ADAPTING KIMBE BAY'S MPA NETWORK

PRESENTER: PAUL LOKANI

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USAID
FROM THE AMERICAN PEOPLE

Where is the project Working?

- Kimbe Bay, Papua New Guinea

Partners

Government (national, Prov., Local)
Communities (+60 Communities)
Private Sector (Walindi, NBPOL)
University (James Cook University)

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OBJECTIVE:

A large-scale, resilient network of MPA is designed for Kimbe Bay and; at least 20% of high priority areas are effectively protected, with an additional 30% in the process of being

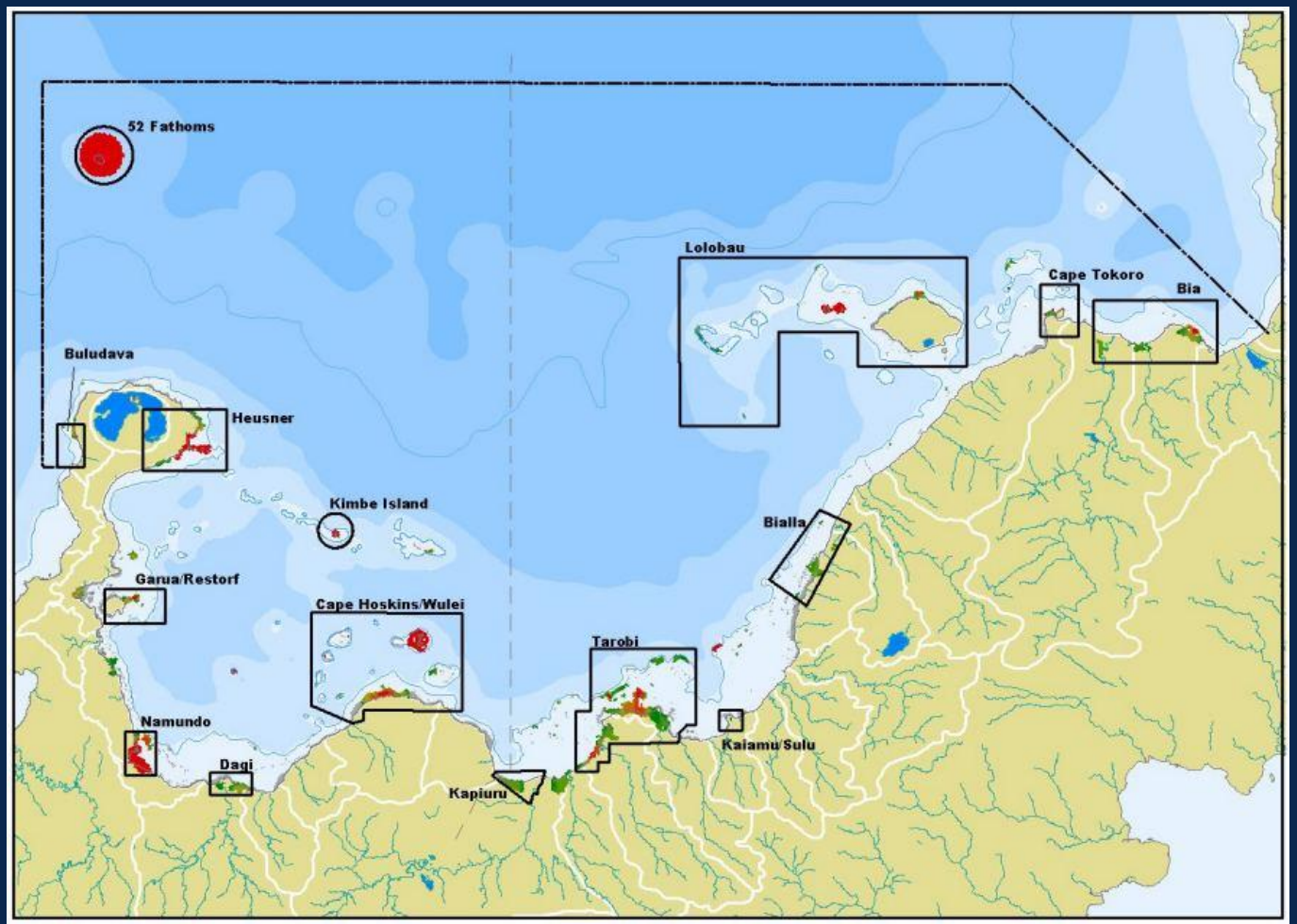
Biophysical Design Principles

Representation & Replication

Protecting Key Sites

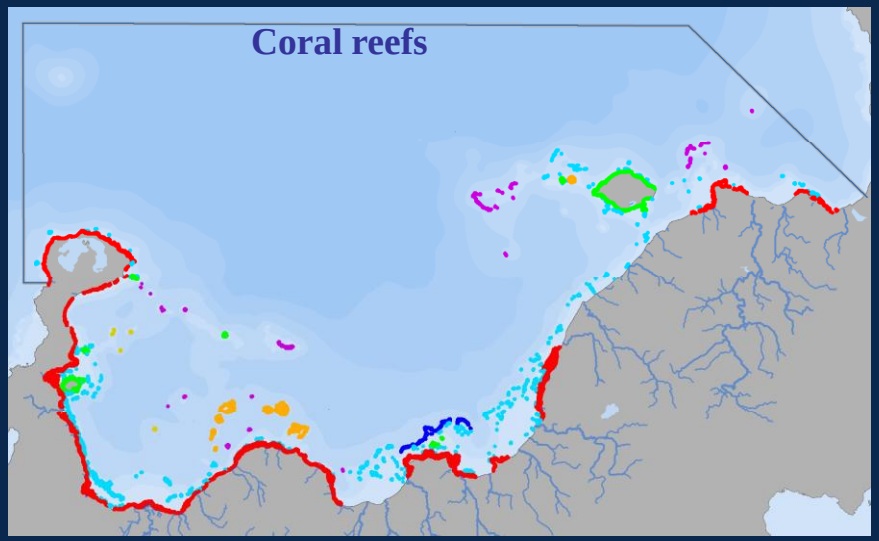
Incorporating Connectivity

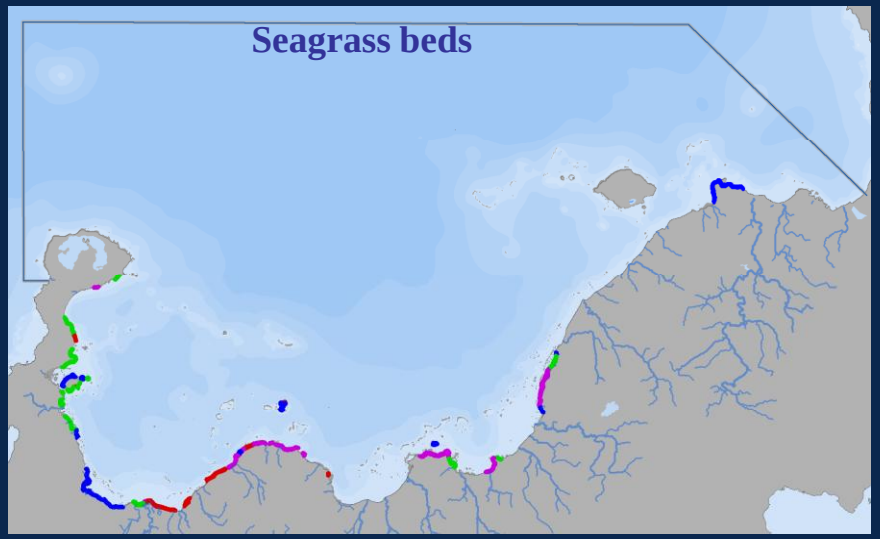
RESULT



Easiest and most straightforward to apply because:

- Easy to get information (data layers)
- Easy to apply through MARXAN
  - Representation - very straightforward in analysis
  - Replication and spread – not as straightforward (manual accounting)





