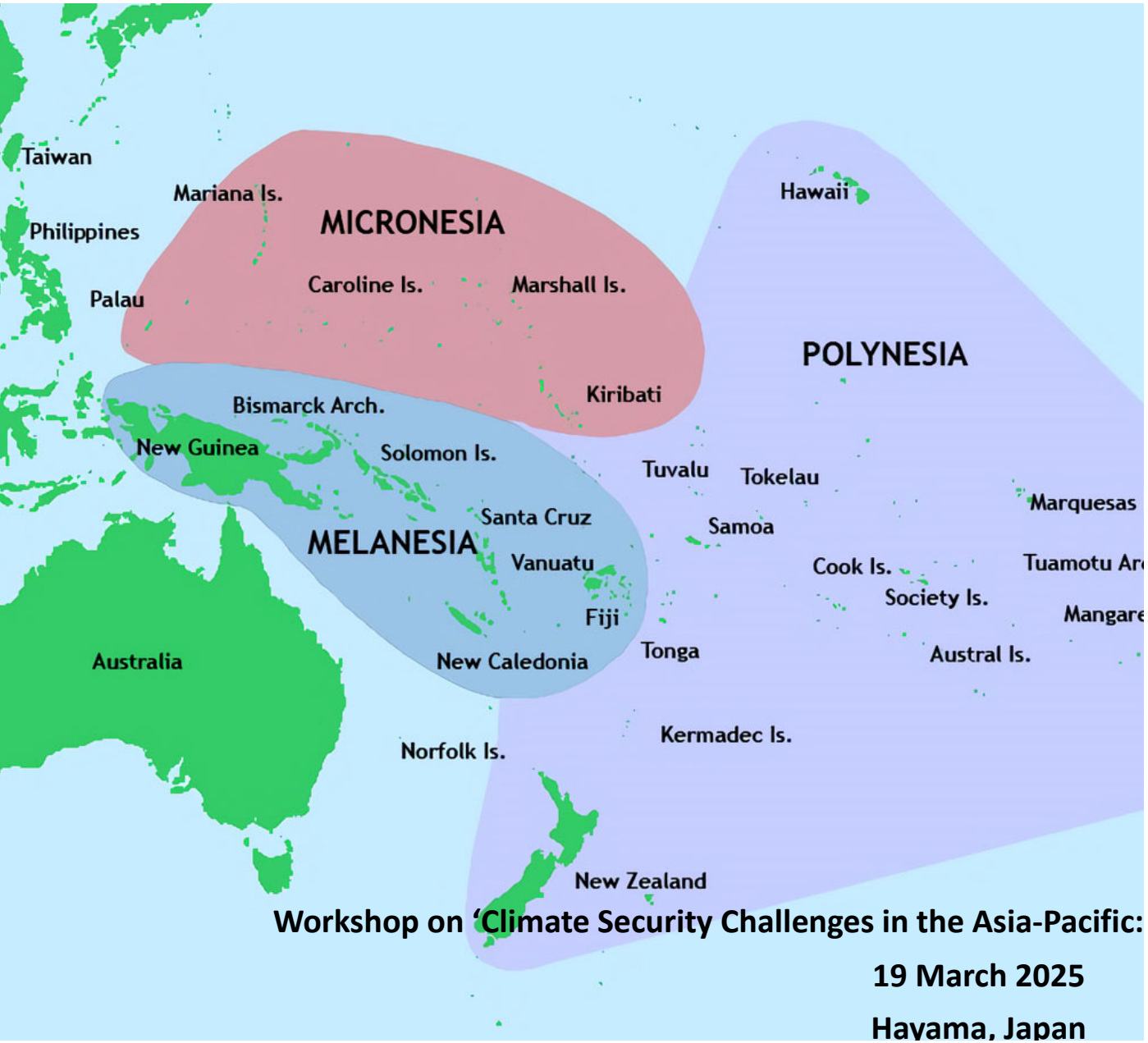

The nexus of energy and climate security in Pacific Island Countries

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Workshop on 'Climate Security Challenges in the Asia-Pacific: Securing Energy, Trade and Transition'

