



Palau

Environment Statistics and System of Environment-Economic Accounting (SEEA) - National Assessment Report

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Objective

The purpose of this assessment is to determine a way forward for environment statistics and environmental-economic accounting in Palau. It provides a foundation for initiating statistical development towards improving decisions related to sustainable development and green economy.

It is based on existing national policy assessments and a national technical assessment of environment statistics¹. This assessment aims to capture the policy priorities, institutional framework and capacity needs for Palau to engage in production of environment statistics. It positions the planned environment statistics work within internationally accepted best practices for compilation. This assessment serves as a basis for engaging stakeholders and producing a set of demonstration accounts, by:

- (a) establishing the rationale for an integrated statistical system for environmental information;
- (b) summarizing the priorities and opportunities in Palau for improving the institutional framework necessary for SEEA implementation;
- (c) identifying priority sectors for environment statistics, and actions for compiling these statistics (activities, outputs, impacts and medium-term outcomes of engaging in these activities); and
- (d) outlining capacity building and training.

Country Background

The development of environment statistics in Palau is well positioned to add value to existing policies and create synergies with existing initiatives. This section highlights a few of the relevant examples.

Linkages to relevant projects and initiatives

NATIONAL

Palau Climate Change Policy. Climate change has been recognised as the greatest challenge for the sustainable development of Palau and thus the climate change policy cuts across all aspects of sustainable development. The vision of the Palau Climate Change Policy is “Happy, health, sustainable and resilient Palauan communities in a changing world”. As recognized in the cross-sectoral policy Palau needs a strong information system which will allow Palau to develop and monitor good policy interventions. As opposed to looking at disasters and climate change as a sector, the policy covers the relationship between disasters and climate change and the following sectors: agriculture and fisheries; health; biodiversity and natural resources; society and culture; tourism; infrastructure; utilities; and finance, commerce and economic development.

Palau 2020 – National Master Development Plan. The vision of the plan is to “substantially enhance the quality of life of Palauans and future generations of Palauans”. The Plan recognises that protecting the natural environment is an essential component of achieving this vision. In the medium-term development strategy developed under this plan improving environmental management and data collection were listed as priorities.

¹ Support for the development of this plan was provided through a United Nations Development Account project implemented by ESCAP and is largely based on an assessment conducted during 13-16 July 2015.

Palau Core Sustainable Development Goals (SDGs) Indicators, localization and reporting. Currently Palau is undertaking national consultations to localize the SDGs by creating a core set of SDG performance indicators relevant to Palau. With the core national SDG indicators in place, monitoring and reporting of development progress against associated baselines remains a key opportunity. In a number of SDGs, such as Goals 6, 7, 13 and 14 on water, energy, climate change and oceans respectively, environment statistics could support monitoring needs.

State of Environment reporting. Palau's status of the environment is reported periodically in the State of Environment Report. However, further environment data can strengthen and improve this reporting process.

UNDP GEF project. The UNDP GEF project on mainstreaming global environmental priorities into national policies and programmes in Palau has a strong component on environmental data compilation and use. This project is addressing the data collection priorities listed under the National Master Development Plan medium term plan.

Other national sectoral policies. There are a number of national policies that relate to the environment of Palau, these include: Environmental and Natural Resources Action Plan, the Energy Policy, the National Biodiversity Strategic Action Plan, the Water Policy, the Sustainable Land Management Policy, the Bureau of Marine Resources 5-year Strategic Action Plan, the Bureau of Agriculture Strategic Action Plan and the Palau National Invasive Species Committee Strategic Action Plan. In order for these policies to be implementable, associated data and information is required.

REGIONAL AND GLOBAL

Declaration on Oceans. The Palau Declaration on 'The Ocean: Life and Future' recognises the importance of the Oceans for the economic and societal well-being of the Pacific islands. It also recognises the important role of statistics, stating that there should be efforts to "maintain a more comprehensive ongoing register of initiatives and relevant data and information across the spectrum of the Pacific Ocean as a basis for promoting and monitoring the sustainable development of our Ocean and fostering integrated management approaches, where appropriate."

Micronesia Challenge. The Micronesia Challenge calls for countries to conserve 10% of terrestrial and marine resources by 2010 and 2012 respectively. Palau already conserves 30% of terrestrial and 50% of marine resources. However, the Palau National Protected Areas Network lacks statistical information to demonstrate the value that is being achieved through such conservation efforts.

