

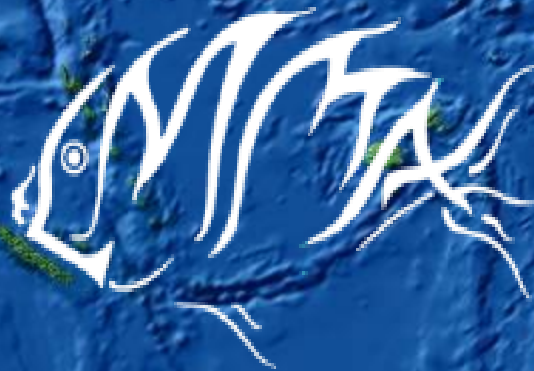
# Locally Managed Marine Areas (LMMA)- A pathway to Holistic and Integrated Island Management and Sustainable Development: A Fiji Case example

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Alifereti Tawake

[alifereti@livingwealthsolutions.com](mailto:alifereti@livingwealthsolutions.com)

Technical Advisor and Council Chair  
LMMA Network International



***Fish for the future!***

***Building Vibrant, empowered and resilient communities!***



# What is an LMMA?

1. A defined coastal or marine area
2. Under some form of traditional or community management or co-management



Box 1: Various names used throughout Southeast Asia and the Pacific to describe LMMA tools

Cook Islands	"ra'ui site"; "no-take two year closure"
Fiji	" <i>tabu</i> area"; "traditional reserve"; "community-protected area"
Hawaii	" <i>kapu</i> zone"; "traditional marine protected area"; "cultural marine conservation district"
Indonesia	" <i>sasizen</i> "; "community-based marine protected area"; "no-take zone"
Malaysia	"community-based marine protected area"; "no-take area"
Palau	" <i>bau</i> zone"; "no-take area"; "multiple-use marine protected area"
Papua New Guinea	" <i>tabu</i> area"; "customary areas"; "marine reserve"
Philippines	"community-based marine protected area"; "marine sanctuary"; "no-take zone"
Solomon Islands	" <i>tambu</i> zone"; "community-managed reserve"; "community conservation area"
Vietnam	"peoples' marine management area"; "village-managed reserve"

(after Parks and Salafsky 2001)





# The LMMA Network?

- The LMMA Network is a group of locally managed marine area practitioners who have joined together to improve the success of their coastal management and conservation efforts.





# Who We Are

- NGO staff
- Community
- Traditional and Fishfolk
- Village leaders
- Government reps





# How it all began?

- In the 1990s, different groups and individuals were working on various community resource management projects in the Oceania.
- Using traditional practices already in place, supported by modern techniques/science, to address community needs made more sense.
- From their many experiences, they recognized that a Western style ‘closed’ conservation system would not work well.





# Intimate Connections to Nature

- Totemic Species
  - Vesi tree (*Intisia bijuga*)
  - Snapper fish ( *Lethrinus* sp)
- Define us – A clan
- Moral obligation to protect
- Relationships resonates across Pacific and Oceania





# 'Mana' in Traditional Management Systems







# Traditional/Local/Indigenous Knowledge and Technology

Example: Using coconut leaves to build curtains as a pathway to open waters



Guiding Stranded Whales Out of Shallow Waters







•Philippines

•Palau

•Indonesia

•Papua  
New  
Guinea

•Pohnpei  
(Micronesia)

•Solomo  
n Islands

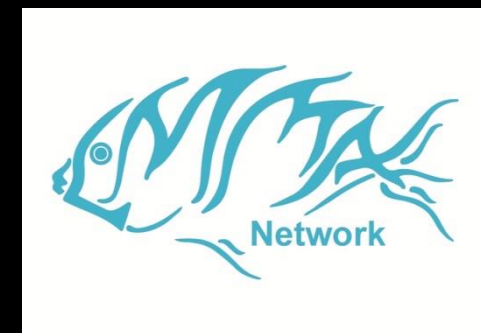
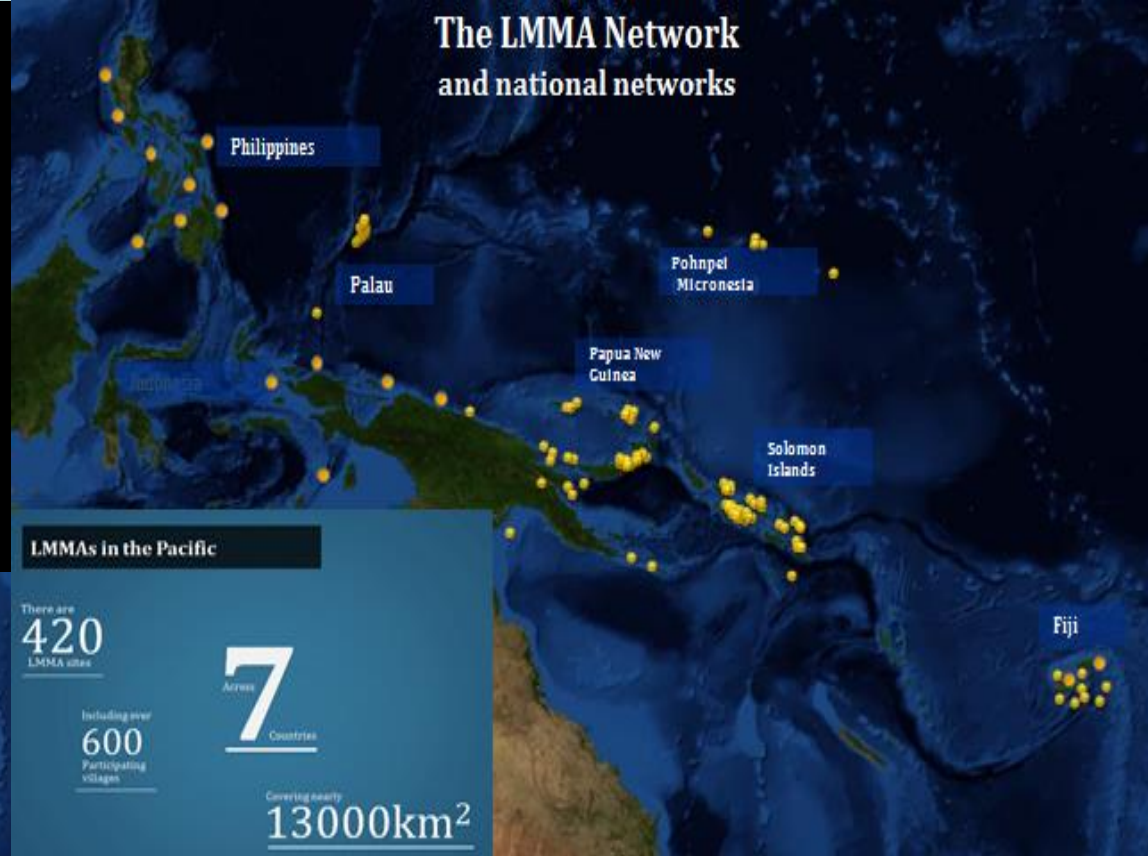
•Fiji