19 March 2025

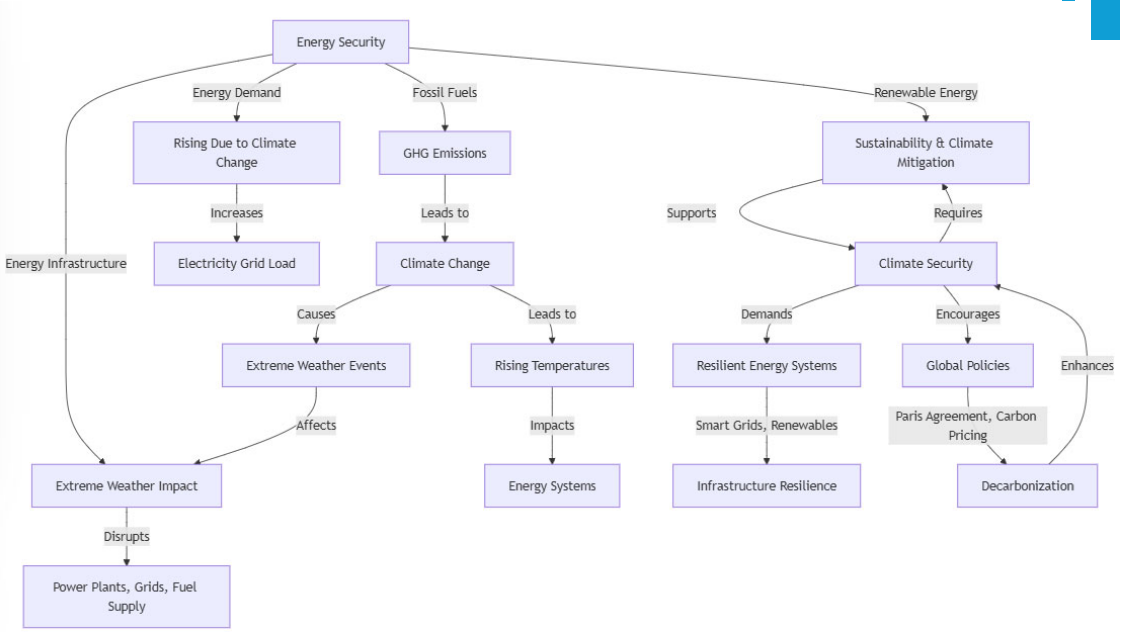
Hayama, Japan

Outline

- Introduction
- Climate security threats in Pacific
- Energy landscape in Pacific
- Energy security issues in Pacific
- The linkages between climate security and energy security
- Some policy recommendations and conclusions