Other relevant global initiatives. There are many relevant global initiatives that include the promotion of system environmental-economic accounting (SEEA) for better environmental monitoring and accountability. A few include the Sustainable Development Goals; the Convention on Biological Diversity (particularly Aichi Target 2); the UNFCCC reporting; the Sustainable Energy for All (SE4A) initiative.

Institutional framework overview

Most statistical compilation is under the responsibility of the Bureau of Budget and Planning, under the Ministry of Finance. Under the Bureau, the Office of Planning and Statistics is responsible for most statistical compilations whereas Palau Automated Land and Resource Information System (PALARIS) is responsible for all Geographical Information Systems (GIS) related information.

Across environmental sectors, basic data is being compiled by many ministries and departments. There is currently not a body that is responsible for ensuring the consistent and reliable collection and production of environment statistics. Additionally, there is a lack of a central data repository for environment and GIS data.

Recommendations

There is a high level of interest in improving and better utilizing environment statistics in Palau. In particular, priority sectors for improved environmental data collection include: tourism, marine and coastal resources, ecosystems and biodiversity, food security, water, energy, waste, climate change and land management.

A strategic approach for environment statistics, environmental-economic accounts and related statistics, including the GIS information, forms the foundation for outlining resource requirements, building effective coordination and improving collaboration. This section outlines a proposed direction, including elements related to the institutional structure, training and capacity building activities, and specific actions for compilation of environment statistics in Palau.

Institutional structure

A national coordination mechanism of senior-level stakeholders could provide oversight and help create demand for environment statistics and SEEA implementation. The National Environmental Protection Council (NEPC) includes the full spectrum of relevant stakeholders. The NEPC has also already been recognized as the body that will provide oversight for the UNDP GEF project on improving environmental data collection, and could discuss other environment statistics developments as well.

Recommendation. The NEPC could provide oversight and discuss environment statistics related activities as part of its TOR. The Bureau of Budget and Planning could decide on the need for NEPC involvement as and when environment statistics compilation is undertaken.

Environmental data exist, but are scattered across different agencies and different formats (including some data that is only available in hard copy). There is currently a lack of central data repository for environment and GIS data.

Recommendation. All datasets identified in this assessment could be included in the development of a central data repository to be housed in the Bureau of Budget and Planning.

Office of Planning and Statistics, PALARIS and some other departments engage in primary data collection through censuses and surveys. These statistical compilations could be used to improve environmental data collection.

Recommendation. Office of Planning and Statistics (OPS) consider ways to fill environmental information gaps through existing censuses and surveys. The NEPC could be given an opportunity to comment on draft censuses and survey questionnaires, for consideration by the OPS.

Recommendation. Entities which conduct surveys could consider including GIS as part of the data collection and involve PALARIS in activities.

A statistics business register and a business survey can improve the quality of national accounts and can improve information related to environmental economic accounting through ensuring that consistent classifications are used across statistical activities. For example, a consistent business register which is used by all departments would help ensure that the term “manufacturing” is defined in the same way when assessing production, water use, energy consumption, etc.

Administrative data used for national accounts compilation is generally good source of data for several environment accounts, including water and energy. In particular, supply and use tables for national accounts provide relevant data for use.

Recommendation. Any efforts by the Office of Planning and Statistics to improve the business register or to implement a business survey could also be considered in the context of SEEA implementation. Further, administrative sources of data, and supply and use tables for national accounts, are key sources of data for several SEEA accounts and full and updated information should be retained in spreadsheet format for ease of use.

Relevant Accounts

This section outlines specific opportunities for implementing the System of Environmental Economic Accounts in order to produce policy-relevant statistics in Palau.

Water statistics and accounting.

Water accounting is relevant for water policy, tourism sector, public health and waste water management. Palau’s national water policy sets out specific measures for improved access, conservation, sustainable supply, and more efficient use.

Existing data: Data available from the PPUC on water abstraction and provisioning by customer type, from EQPB on water quality and from Meteorology on rainfall.

Data gaps: Water catchment in private tanks and bore holes (some information may be available from the census and other surveys).

