



National Environmental
Research Program

TROPICAL ECOSYSTEMS *hub*

Building resilient communities for Torres Strait futures



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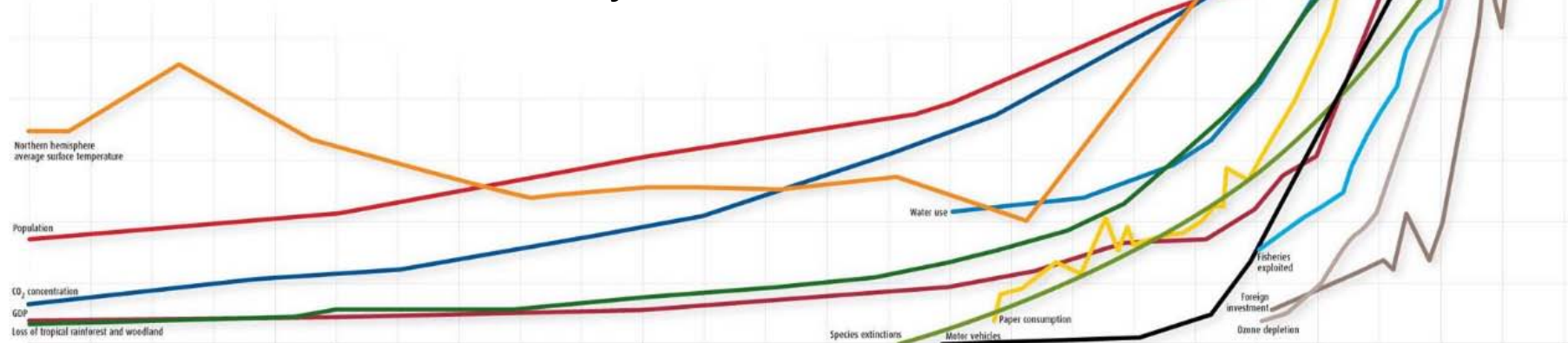
Australian Government



NERP Conference • Cairns • 5 November 2014

"The greatest shortfall of the human race is our inability to understand the exponential function"

