



An Ecosystem-Based Approach for Managing Tropical Ecosystems

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Overview



- What is Ecosystem Based Management (EBM)
- Why EBM?
- Communicating EBM
- Current Fiji EBM Sites
- Cornerstones of EBM
- Macuata Case Study
- Concluding note

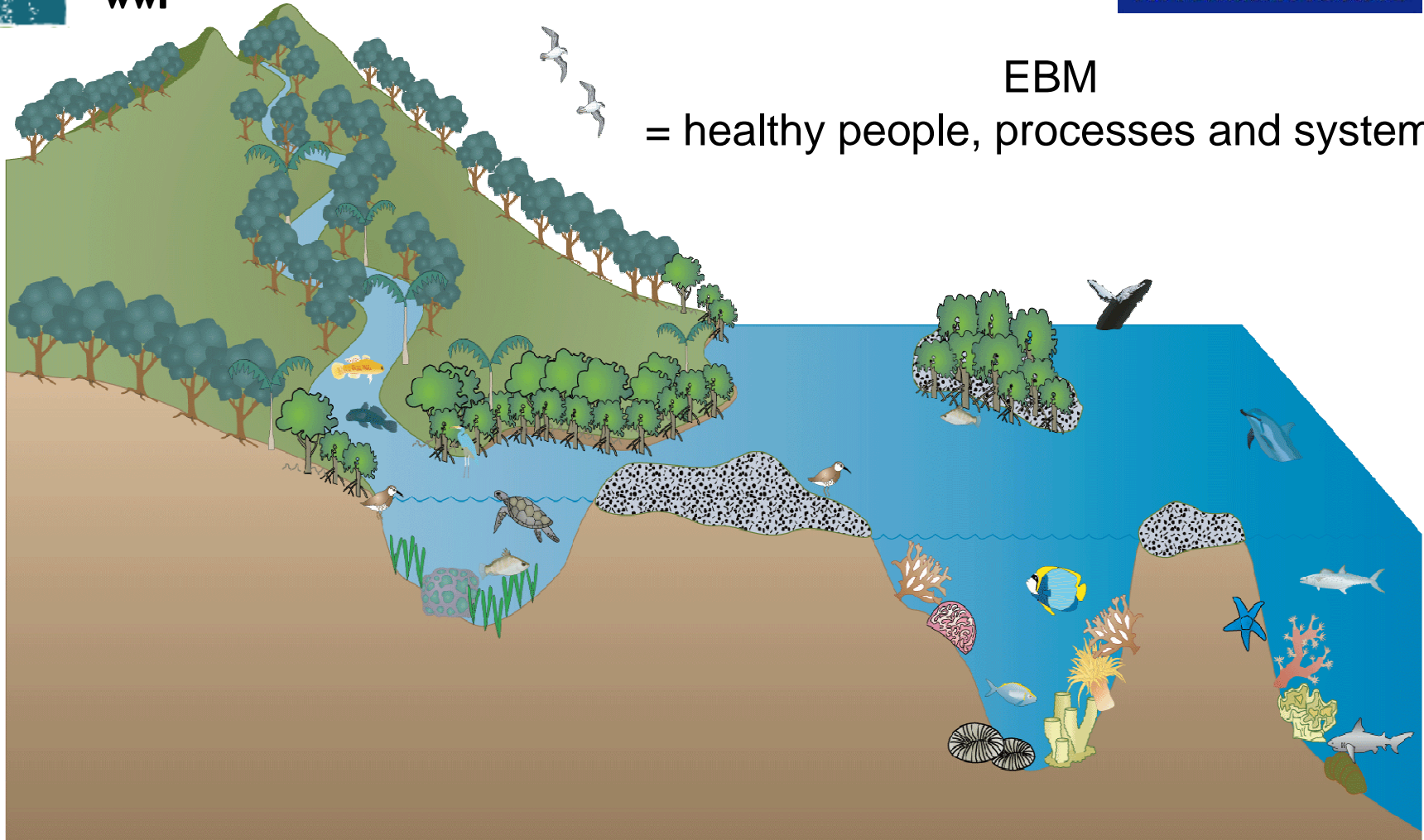




What is EBM?



