Port Vila ESRAM Project

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Presented by:

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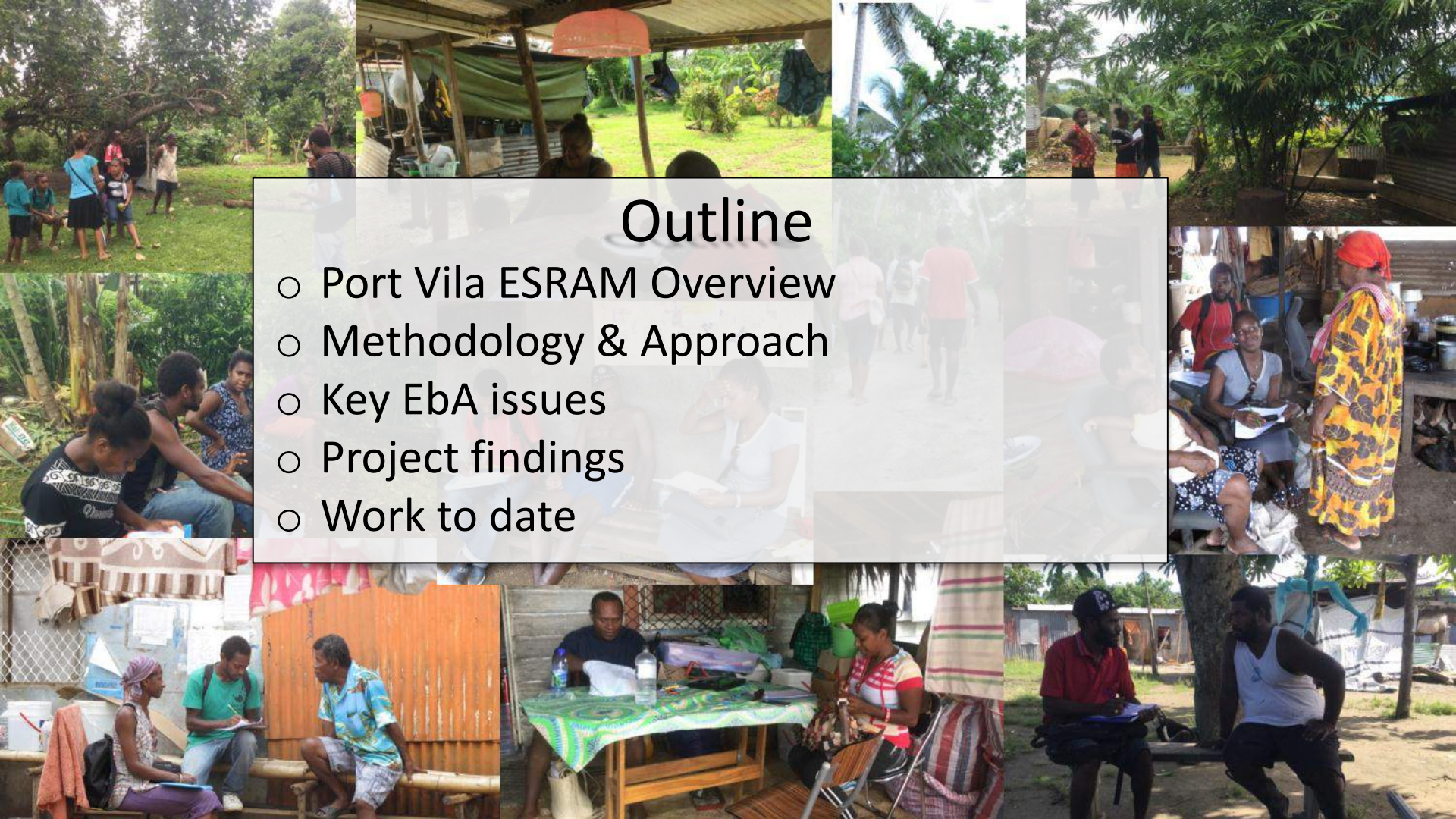

Outline

- Port Vila ESRAM Overview
- Methodology & Approach
- Key EbA issues
- Project findings
- Work to date

Port Vila ESRAM Overview

- Partnership between RMIT University, Vatu Mauri Consortium (VMC) and VEPAC (Vanuatu Education Policy Advocacy Coalition network)
- Included Port Vila and key peri-urban areas
- Terrestrial and marine environments
- Ridge to Reef