Prof Albert Bartlett
Emeritus Professor Physics, Uni. of Colorado



The challenge

- Uncertain Torres Strait futures
- Rapid pace of change

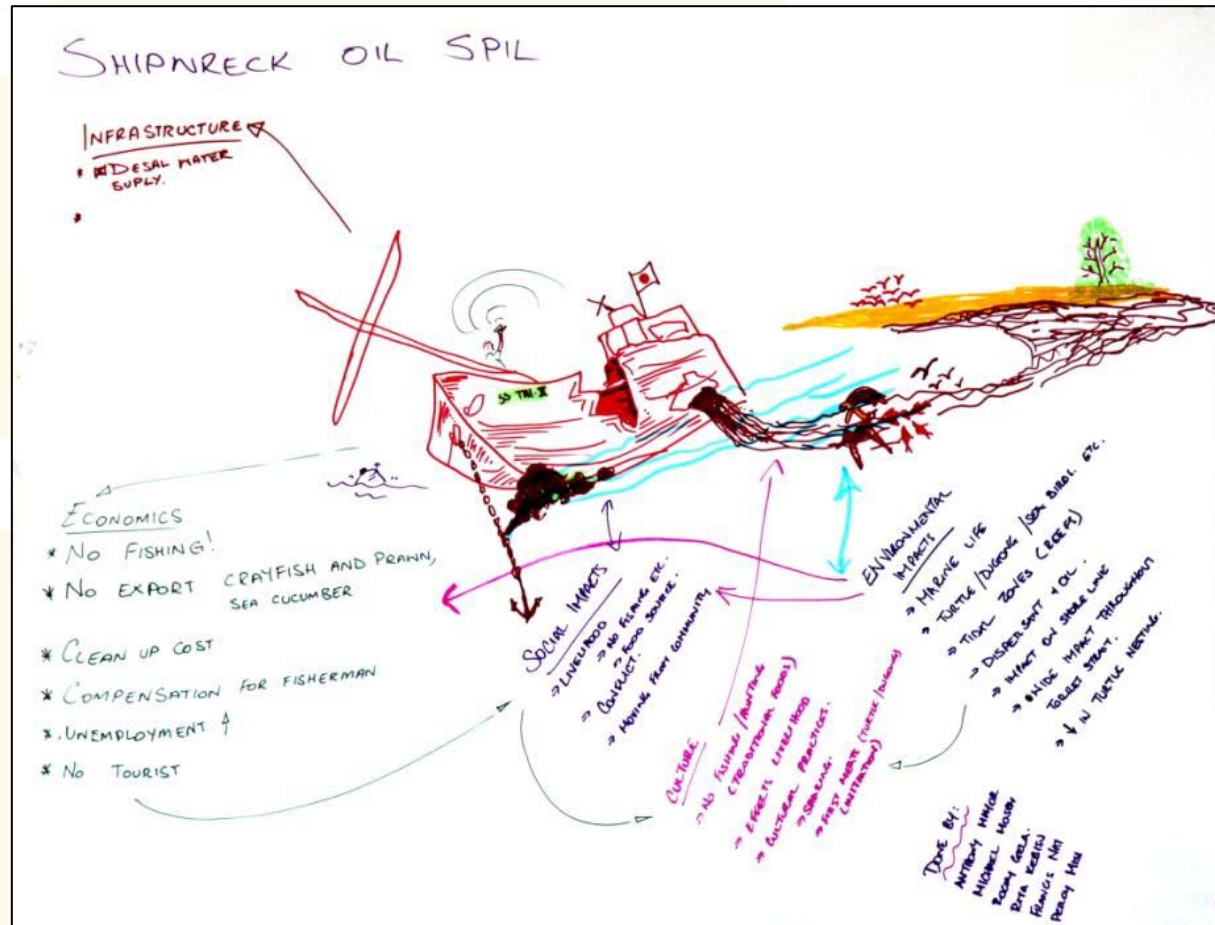


Project objective

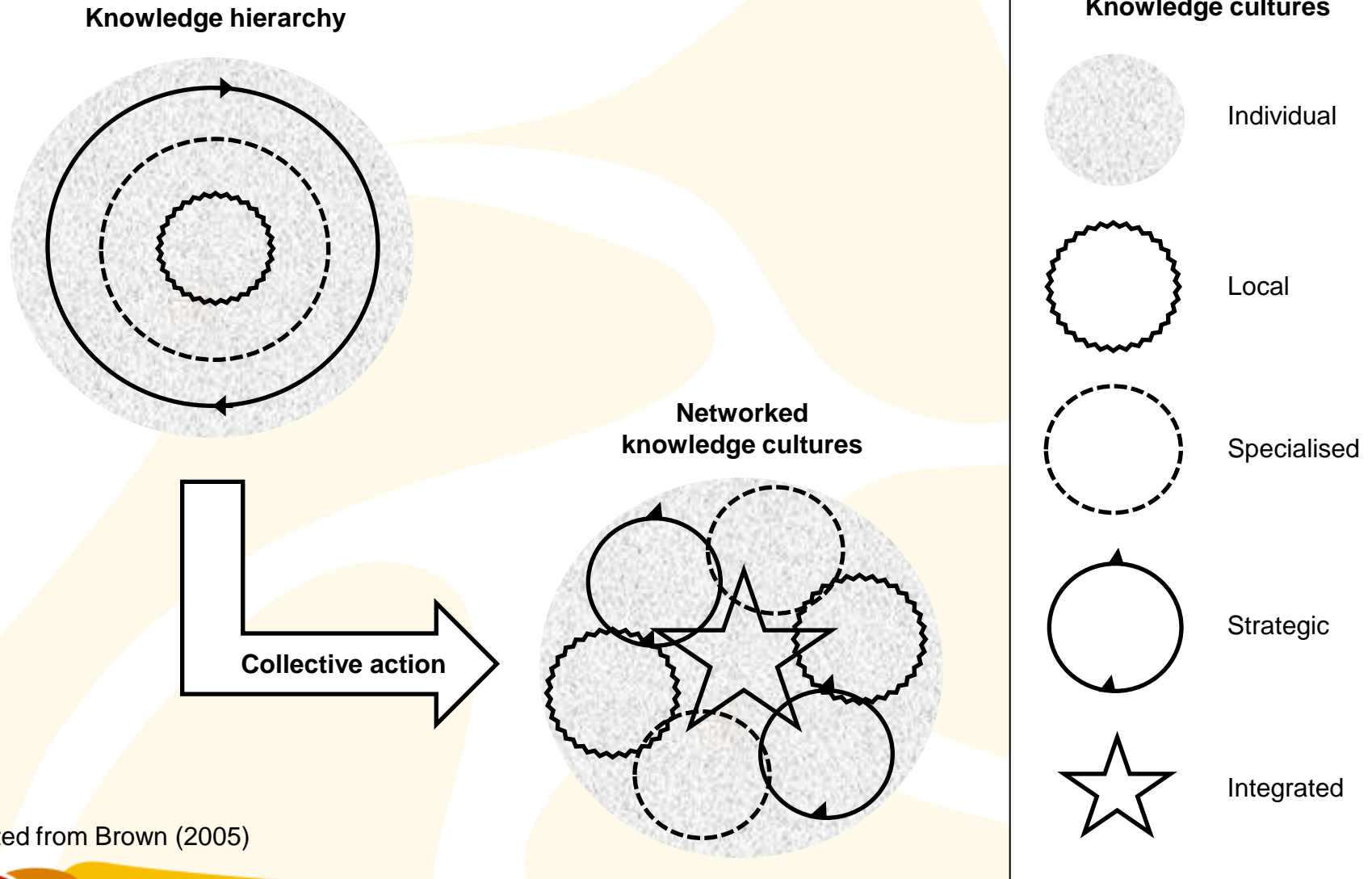
Build resilient communities that are self-reliant through development that is aligned with cultural values

