

Earth Intelligence: concept and applications for Early Warnings for All

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Understanding Earth Intelligence for All

- 1. Co-designing Solutions with Users**
- 2. Data Gathering**
- 3. Integration of Data Sources**
- 4. Advanced Analysis and Interpretation**
- 5. Actionable Insights for All**

Delivering Earth Intelligence for All

GEO will deliver trusted Earth Intelligence by:

- Co-producing **transformative** programmes
- Increasing **global equity** Integrating new **technologies and innovation** into EI services.
- Increasing **young people** involvement in EI development.
- Increasing **investment and awareness** in Earth Intelligence

Earth Intelligence + Early Warnings for All

- **Co-creation with users**
- **Go beyond providing data and EO products**
- **Actionable insights for managing natural and anthropogenic risks**
- **Timely, accurate, and accessible early warnings**
- **Relevance to Asia Oceania**



GEO as Supporting Implementing Partner of Pillar 1 (co-lead on innovation for risk knowledge) & Pillar 2



Disaster risk knowledge

Systematically collect data and undertake risk assessments

- Are the hazards and the vulnerabilities well known by the communities?
- What are the patterns and trends in these factors?
- Are risk maps and data widely available?



Detection, observations, monitoring, analysis and forecasting of hazards

Develop hazard monitoring and early warning services

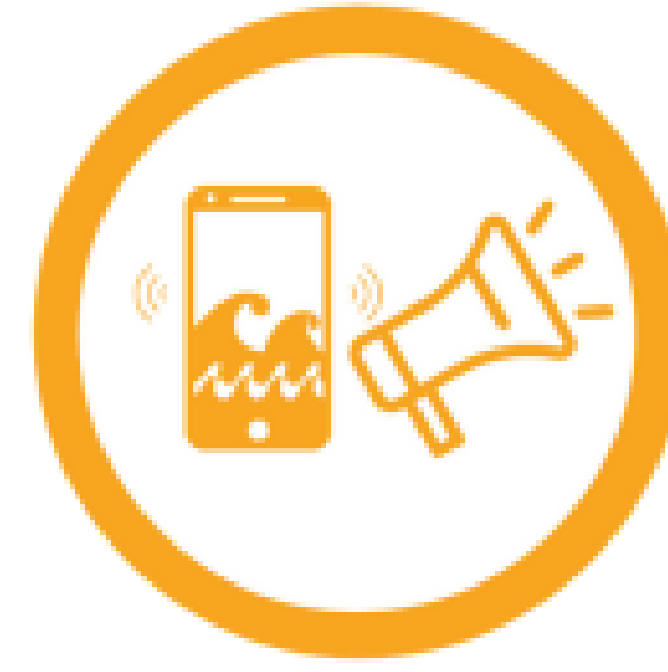
- Are the right parameters being monitored?
- Is there a sound scientific basis for making forecasts?
- Can accurate and timely warnings be generated?



Preparedness and response capabilities

Build national and community response capabilities

- Are response plans up to date and tested?
- Are local capacities and knowledge made use of?
- Are people prepared and ready to react to warnings?



Warning dissemination and communication

Communicate risk information and early warnings

- Do warnings reach all of those at risk?
- Are the risks and warnings understood?
- Is the warning information clear and usable?