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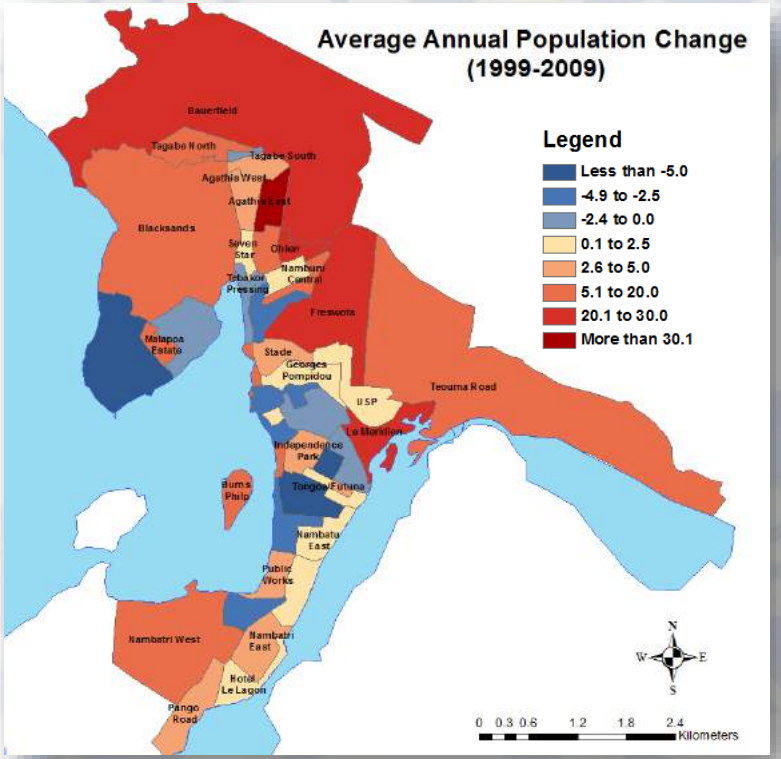
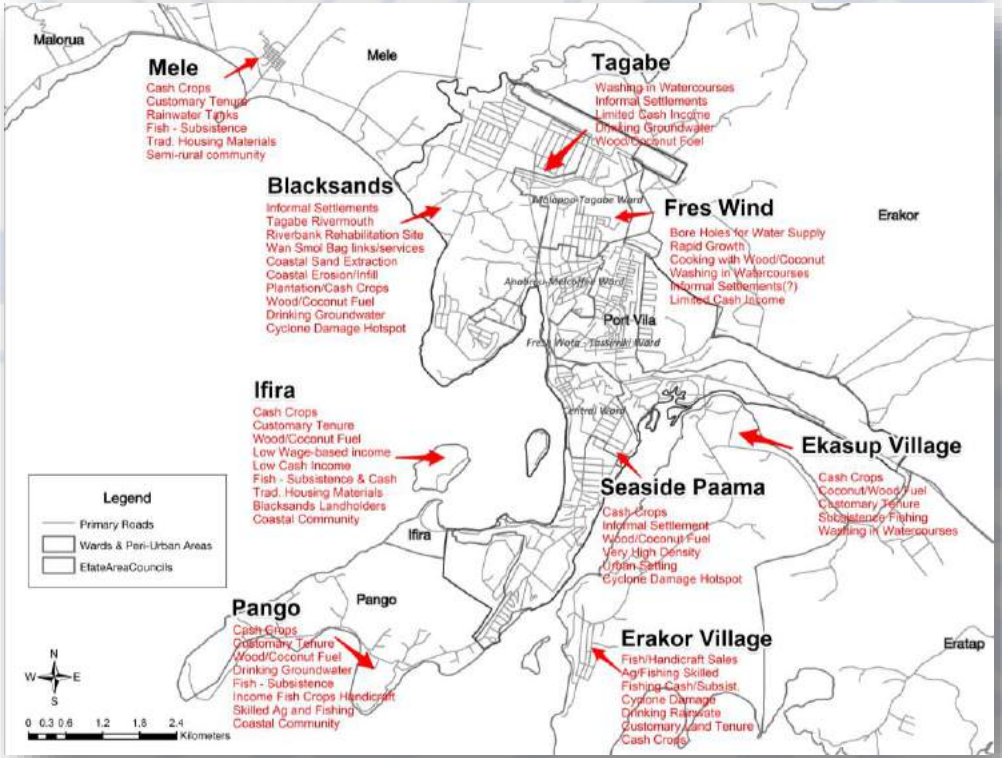
Port Vila: Complex social & cultural landscape

- Port Vila is growing rapidly
  - 10.7% annual population growth over the last decade (1999-2009)
  - Even more growth since 2009 & TC Pam



Candidate Locations

- Census data, post-Pam surveys & UNH VA used to identify ‘ecosystem hotspot’ communities
- Key variables:
  - Crop use/farming
  - Use of marine resources
  - Fuel use, water & sanitation
  - Land tenure & pop. Growth
  - Disconnects from *kastom*, kinship & traditional (ecosystem) knowledge



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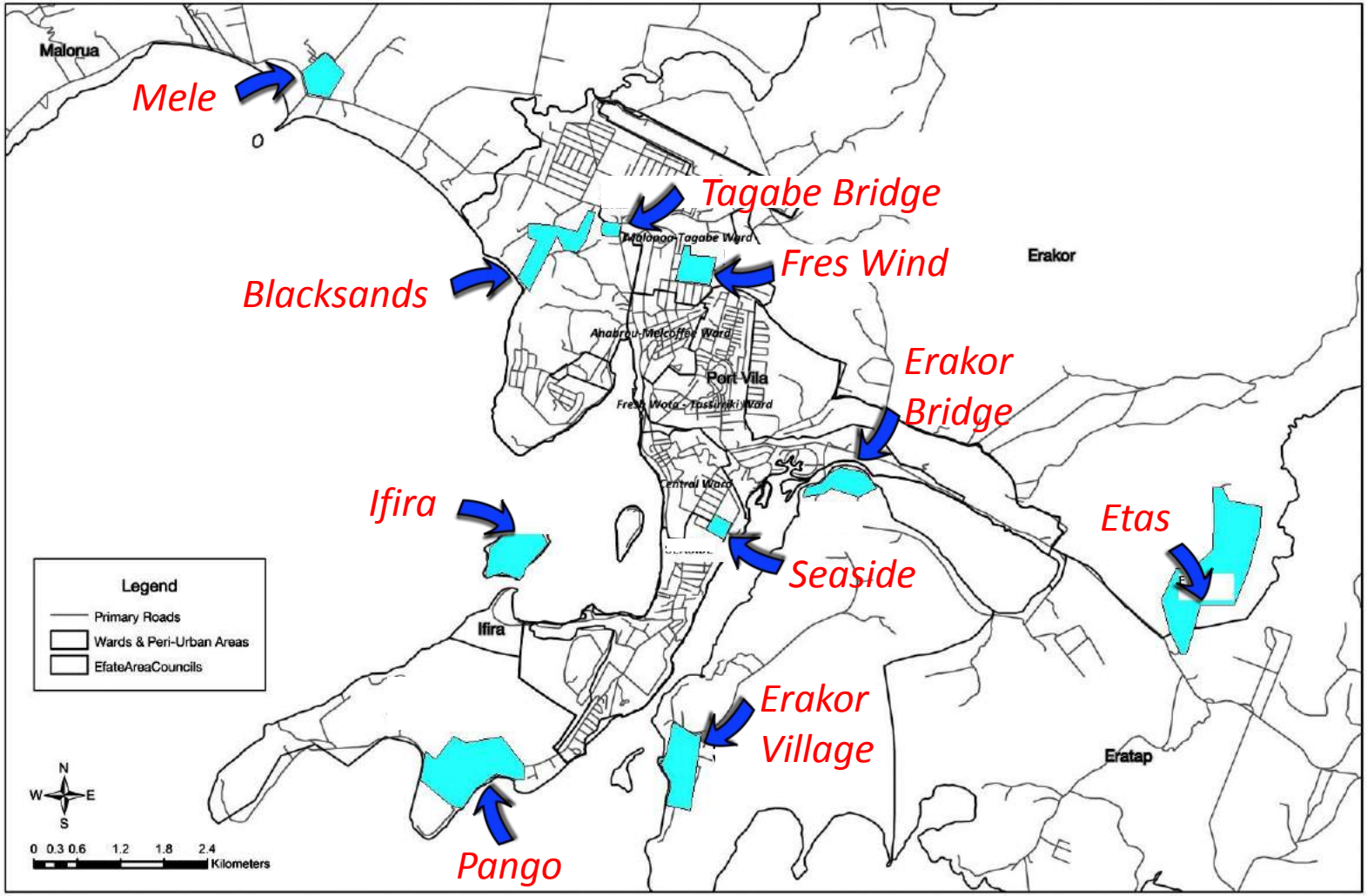
Greater Port Vila



