

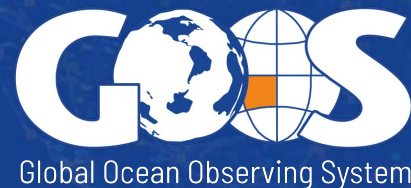


Global Ocean Observing System



Oceanographic Data Management and Visualisation in the Pacific Islands

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A broad array of Datasets

Satellite Imagery

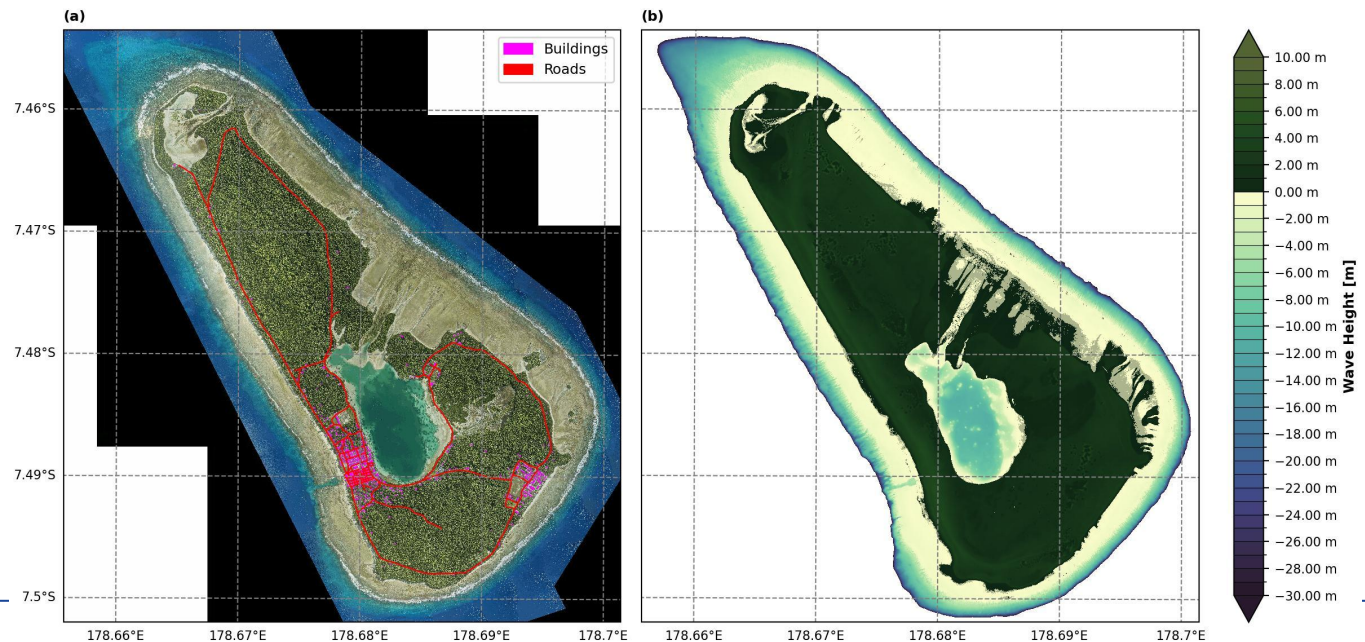
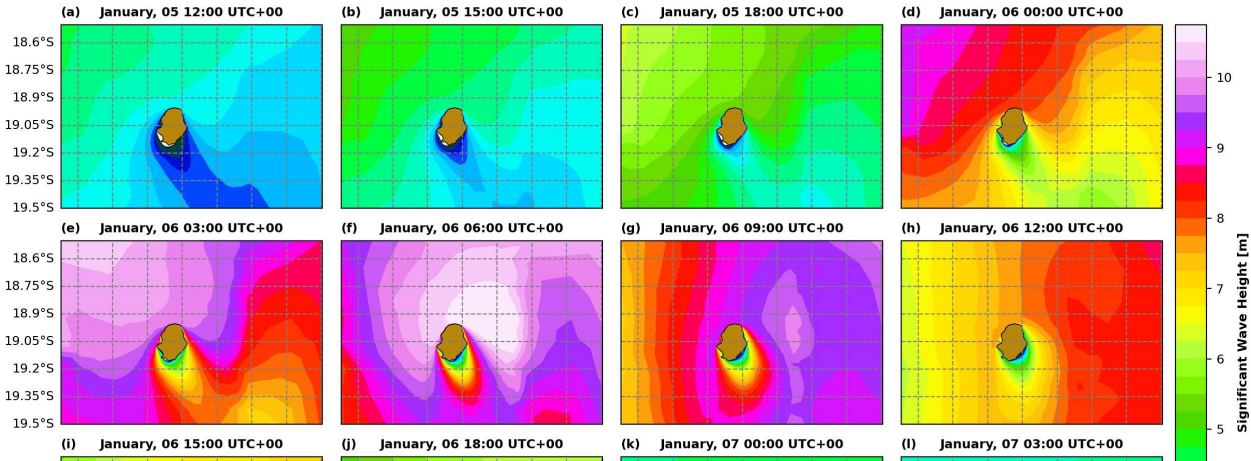
LiDAR and derived products (Digital Elevation Models, Canopy Height Models, Building Surface Models...)