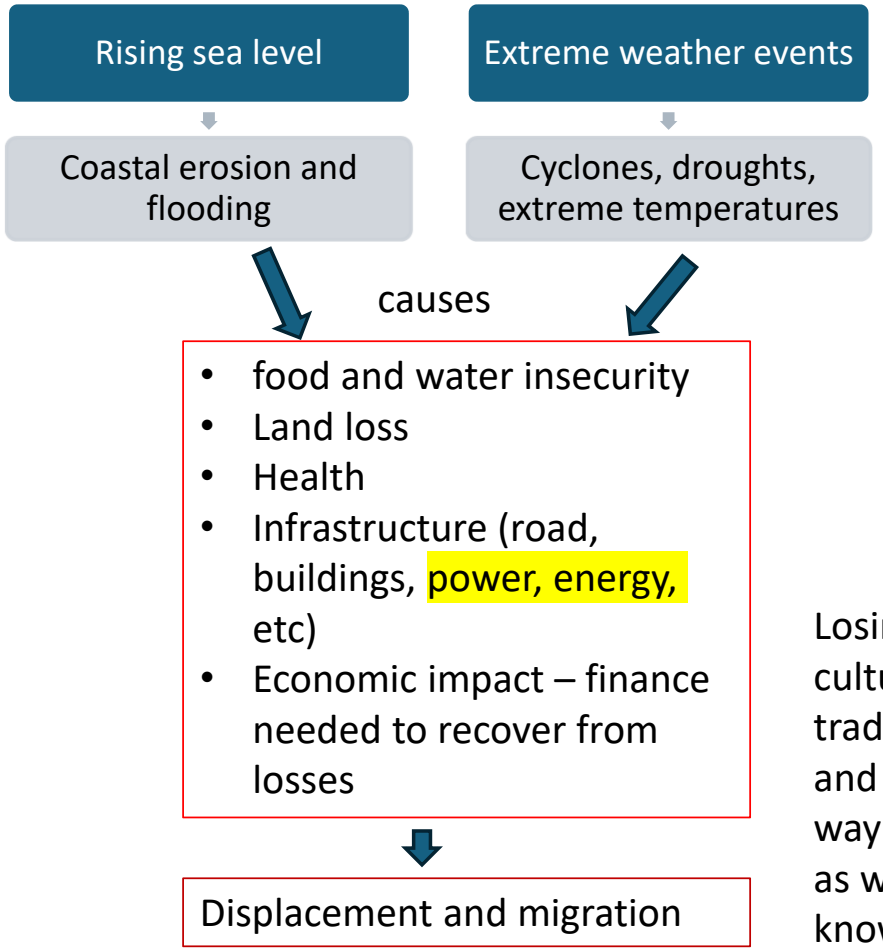
Introduction

- Climate Security – refers to the impacts of the climate crisis on peace and security, particularly in fragile and conflict-affected settings (UNDP, 2023).
- Energy security – concept of energy security included three basic criteria: (i) availability, accessibility and acceptability of sufficient supply of energy carriers, (ii) affordability of fuel sourcing (lower than the perceived value of fire), (iii) resilience of the energy supply system to external interference (Cherp and Jewel, 2014; Storjny et al., 2023).
- “low vulnerability of vital energy systems”



Climate Security Threats in the Pacific

- Climate change is threatening the peace and security of Pacific People.
- For high category (5) hitting Pacific Islands, there can be economic loss in the range from 20-60% of a country's GDP (Deo, et al., 2022).



TC Winston in Fiji: 2016

- approximately 80 percent of the nation's population losing power, including the entire island of Vanua Levu, and
- 44 fatalities were subsequently confirmed
- 30,369 houses, 495 schools and 88 health clinics and medical facilities were damaged or destroyed
- FJD 1.42 billion in damage (ADB, n.d)


https://www.etcluster.org/news/international-community-urged-give-generously-fiji-cyclone-winston-emergency-response


https://www.dfat.gov.au/crisis-hub/tropical-cyclone-winston-support-to-fiji


https://floodlist.com/australia/fiji-floods-winds-tropical-cyclone-winston#:~:text=equipment%20and%20services.-,Flooding,areas%2C%20in%20particular%20in%20Nausori.

https://www.bbc.com/news/world-asia-35647854

https://fijiclimatechangeportal.gov.fj/publication/fiji-post-disaster-needs-assessment-tropical-cyclone-winston-february-20-2016-pdna/

Energy landscape of PICs

Energy targets in Pacific Island countries and its actual status. Data Source: (ADB, 2021; SPREP, 2020; WHO, 2023a; WB, 2023b; WB, 2023c; WB, 2023d).

