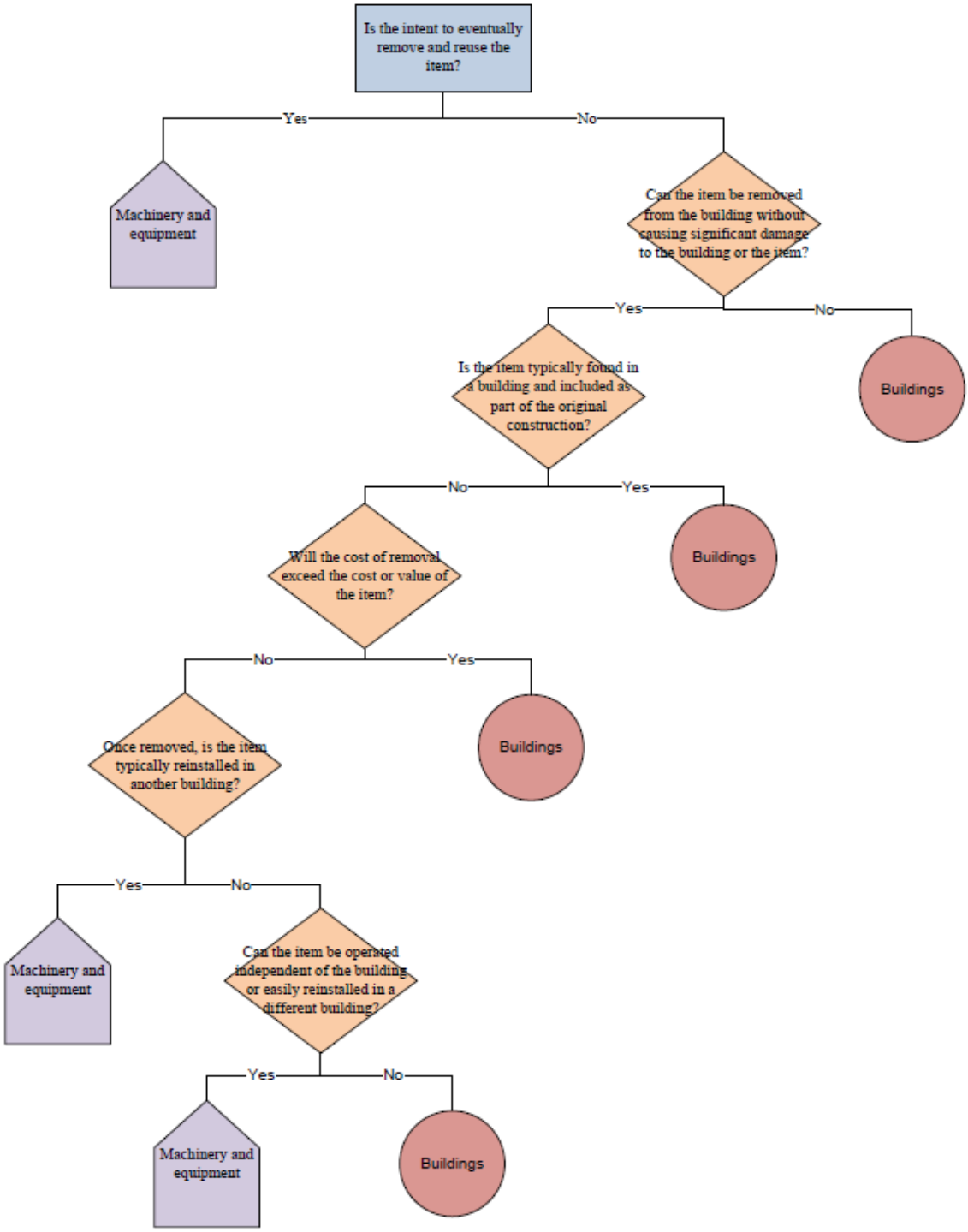
IV. SCHEDULE OF STANDARD USEFUL LIVES OF INFRASTRUCTURE ASSETS

Schedule of Standard Useful Lives of Infrastructure Assets	
Asset Type	**Years**
Telecom, Electrical, Lighting and Distribution Systems	25
Low Voltage Systems	10
Minor Vertical Structures (Fences, Barriers, Enclosed Structures etc.)	
Reinforced concrete	35
Concrete	30
Metal	25
Wood	20
Masonry	20
Gates	20
Wire fencing	20
Hesco Gabion Bastion	10
Major Vertical Structures (Bridges, Tunnels)	
Steel	40
Reinforced concrete	40
Concrete	35
Metal	30
Wood	25
Horizontal Structures (Roads, Runways, Landscaping etc.)	
Concrete	30
Paved	30
Asphalt	20
Gravel	15
Earth/Dirt/Green	10
Water and Waste Management Systems	40
Miscellaneous	Refer to Real Estate Catalogue