Numerical models (high-resolution wave hindcasts, wave and inundation forecasts...)

Sea-Level observations (temporary and permanent tide gauges)

Waves and Currents insitu recordings in coastal areas

Other sensors



Challenges

Scattered and fragmented datasets

Punctual / short-term observations

Data collection is often restricted to the project's scope

Documentation and survey reports not always available

Lack of harmonized data management strategy

No formal metadata standards and data cataloging system

No Standards Operating Procedures

Diversity and quantity of existing datasets

Different international standards to be followed and applied

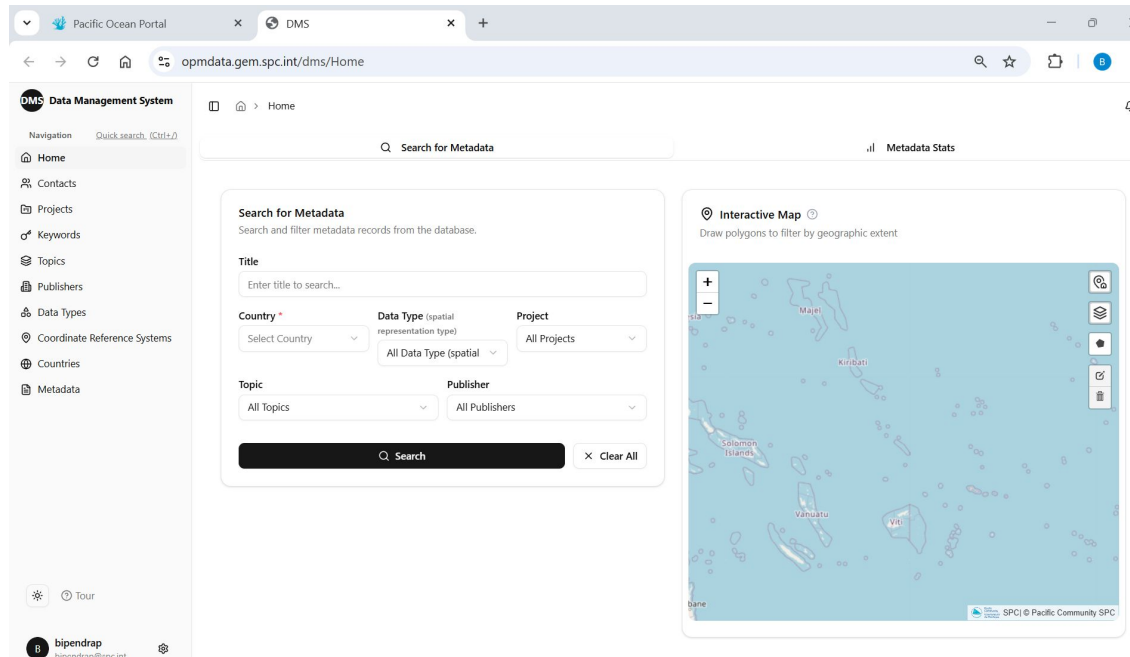
Data storage and curation is format dependent

Toward standardized datasets

- Metadata standards have been defined
 - Generic enough to describe all available datasets
 - Allows for targeted queries to be done (using keywords, topics, project's names, geographical areas...)
 - Vocabulary used in the metadata comes from relevant international standards (CF Conventions, ISO-19115...)
- Standard Operating Procedures are being defined for data processing and archiving according to domains community good practices