Research principles

- Participation
- Knowledge integration
- Systems and livelihoods
- Social learning
- Capacity building
- Decision support



Integration of knowledge cultures



Integration of knowledge cultures



Federal, State, Regional
Government & Industry

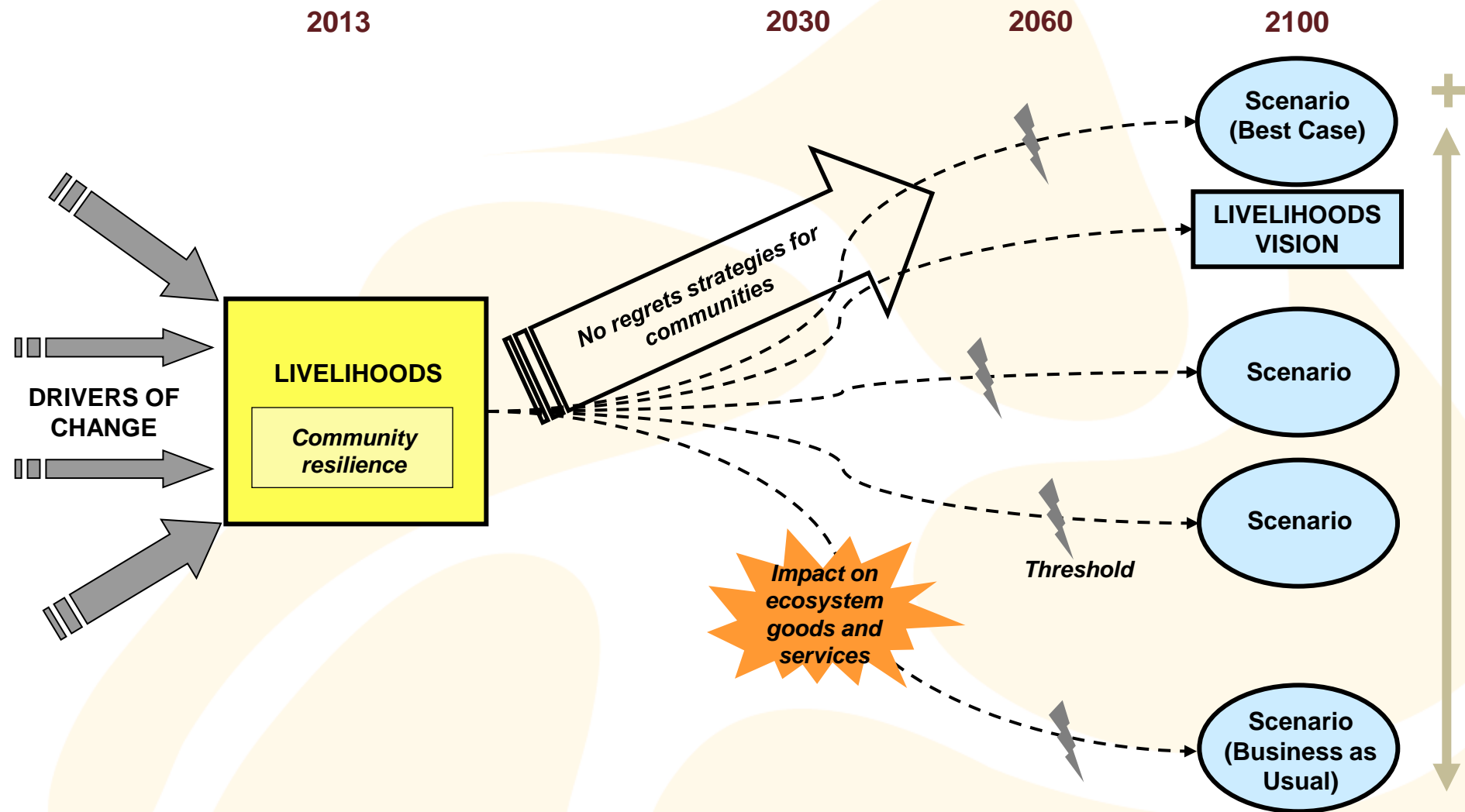
Communities



- Torres Strait Regional Authority
- Torres Strait Island Regional Council
- Department of Foreign Affairs & Trade
- Department of Environment

- Australian Fisheries Management Authority
- QLD Department of Aboriginal, Torres Strait Islander & Multicultural Affairs