Notes

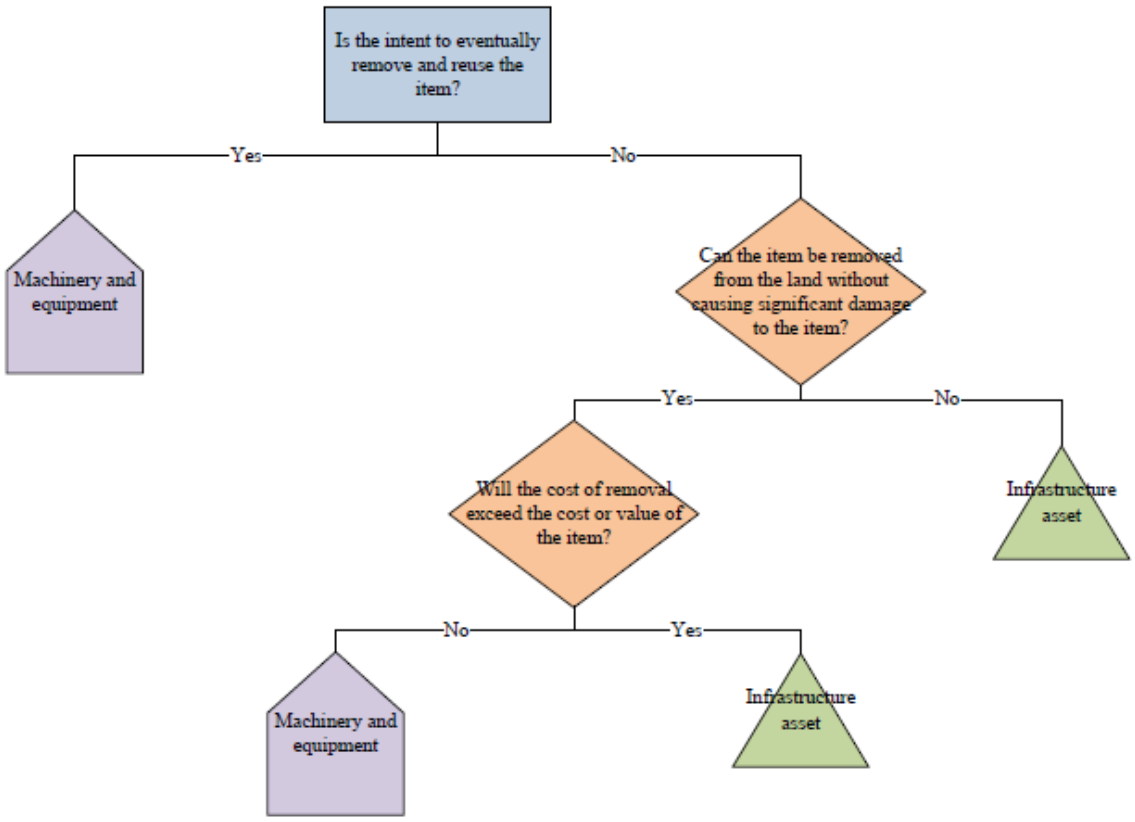
1. The Schedule provides recommended useful lives based on asset type and material. The corresponding useful life for each asset is shown in the Real Estate Catalogue. Both documents should be used in determining an appropriate standard useful life to ensure the material of the subject asset has been taken into consideration.
2. A single useful life is recommended for entire systems (electrical systems, water management systems etc.); however it is at the discretion of the entity whether to apply individual useful lives for each element.
3. The useful lives in the Schedule assume an average quality of asset, temperate environmental conditions, average maintenance levels, and moderate usage of the asset. It is at the discretion of the entity to adjust the useful life if these factors vary for the subject asset.

V. FLOWCHART – BUILDING VERSUS MACHINERY & EQUIPMENT



From United Nations Corporate Guidance for International Public Sector Accounting Standards – Property, Plant and Equipment (excluding infrastructure assets), 10 May 2013

VI. FLOWCHART – MACHINERY & EQUIPMENT VERSUS INFRASTRUCTURE ASSETS



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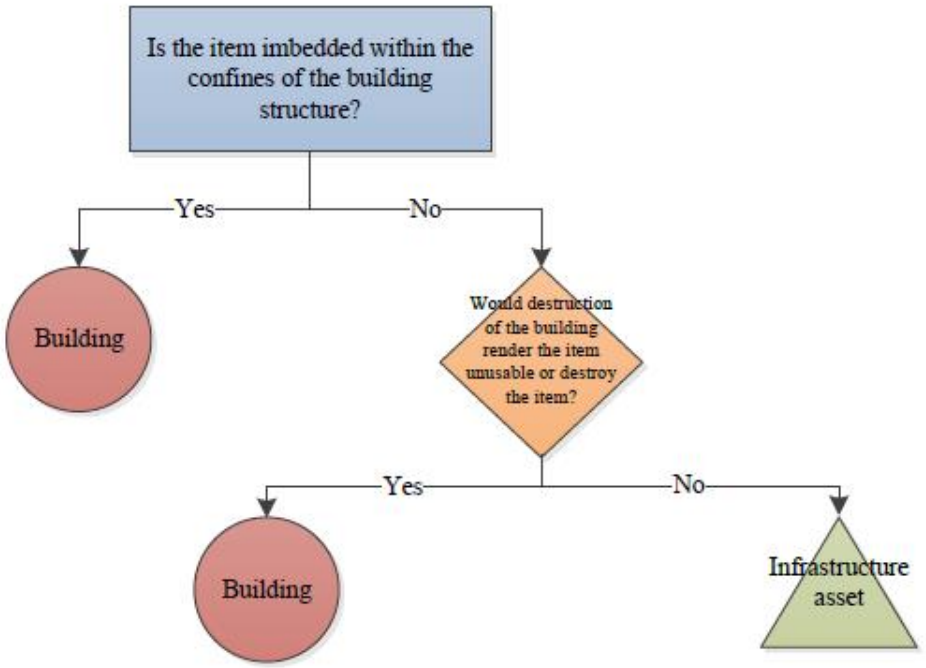
VII. FLOWCHART – BUILDING VERSUS INFRASTRUCTURE ASSETS



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