- 1000s of communities in Oceania
- 'Sea of Islands' or Big Ocean States



- Learning what works
- Sharing the experiences
- Building capacity
- Global, national and local networks
- Outreach, advocacy and policy development

## The LMMA Network and national networks

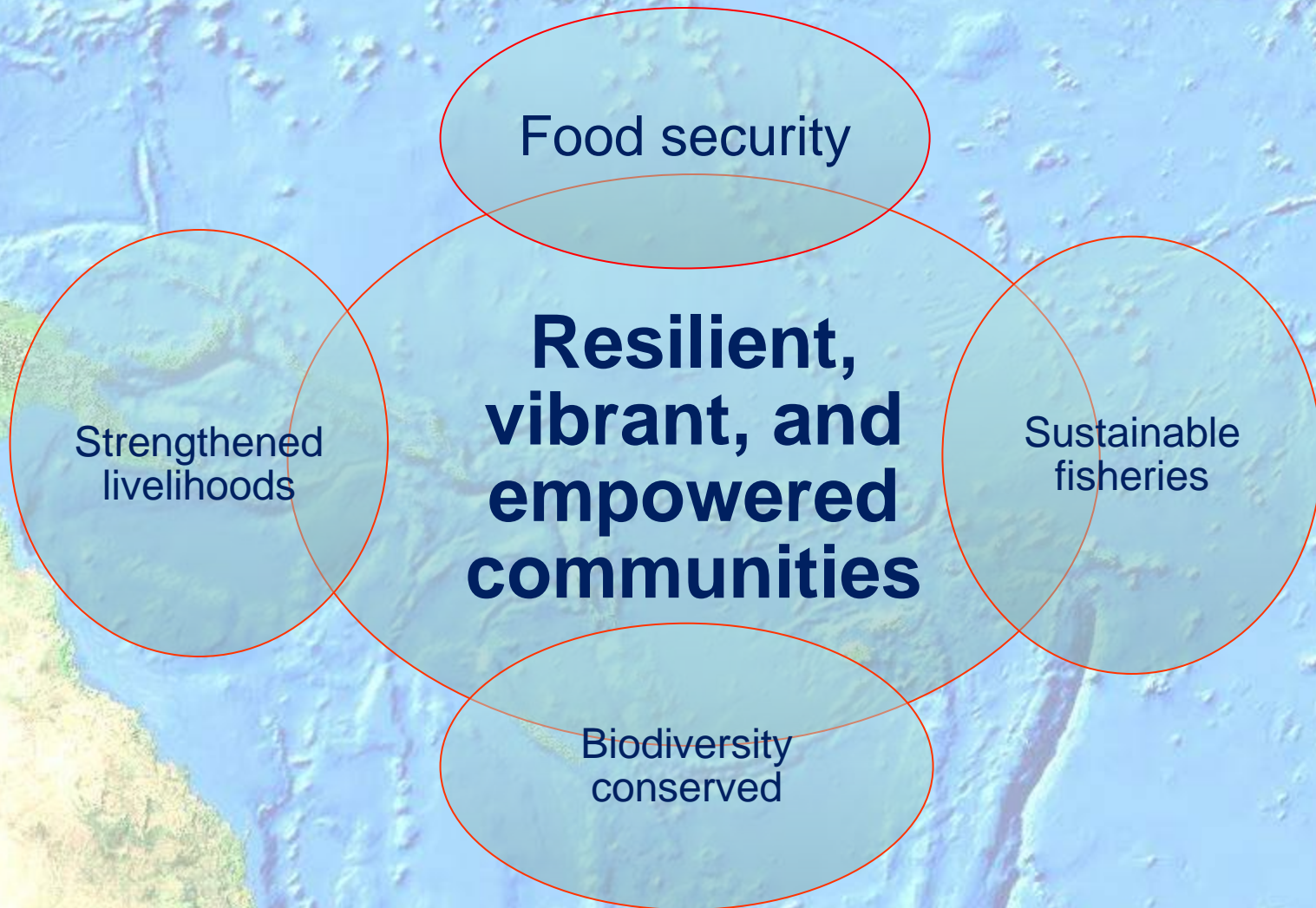


Blueventures and LMMAs of the Western Indian Ocean

