

# Community energy resilience strategies in response to disasters

3<sup>rd</sup> December 2020

Part 3 of a Workshop Series on  
Energy Resilience in Pacific Island Countries & Territories

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While you are waiting... please introduce yourself in the chat!

# Workshop Series



What are  
we aiming  
to  
achieve  
today?



Share work we have been  
doing (15 min)



Insights and guidance from  
panelists (45 min)



Small group discussion on  
community energy resilience &  
research priorities (30 min)



Sharing insights from small  
group discussions (20 min)

*‘Resilience in an energy system can be defined as its ability to reduce the impact of shocks and stresses, including the capacity to anticipate, absorb, adapt to, and rapidly recover from such events and to transform where necessary.’ (ARUP 2019)*





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# Why community energy resilience?

## An observation

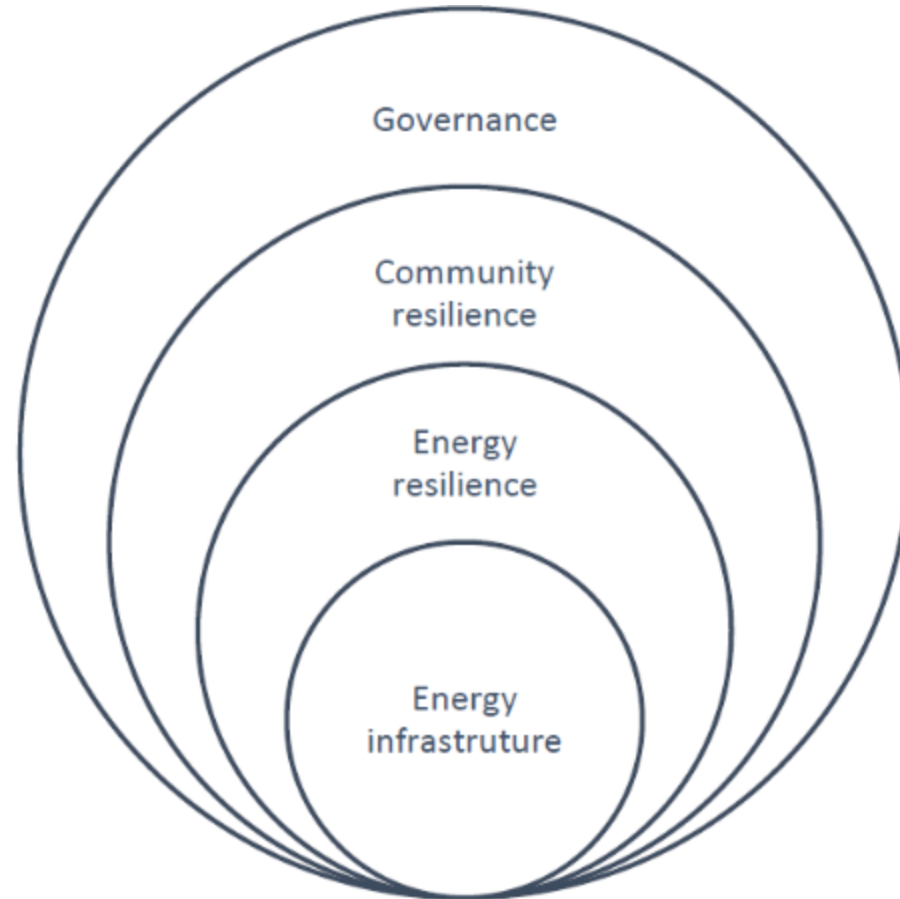
strategic use of energy by households and communities to improve their resilience

- in disaster situations
- in everyday life

## Implications for

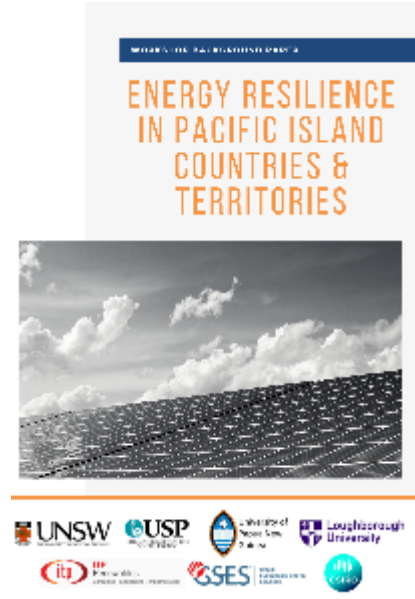
- energy services for humanitarian aid & international development
- coordination different types of energy systems