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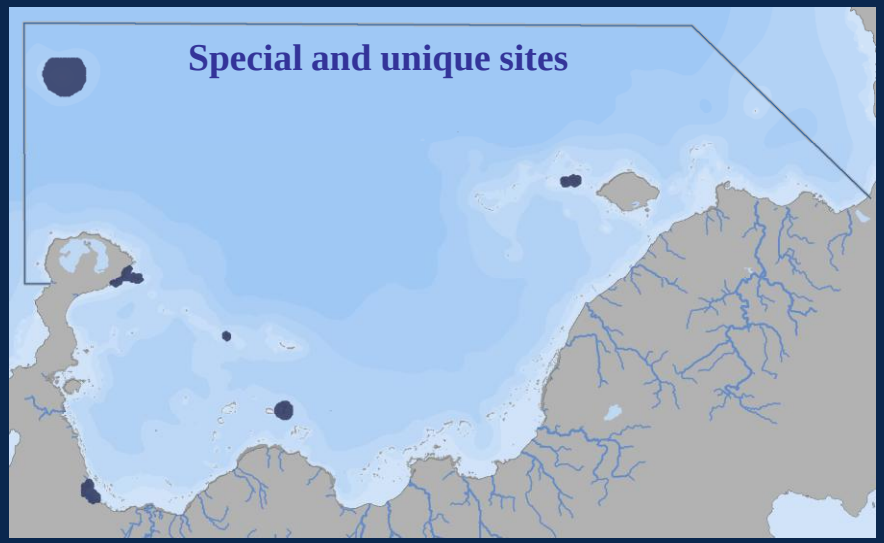
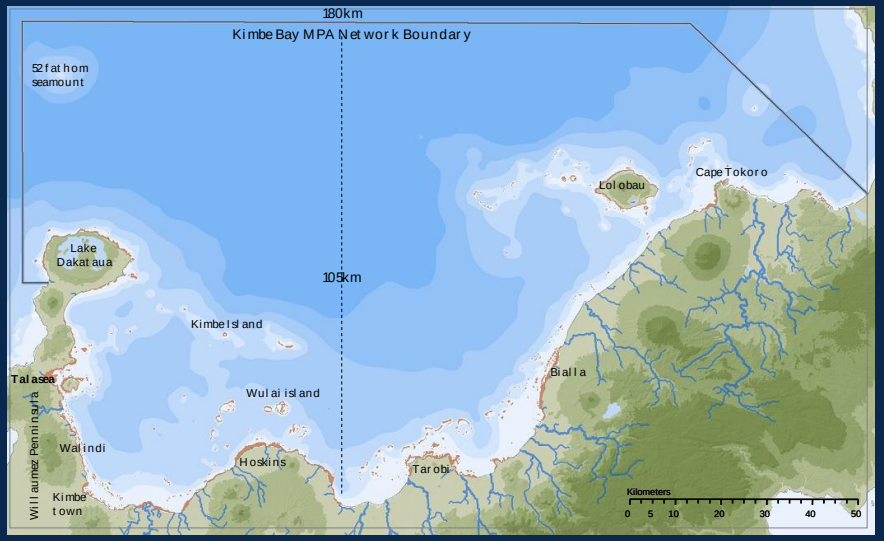
Applying Resilience Principles
Protecting Key Sites

Easy to apply for most targets (special and unique areas)
- Information easy to get and easy to apply using MARXAN

Harder to apply for resilient or resistant sites because
- Science still developing (harder to identify and confirm)
- MARXAN not designed to include risk assessment – under development

Used best available information (stratification, sea level) & spread risk





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Some principles easy to apply because information easy to get and apply using MARXAN

- Connectivity among habitat types
- Include whole ecological units where discrete features
- Choosing bigger vs smaller areas

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Applying Resilience Principles
Incorporating Connectivity

Harder to apply for connectivity within habitat types

- Information on biological patterns of connectivity difficult to get
- MARXAN not designed to do this – use trickery & manual checking!
- New techniques under development - right on the edge of what is possible!

Used

- Best available information (stratified)
- Rules of thumb
- Risk spreading

Will require further refinement over time