Methodology & Approach

Methodology & Approach – Community driven

- Selecting candidate community areas based on socio-economic analysis
- Agreement on wish-list of community areas
- Initial training of surveyors & 1st iteration of survey form
- Got permissions and started household surveys in first community (Seaside - chosen by surveyor team)
- Ongoing in-field training, final iteration of survey form, data entry spreadsheet, scheduling & re-scheduling of surveys/workshops,
- Assisted with arranging permission with chiefs/church, sending invitations, facilitating workshops, conducting meetings/interviews with government and non-government stakeholders

Note: this didn't occur in sequence….

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Survey form

Ecosystem & Socio-economic Resilience Analysis & Mapping for Port Vila

The aim of the survey is to identify, document, and map the ecosystem resources, benefits and services that are critical to the livelihoods and day to day lives of residents of Port Vila. Local input is important to understand what the issues are, what can be done about it and how to implement ecosystem-based approaches to management and planning that enhances resilience of Port Vila to climate change.

Area/Community:		Date:
Facilitator Names:	Household name:	

HOUSEHOLD DATA

# people in household:	Years living there:	Person interviewed: ☐ male ☐ female
Main livelihood:		Role/position in household:
What community/island are you from:		Other comments:
GPS location: or photo at household taken ☐ Who's camera:	Other photos: Y / N #:	Resources marked on A4 map: Y / N List code/description:

ECOSYSTEM & RESOURCES DATA

Natural resources used/harvested/collected from land and/or sea/freshwater

traditional wealth items: Y / N / U ☐ pigs ☐ chickens ☐ yams ☐ mats ☐ kava ☐ other (describe) location:	**marine/coastal: Y / N / U** ☐ sand ☐ shellfish ☐ dead coral ☐ green snail ☐ trochus ☐ turtles ☐ crabs ☐ other ☐ fish (list types) location:
forest: Y / N / U ☐ bamboo ☐ natangura ☐ coconut ☐ bandanas ☐ firewood ☐ timber ☐ medicine ☐ other ☐ fruits/nuts (list types) location:	**freshwater resources: river, lake, springs: Y / N / U** ☐ fish/crustaceans/other animals ☐ plant material ☐ rocks or other non/living ☐ water ☐ other location:
bush gardens: Y / N / U list crops: location: **home garden: Y / N / U** list crops:	**livelihood items: Y / N / U** ☐ basket/other handicrafts ☐ cattle/livestock ☐ pig tusk ☐ home-based manufacturing ☐ cash crops (list) ☐ other location:
Additional comments:	

Ecosystem Services provided by the natural goods & resources listed (direct & indirect)

Provisioning - material benefits from ecosystems for subsistence or cash crops: **Y / N / U** ☐ water (drinking/other) ☐ fuel (cooking/other) ☐ medicine ☐ ornament ☐ raw materials, fibre & timber for housing, transport, other ☐ food (for subsistence S cash crops CC fodder for animals A	**Regulating -** local benefits from ecosystem process: **Y/ N/ U** ☐ air quality regulation ☐ water purification & treatment ☐ regulation of water flows ☐ flood protection ☐ climate regulation, moderates micro-climates ☐ erosion prevention, soil regulation ☐ pest & disease regulation
Cultural - non-material benefits from ecosystems: **Y / N / U** ☐ spiritual religious values/experience & ceremony ☐ aesthetic value ☐ recreation & tourism (physical & experiential interactions ☐ cultural diversity & inspiration for art, design ☐ knowledge & educational values	**Supporting -** underlying processes needed for the production of all other services: **Y / N / U** ☐ nutrient cycling ☐ soil & biomass formation ☐ soil fertility ☐ biodiversity & habitat to maintain life cycles & gene pools ☐ pollination
Additional information (**i.e.** changes since Pam):	

- Household data
- Natural resources used
  - Traditional wealth
  - Forest
  - Marine
  - Freshwater
  - Gardens
  - Livelihood
- Ecosystem services provided
  - Provisioning; Regulating; Supporting; Cultural
- Changes since TC Pam

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Survey Format (on a VERY good day)

- Go into community after approval from Chief or Church leader
- Set a meeting time & place
- Surveyor pairs conduct interview
- Take GPS-coded photos
- Map key resources & services identified
- Data Entry

Initial in-field training – Tagabe Bridge

Workshop Format

- Introduction & preliminary survey findings
- Marine/terrestrial discussion groups led by consultants
- Focus group discussions facilitated by participants
- Feedback, recommendations for community resilience actions.
- Field visits to key resource areas

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Surveys: *key EbA issues*

- Allow more time for training - surveyors
- Assess level of knowledge and tailor training to local needs
- Training: mix of classroom and fieldwork demonstrations, role play etc
- Translate to *Bislama*
- Quality not quantity
- Ethical implications/illegal activities

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Workshops: *key EbA issues*

- Don’t workshop after lunch

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Workshops: *key EbA issues*

- Prepare beforehand, check and re-check whether community is informed & available
- Workshop fatigue
- *Bislama* is key!
- Provide a brief lesson on ecosystem services and a pre-prepared poster

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Key EbA issues

- *PAYMENT* to the surveyors and for the workshops
- Lack of commitment from some government departments

