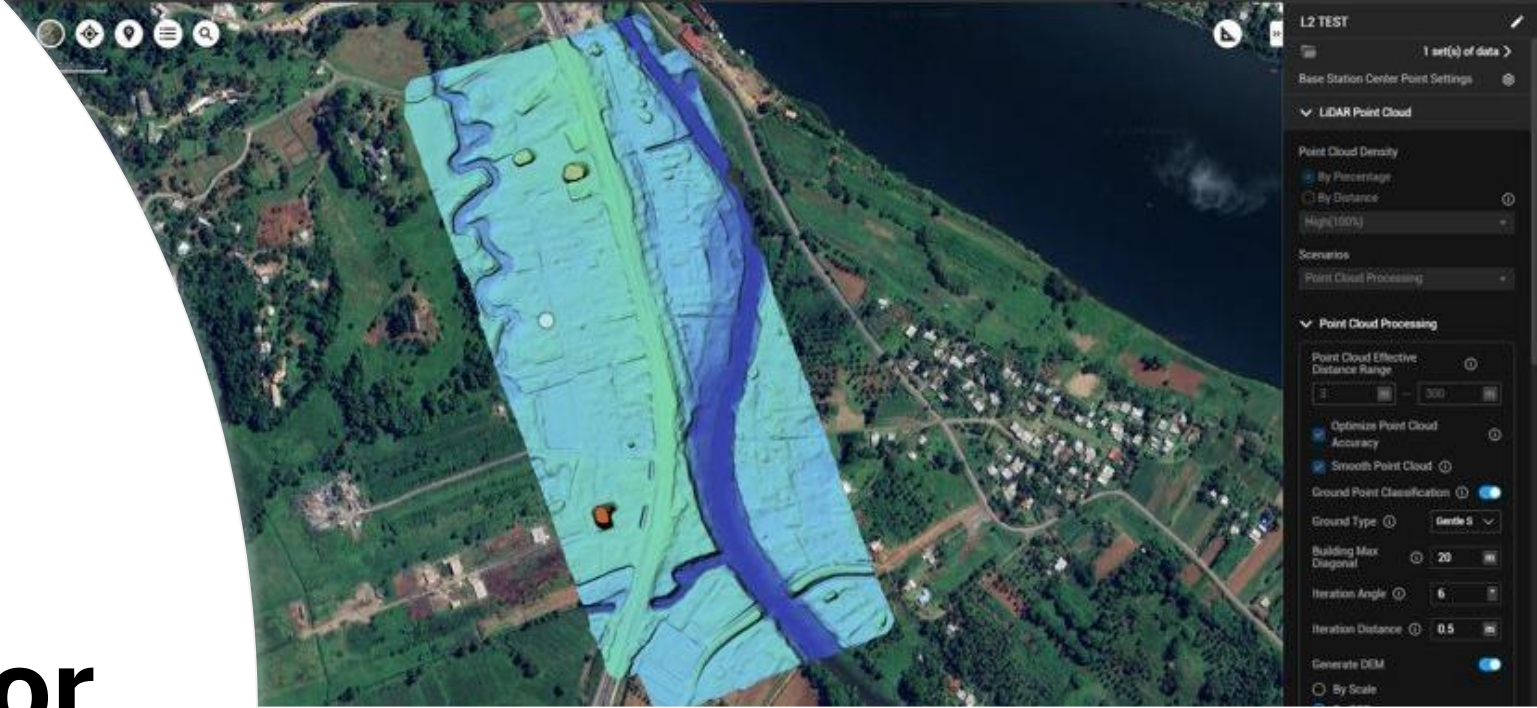




Geospatial Data for the Pacific



The Pacific has a data problem

Pacific Island Countries have outdated and limited access to credible land and ocean information.

Costs to acquire land information are some of the highest in the world (ageing survey industry, limited uptake in new technology, outdated datums/poor survey control)

Duplication of data - No alignment in strategic areas for mapping by the government/donors.

No central depository or aerial mapping national standard

A sustainable data service

- The Pacific Island Governments for the protection of its people and environment, need access to a geospatial data service that will allow more informed policy decisions that will drive safer and more prosperous communities in a rapidly changing climate impacted world.