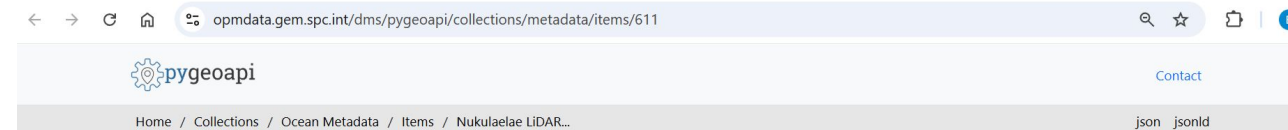


Metadata Discovery and Data Request

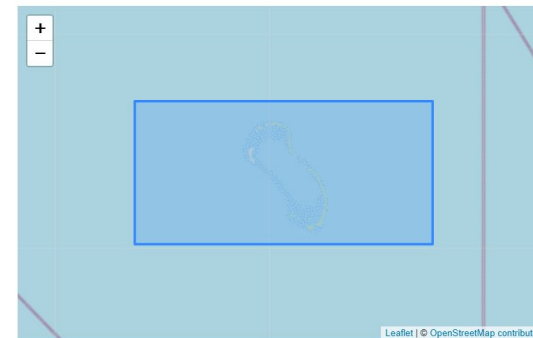


- Datasets are consolidated with rich metadata that allows for discovery and identification
- Data requests will be handled in accordance with data governance principles
- Datasets are NOT publicly available

- User-friendly API developed for metadata discovery
- Accessible through Ocean Portal
- Open-source based solution

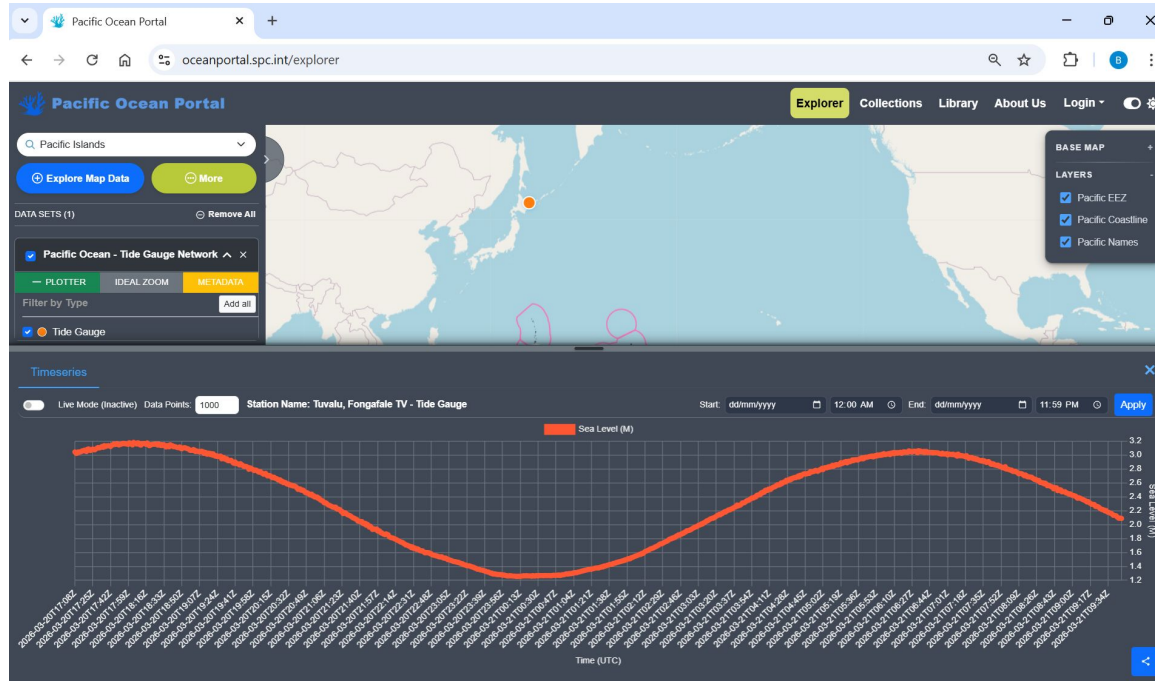


Nukulaelae LiDAR Imagery 2019 Tuvalu



Property	Value
id	611
updated_at	2026-02-24T03:14:33.885283
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title	Nukulaelae LiDAR Imagery 2019 Tuvalu
abstract	The Tuvalu Coastal Adaptation Project (TCAP) (approximately 2017–2025) funded by the Green Climate Fund is an initiative led by the Government of Tuvalu and the United Nations Development Programme (UNDP) to protect the nation against rising sea levels. As of 2019/2020 TCAP intensified efforts to build over 3 000 meters of coastal defences including revetments and land reclamation across Funafuti Nanumea and Nanumaga.
contacts	<i>Name:</i> Damlamian Herve <i>Position:</i> Team Leader Ocean Prediction and Monitoring <i>Email:</i> herveda@spc.int <i>contact_organization:</i> Pacific Community SPC
language	English
version	Version 1.0.0
project_name	Tuvalu coastal adaptation project