**blue ventures**  
discovery through research



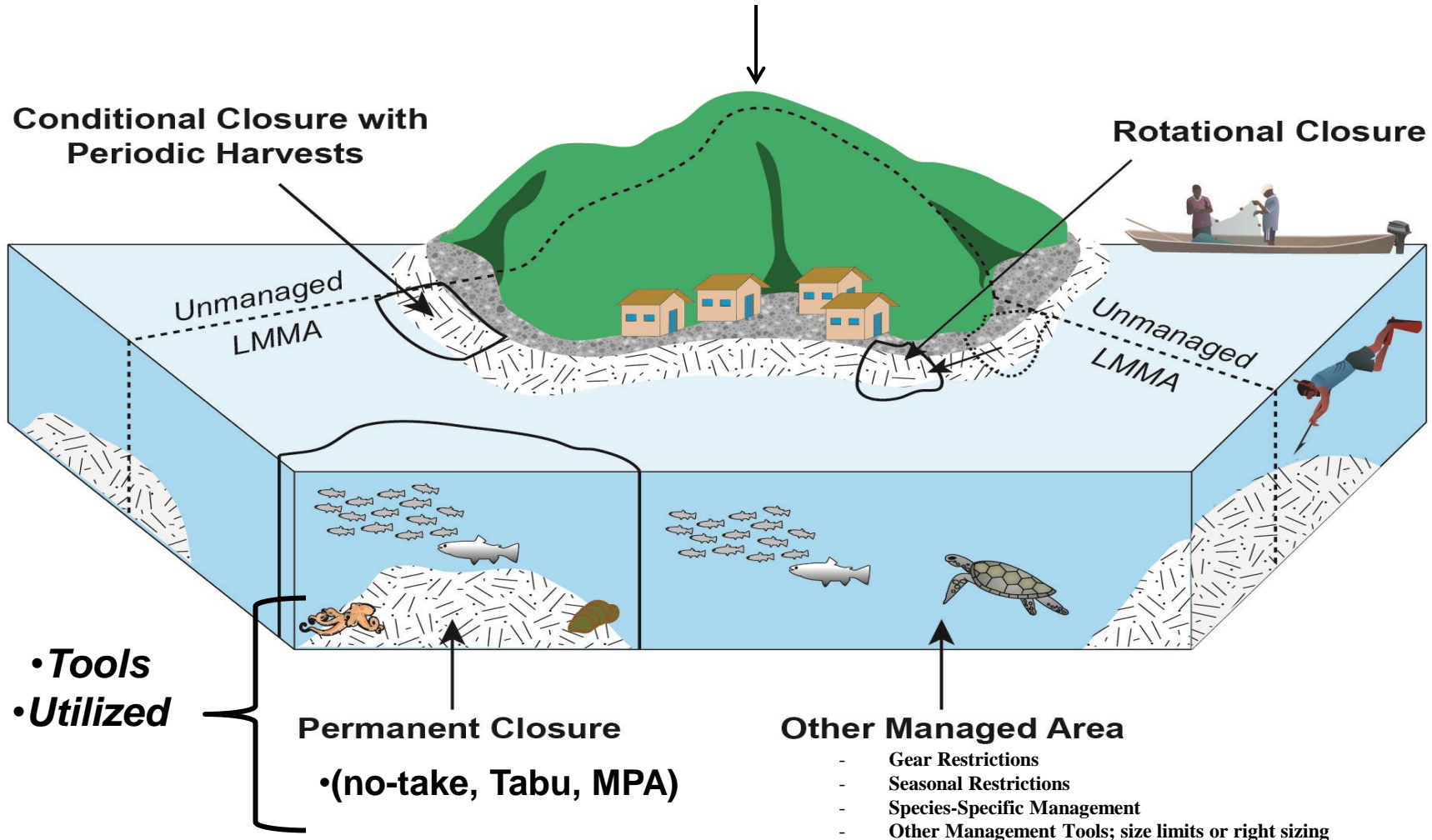
# Shared Vision





# Locally Managed Marine Areas (LMMA)

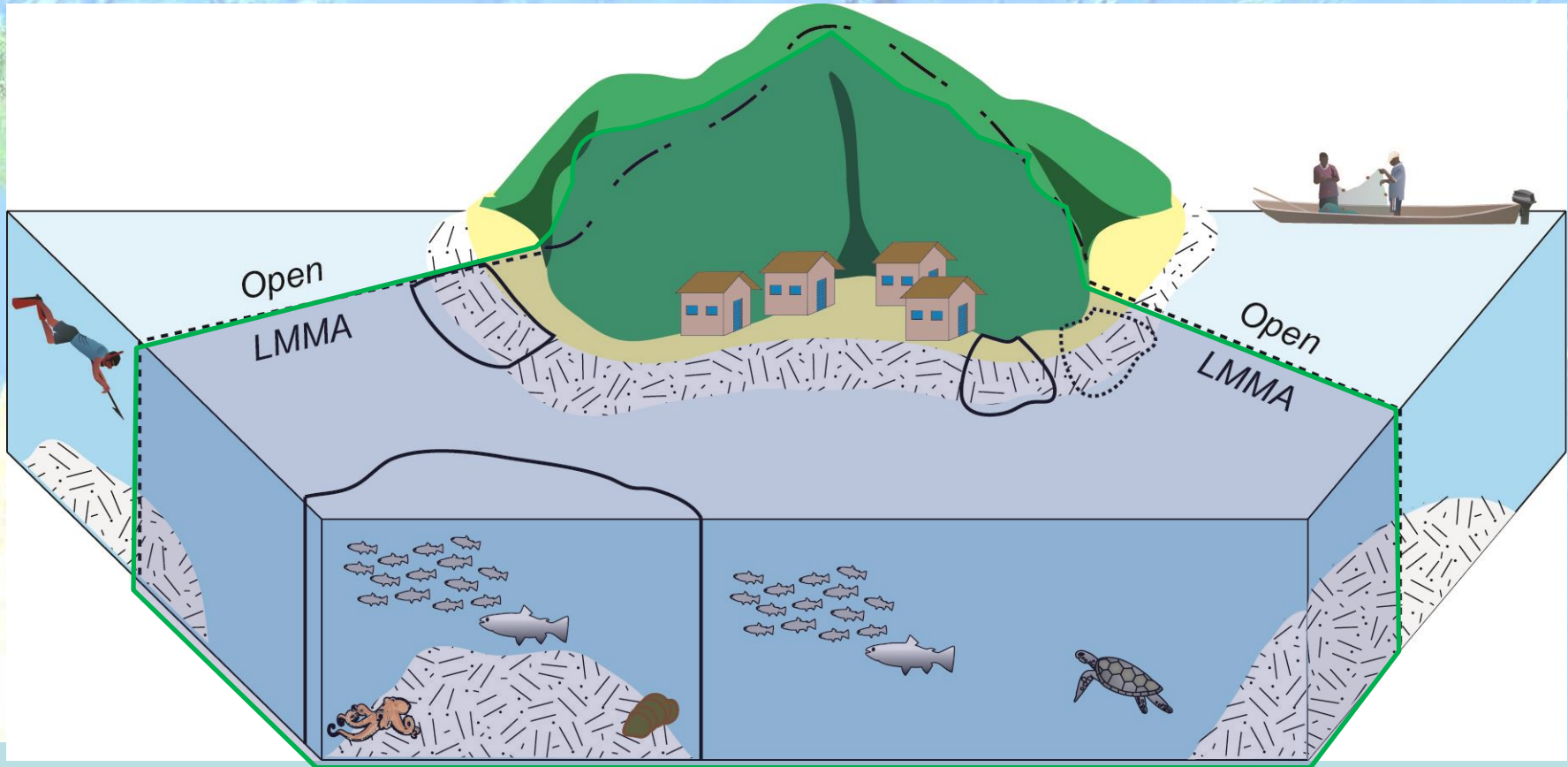
‘...nearshore land and sea areas (coastal wetlands) that is under some form of community-based management or co-management with government or NGOs...’