# What is community energy resilience?



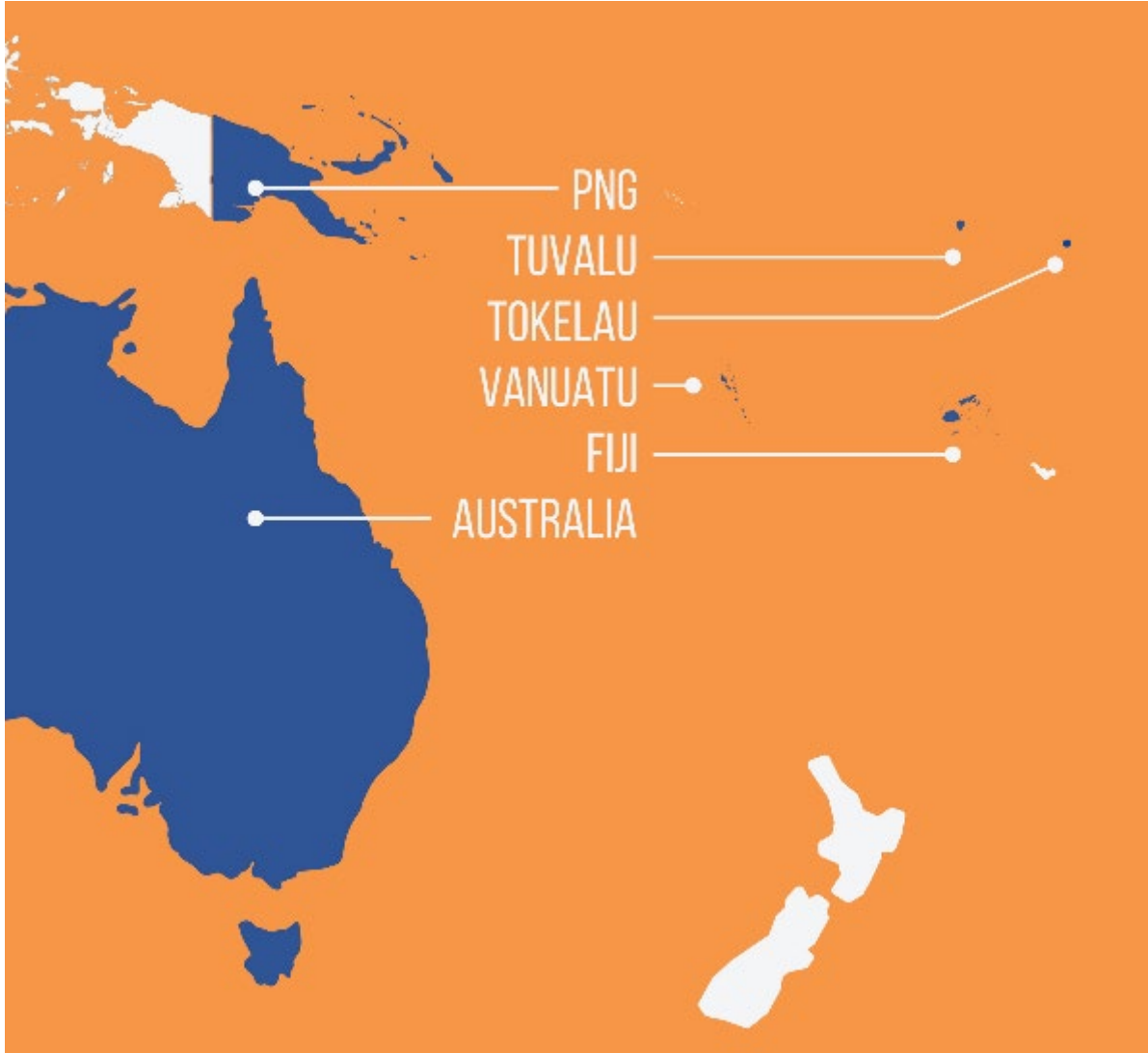


# Background Paper



- Fiji
- PNG
- Tokelau
- Australia
- Tuvalu
- Vanuatu

Authors: Darcy Small, Ashleigh Nicholls, Thomas Jeffrey, Anna Bruce, Iain MacGill, Paul Munro, Atul Raturi, Manu Rawali, Long Seng To



## Case Studies

- PNG: abundance of energy sources
- Vanuatu: community resilience framework
- Tuvalu: community-based initiatives and champions
- Australia: recent bushfires