Country	Energy targets	Actual share of electricity generation from renewables in 2018	% of population with primary reliance on clean cooking energy in 2021			% of population with electricity access in 2021		
			National	Urban	Rural	National	Urban	Rural
Cook Islands	100 % renewable electricity generation by 2020.	25 %	78.7	98.0	25.2		No data	No data
Fiji	100 % access by 2020 and 100 % renewable electricity generation by 2030.	60 %	51.4	69.1	27.5	92.1	96	86.8
Kiribati	Achieve at least 45 % reduction of fossil-fuel energy generation by 2025.	17 %	12.4	20.4	1.70	92.8	88.3	94.3
Marshall Islands	20 % renewable electricity generation by end of 2020 with at least 95 % access.	2 %	66.7	87.0	0.90	99.8	96	100
Niue	80 % renewable energy generation by 2025.	14 %	98.4	98.4	98.4	No data	No data	No data
Nauru	30 % increase in efficiency, 50 % electricity supply from renewables, and 24/7 grid electricity supply with minimal interruptions by 2020.	2 %	100	100	100	100	100	100
Palau	45 % renewable electricity generation and 35 % energy efficiency improvement by 2025.	2 %	43.0	42.0	42.75	100	100	100
Solomon Islands	79 % of electricity from renewables by 2020.	6 %	8.90	35.6	1.20	76.3		
Tonga	50 % renewable electricity generation and 100 % access by 2020.	10 %	86.8	94.7	84.5			
Tuvalu	100 % renewable electricity generation and 30 % efficiency improvement by 2020.	23 %	74.6	94.8	40.9		100	99.1
Vanuatu	100 % renewable electricity generation and 100 % access by 2030.	22 %	6.90	18.7	1		97	60.7
Samoa	100 % renewable electricity generation by 2025.	42 %	37.2	65.8		98.3	100	97.9

Transport Energy Consumption

- Heavily (100%) dependent on imported fossil fuels
- Because we are island nations, maritime transport plays a big role in maintaining connectivity between people and services.
- Land transport are also major consumers of fossil fuels in some PICs such as Fiji.

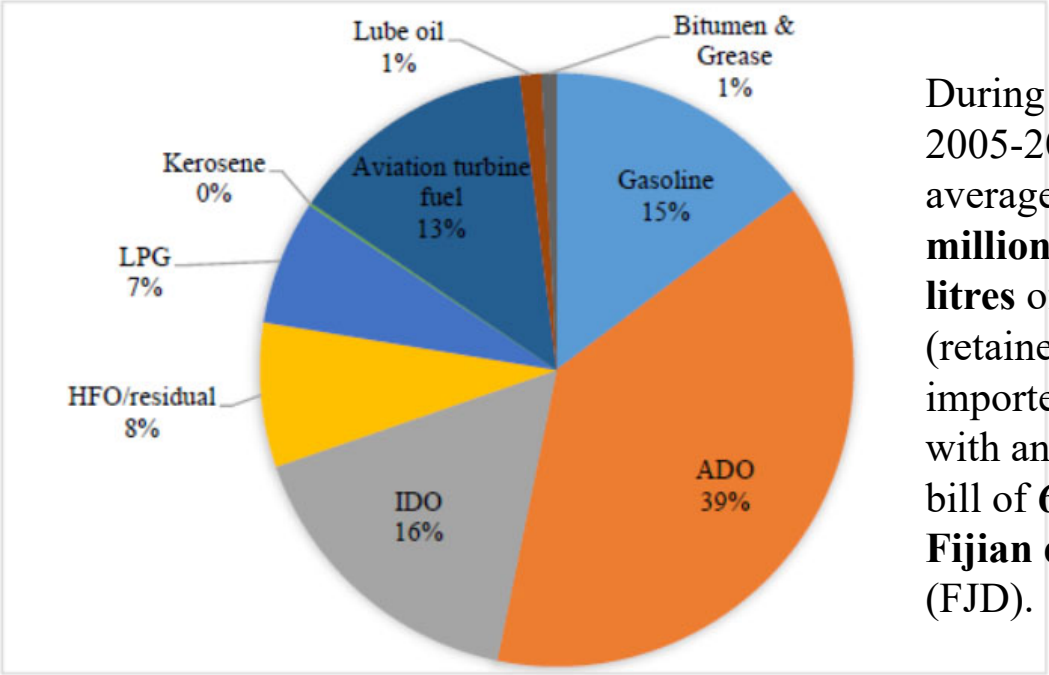


Fig. 1.1. Average fossil fuel retained import by quantity in Fiji using 2005-2017 data.