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Project Findings

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Household Data

A total of

823 households

were interviewed

Median Household size

5-6

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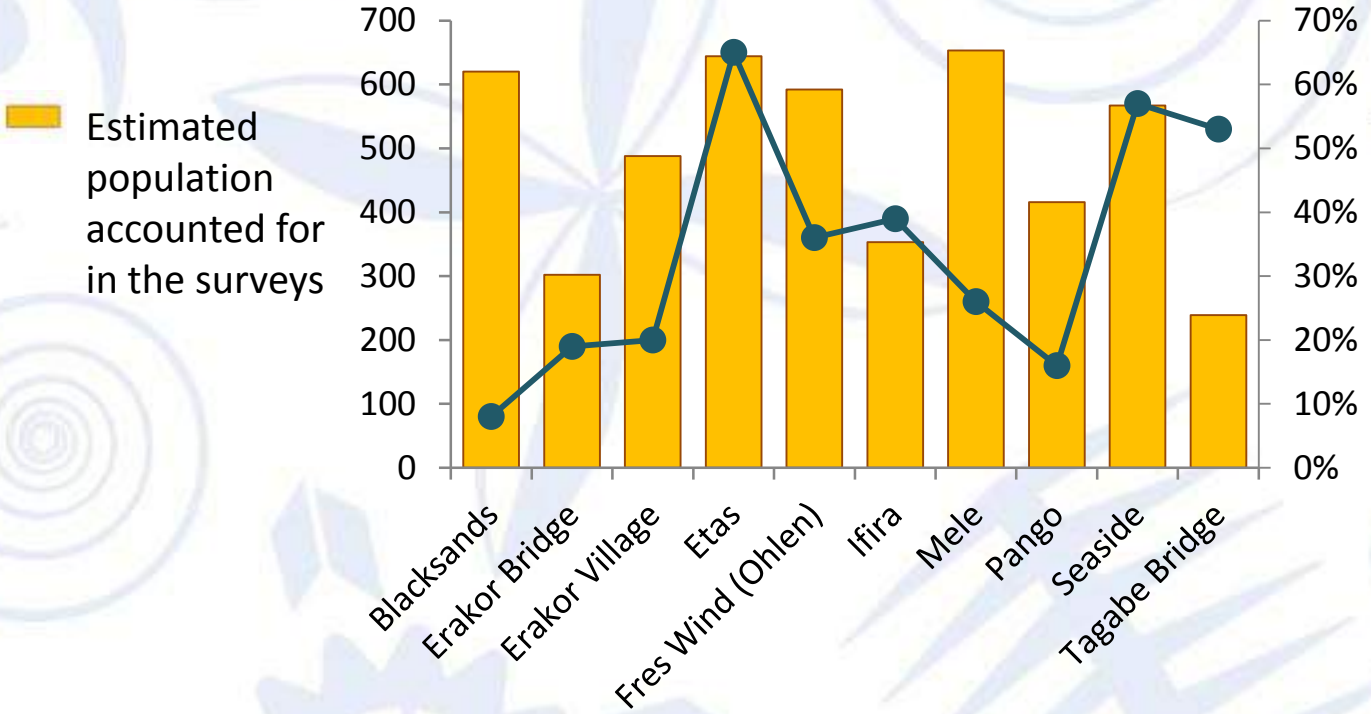
Population accounted for in surveys



Ecosystem resources & services

Marine & Freshwater

- Over 85% of coastal communities reliant on marine resources
- Loss of traditional knowledge with respect to these resources

Main marine resources:

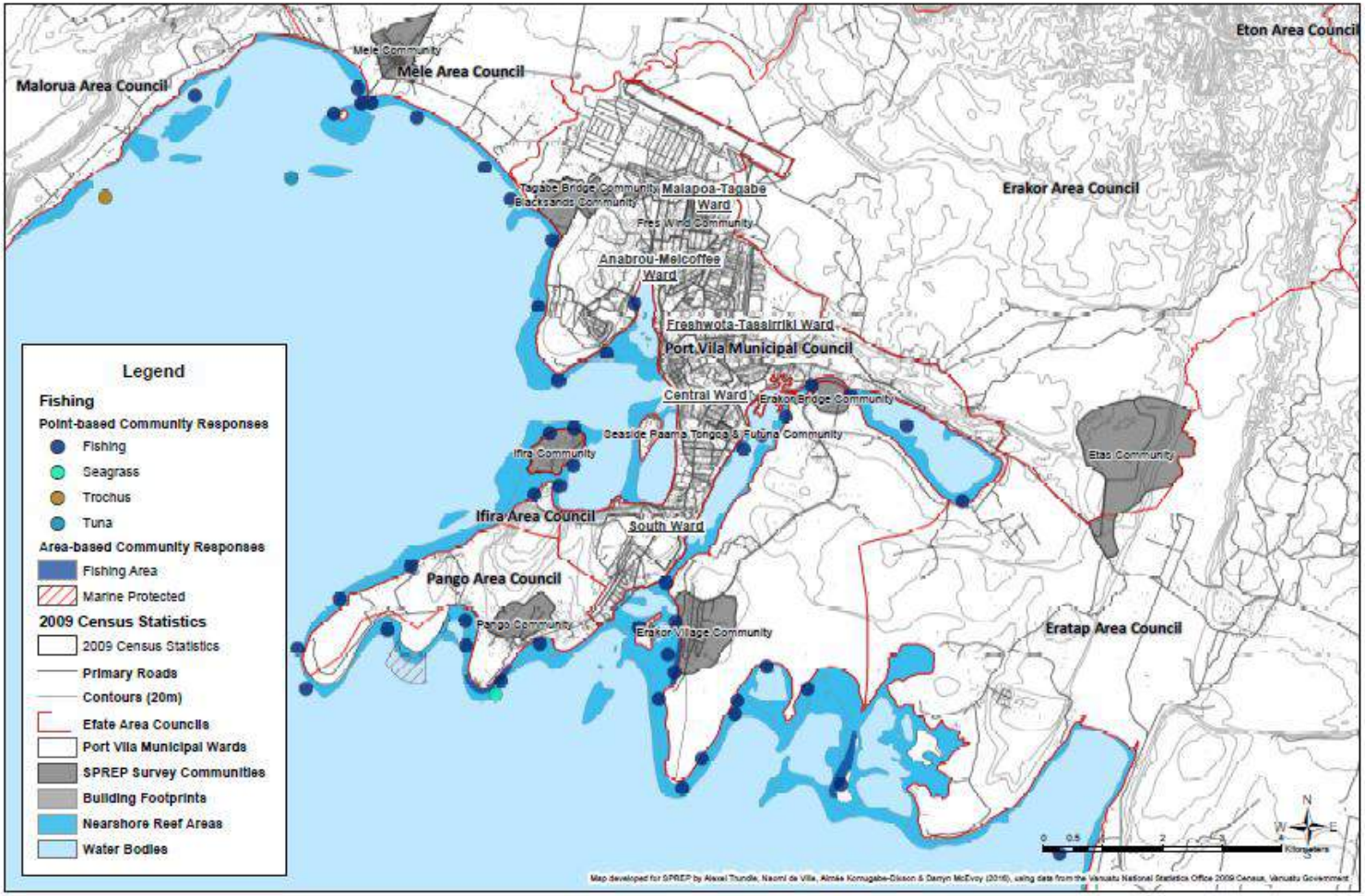
- Fish & Shellfish
- Sand
- Dead coral

Main freshwater resources:

- Water
- Naura (prawn)
- Plants e.g. water taro, watercress

Fishing at Seaside

Greater Port Vila - Ecosystem-based Community Resources - Fishing



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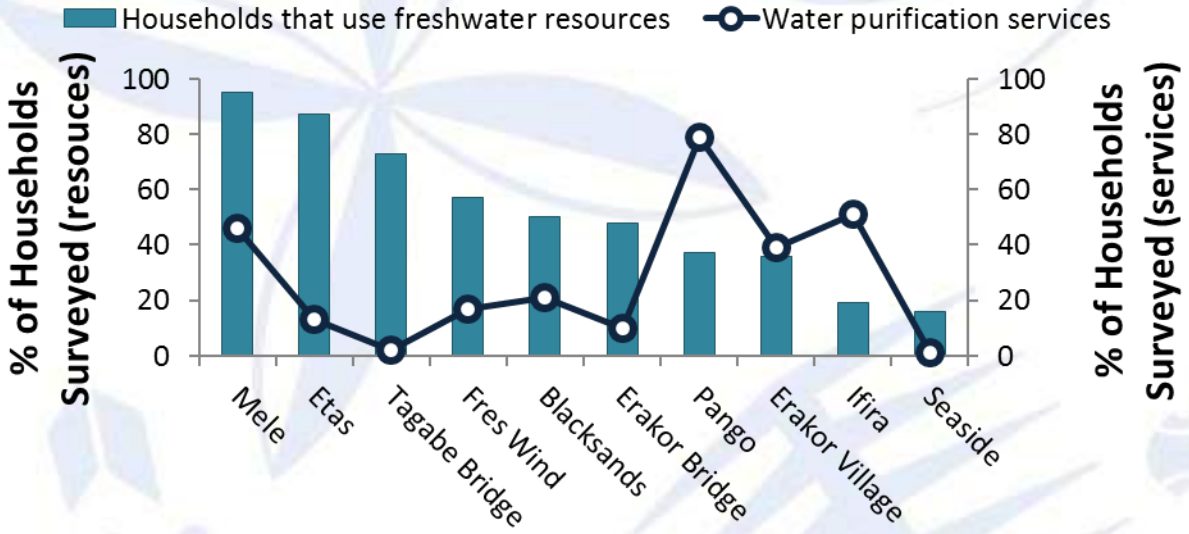
Ecosystem resources & services

Freshwater resources



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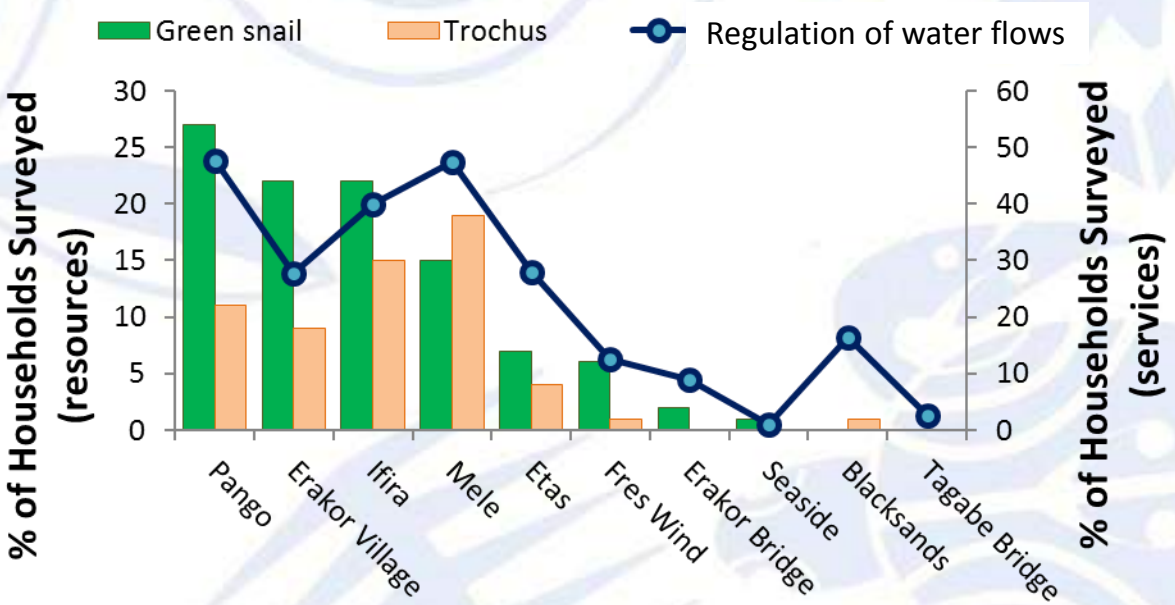
Ecosystem resources & services