# LMMAAs most vital ingredient

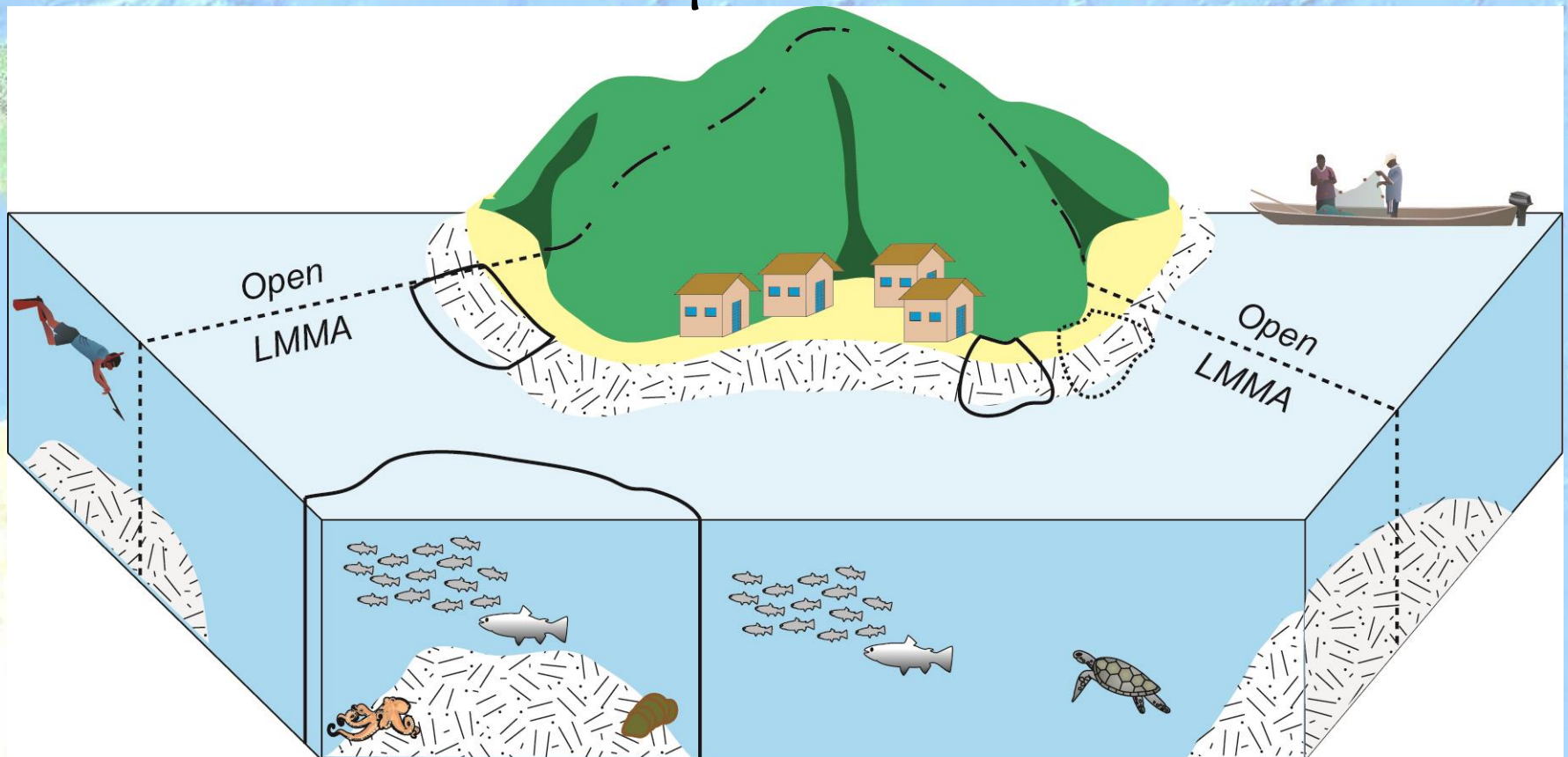
1. Rights to land and sea
2. people-centred approaches
3. Integrated ridge to reef, watershed (=coastal wetlands), sustainable management actions





# Holistic and Integrated Village Planning

Waste management, Disaster preparedness, climate adaptation, family planning, village governance, organic agriculture, renewable energy, sustainable development etc. etc.





# "NA SASAGA NI MAROROI NI YAUBULA" VERATAVOU PROJECT

Ucunivanua, Naivuruvuru, Kumi, Navunimono, Sawa, Uluiloli, Naloto, Naigani

Na kalougata kei na sautu ni bula ena veisiga ni mataka, ni vanua ko Verata ena vakatau ena noda vakatulewa vakayalomatua. Na noda i yau bibi duadua o keda na lewenivanua na noda i yau bula mai cakau kei na dela ni vanua. Oqo ga na vanua ena sotavi kina nai gu ni cola vanua, Lotu, matanitu ka vakauasivi na bula ni matavuvale kei na vuli. "Ni maroroi nai yaubula ena sautu na vanua"



Vakadidike



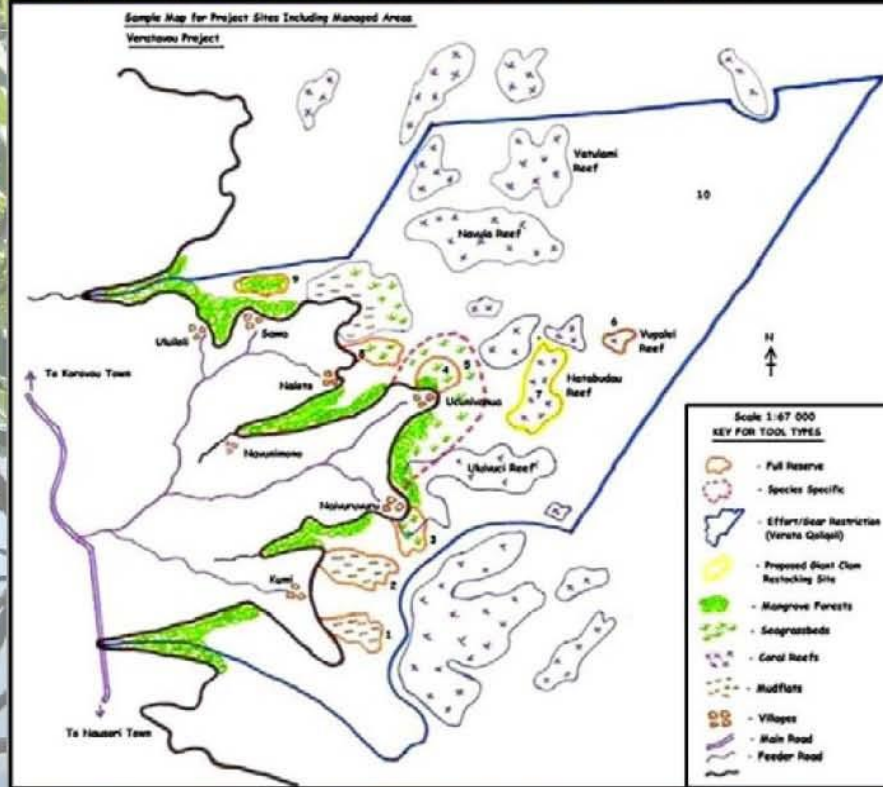
Ucunivanua



Ura



Vasua



Vuli tara



Kaikoso



Vakadidike



Mana

1. Sa vakatabui na vakayagatani ni duva
2. Sa vakatabui na vakayagatani ni lawa matailalai
3. Sa vakatabui na vakayagatani ni kasi kei na compressor