Potential recommendations. A data sharing agreement with OPS and PPUC could be put in place. OPS use existing annual reports and PPUC database information to compile SEEA water. Further

disaggregation of data could be supported by merging the PPUC customer list with the business register through the use of a unique identifier.

Marine and coastal resources.

Fisheries and coastal marine activities remain important for economic development and subsistence. There is a recognised need for better information for making decisions related to regulating catch and for assessing the benefits of conservation efforts. Although fish stock data is available, it is not centrally located and is difficult to use.

Existing data: Exports and market data are collected by BMR; coastal and marine fisheries from SPC; coastal ecosystems from PICRC; and fish stocks from SPC and PICRC.

Data gaps: Limited information on subsistence fisheries (some information may be available from the census and other surveys).

Potential recommendations. Assessment of basic data related to subsistence fisheries, exports and market data (from BMR), and coastal ecosystems (from the PICRC) required.

Waste management.

Waste management is a priority for the natural environment of Palau and tourism

Existing data: There is a current waste survey collecting information on the generation of waste, information on disposal and exports of waste (eWaste, car batteries and chemical waste) is by EQPB.

Data gaps: Information on illegal dumping or routine collection of information on waste disposal is not currently maintained.

Potential recommendations. The data from the waste survey could be included in the OPS database. OPS should work with relevant stakeholders to establish a shared data base that could be developed during the initiation of a new wastes collection system.

Land Coverage.

Land coverage accounts form the basis for future development of ecosystem accounts and have multiple uses in terms of sustainable land management, including managing service provisioning; waste management; water policy; coastal resource management; evaluating the need for protected area sites; agricultural policy; earth moving permits; environmental health; tourism; etc. Land coverage accounts take GIS data and classify land according to use and type.

Existing data: PALARIS has much information on land use and data from individual agencies, including on protected areas and from the census. PALARIS has access to regular satellite images. A recent forestry inventory and soil survey, and United States government resources on geological survey for Palau provides additional information.

Data gaps: Regular production is not a planned activity. An assessment of land coverage would be needed to identify gaps in land coverage. Coastal resource coverage may be lacking.

Potential recommendations. PALARIS could undertake production of annual land coverage maps. Additionally, United States government information on geological survey for Palau could be explored for potential use.

Energy.

The 2010 Energy Policy set a number of energy developments as a priority, including achieving 20% renewable energy and 30% energy efficiency. The Energy Office is promoting the use of energy efficient products. However, monitoring of the energy policy is weak.

Existing data: PPUC has data on electricity provisioning by customer which could be merged with the business register to obtain electricity by industrial classification. Detailed information on diesel fuel imports is available in the imports database.

Data gaps: Although the volume of fuel imports is available there is little information on fuel consumption in transport sector (i.e. how much is being consumed by residential and commercial users, how much is for automobiles, boats, generators, etc.). The census has some information on the use of biofuels, but not on the volume of biofuels being used. A survey instruments would likely be required to obtain information on biofuel and fuel in the transport sector.

Potential recommendations. The information on electricity provisioning could be included in a data sharing agreement with PPUC (mentioned in the recommendation on water).

Other future possible accounts

Ecosystem condition accounts.

Protection of natural ecosystems and biodiversity is entrenched in the culture of Palauans. Ecosystem accounting could provide detailed information on the state of ecosystems, changes over time and climate change.

Potential recommendations. A potential future area of work that could be considered by NEPC and related stakeholders.

Tourism satellite accounts with environmental information (energy, waste, water).

Tourism is a key driver of development in Palau. However, policy concern remains the need for finding a balance between utilizing the natural environment as a driver of economic growth for tourism, and preserving the environment for the cultural, social and economic well-being of current and future generations and for future tourism development.

Existing data: The existing data that is available all links in some way to tourism, and SEEA accounts on energy, land, waste, and water, for example, could assist with linkages to tourism.

Data gaps: The definition of which businesses are part of the tourism sector is not integrated in the business register. A tourism survey does not exist.

Potential recommendations. If Palau decides to compile a Tourism Satellite Account (TSA), the account could be integrated with the SEEA to provide a picture of the impact of tourism on the environment. A framework for measuring sustainable tourism is being developed by World Tourism Organisation and UNSD and can be used to link TSA with national SEEA initiatives such as water, energy, waste and land.

Emissions.

There is some emissions data which is compiled for the UNFCCC reporting. However, this information is not included in an existing information management system.