EBM
= healthy people, processes and systems

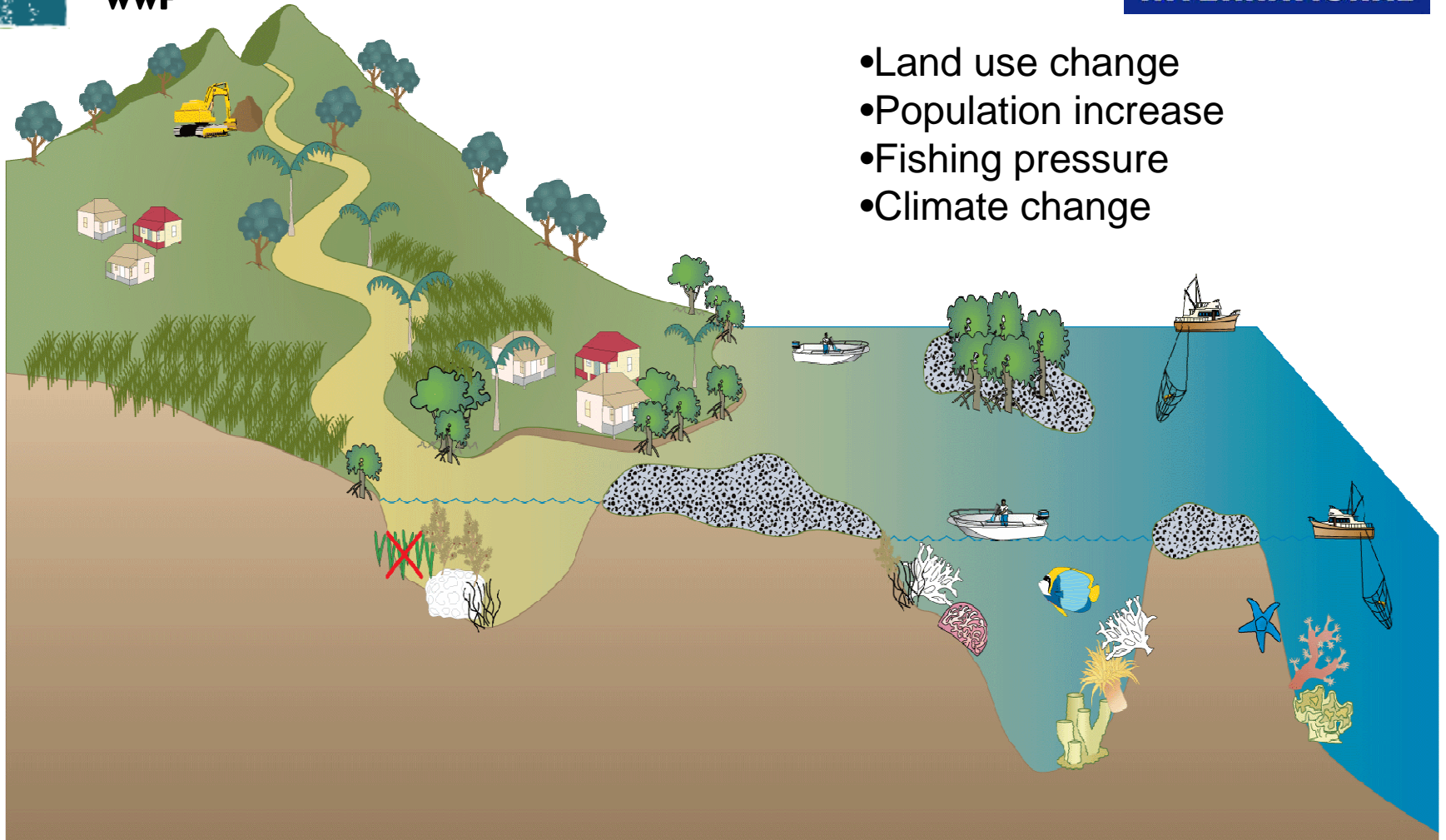




Why EBM?



- Land use change
- Population increase
- Fishing pressure
- Climate change





Communicating EBM



Spreading the Word through Key Messages

- Inland and lowland communities need to manage resources together
 - Successful EBM relies on cross-sectoral planning & management
 - EBM protects habitats for all stages of life
 - Improving land practices and fishing practices will help protect natural resources
- Public health and livelihoods depend on environmental health





Successful EBM relies on cross-sectoral planning & management

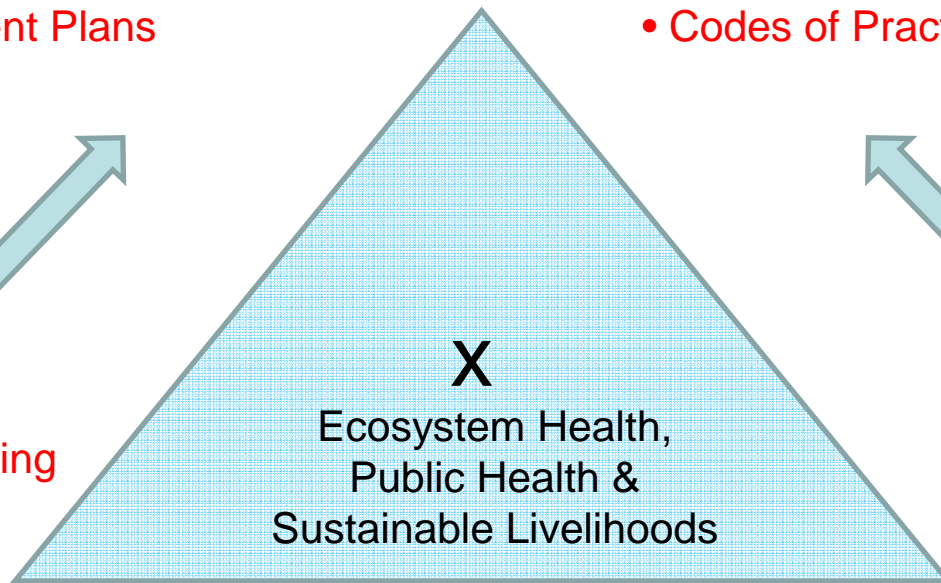
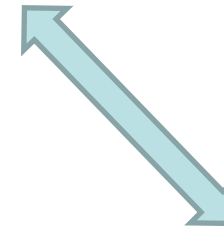
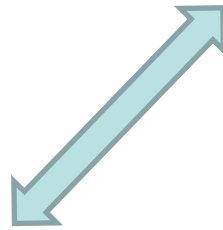
Cornerstones of EBM