Scenario planning workshop process



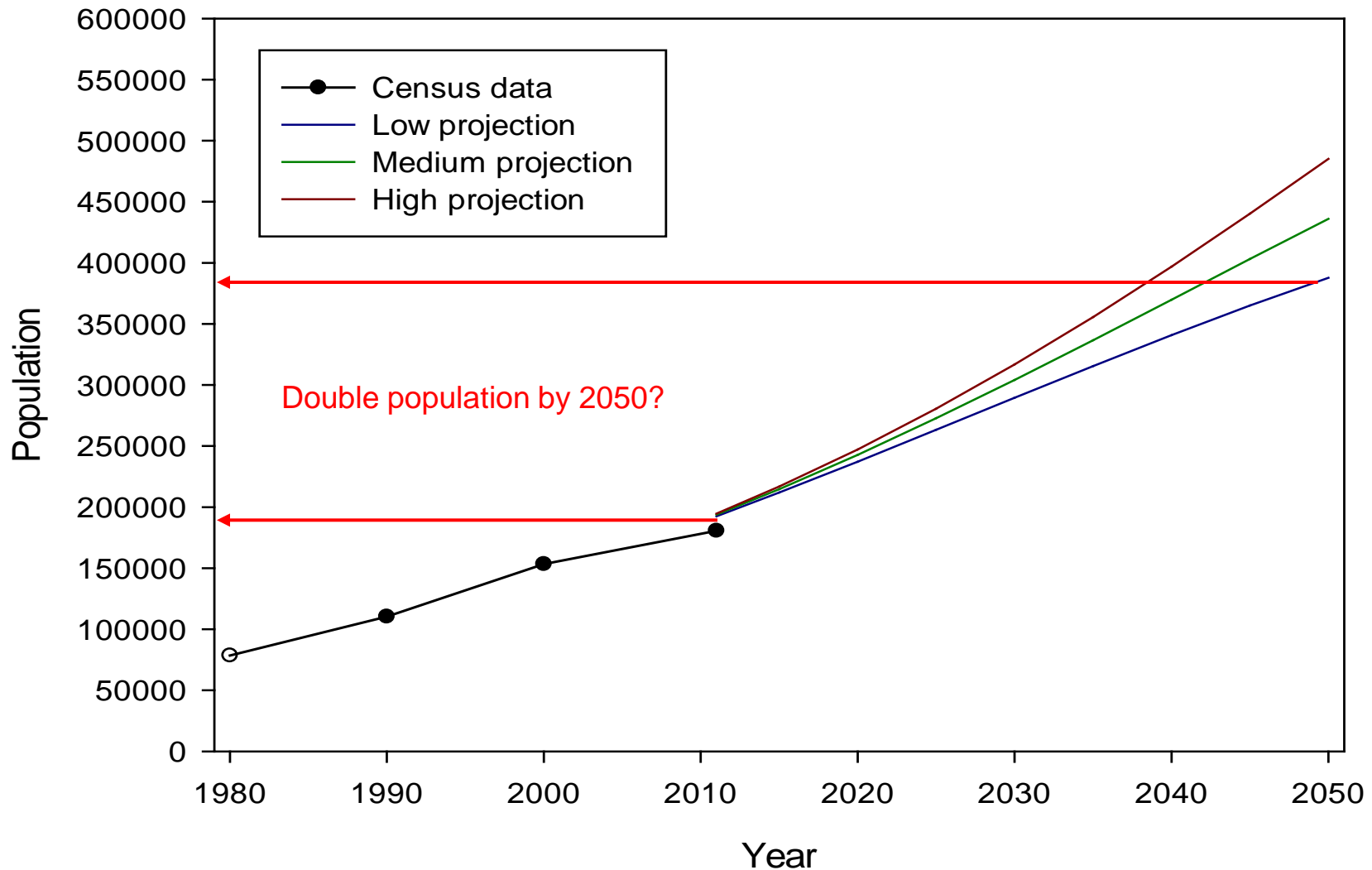
Project outputs

1. Information & tools to support decision-making
2. Prioritisation and assessment of adaptation strategies
3. Evaluation of social learning