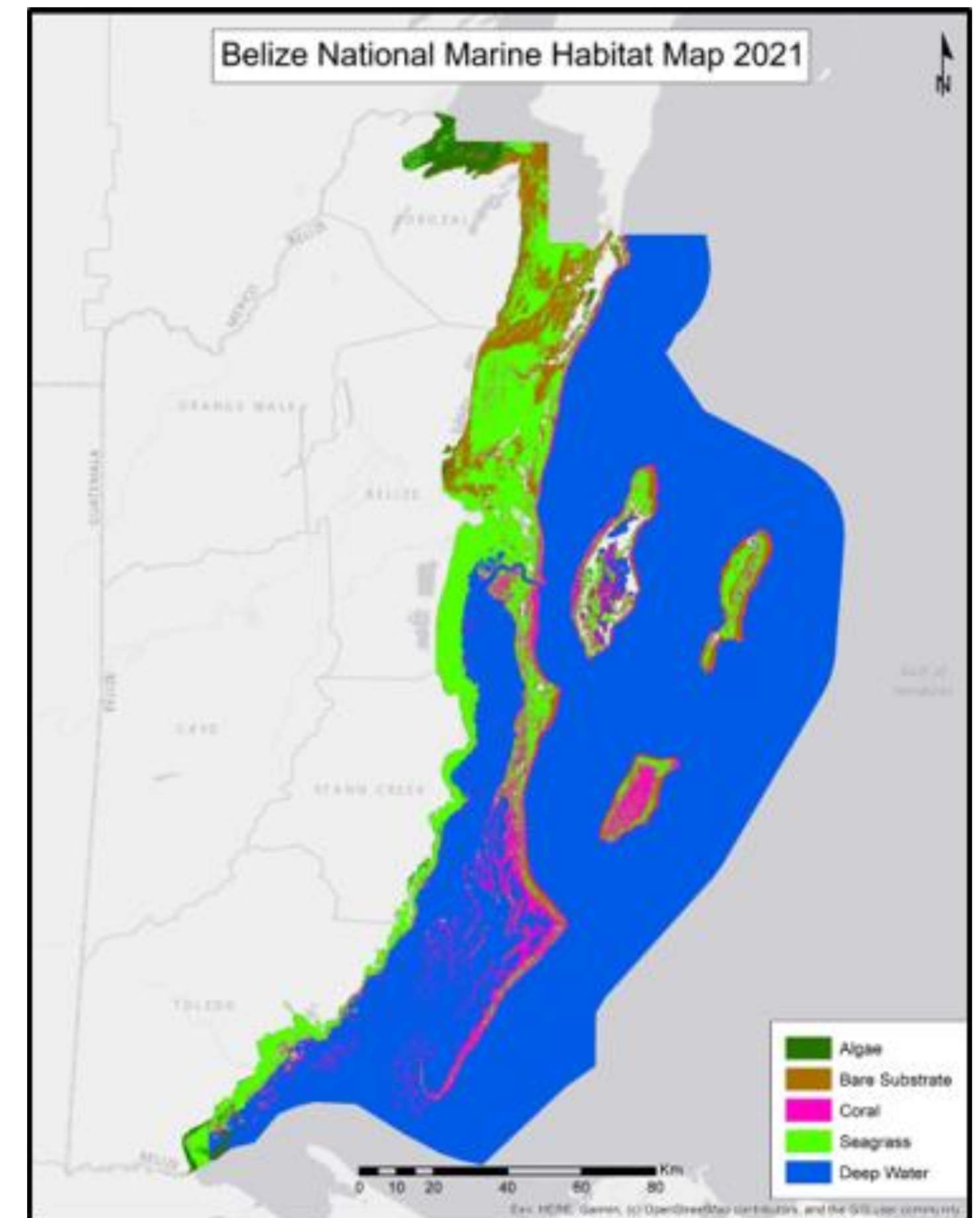
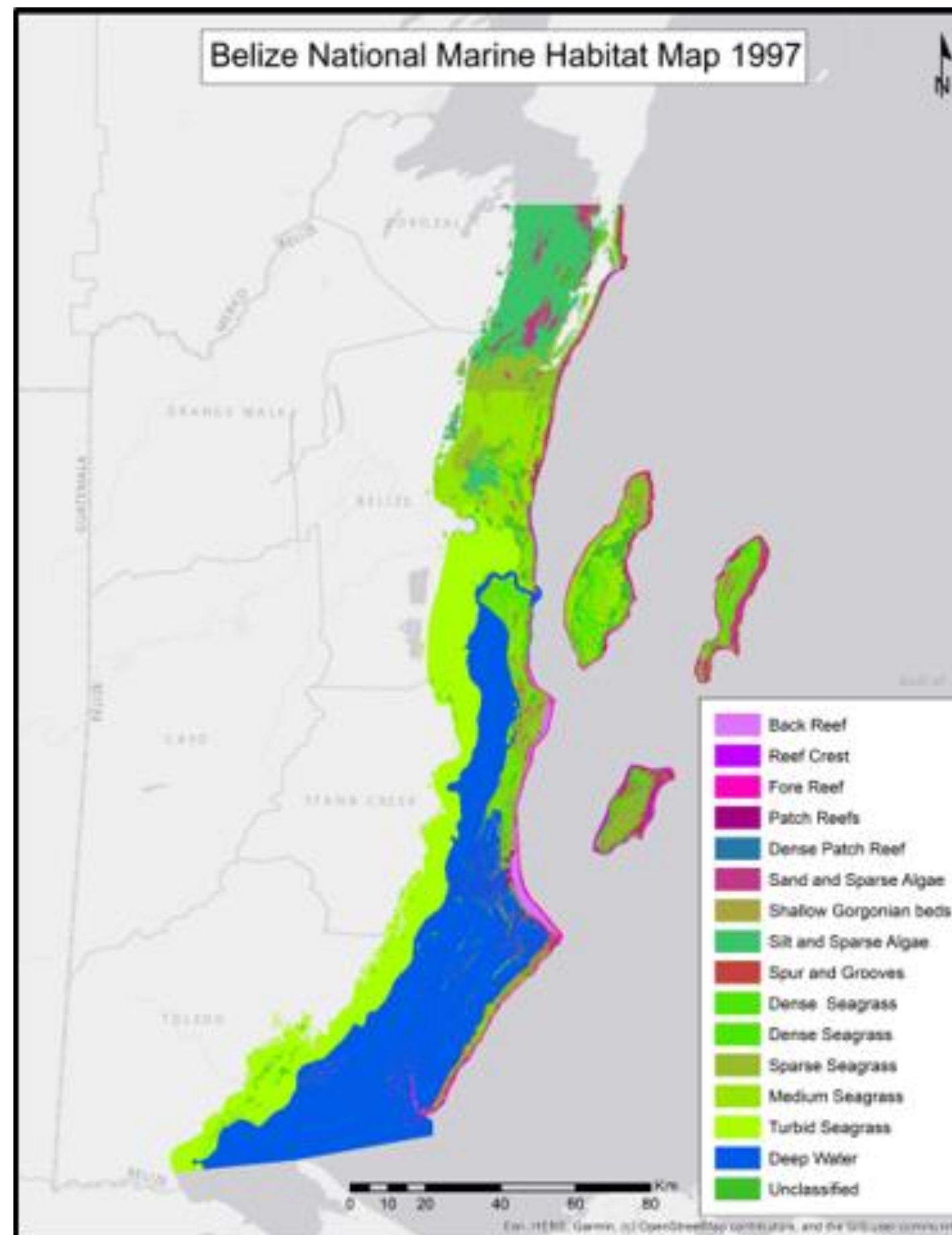


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Application in Belize



Assessment of the status of coral reefs and mangroves to inform about vulnerability and exposure of the coastal & marine ecosystem for the **National Adaptation Plan**



Earth Intelligence + Early Warnings for All



The **Global Ecosystems Atlas Accelerator for the Maldives** is co-developed with the Maldives Ministry of Climate Change, Environment and Energy (MoCCEE).

- The aim is to develop **the first wall-to-wall national map of all ecosystem types** for the Maldives using field data, Planet, Maxar and Sentinel data and AI2 techniques. It will be harmonised and ingested into a Global Ecosystems Atlas basemap.
- The map of all ecosystem types can offer significant value for the **Maldives government's loss and damage assessments** and to develop **targeted ecosystem-based adaptation and restoration strategies** to enhance climate resilience while ensuring effective resource allocation.



Looking Ahead

As the GEO Post-2025 Strategy unfolds, Earth Intelligence will continue to evolve.

**Let's move
forward together!
Thank you!**

Group on Earth Observations

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