MANAGEMENT & POLICY

- Management Plans
- Legislation

- Codes of Practice



- Community Messaging
- Publications
- Reports

- Scientific Research

COMMUNICATION



DATA INPUT

- Media

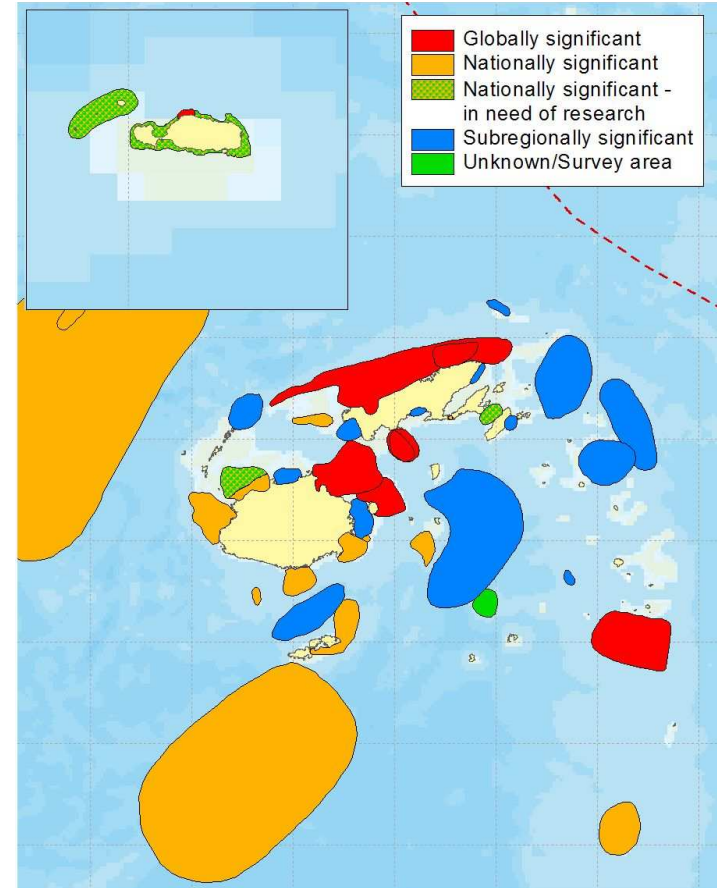
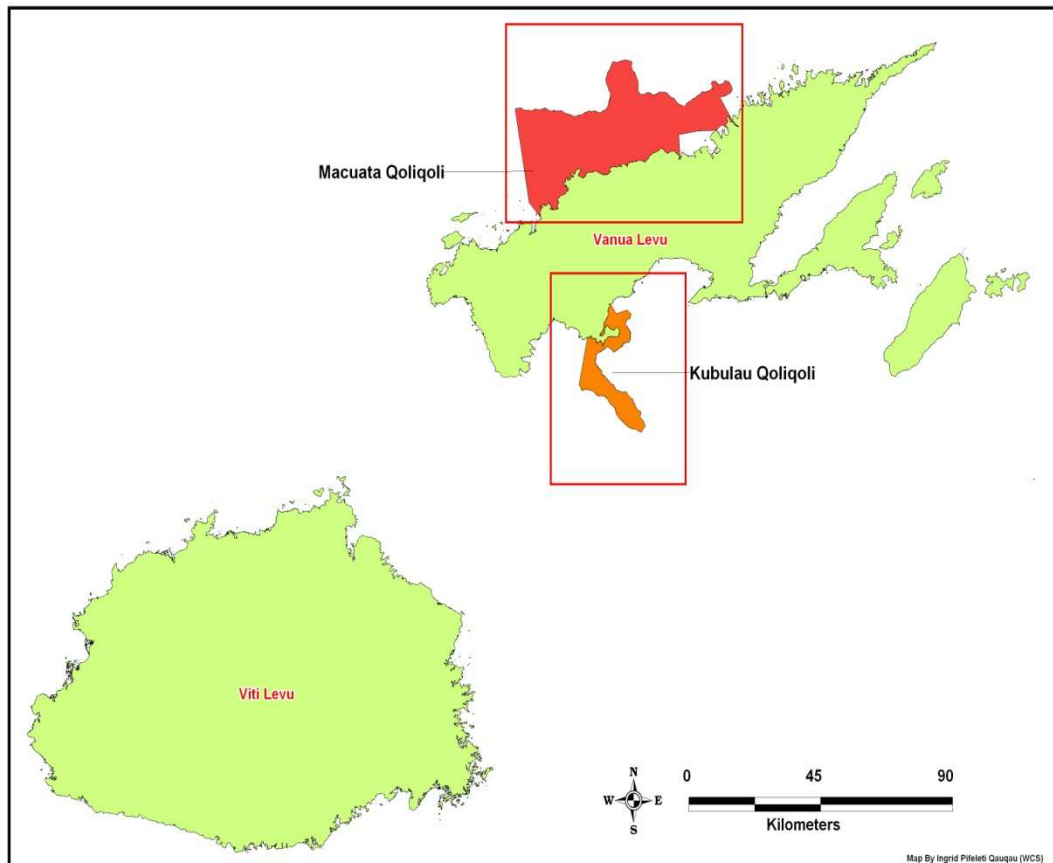
- Traditional Knowledge