1. Information to support decision-making

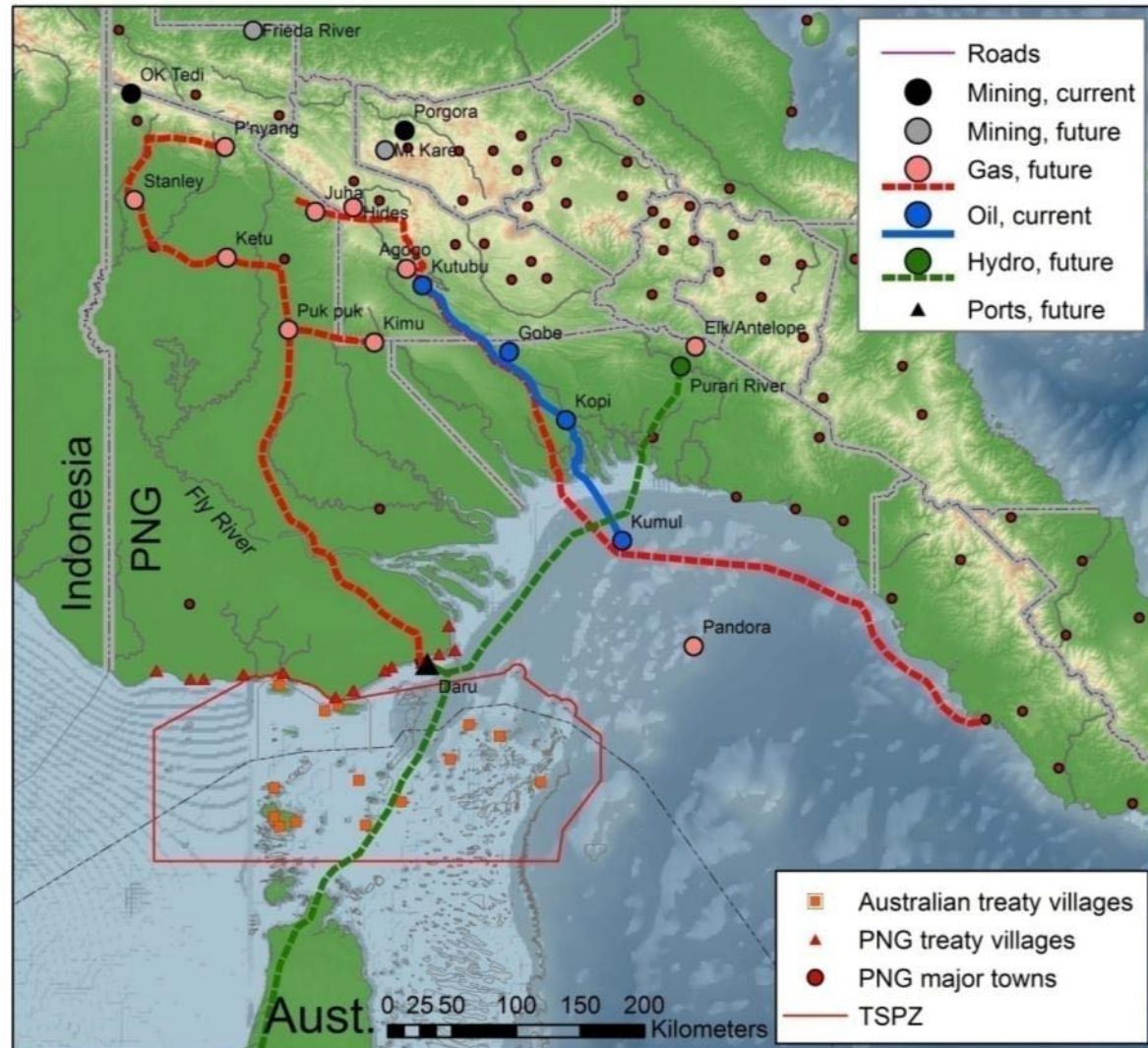
Western Province (PNG) population projections



*Source data: National Statistical Office 2012. Preliminary Figures: Papua New Guinea Census 2011. PNG National Statistics Office, Port Moresby.