4. Meda vakalaiseni talega na dau volitaki sasalu se ika

5. Me kua ni musuki vaka veitalia na dogo

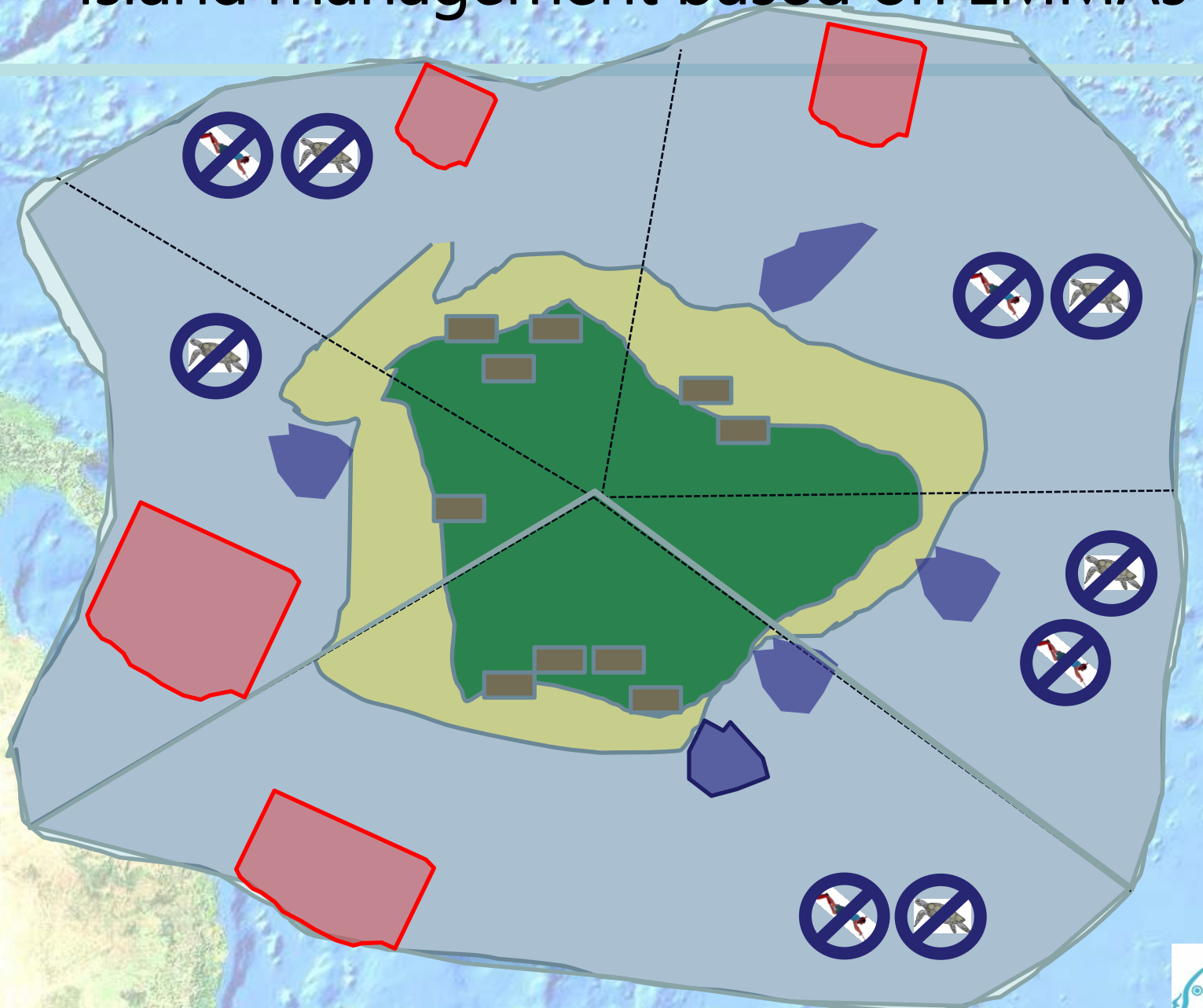
6. Me kua ni benuci na matasawa

7. Me kua ni qolivi na sasalu lai

Na vakanuinui ni sasaga oqo me na sautu tale mai nai qoliqoli, laurai tale na sasalu sa vali, sautu mai na bula, veilomani ka cakacakavata na lewe ni vanua, mera rawa ka vakalevu nai tabagone, ka ra tamata qaga kina na kawa kei Verata ni mataka. Ena qai colati vakavinaka nai vua ni Vanua, Lotu kei na Matanitu ni sana katoa nai vurevure ni bula ena veikorokoro.



# Island management based on LMMAs





# Fiji case example: Kadavu Island-Based Management

● Village

- *74 villages and LMMAs, 11,000 population*

□ Qoliqoli

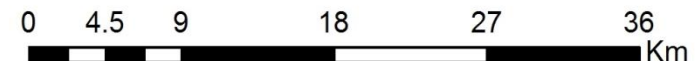
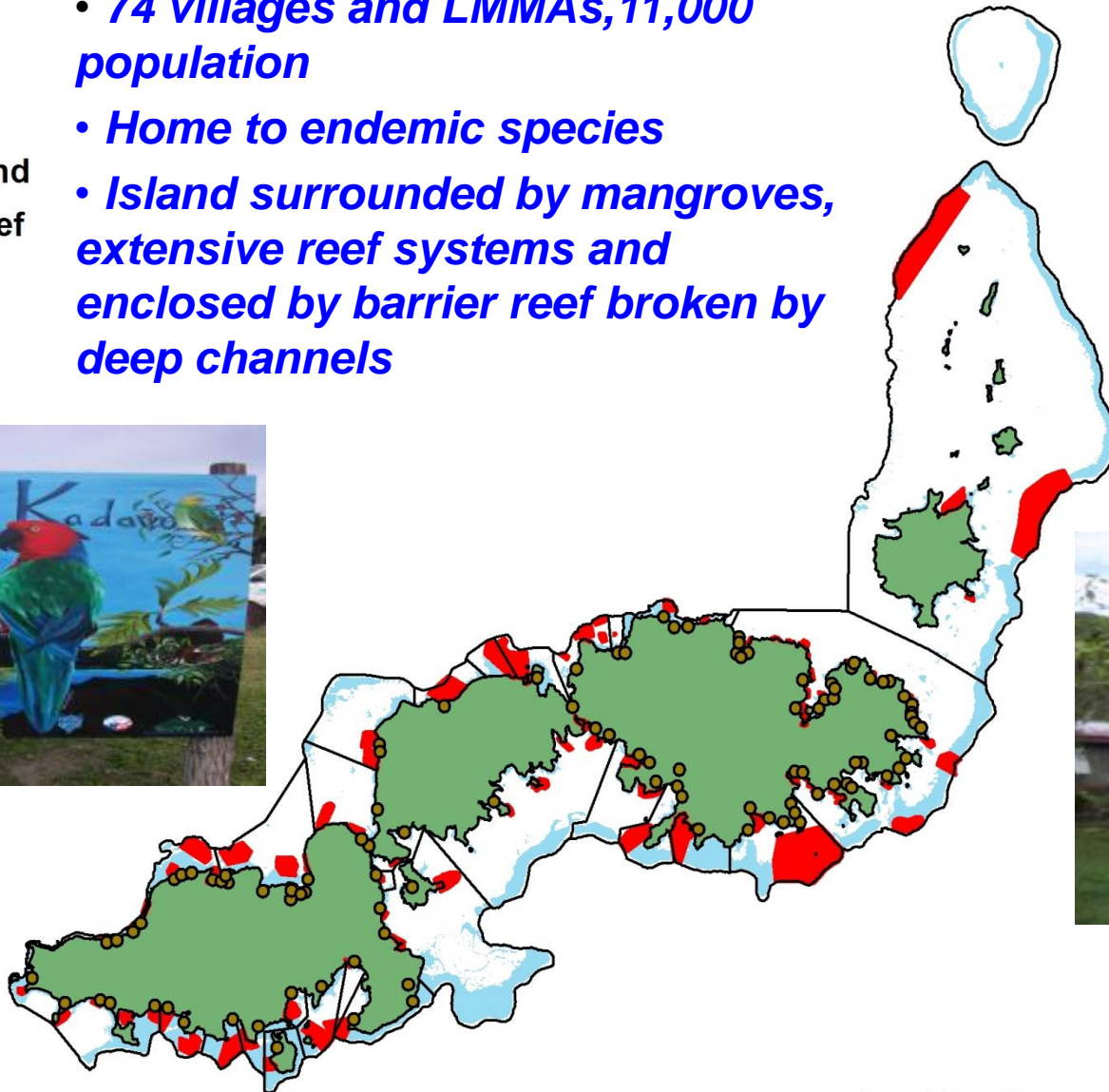
- *Home to endemic species*