Trochus shell



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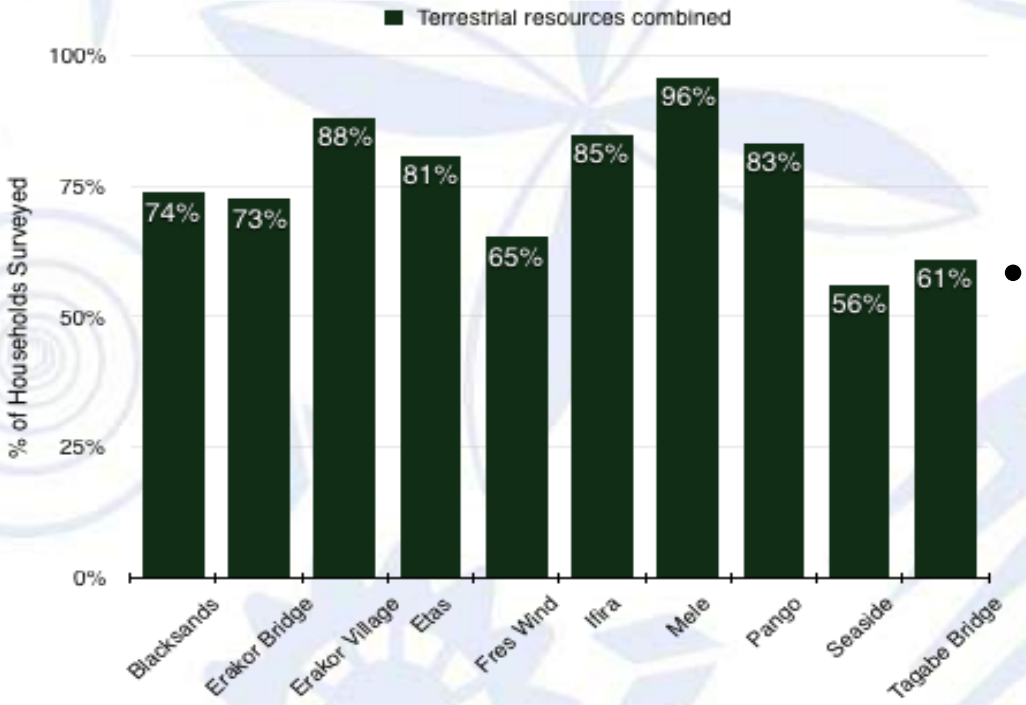
Ecosystem resources & services

Terrestrial



- Over 70% of 7 communities utilize and benefit from terrestrial ecosystems
- Traditional wealth items are almost exclusively sourced from terrestrial ecosystems

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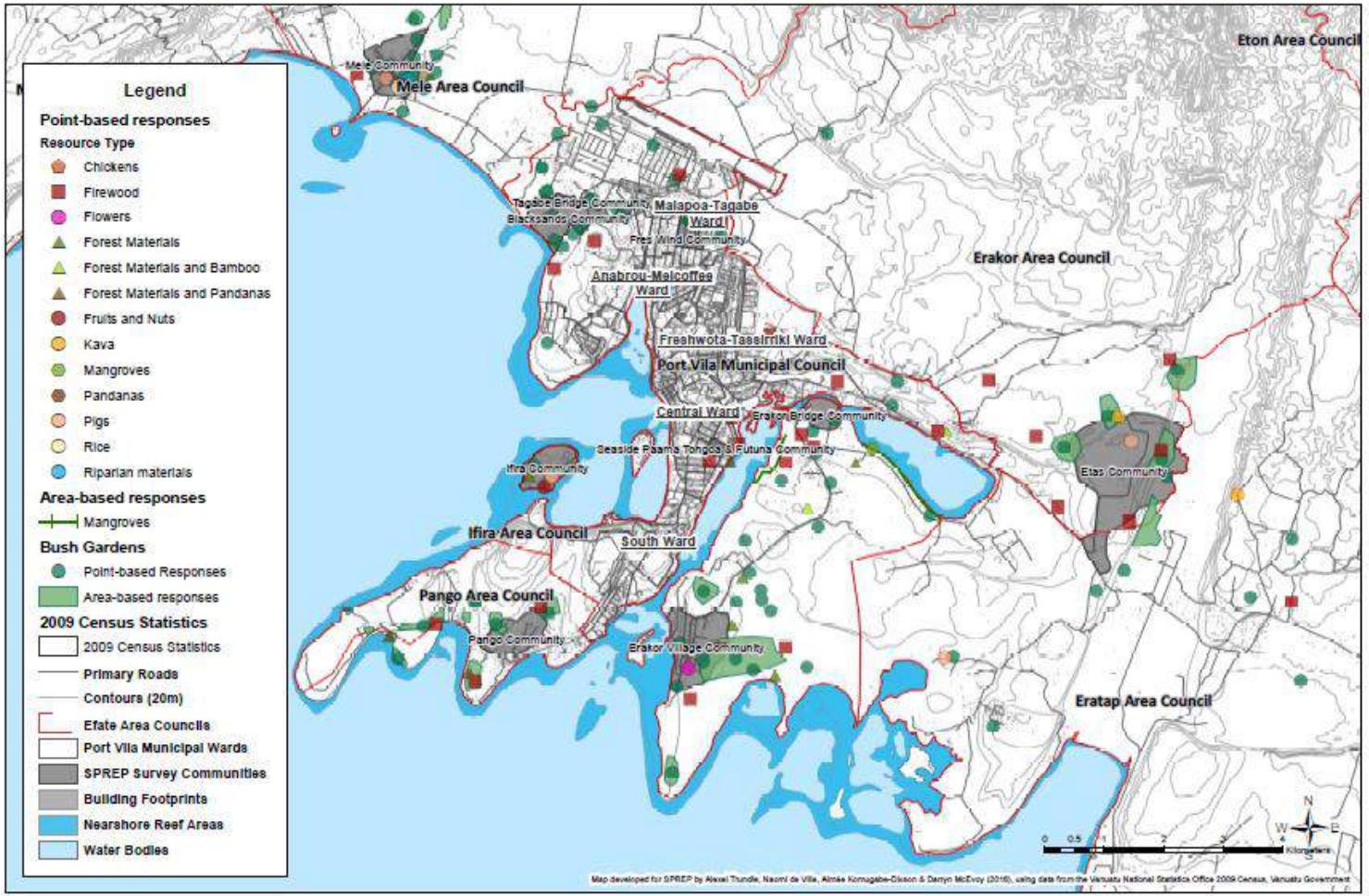
Greater Port Vila - Ecosystem-based Community Resources (Terrestrial)