Successful EBM relies on cross-sectoral planning & management

Current Fiji EBM Sites





Case Study: Macuata



History

- Request to Fiji Local Marine Managed Area (FLMMA) network through Institute of Applied Science at USP (Oct 2004)
- FLMMA Management Planning Workshop (Nov 2004)
 - 42 fishermen & traditional owners participated
 - Aged between 17 and 68 years
 - Been fishing between 3 and 48 years
 - 11 member FLMMA resource team

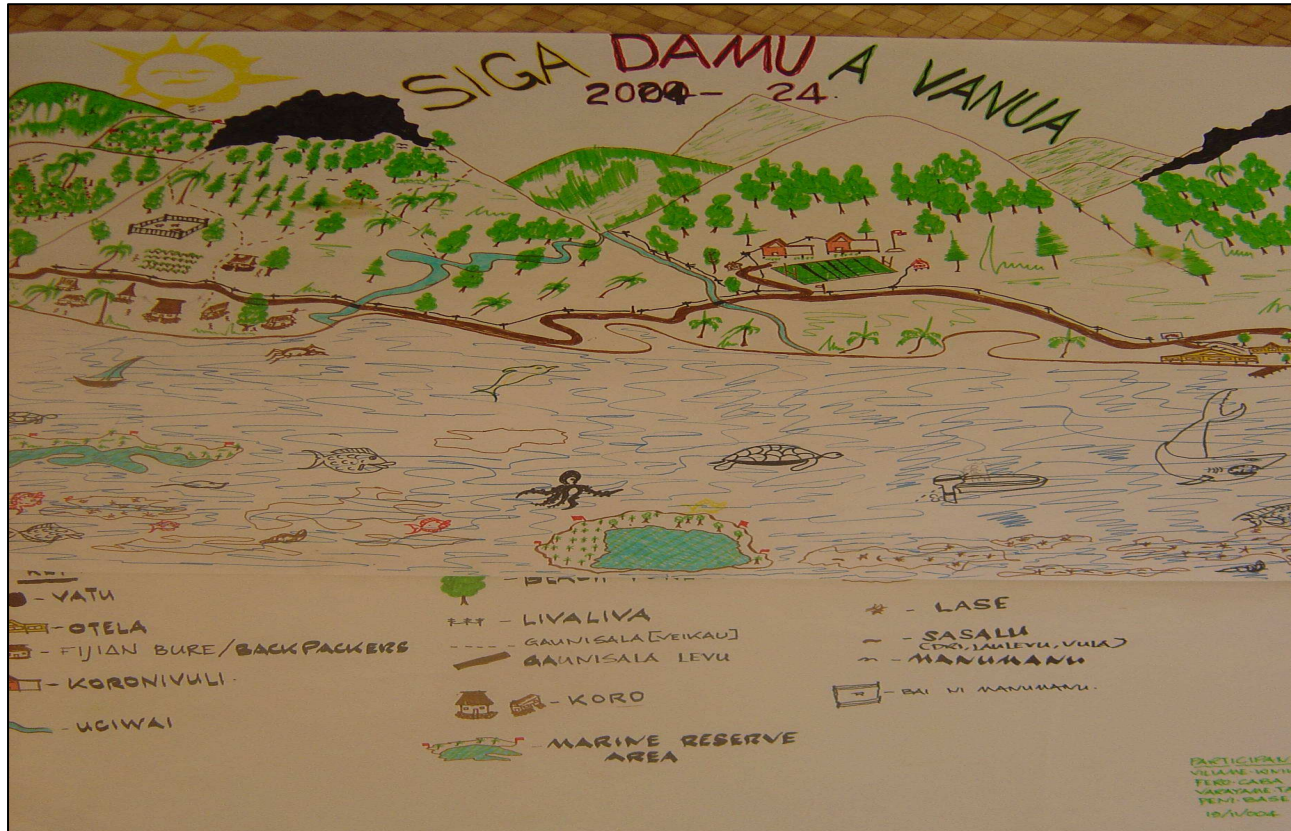


Macuata district chiefs discussing potential MPAs





Case Study: Macuata



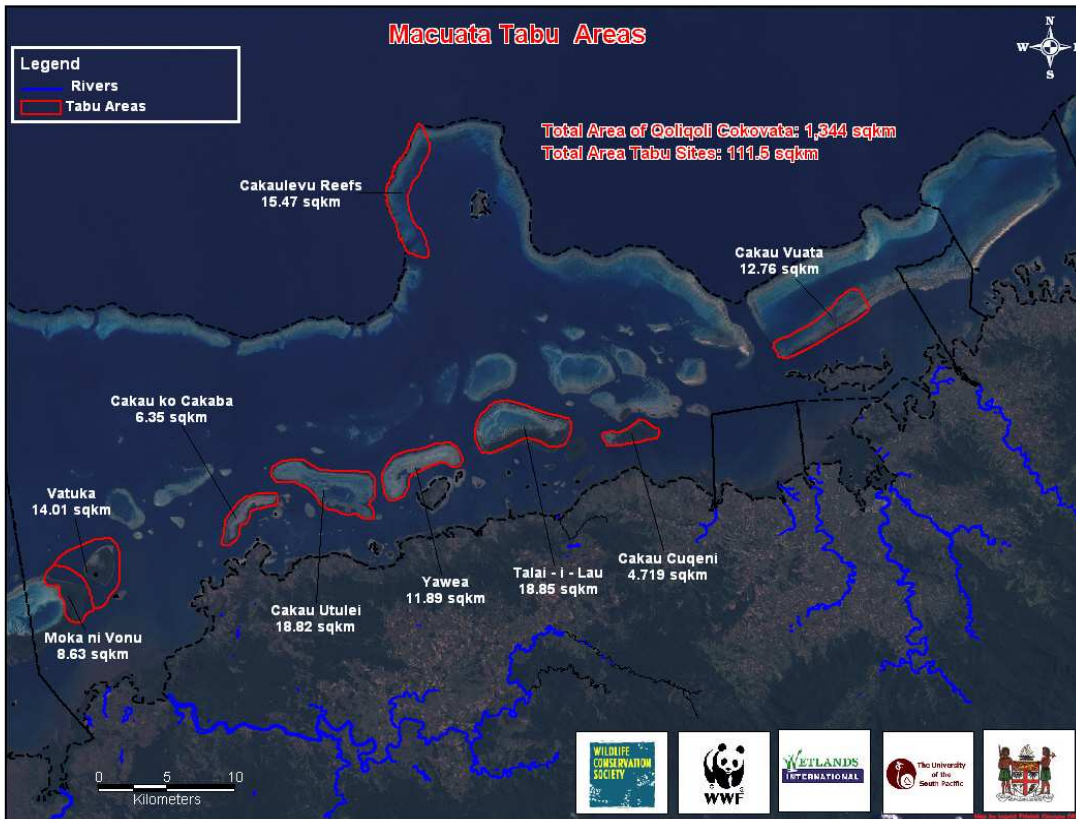
MPA network vision: *Siga Damu a Vanua* - “even when the sun is setting- there is enough time to achieve our goal”; proposed 5 MPAs & 3 Forest reserves and saw the establishment of the MPA committee.





Case Study: Macuata

MPA Network Design



Excessive Fishing from:

- illegal fishing;
- net fishing (placing nets) overnight;
- use of fishing methods that take/destroy adult and young fishes alike (using plant poison, gas, night diving)