■ Tabu

- *Island surrounded by mangroves, extensive reef systems and enclosed by barrier reef broken by deep channels*

■ Kadavu Island

■ Exposed Reef





# Kadavu Provincial 2030 Strategic Priorities

Strategic Priority  
1: Sustainable  
Farming – Going  
Organic

Objective: To be  
certified as an  
organic island by  
2020



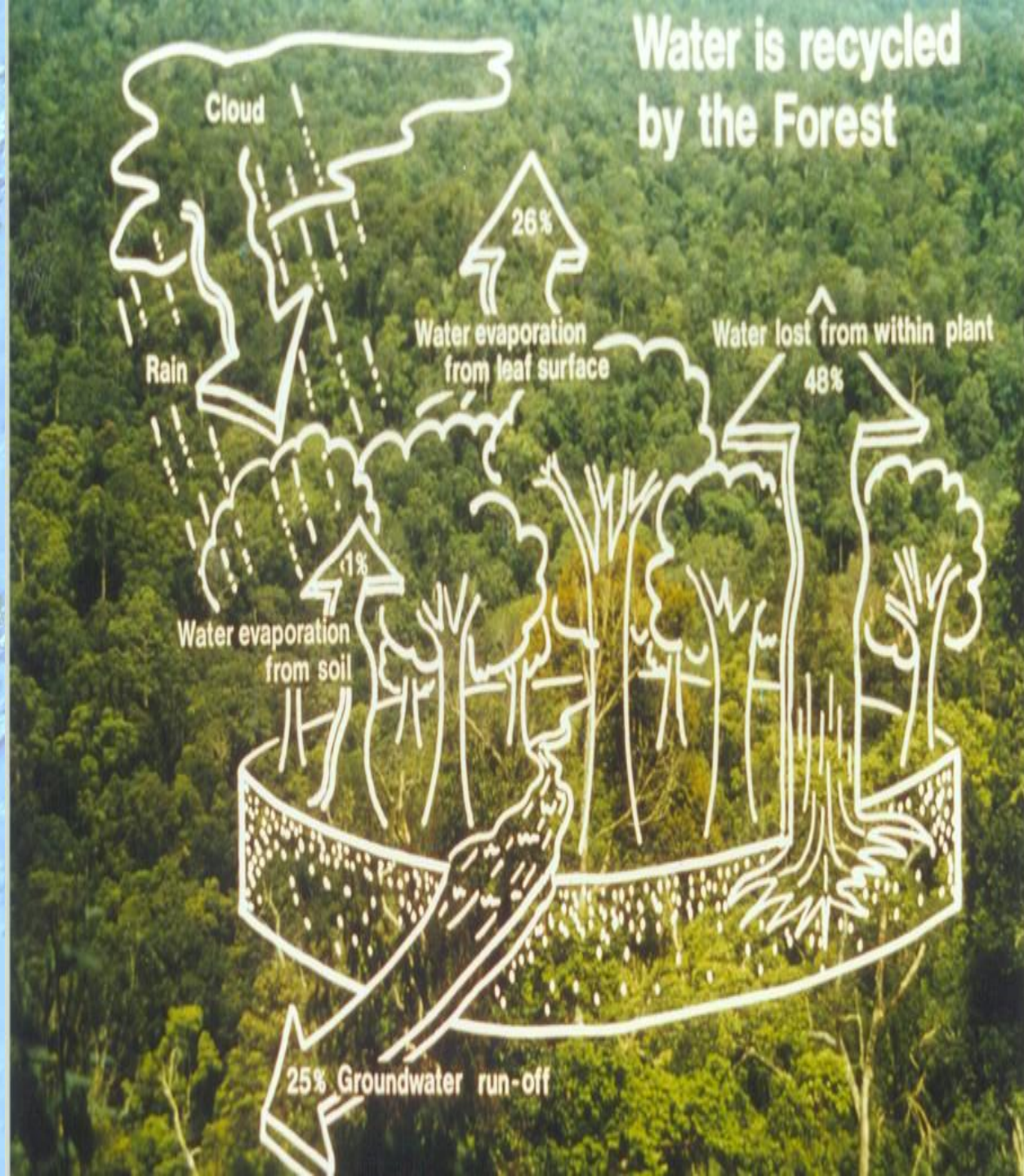






## Strategic Priority 2: Sustainable Water Source

Objective:  
Protect all  
watershed  
areas by 2020

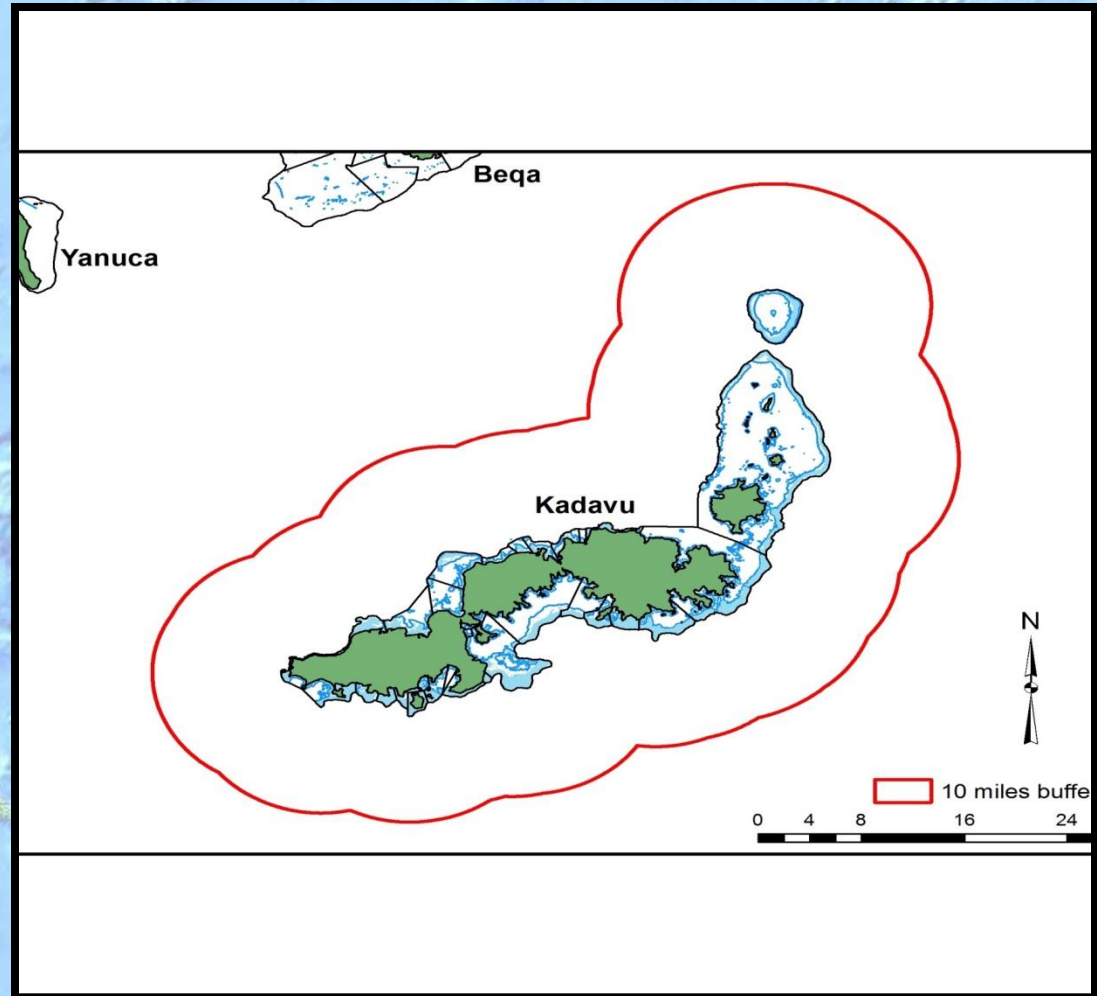




# Strategic Priority 3: Ocean (SDG 14: UN Ocean Commitment)

By 2025, Scaling up effective local management and governance as a foundation for climate change adaptation through:

1. reef to ridge management;
2. seascape or offshore marine management;
3. improve coordination, enforcement and partnership





## Strategic Priority 4: Create sustainable livelihoods

Objective 1: Certification and create brand /improve local- international market for locally grown and sustainably harvested labelled products ( seafood, organic)