Pacific Ocean Portal

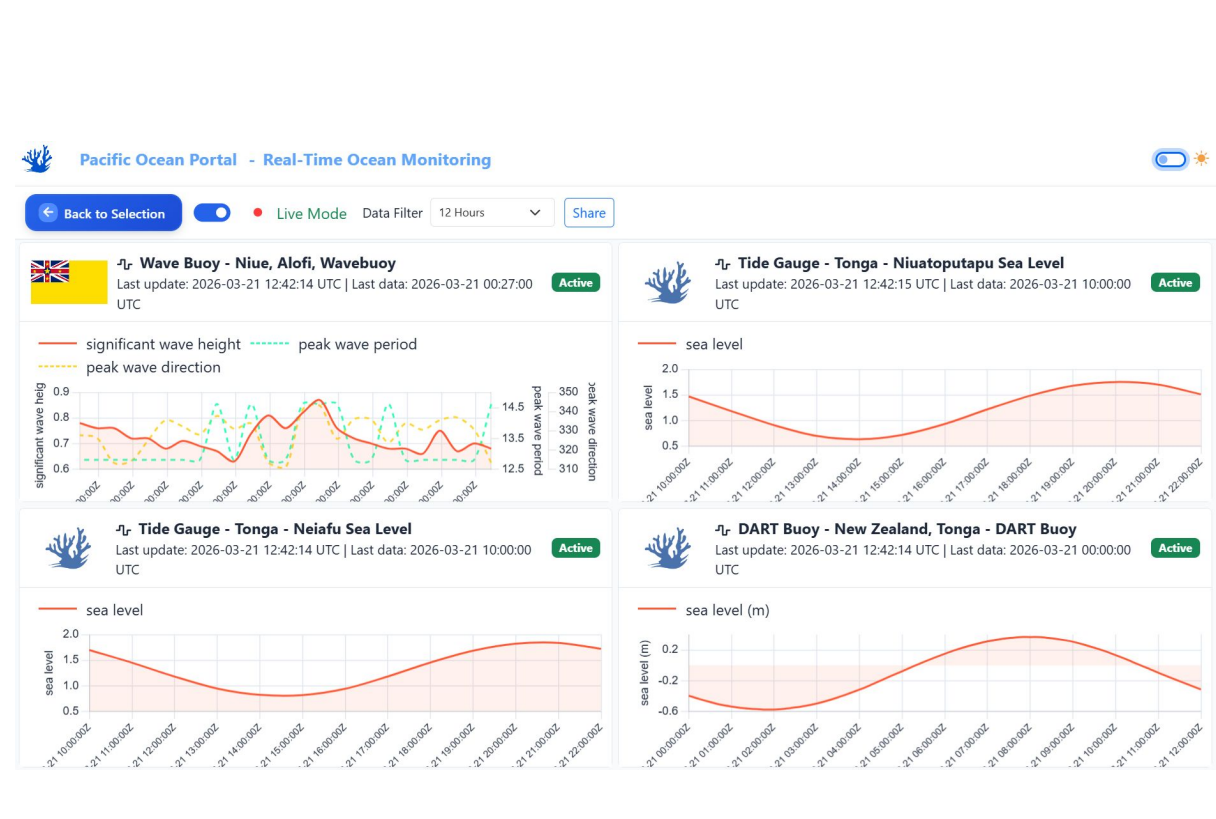


<https://oceanportal.spc.int/>

- Open-access, user-friendly online platform with comprehensive ocean data: **Near-real time; Historical; Forecasts; and Hindcasts**
- Primary user NMHSs: services for tourism and fisheries, S2S outlooks, real-time monitoring of hazards (e.g. tsunamis), RCOFs; undergraduate and postgraduate teaching courses
- Australia and New Zealand Government funded Climate and Oceans Support Programme in the Pacific (COSPPac); IOC-UNESCO funding for increased accessibility of in situ data in the PIGOOS region