Phase 1. Build the Sandbox

- ✓ Acquire 700 square kilometers of Airborne LiDAR and Imagery
- ✓ Final deliverables processed and loaded into Moana platform
- ✓ Open Platform to the Government and stakeholders



• For Users

- Easy access to comprehensive geospatial data
- Improved decision-making with accurate information
- Enhanced collaboration through shared data

• For Organizations

- Streamlined data management
- Cost savings from reduced data duplication
- Better public service delivery

The Vision



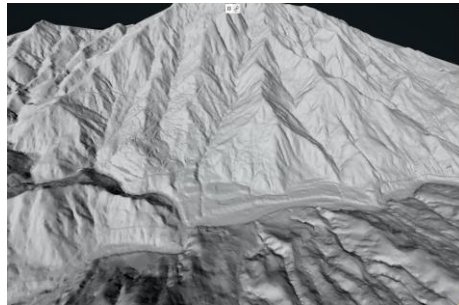
Simplicity

Digital Land Information
at a click



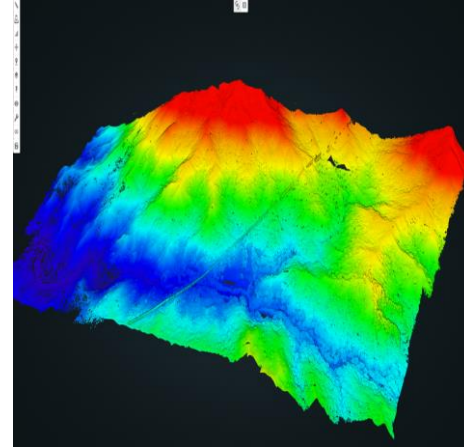
Accuracy

Ensuring geospatial
accuracy for engineering
decisions and
deformation monitoring



Up to Date

Acquire new high quality
LiDAR, Imagery and
bathymetry around
critical areas of the
pacific, updating key
areas of interest regularly



Collate

Make historic datasets
available via the portal to
ensure maximum benefit
from the data along with
quality control and
metadata