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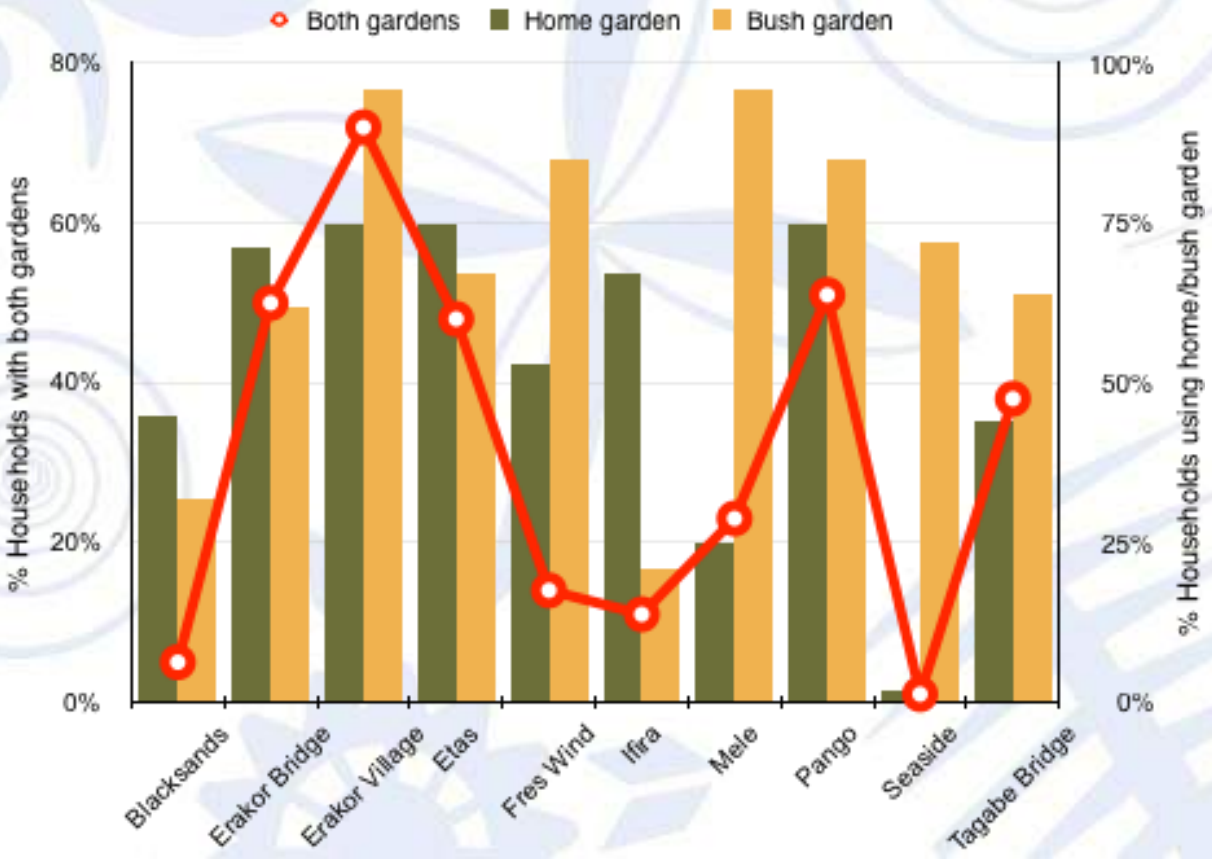

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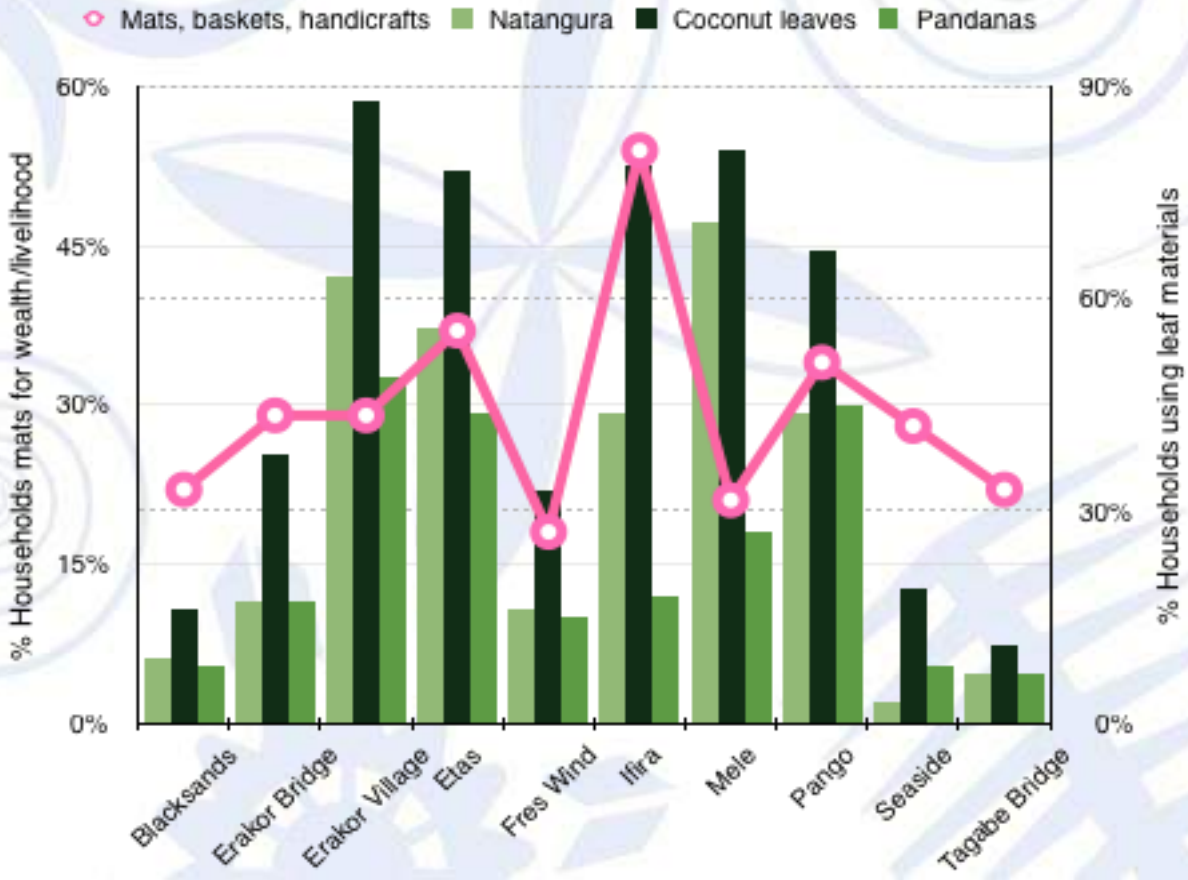