The Great Sea Reef Survey

*for a living planet**

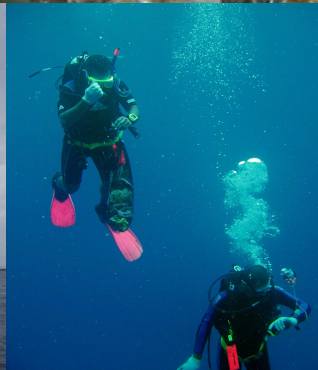
1 new reef fish species

44% of Fiji's endemic reef species

43 new records of hard coral species

12 IUCN Redlist of threatened species

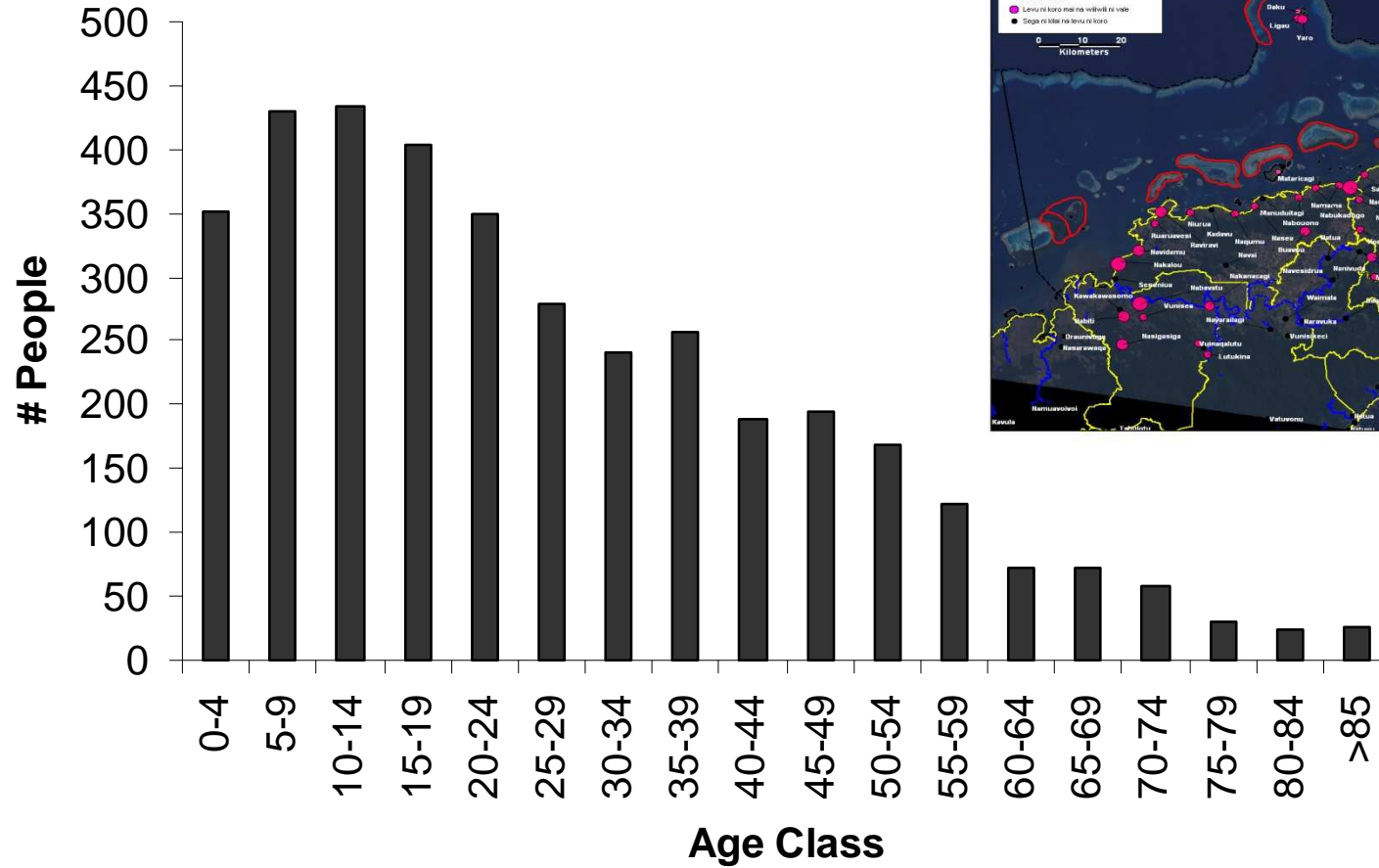
16 species new additions to the flora of the Fiji; 2 possibly new to science