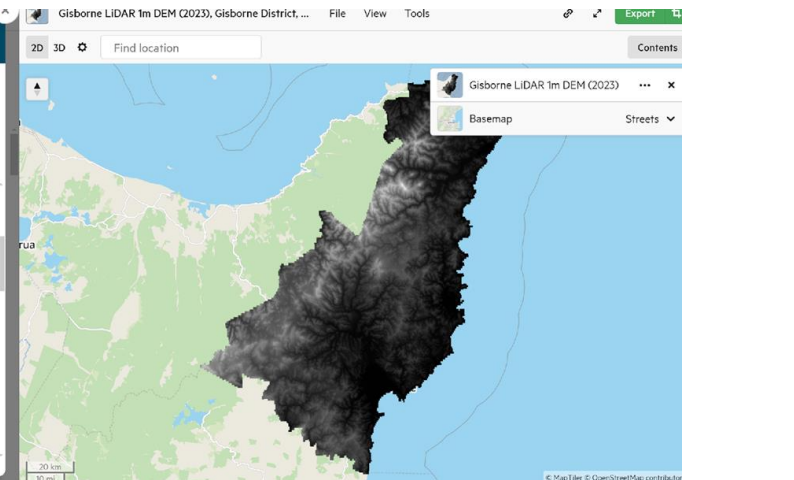
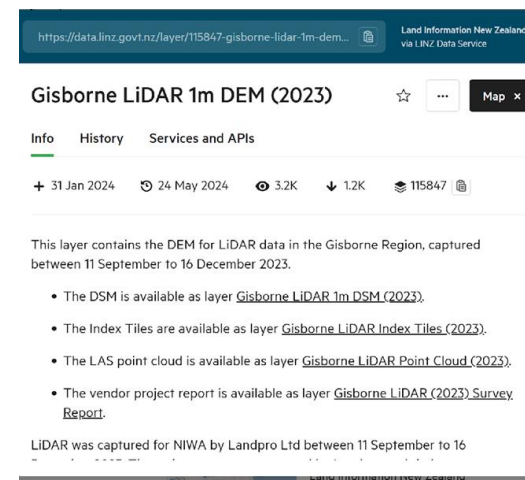
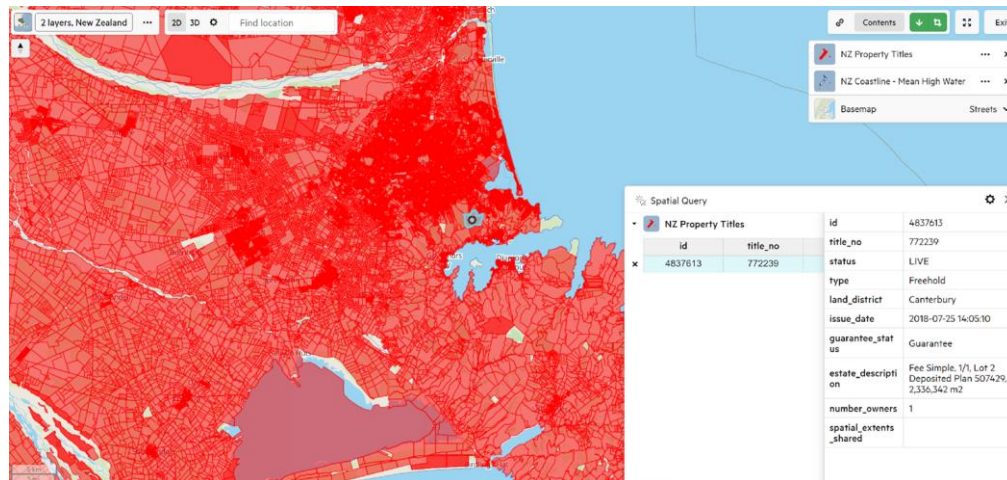
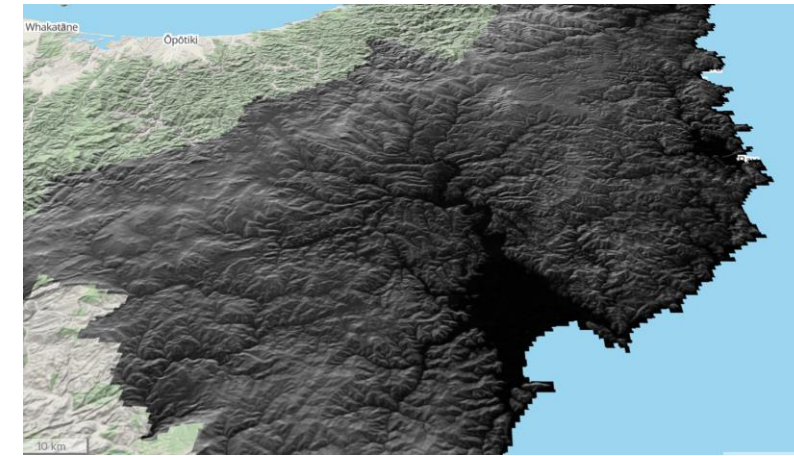
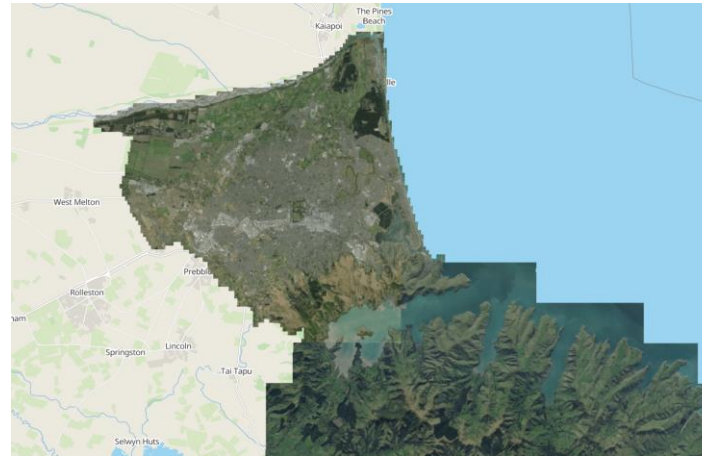
Collaborate