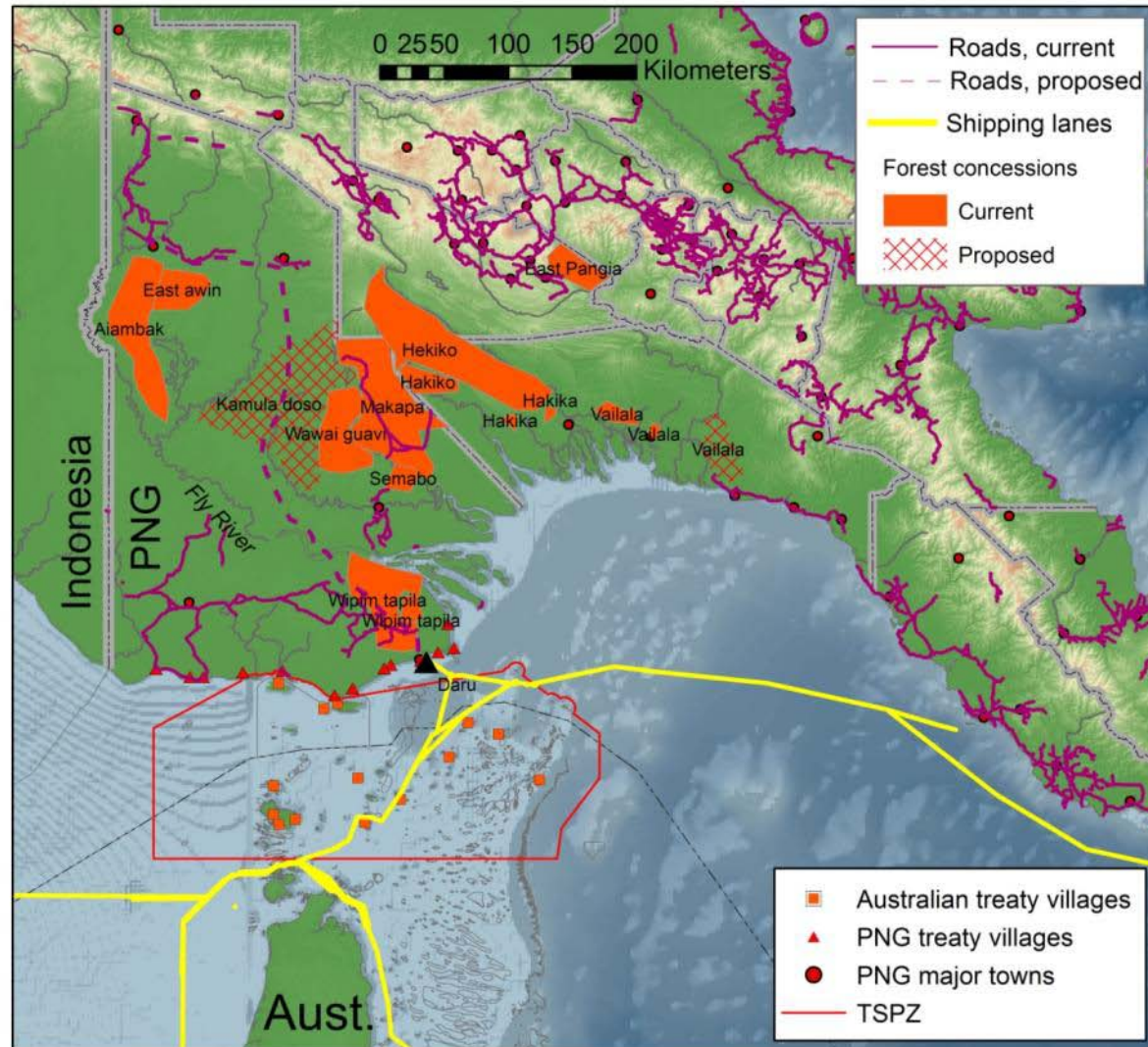
1. Information to support decision-making

PNG oil, gas, minerals, infrastructure development



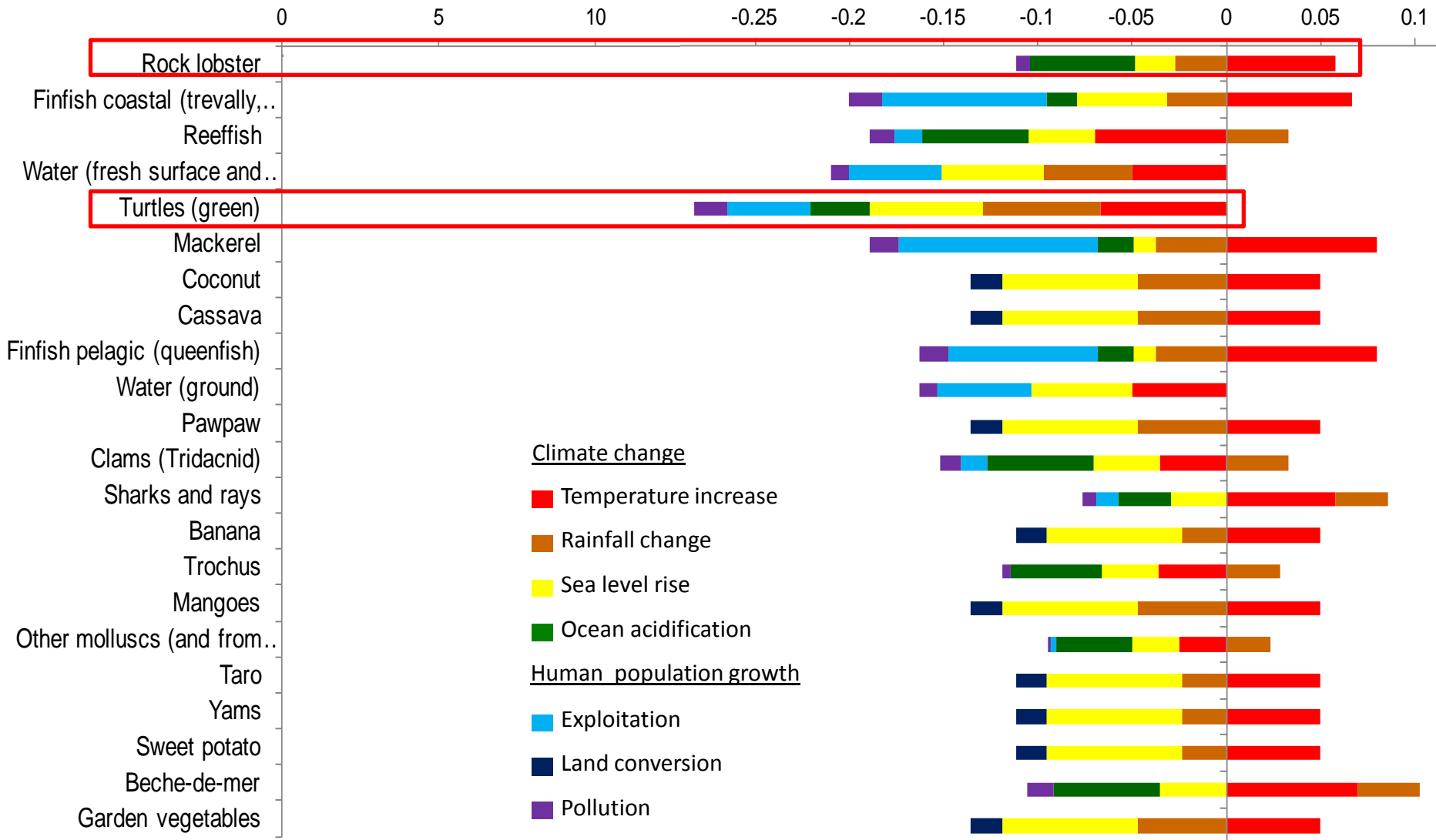
1. Information to support decision-making