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Drivers of Change

Mainly demographic & socio-political

1. Urban development
2. Pollution
3. Access to clean water
4. Overharvesting & poor management practice
5. Sand-mining
6. Climate-related impacts

Landfill at Etas Community

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Adaptation Options – Aquatic

- Create more marine protected (*tabu*) areas
- Replanting programs: riparian vegetation, coastal vegetation - mangroves, pandanus
- Protect water catchment area
- Fish farms (fresh water fish, sea cucumber)
- Training and awareness programs
  - Aquaculture
  - Clean-up programs
  - Pollution and proper waste disposal
  - Fish catch – sizes, non-destructive methods
  - Water management practices
  - Deep-sea fishing methods

VCC Aquaculture Pond, Fres Wota

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Adaptation Options – Terrestrial

- Training in urban agriculture practices, mulching & composting methods
- Planting programs, especially with youth
- Alternative cooking methods such as charcoal stoves
- Women co-operatives for baskets/mats & value-adding for tourism
- Rainwater harvesting training
- Training/mentoring arrangements between youth and elders re natangura roofing, carving, weaving, canoe building, etc

Work to date

- Desktop analyses conducted
- Interviews with key government, municipal, NGO, donor and community stakeholders
- Conducted baseline surveys of key ecosystems & their services
- Ecosystem services assessed & mapped
- Training and capacity building
- ESRAM Technical Report – *almost finalised*
- Community Briefings – *to be translated and disseminated*
- **Google Earth database** as an interactive resource

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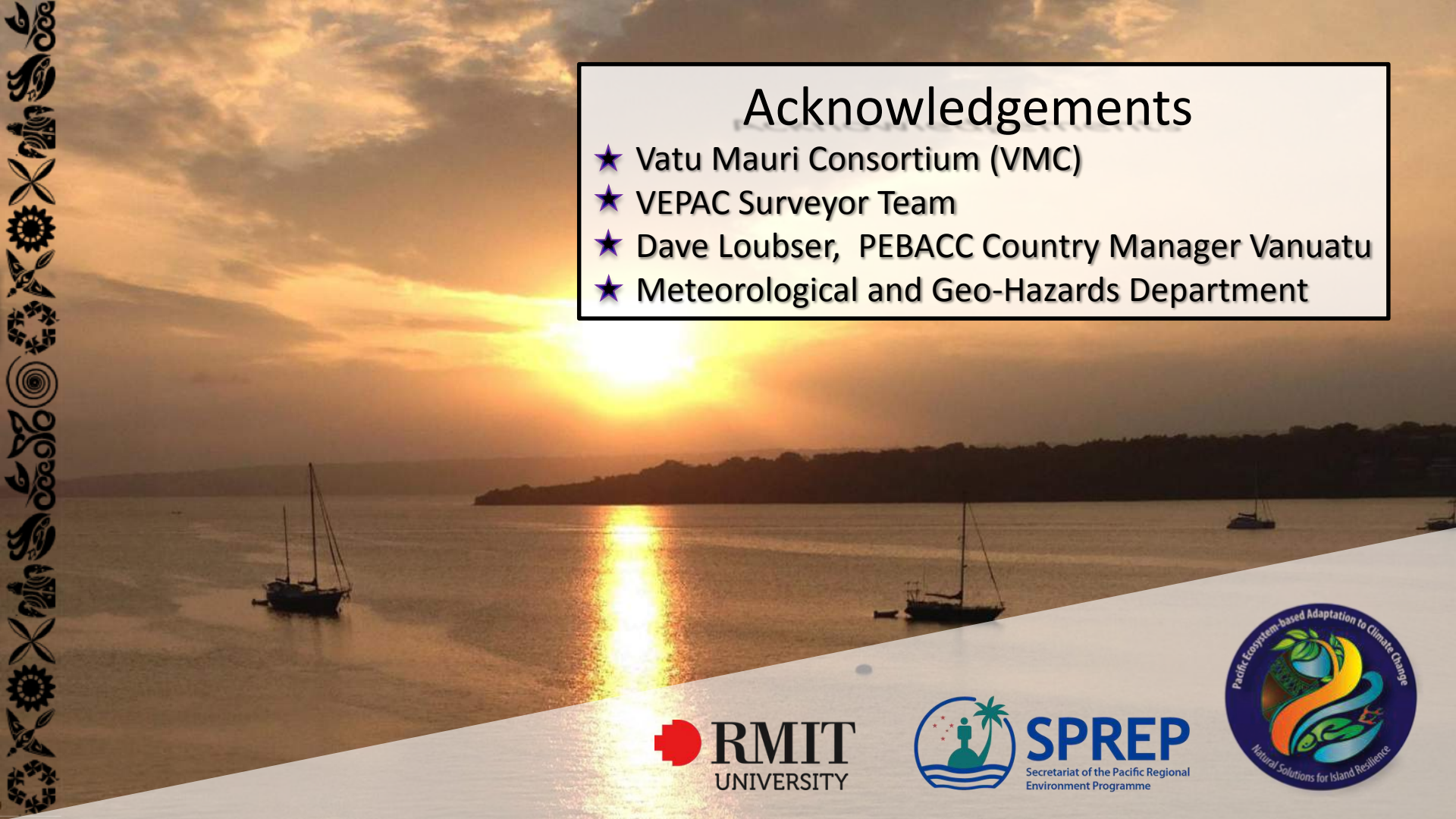

Acknowledgements

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