Objective 2: Create alternative income generations that are sustainable

- Bee Keeping – organic honey
- Selling organic products to hotels/resorts
- Promote and market ecotourism by engaging local communities – leaving footprints only

Objective 3: Value adding



## Strategic Priority 5: Renewable Energy

Objective: To reduce dependence on diesel fuel generator to 0% by 2030

Explore Potential for

- All villages to be Solar Powered
- Wind/Wave/Geothermal Energy

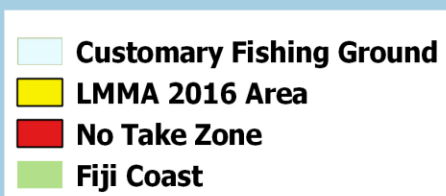






## Fiji's commitment at UN Ocean through FLMMA to achieve 100% inshore management (35,000 sqkm) by 2020

- 79% of inshore fishing area is actively under local management so far
- 11% of inshore area is under permanent or periodically opened no-take reserves
- 71% of coastal villages (466) are involved



50 0 50 100 km



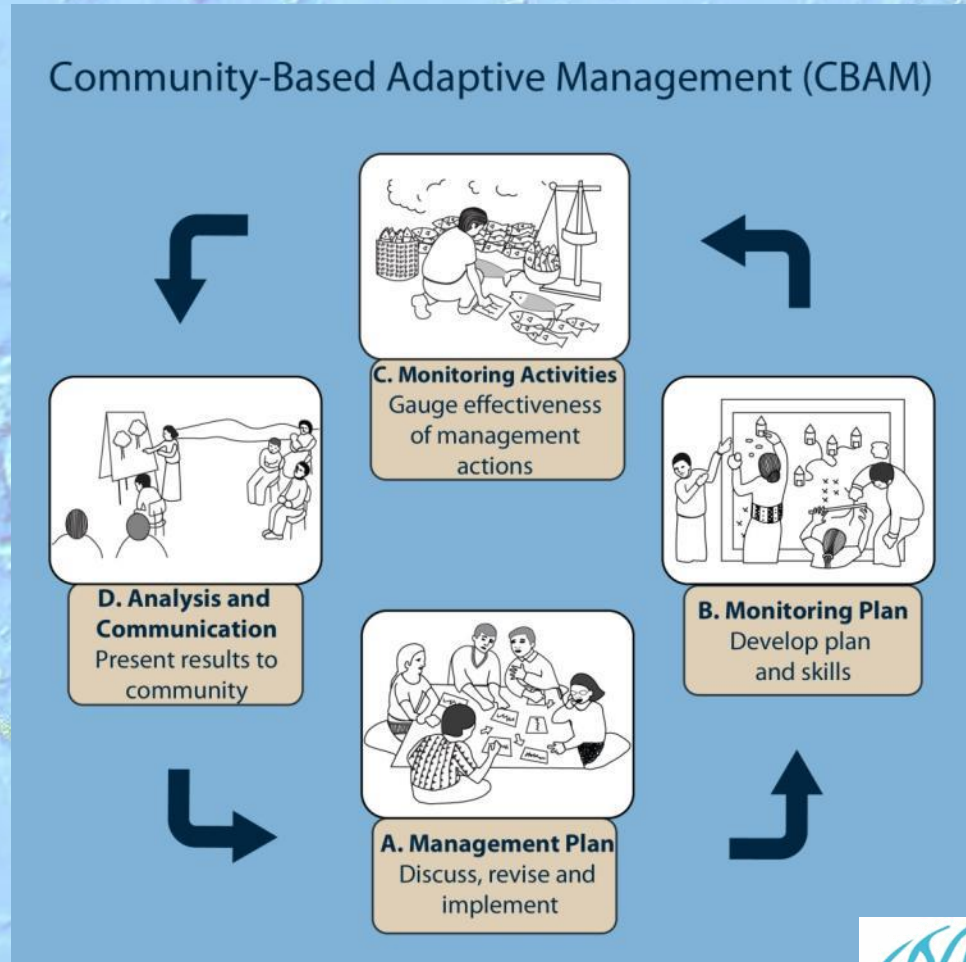
# The 100% Solution





# Learning by doing – CBAM

- A management cycle where local stakeholders make a plan and implement it, check how it is going, analyse and communicate results, revise the plan if needed, and continue.