PNG oil, gas, minerals, infrastructure development



1. Tools to support decision-making


Ecosystem goods and services impact for Masig (2030)



1. Tools to support decision-making

What is Resilience?

The ability to recover quickly from major challenges to your lifestyle, such as illness or other misfortunes; the ability of a community to use available capacity, knowledge and resources to withstand and recover from bad situations such as cyclones or poor wet seasons



The infographic consists of six circular icons arranged around a central image of a palm tree. The icons are: 1. 'bouncing back' showing a basketball on a spring; 2. 'overcome challenges/persistence' showing a red arrow going up a ramp; 3. 'flexibility' showing a blue arrow bending; 4. 'connectedness & unity' showing a group of colorful stick figures holding hands; 5. 'keep learning' showing a person sitting on the floor with a laptop; 6. A central image of a palm tree.

"A Bend In The Road Is Not The End Of The Road... Unless You Fail To Make The Turn"

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Community resilience scorecard



2. Prioritisation and assessment of adaptation strategies

Adaptation strategies for Masig

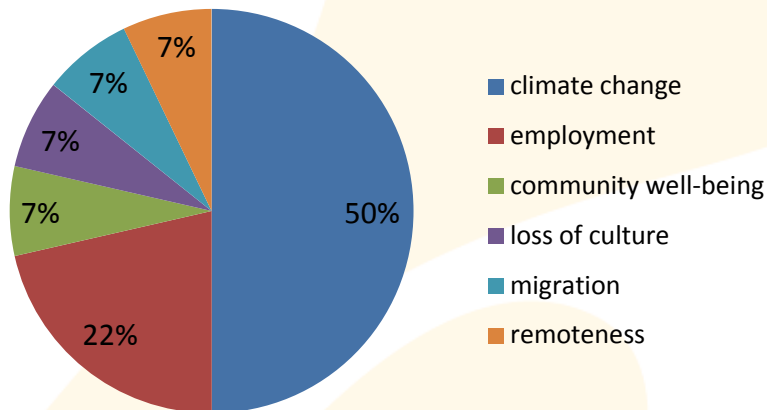
Adaptation strategy (ranked)
1. Cultural renewal
2. Improved garden production on island. Protection from sea level rise.
3. Communication between central islands - as part of cultural renewal
4. Community communication on Masig
5. Improved marine resource management, particularly turtles
6. Economic development - ecotourism and other industries e.g. fisheries and aquaculture

Colours indicate level of existing implementation, from high (green) to low (red).

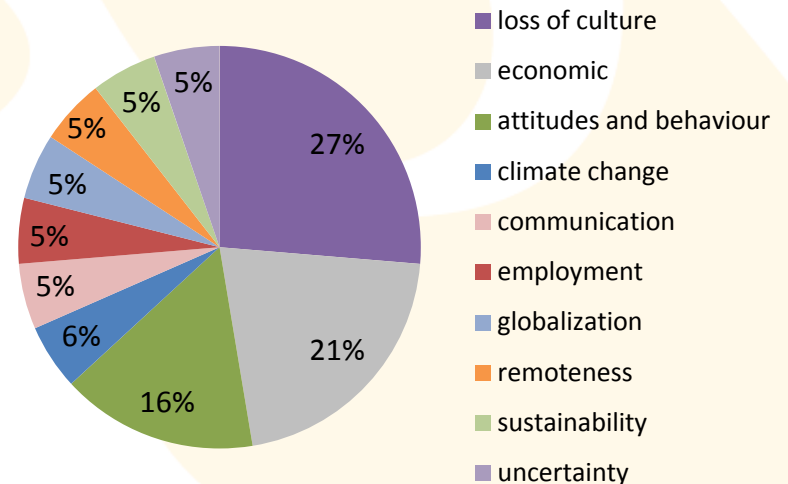
2. Evaluation of social learning

“What is the greatest problem for livelihoods on Masig?”