Successful EBM relies on cross-sectoral planning & management

Demographics

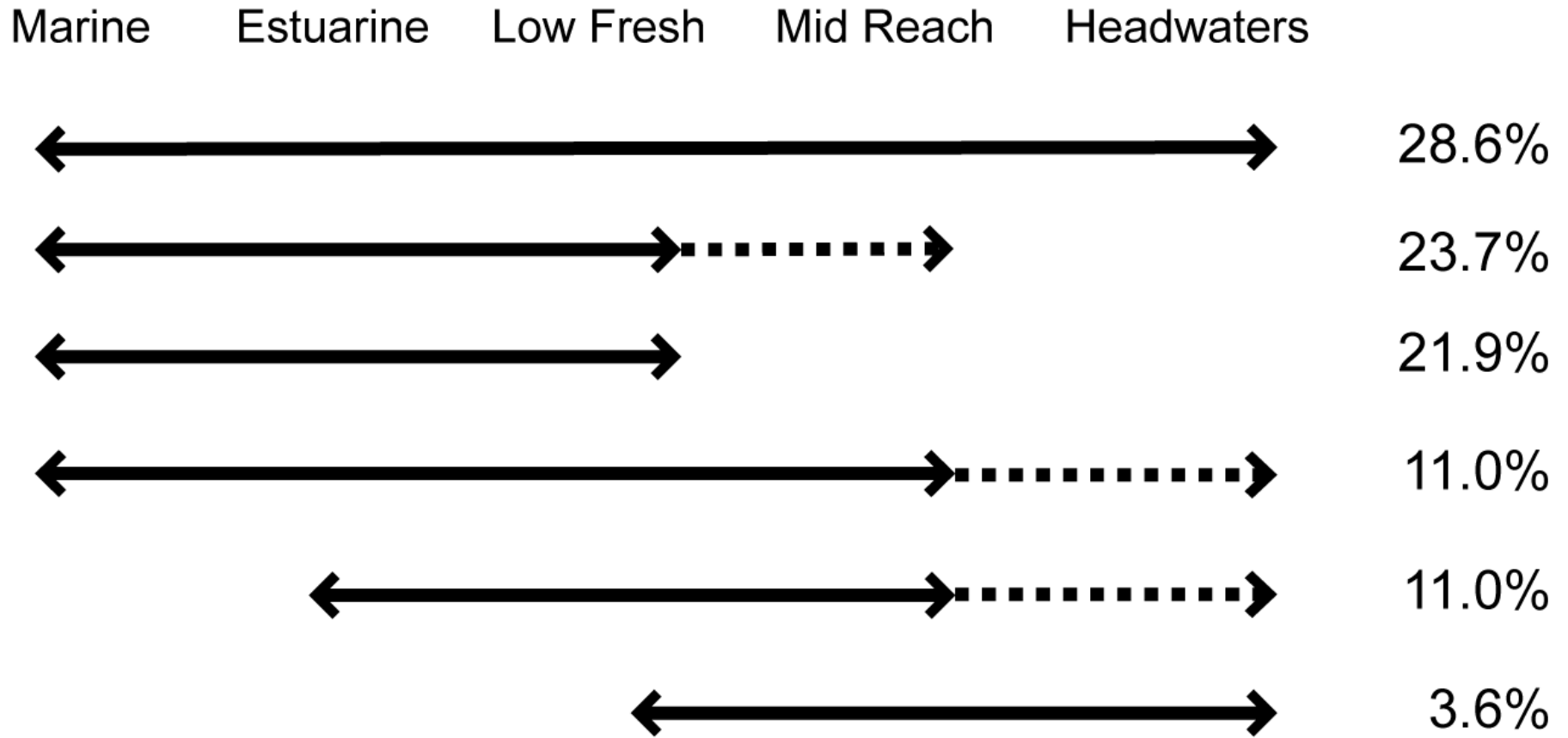




