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Government of Nauru

**NATIONAL INTEGRATED INFRASTRUCTURE STRATEGIC PLAN**

**Appendix B**

**Public Sector Infrastructure**

**Asset Register Updates**

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1. **Asset Register Introduction**

The infrastructure asset register for Nauru public sector infrastructure assets was initially created in 2019, to support the development of 2019 Nauru Integrated Infrastructure Strategic Plan (NIISP) and it contains pertinent information required for making asset management and investment decisions, for infrastructure assets employed for providing public services in Nauru, including the following categories of assets:

* buildings;
* sealed roads;
* unsealed roads;
* footpaths;
* airstrip and navigation aids;
* wharfs and boat ramps;
* telecommunication plant;
* solid waste management assets; and
* coast protection assets.

The electricity and fresh-water production and distribution in Nauru are managed by Nauru Utilities Corporation (NUC). More recently, NUC has also been given the mandate to manage sewage treatment plant infrastructure. Through a technical assistance (TA) initiative financed by ADB, NUC developed an infrastructure asset register 2018 for its corporate assets, in which pertinent information required for asset management of the infrastructure employed for production and distribution of electricity and water are recorded. Infrastructure assets at the fuel storage facility are also under NUC corporate control and the management of these assets has been contracted to an international professional company - Vital Group, with expertise in managing such assets. Therefore, to avoid duplication, infrastructure assets managed by NUC and Vital Group are not included in Nauru public sector asset register.

The asset register updates completed in 2023 include:

* addition to the asset register of new infrastructure assets, which have been constructed during the last five years, since the development of the asset register in 2018;
* removal from the asset register those infrastructure assets, which have been retired from service during the past five years, since the development of the asset register in 2018;
* Update of financial information, including accumulated depreciation, current book value, gross replacement cost and annual maintenance cost allowance for each infrastructure asset; and
* Update of the physical and functional performance ratings of assets and assets’ major components and calculation of asset condition index, to support investment decisions into infrastructure asset repairs, renewal and replacement.

1. **Asset Register Hierarchy:**

Asset register hierarchy plays an important role in improving the effectiveness of asset management practices within an organization. It defines which service sector, or department is responsible for making asset management and investment decisions with respect to a certain asset, and also identifies the services impacted by those decisions. Systematic relationships between facilities, assets and their components and subcomponents, allow accurate roll up of component and subcomponent operating condition or costs to determine the condition or costs at the facility or the asset level, as illustrated in Figure 1.

A diagram of a company's cost

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**Figure 1: Systematic Relationships between Facilities, Assets and their Components**

(Source: Nauru Infrastructure Strategic Investment Plan 2019 – PRIF)

In case of those assets, where the typical useful life for some components is significantly different than the parent asset and where such components can be independently replaced, resulting in asset renewal and life extension, systematic hierarchy definitions lead to informed asset management decisions and help improve the economic efficiency of investments. The Nauru infrastructure asset register hierarchy has five levels, as shown in Table 1, to provide the required information to make informed decisions, without unduly burdening the relatively weak capacities available in the country for managing information.

**Table 1: Nauru Asset Register Hierarchy**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Hierarchy Level 1** | **Hierarchy Level 2** | **Hierarchy Level 3** | **Hierarchy Level 4** | **Hierarchy Level 5** |
| Service Sector | System Category | Asset Class | Asset Type | Asset Components |

In the asset register, complex assets, i.e. buildings, roads, air strip and wharf are broken into components, with the type, subtype, condition rating and renewal cost of each component accurately captured in the asset register. The first worksheet in the asset register workbook defines asset register hierarchy, followed by a standalone worksheet for each asset category belonging to different service sectors, containing detailed asset information about asset’s components, their size and specifications, the initial installation cost, accumulated depreciation, current blook value, gross replacement cost and annual maintenance cost of the assets, as well as the physical condition ratings of assets’ major components and overall asset condition index.