Benefits

- Greater transparency, discoverability, accessibility & inter-operability
- Extended dataset life cycle through data sharing
- Improved overall data management and dataset's resilience
- Strengthened national and regional capacity for evidence-based decision-making
- Foundation for future activities & initiatives (e.g., in-house tools, dashboards)
- Increased data pool of limited datasets (e.g., coastal oceanographic data)



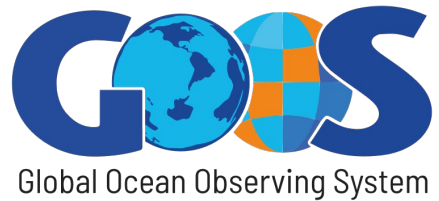
Opportunities for Collaboration with GRAs

- Collaboration on data sharing – IMOS and PacIOOS
- Sharing of best practices
- Review of SOP
- International exchange of data
- Further enhancement of Portal and DMS - IMOS



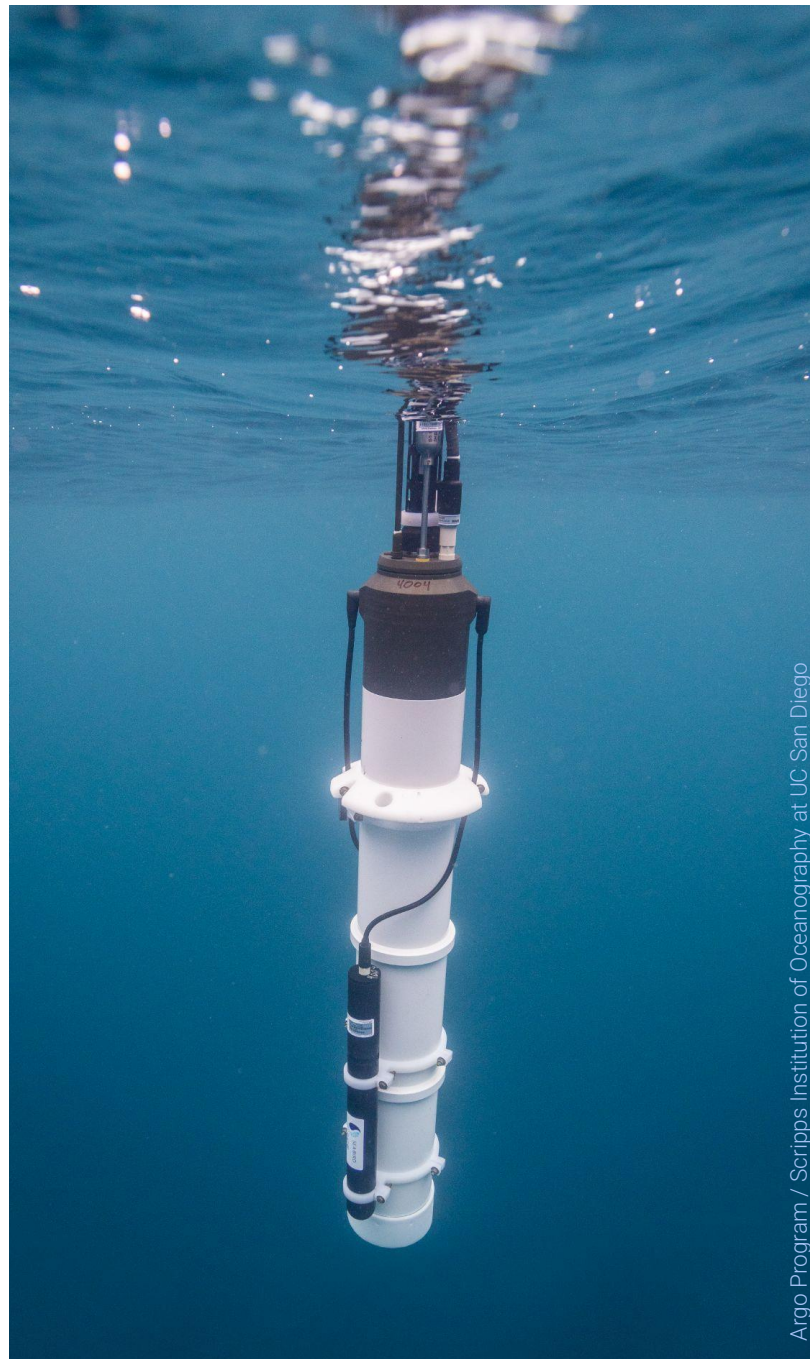
Acknowledgements





Thank you

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