Empower communities to
leverage geospatial
information to inform
sustainability

Overview of Digital Moana Data Service

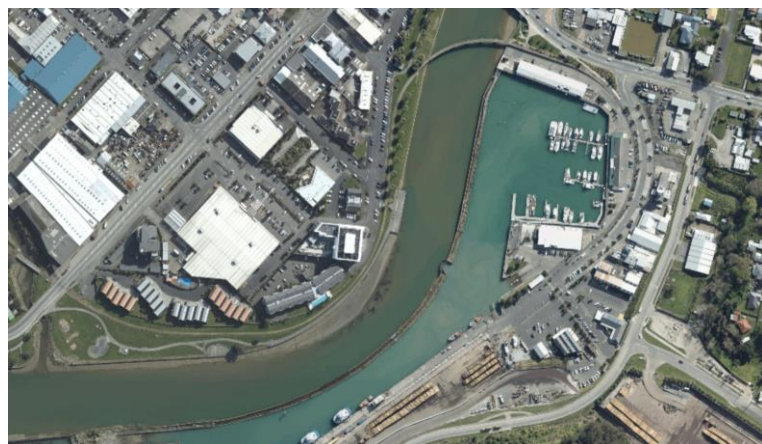
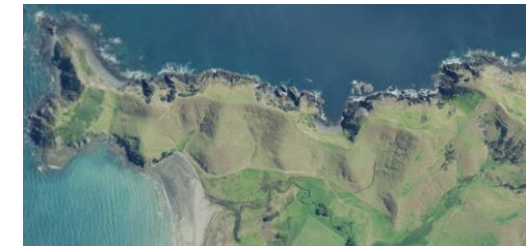
- Key Features

- Centralized data repository
- High-quality geospatial data
- User-friendly access and tools
- Integration with other systems



Benefits of Digital Moana Data Service

- For Users
 - Easy access to comprehensive geospatial data
 - Improved decision-making with accurate information
 - Enhanced collaboration through shared data
- For Organizations
 - Streamlined data management
 - Cost savings from reduced data duplication
 - Better public service delivery



Info History Services and APIs

Orthophotography within the Waikato region captured in the 2023-2024 flying season.

Imagery was captured for National Institute of Water and Atmospheric Research by Landpro between 9 Nov 2023 and 19 Mar 2024.

Data comprises:

- 2090 ortho-rectified RGB GeoTIFF images in NZTM projection, tiled into the LINZ Standard 1:5000 tile layout.
- Tile layout in NZTM projection containing relevant information.

Imagery supplied as 20cm pixel resolution (0.2m GSD).
The final spatial accuracy is +/- 1m at 95% confidence.

Info History Services and APIs

WMTS
OGC Web Map Tile Service

Spatial Query API
Raster Tiles Query API

CS-W
Catalog Service for the Web

WMTS
The XYZ tile service displays files for a dataset in a predictable tiled hierarchy.

API key

API Manage API Keys

Layer WMTS Capabilities

<https://data.linz.govt.nz/services/ke...>

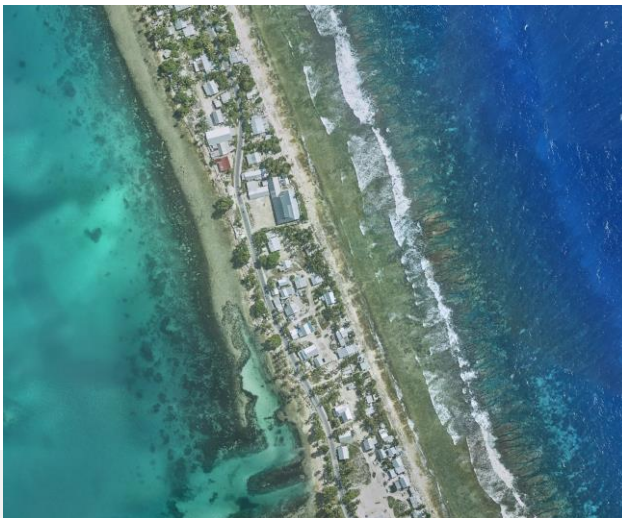
Pacific Island Context

- **Current Challenges**

- Limited access to geospatial data
- Fragmented data sources
- High costs of data management

- **Opportunities**

- Increasing demand for accurate spatial information
- Potential for enhanced regional collaboration