•Collect data –community monitoring



•Analyze data and information



•Present results



•Socialize information



# Community Empowerment

- Participatory rule-making
- Dramatize complex scientific concepts





# Local Management Efforts







• Adopt-a-tree for reforestation







## PPPP (4Ps)

Public  
People  
Private  
Partnership

# RESORT

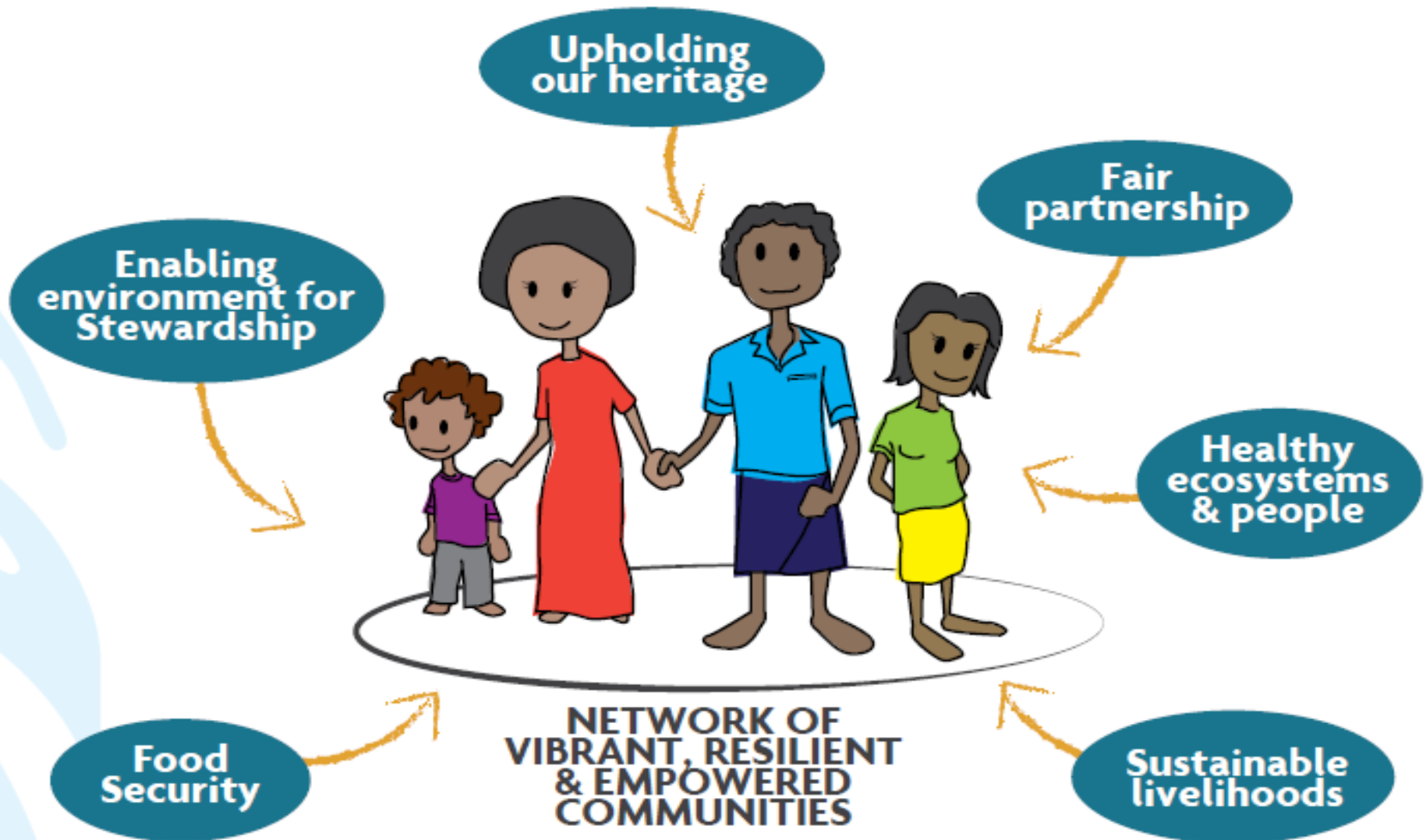
~~Support~~

•Coral Reef Alliance





# Fiji LMMA Network's Shared Vision









# Food Security, Livelihoods and Resilience



- Return of species not seen for generations (e.g. box crab in photo)
- Improved community organization and human well-being (e.g. waste management campaigns)





# Food Security, Livelihoods and Resilience



- Increases in fish and invertebrate biomass documented through scientific and community monitoring 100-300% in 3-5yrs
- Increase in household income – on average 30% increase in 3-5 years
- Increased income through payments for ecosystem services









# Resilience Thinking

Diversity of strategies implemented by the locals;  
requires integrated planning

- ✓ Start small (village) and scale up; LMMA
- ✓ Overfishing, urgent ... entry to communities
- ✓ LMMA approach helps organise communities
- ✓ *Integrated Village* Management Plans – 360 degrees view
- ✓ Scaling-up from LMMA to Locally Managed Areas
  - ✓ Awareness
  - ✓ LMMAs
  - ✓ Forest reserves, Sacred Sites
  - ✓ Farming practices
  - ✓ Waste Management
  - ✓ Governance & Leadership
  - ✓ Income generation – sea weed farming
  - ✓ Coastal protection
  - ✓ Climate change adaptations
  - ✓ Disaster preparedness
  - ✓ Sustainable development - Solar lighting





# Recognition and Awards

1. 2002, United Nations Equator Initiative, Biodiversity conservation and poverty reduction
2. 2004, Whitley Foundation for Nature Award, People and Environment
3. 2005, NOAA Walter B. Jones Award for Diversity in Coastal Management
4. 2007, World Summit Award
5. 2015, WWF International - Duke of Edinburgh Conservation Medal
6. 2016, Distinguished Service Award, Society of Conservation Biology Oceania





# Opportunities and Challenges

1. Community empowerment is critical for scaling up and sustaining initiatives
2. Networking – Greater than the sum of our individual community efforts
3. Platform for Implementation
  - Achieving CBD and other global targets and contributions
  - RAMSAR Convention especially Core Values and Principles;
  - Sustainable Development Goals ( Poverty reduction, Water, Ocean, Gender, Climate Change, Partnership)
4. Increasing support to where there are lasting and impactful outcomes - donors and governments











Vinaka Vakalevu

Thank you

[alifereti@livingwealthsolutions.com](mailto:alifereti@livingwealthsolutions.com)

[livingwealthsolutions@gmail.com](mailto:livingwealthsolutions@gmail.com)

[www.Immanetwork.org](http://www.Immanetwork.org)