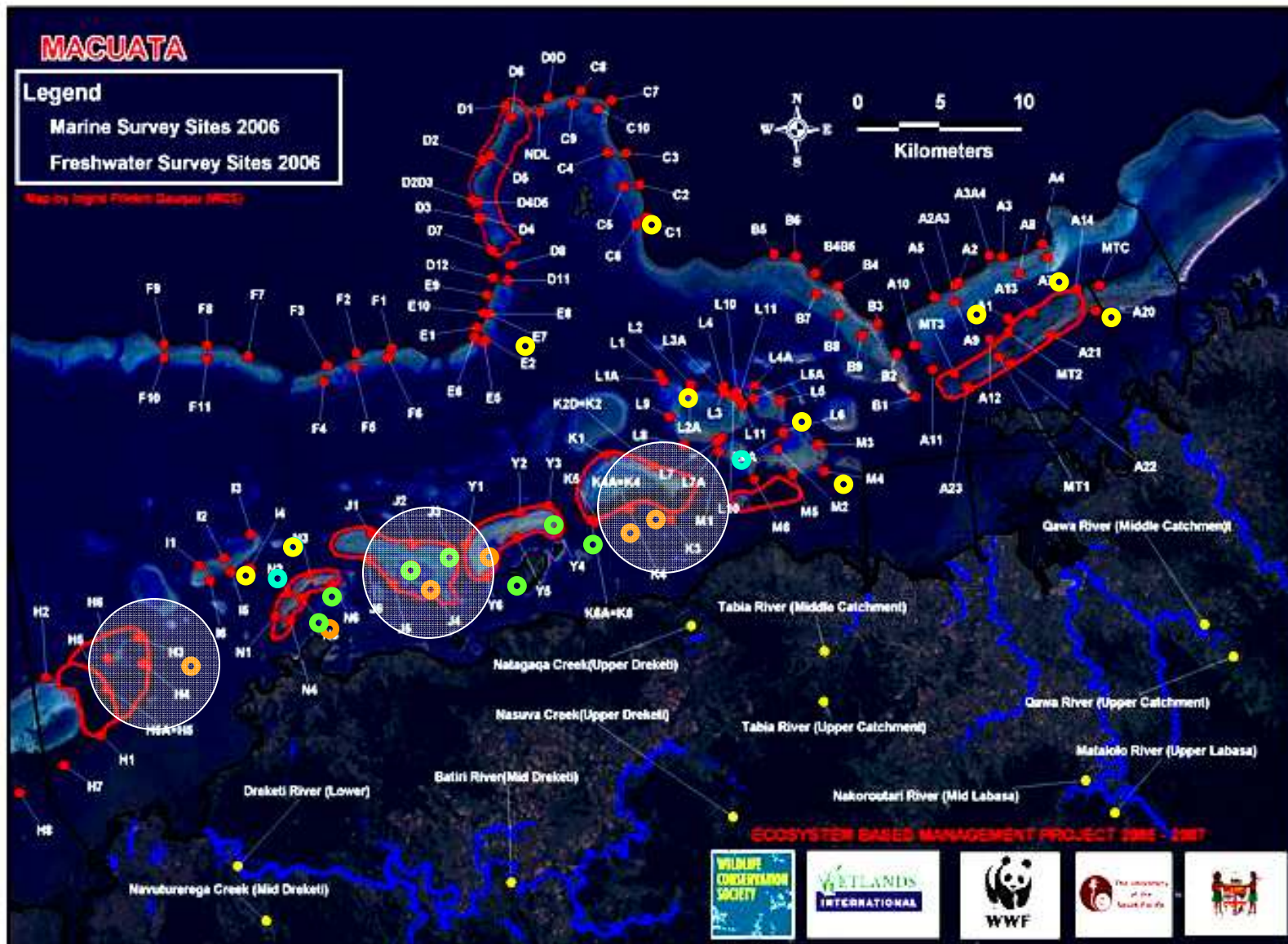
Successful EBM relies on cross-sectoral planning & management