Potential recommendations. This data is included in a central data repository in order to facilitate future indicator development.

Agriculture, forestry and soil.

The US Department of Forests supports forest inventory studies (every 10 years) and soil inventory studies (every 30 years – soil is considered to be more static than some other environmental assets). Although Palau discourages all logging, there may be some logging for biofuels and other reasons. In terms of agriculture, the Bureau of Agriculture is aiming to promote sustainable agriculture as a means of food security; however, limited information is currently available.

Potential recommendations. This data is included in a central data repository in order to facilitate future indicator development.

Training and capacity building

SEEA implementation relies on technical capacity not only in the statistics office but also on other environmental stakeholders. Staff time could be devoted for training and self-learning.

Recommendation. The Office of Planning and Statistics identify 2-3 staff who can initially receive training in SEEA, including basic national accounts training.

Potential next steps

(2 months)

- Agreed timeline – with priority accounts compiled. Energy and Water are initial priorities.
- Source data for water and energy accounts collated and validated.
- Training/Capacity building
 - Training on SEEA (ESCAP can provide).

- On the job training also organized for the Office of Planning and Statistics staff, as part of technical assistance to compile priority accounts.

(2-3 years)

- The Government allocate a dedicated staff member for environment statistics.
- A program of intensive capacity building and on-the-job training are required for SEEA implementation. Staff members need to have time to attend online and in person trainings.
- Establishing data sharing arrangements with a broad range of environment statistics data providers.
- Establish a data management platform in the Bureau of Budget and Planning. Environmental statistical compilation will greatly benefit by keeping in mind, from the start, which activities the Government plans to scale up at some point.
- Ensuring collaboration and coordination with other environmental initiatives which are initiated in Palau throughout the project in order to avoid overlap and maximize mutual learning among the agencies involved in these projects, including the SOE.
- A timeline is set for the compilation or review of the following types of statistics:
 - Water
 - Energy
 - Wastes
 - Links between the environment and tourism
 - Land and forests

Conclusions

Palau relies on the natural environment for economic development and societal and cultural well-being. Additionally, Palau is a global and regional advocate for protecting the environment, Oceans and halting climate change.

Better environmental data management and statistics will strengthen Palau's ability to make environmentally sustainable policy interventions and advocate at the global level. In particular, better information on the value of protecting the natural environment will help demonstrate the social and business case for Oceans and the terrestrial environment.

Annex 1 Assessment methodology

The Office of Planning and Statistics, Bureau of Budget and Planning in the Ministry of Finance organized the assessment. The assessment was conducted under the guidance of Mr. Casmir E. Remengesau, Director, Bureau of Budget and Planning.

The following members of the Bureau of Budget and Planning were involved in the assessment: Mr. Darren Fritz, Ms. Delorah Yoshiwo, Ms. A-ichea Yamada, Mr. Kyonori Tellames, Ms. Judy Dean, Mr. Erbai Matsutaro, Mr. Dave Idip, Ms. Holly Yamada and Ms. Charlene Mersai.

Ms. Muriell Sinsak, and Ms. Hazel Limei Tesei were main counterparts, Office of Planning and Statistics staff, involved in finalizing this assessment.

The assessment included interviews with key stakeholders and a national consultation. The assessment included the following stakeholders: Mr. King Sam (Protected Areas Network), Director Fred Sengebau (Bureau of Agriculture), Director Leon Remengesau (Bureau of Marine Resources), Director Bouveau Anastacio (Bureau of Tourism); Mr. Brian Melairei (Bureau of Public Works), Mr. Greg Decherong and Mr. Nick Kloulubak (Energy Office) and Mr. Calvin Ikesiil (Solid Waste Office); Acting Director Sunny Ngirmang (Bureau of Arts and Culture); Ms. Kimie Ngirchechol and Lynna Thomas (Environmental Quality Protection Board); and Palau Public Utilities Corporation Board and management.

The assessment was based on the System of Environmental Economic Accounting (SEEA) 2008 and the global SEEA implementation plan.

Initial technical support was provided by Ms. Jillian Campbell, ESCAP and Mr. Julian Chow, UNSD. To update, help contextualize further and finalise the assessment, Mr. Sanjesh Naidu of ESCAP Pacific Office provided technical support.

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