Search

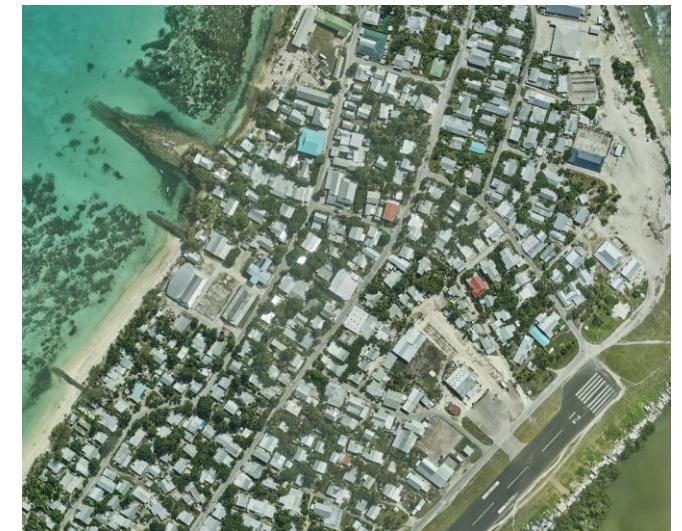
Enter your keywords

fiji, samoa, vanuatu

SEARCH

▶ ADVANCED SEARCH

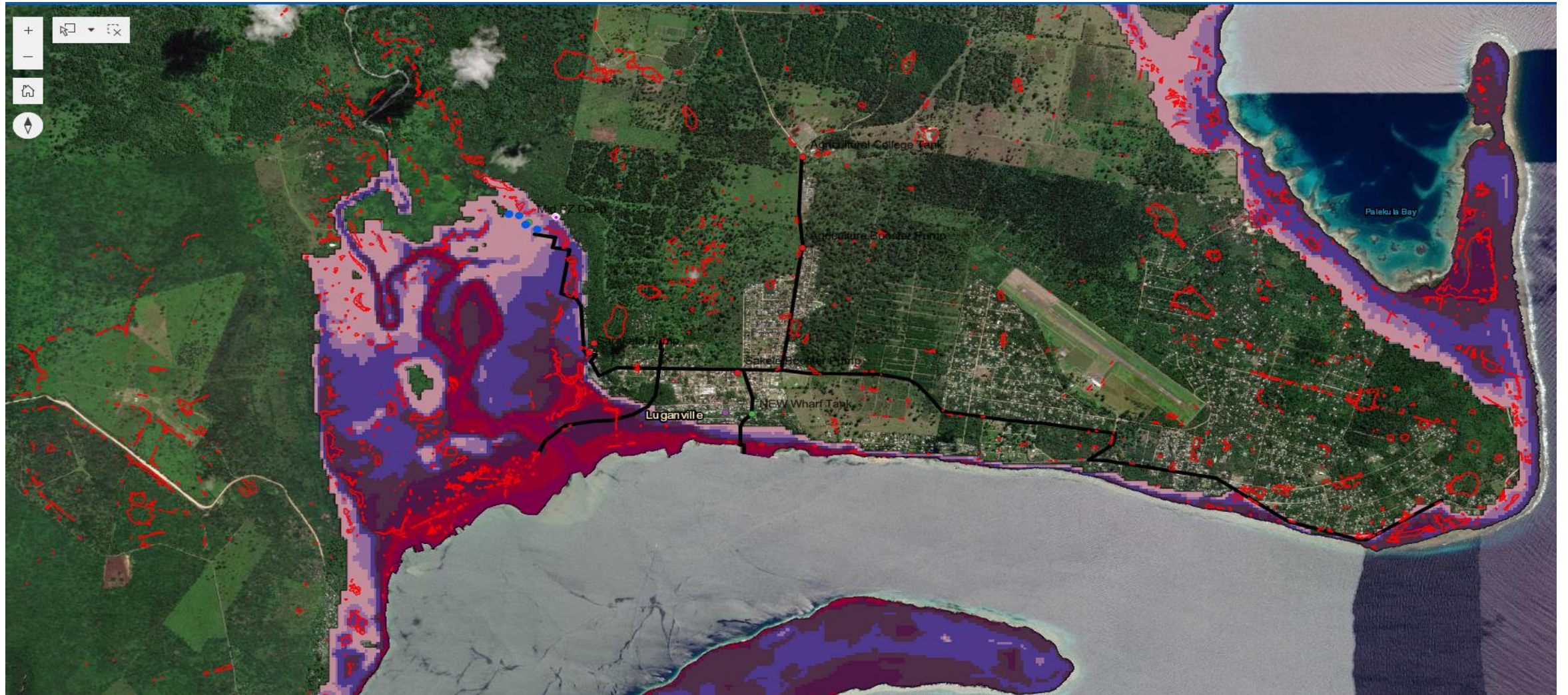
Your search yielded no results



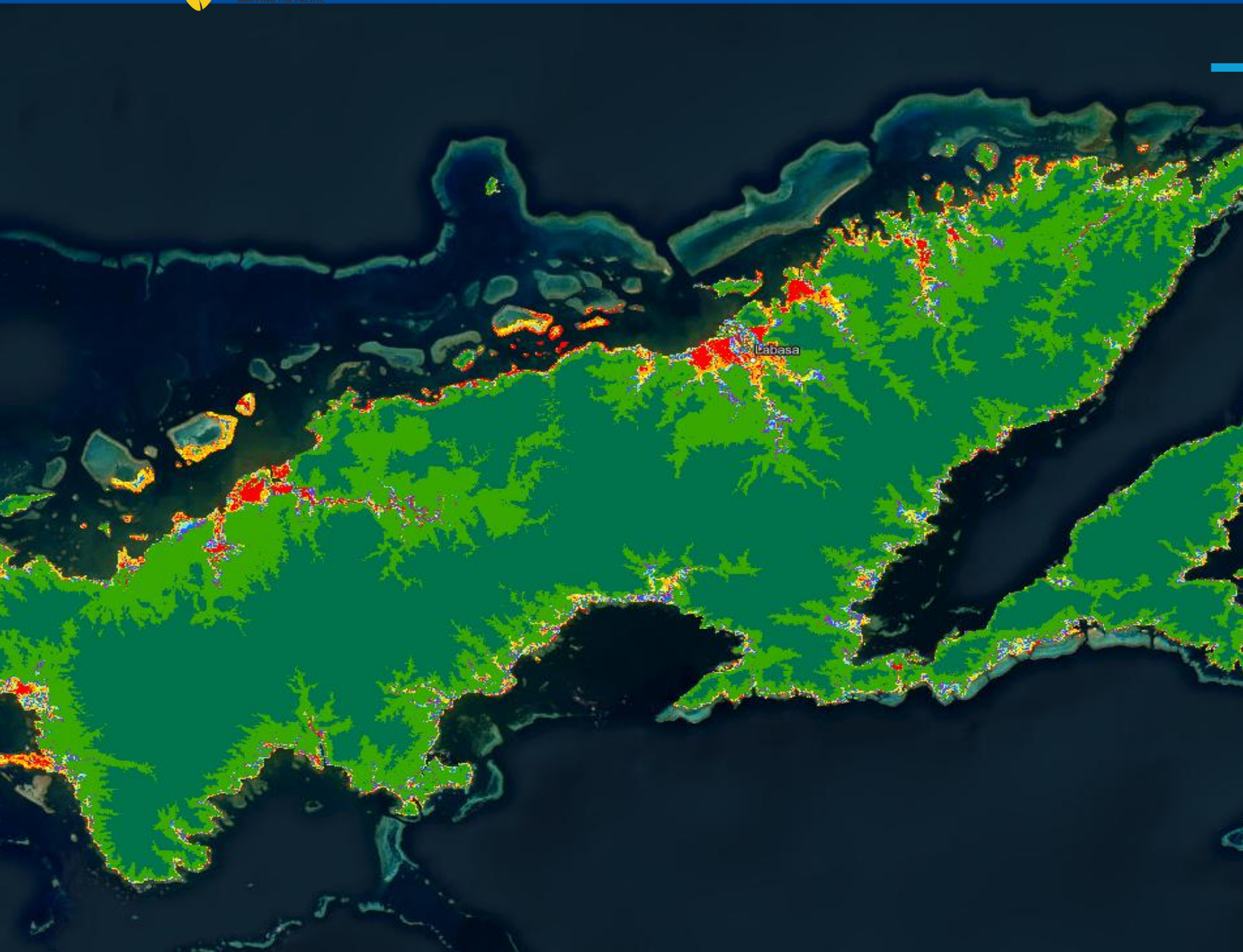


- Lion One metals required an aerial LiDAR survey to inform dam failure modeling for Tailings Dam in close proximity to Korebebe Village
- Survey was required urgently and traditional survey methods would have been time costly and also hazardous for surveyors working across steep and dangerous terrain

Why is it important



- Infrastructure Risk Exposure Mapping - Vanuatu
- Tsunami and Sinkhole proximity to water supply system



- Remote sensing digital terrain model analysis – Vanua Levu
- Colour elevation banding – as proxy to coastal surge and tsunami inundation risk