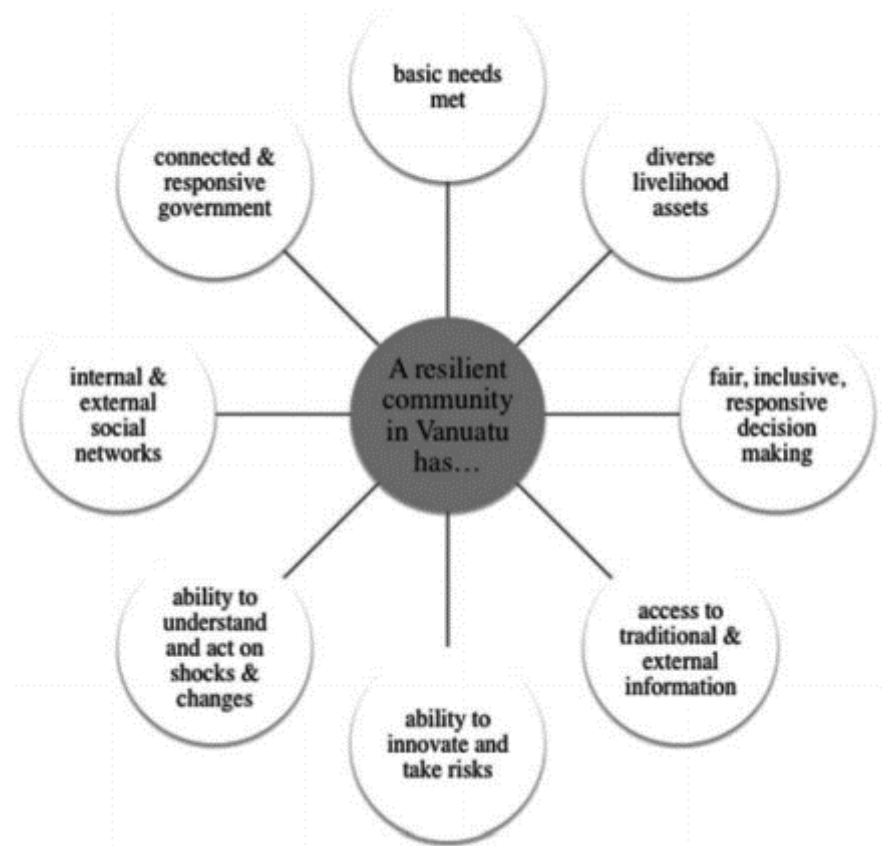
# Papua New Guinea

- Communities in PNG have been adapting to natural disasters for thousands of years
- Government-led energy resilience strategies remain disconnected from community-level projects
- Local champions and “billboard” households will facilitate widespread uptake of new strategies



# Vanuatu

- Community power structures dictate the uptake and success of CER programs
- A community-level resilience framework can integrate local priorities within national plans
- Trust and informal links between NGOs, government and international agencies through movement of personnel



Vanuatu Community Resilience Framework (Webb et al. 2015)

# Tuvalu

- Engagement and understanding of the community regarding energy systems dictates their effectiveness and success
- Community champions drive excitement and development of renewable energy projects
- Security and availability of electricity supply is needed to ensure community energy resilience



# Australia

- Community engagement is needed to ensure the longevity of energy systems
- Community representation and understanding community energy usage is important for the long life of energy systems
- Community energy projects articulated benefits for resilience



Speakers:

- Pauline Komolong, Independent Consultant
- Katerina Syngellakis, Global Green Growth Institute
- Makereta Lomaloma, Secretariat of the Pacific Community

Discussant:

- Peter Johnston, Environmental & Energy Consultants Pty Ltd

# Panel Discussion



1. What are the main energy resilience challenges for communities?

2. What role can communities play in improving energy resilience?

3. What are the key areas for research or data collection?

Example

Hello world!

Cyclones destroy energy systems - Fiji

Exciting discussion point!

Provide input into energy planning

Owners and operators of energy systems - can take less time for repair



Gender and energy

Different energy services, e.g. cooking



# Workshop Series: Energy Resilience in Pacific Island Countries & Territories

Workshop 1: Planning and investing in more resilient energy systems (15:30-17:30 AEDT), 1 Dec 2020

Chaired by Anna Bruce (UNSW) and Iain Macgill (UNSW)

Workshop 2: Energy resilience and the political economy of off-grid solar (15:30-17:30 AEDT), 2 Dec 2020

Chaired by Paul Munro (UNSW)

Workshop 3: Community energy resilience strategies in response to disasters (15:30-17:30 AEDT). 3 Dec 2020.

Chaired by Atul Raturi (USP) and Long Seng To (Loughborough)

Synthesis Presentation: Energy resilience and disasters in the South Pacific: political economy dynamics, community responses and planning (16:00-16:50 AEST)

Part of the Second Urban Resilience Asia Pacific Conference.

This workshop series is supported by the Australian Renewable Energy Agency's International Engagement Program, the Australian Research Council (ARC) and the Royal Academy of Engineering's Research Fellowship scheme.

# Thank you everyone



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