1. **Asset Attributes:**

The asset register attributes have been selected to capture information for three distinct stakeholder needs:

1. Data required for asset management decisions. and these includes asset installation location – operating district, asset dimensional details and ratings, types and subtypes of components. Asset installation locations for each asset is recorded in the asset register in form of GPS coordinates – longitude and latitude. For coastal protection assets, aside from the GPS coordinates, chainage reference is also recorded for each seawall, indicating distance in meters along the coastline, starting at the eastern edge of the airport and running in a clockwise direction around the island, as shown in Figure 2. The condition rating of asset at component level, and asset condition index, which provides indicative information about asset’s remaining useful life, asset replacement cost and asset annual maintenance cost are also recorded in the asset register.
2. Data required for financial controls, including, the year in which an asset was acquired and placed in service, typical useful life of asset, initial book value, accumulated depreciation and current book value of asset, all based on historic costs. In cases where initial cost of acquisition was not known, it has been estimated from the current replacement cost of asset, by applying adjustments for inflation.
3. Data required by PCRAFI, including construction details for buildings are also recorded in the asset register.

An aerial view of an island

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**Figure 2: Chainage Reference Diagram for Coast Protection Assets**

(Source: Nauru Seawall and Road Drainage Condition Assessment – JBP Scientists & Engineers)

1. **Financial Information:**

The asset register contains the following financial information attributes with respect to every asset:

**Gross Replacement Cost (GRC):**

Gross replacement cost is the estimated replacement cost for an asset, during the current year, using like for like specifications. The cost estimates for GRC meet Class 3 accuracy (-20%, +30%), suitable for budgetary approvals.

**Annual Maintenance Funding Needs:**

Maintenance funding needs for each asset have been calculated as percentage of Gross Replacement Cost, in accordance with the maintenance cost assumptions, shown in Table 2. The indicated costs represent strictly the preventive maintenance cost, including emergency repair costs, but do not include asset operating costs and capital renewal costs for asset components.

**Initial Book Value:**

This is the actual or estimated asset procurement cost, during the year the asset was procured. Because many assets were received as a donation rather than procured, actual procurement cost is not known in respect of most assets and has been calculated from GRC, by applying adjustments for inflation. The inflation data is tabulated in the worksheet titled “Inflation adjustments”.

**Accumulated Depreciation:**

Accumulated depreciation represents the accumulated depreciation allowance for the number of years an asset has been service, by using straight line depreciation method. For simple assets, identified in the asset hierarchy as “Whole of Asset” under hierarchy level 5, the deprecation rate is based on the typical useful life of the asset. But for complex assets, where assets components are identified in hierarchy level 5, depreciation has been calculated at the component level.

**Net Book Value:**

Net book value is provided at the beginning and end of a year and is calculated by subtracting the depreciation allowance from the initial book value.

**Table 2: Infrastructure Asset Annual Maintenance Cost**



1. **Assets Added to the Asset Register During Current Update:**

**Buildings:**

The following infrastructure assets have been added to the asset register, during current update:

**Table 3: New Buildings Added to Asset Register in 2023**



**Coastal Protection Assets:**

The following coastal protection assets (seawalls) have been added to the asset register, during current update:

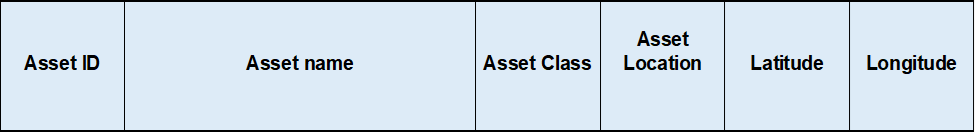
**Table 4: New Seawalls Added to Asset Register in 2023**



1. **Assets Removed from the Asset Register During Current Update:**

The following infrastructure assets have been removed from the asset register, during current update, because these buildings are no longer in service:

**Table 5: Infrastructure Assets Removed From the Asset Register in 2023**

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1. **Financial Summary of Infrastructure Assets Currently in Use:**

**T**able 6 provides a summary of the public sector infrastructure assets, in use at the end of 2023 in Nauru.

**Table 6: Nauru Asset Register Summary**

