Pacific Ocean Accounting Portal

Demonstrating the possible

Gemma Van Halderen
Director, Statistics Division
November 2019
UN ESCAP
- Regional arm of the United Nations
- Established in 1947
- Intergovernmental forum
- Largest of 5 UN Regional Commissions

P = Pacific, home of the **Pacific Ocean**
- Covering more than 30% of the Earth’s surface
- The largest water mass on the planet.
- Ocean basin larger than the landmass of all the continents combined.
- 2 x water as the world’s second largest body of water, the Atlantic Ocean.
- Planet’s deepest water body
Why a Pacific Ocean Accounting Portal?

Research
- Oceans are a public good
- Increasing demand for integrated ocean management
- Data is fragmented, non-comparable, used sparingly, difficult to access, and not flowing across stakeholders

Requirements
- Complement existing initiatives*
- Monitoring Sustainable Development Targets “Life below the Pacific Ocean”
- Integrating capacity development**

Recommendations
- Pacific Ocean User-Centric Data Portal
- Pacific Ocean: Data and experts under “One Roof”
- Pacific Ocean: Innovations and Solutions

* Example: Pacific Community’s 14 National Environmental Data Portals for Pacific Islands countries.
** Example: Esri’s Ocean Solutions, Earth Solutions, capacity building forum.
Our journey so far

Nov 2018
Discussions between Esri and UN ESCAP on possibilities of leveraging SDG Hub service

Feb 2019
Meeting with Jack Dangermond and Dawn Wright, Redlands

June 2019
Project kicks off

July - Sept
Weekly technical discussions

October 2019
Preparations for Esri Ocean and Atmospheric GIS Forum

Nov 2019
GEO Ministerial Conference
UN-GGIM Asia Pacific
Esri Ocean and Atmospheric GIS Forum
Global Dialogue on Ocean Accounting
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September 2015
The 2030 Agenda for Sustainable Development

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May 2020
76th ESCAP Commission – Theme: Oceans

June 2020
2nd UN High-Level Ocean Conference, Portugal

August 2020
7th Our Ocean Conference, Palau
2030 Agenda for Sustainable Development

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice and Strong Institutions
17. Partnerships for the Goals
“Life Below Water” makes life above it possible
SDG14 – Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Measuring SDG14

Science
Actions
Economy

People, Business, Governments

Place
Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Number of geographic areas available 191
Ocean Accounts – structure and standards

Integrated indicators

Accounts

Statistics

Environmental, economic, and social data
Using ArcGIS Online and Esri Hub Technology:

Statistical inputs → Integration → Outputs

...and much more...
### Nine key elements

<table>
<thead>
<tr>
<th>Title</th>
<th>Progress so far</th>
<th>Our Focus</th>
<th>Story maps</th>
<th>Applications for integrated data</th>
<th>Tables of integrated data</th>
<th>Real examples</th>
<th>SDG14</th>
<th>Join us and contribute</th>
</tr>
</thead>
</table>

#### SEEA Pacific Ocean Accounting Portal

**DRAFT Prototype Pacific Ocean Account**

**SEEA Ocean Test Account for the Pacific Ocean**

Join the initiative to develop the first ever Pacific Ocean Environmental-economic accounting portal as a sample compilation at the regional scale. The sample tables and analysis can be replicated and adapted at sub-regional and national scales.
Our focus

Introducing organising framework

Global standard for ecosystems

- Investments
- Capital
- Benefits

- Ecosystem protection, rehabilitation, restoration & governance
- Ecosystem condition
- Benefits from the ecosystem services e.g. fishing, tourism
Progress so far

Presenting key facts and figures about the Pacific Ocean

Our Progress So Far

The Portal is under development. We are applying the principles of national accounting, especially concepts and methods in the System of Environmental-Economic Accounts (SEEA) to create a sample regional-scale assessment of sustainability for the Pacific ocean. The results from this portal will be integrated with related initiatives, such as national and local scale pilot ocean accounts.

Coverage of marine protected areas

7.68% of the ocean is covered by marine protected areas. About 80% of those areas (22.5 million km²) are in the Pacific, Pacific-Antarctic, and Easter-Indian Ocean regions.

Fish Catch

Volume of Pacific ocean fishing has doubled since 1950; however, the fish catch has fallen by around 20% since peaking in 1988.

Mangrove loss

0.13% of mangrove forests are lost annually.
User-centric story maps

Stories

Ecosystem protection, rehabilitation, restoration & governance

Benefits from the ecosystem services e.g. fishing, tourism

Ecosystem Service Condition
Harmonized, easily accessible, integrated data – the jackpot

26 publicly available and authoritative datasets have been integrated, as a start....

Benefits from the ecosystem services e.g. fishing, tourism

Ecosystem protection, rehabilitation, restoration & governance

Pacific Ocean Investments
Condition of Pacific Ocean Dashboard
Fishing in the Pacific ocean
Pacific Ocean Economic Benefits Dashboard

Explore Datasets

Explore Datasets
Explore Datasets
Explore Datasets
For those who prefer tables

Integrated data – for those which prefer tables

Ecosystem protection, rehabilitation, restoration & governance

Benefits from the ecosystem services e.g. fishing, tourism

Ecosystem Service Condition
Scalable

Turning data into information at national, regional and global scales

- This framework is applicable at flexible scales. See below some examples of environmental-economic accounting in practice for oceans at local scales;

Pagbilao Mangrove Forest Philippines

Great Barrier Reef Australia
Using HUB technology to integrate the ‘deep dive’ for the Pacific Ocean back to the SDG14 and broader 2030 Agenda

Data comes directly from UN SDG Hub

Click here to go to SDG14 on the SDG Hub
The Pacific Ocean Accounting Portal – a gold mine

- Integrated data
- Spatial data
- Organised data
- Dynamically updated data
- Tabular data
- Open data
- SDG data

Organised data

Economic and Social Commission for Asia and the Pacific
R&D for Oceans Science

4.73

Percentage research and development (Thailand)
Source: SDG Indicator 14.a.1, Thailand
26 publicly available and authoritative datasets have been integrated, as a start....
Integrated and spatial data

Investments
Some challenges

- Integrating data
  - different data types
  - different spatial units
  - different data custodians
  - different nomenclature

- Integrating people
  - different skills
  - different tools
  - different languages
Driving innovation

Integrating data
- What are the best practices for integrating across spatial units?
- What are best practices for integrating data types?

Integrating people
- What lessons can be shared from this demonstration project?
Driving action

“Ignorance is killing us”
Dr Sylvia Earle, 2019 Esri Ocean and GIS Forum

Measure  Analyze  Act

“Take what we know now and communicate it in a way a congressman understands”
Dr Sylvia Earle, 2019 Esri Ocean and GIS Forum
The SDG Summit resulted in the adoption of the Political Declaration, “Gearing up for a decade of action and delivery for sustainable development”.

World leaders called for a decade of action to deliver the SDGs by 2030 and announced actions they are taking to advance the agenda.

The UN General Assembly endorsed the Political Declaration on 15 October 2019.
Thank you