Data Source: (Lilieta, 2014; Miller, 2018).

During the period 2005-2017, an average of **540 million litres** of fuel (retained fuel) was imported annually with an average bill of **634 million Fijian dollars** (FJD).

Energy Security Issues in the PICs

- High reliance on fossil fuels
- Limited access to electricity and clean cooking energy
- High energy costs
- Vulnerability to energy price shocks an extreme weather events

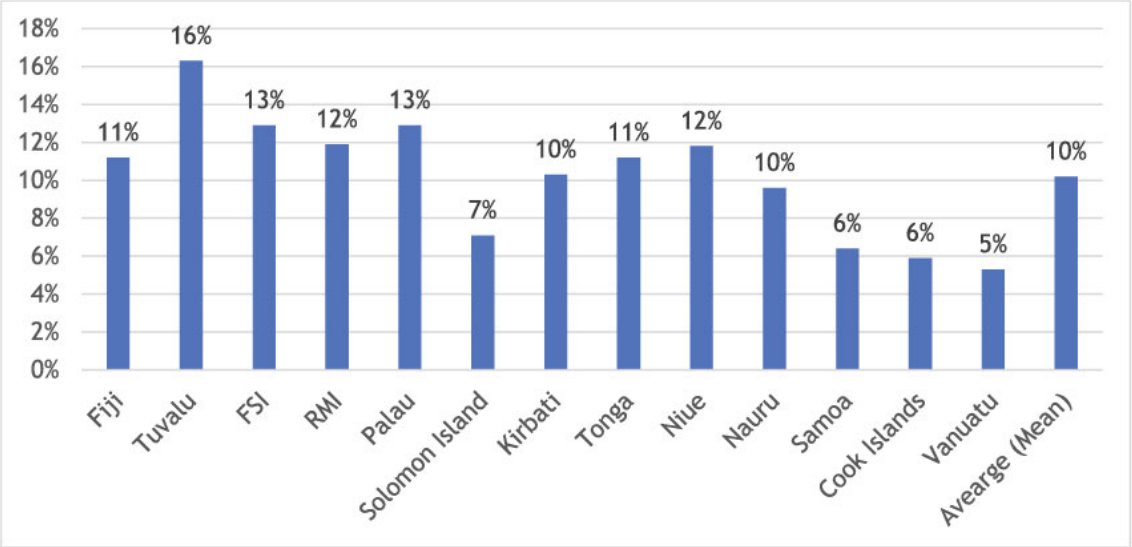
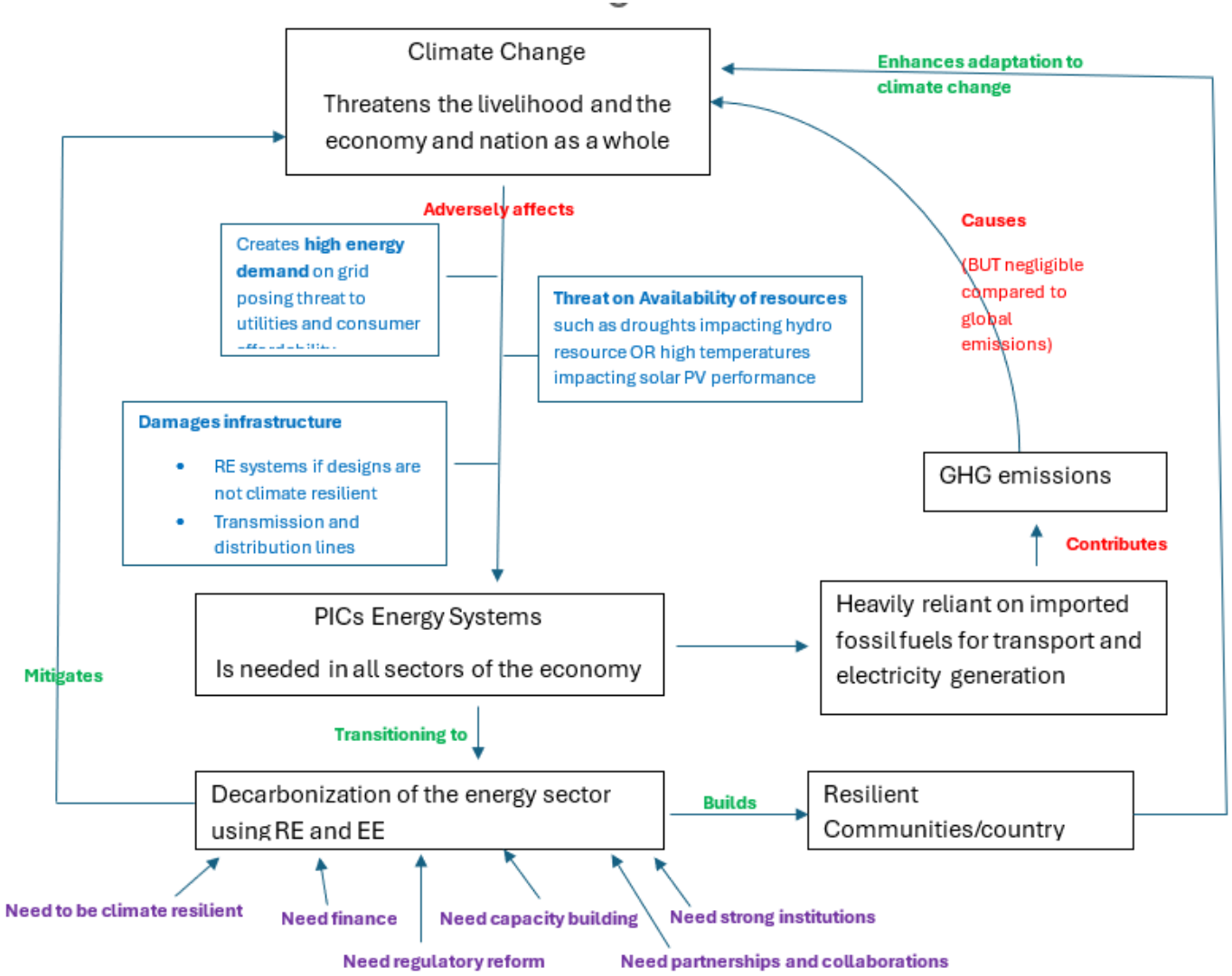


Fig. 4. Fossil Fuel Import as a % of GDP in 2015 (Source: Lal & Kumar, 2022).

The nexus of climate security and Energy security

- Climate change exacerbates energy security challenges
- Energy sector contributes to climate change
- Transitioning to renewable energy is crucial for both climate security and energy security



Source: Author's creation

Recommendation for Policymakers

- Prioritize renewable energy development
- Increase investment in energy efficiency
- Strengthen regional and international cooperation
- Build capacity in climate and energy planning

https://cosmosmagazine.com/news/renewables-in-pacific-a-slow-process/

https://www.spc.int/updates/blog/blog/2023/08/fuelling-tuvalus-sustainable-energy-aspirations-0

Conclusions

- Climate security and energy security are inextricably linked in the Pacific islands
- Addressing these challenges requires a comprehensive and integrated approach
- By investing in renewable energy and improving energy efficiency, PICs can enhance their climate security and energy security
- **Possible Next Step**: carry out assessment on climate security and energy security in a community and get their experiences documented to inform policy makers. Comparative studies could be done for Pacific, and other regions.

Thank you

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