Connectivity



Synthesis Map



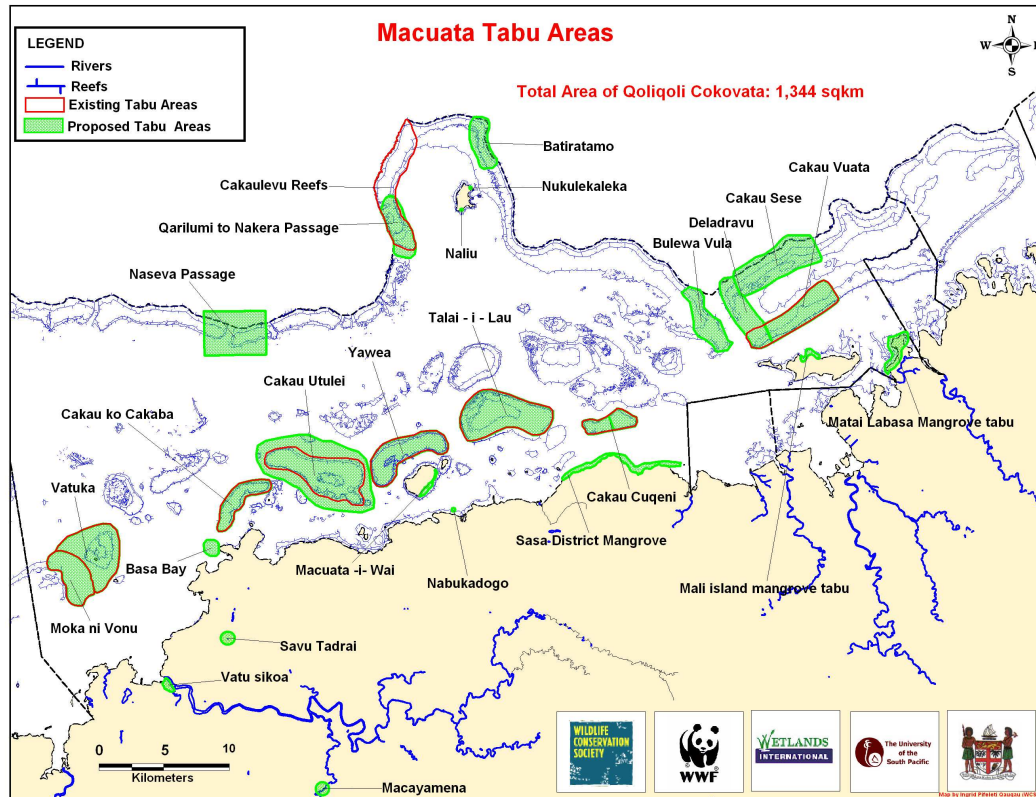
- MPA Inverts
- Open access Inverts
- MPA Fish
- Open access Fish
- High Coral Cover/ fish invert



Case Study: Macuata



Proposed New PA network



Reconfiguration:

- protect biodiversity and ecosystem functions;
- Improve food security and livelihoods





Case Study: Macuata

Proposed New PA network



- Additional 12 new marine/mangrove protected areas
- Additional 1 new forest protected areas
- 1 freshwater Protected area
- 3 turtle nesting beaches to be protected
- Varying types of management / rules for different sites





Successful EBM relies on cross-sectoral planning & management



Concluding Note

- *Ecosystem scale science is showing clear need for cross-sectoral management.*
- *Traditional knowledge*
- *Science information*
- *Identifying a processes cost effective.*
- *Adaptive management*





Successful EBM relies on cross-sectoral planning & management

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