Participant responses
before workshop

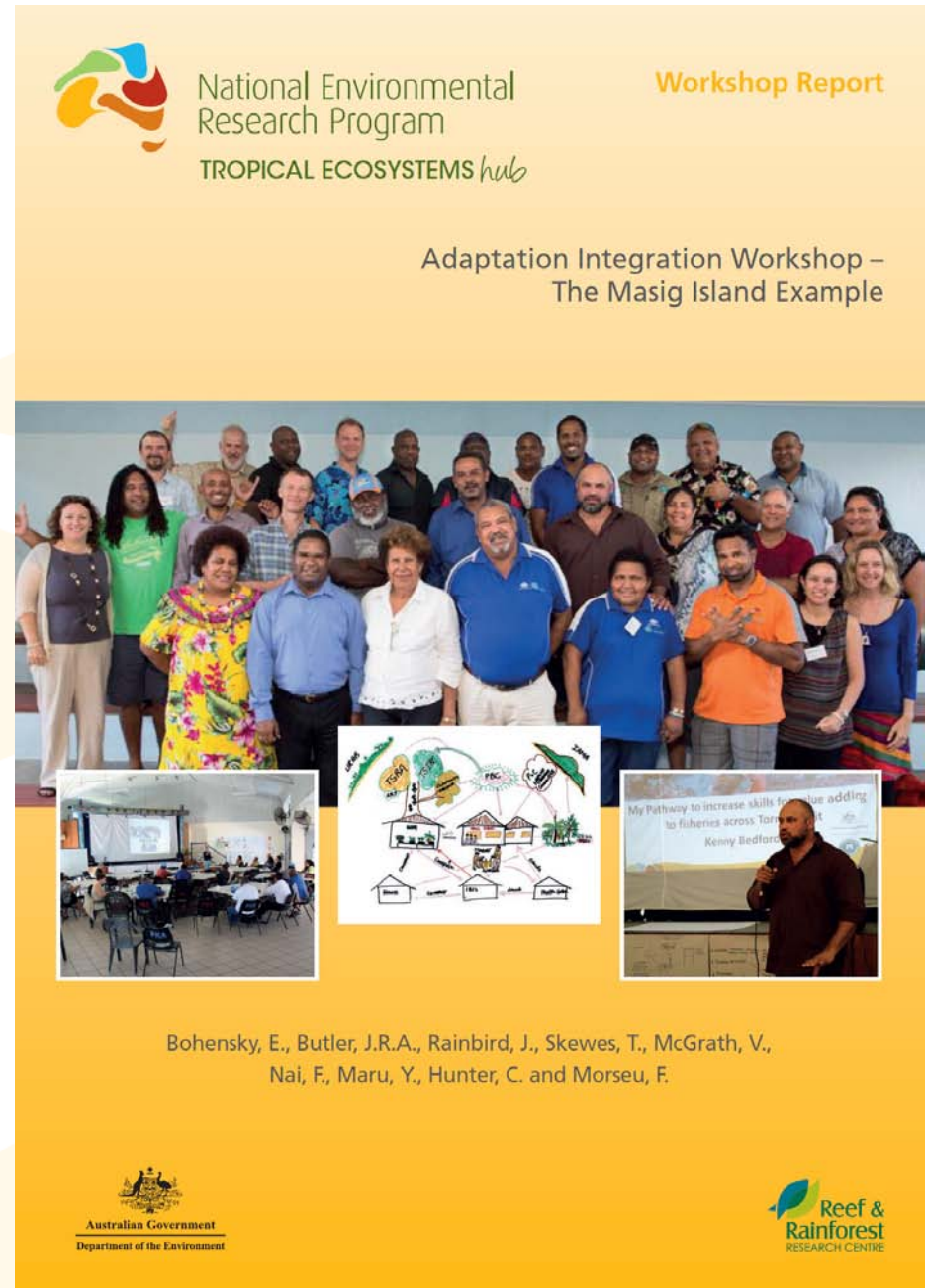


Participant responses
after workshop



Outcomes so far

1. TSRA Adaptation and Resilience Action Plan – community planning approach and tools
2. QLD DATSIMA Draft Planning Scheme for Torres Strait – Masig pilot



Next steps to maintain impact pathway

1. Scale-out planning approach with TSRA
Community Adaptation and Resilience Program
2. Establish and monitor 'innovation platforms' for
case study islands
3. Quantify current and alternative island
economies
4. Extend approach to PNG Treaty Villages

End user perspectives – pros and cons of the project

- 😊 Social change research is critical if other research is to have optimal impact and relevance
- 😊 Systems approach to development
- 😊 Participatory
- 😊 Useful decision support tools
- 😊 Good basis from which to expand adaptation work
- 😊 Very cohesive and accommodating team
- 😞 Project doesn't have the capacity to follow through

THANK YOU ESSO



National Environmental
Research Program

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