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Energy roadmap in the Pacific and how we can utilise the climate / weather information to serve the Energy sector better

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FESRIP 2021-2030

FAESP 2010-2020: reviewed in 2019; lapsed in 2020.

4th PRETMM: endorsed the development of a new framework to replace FAESP.

FESRIP development: Mar-Oct 2020; extensive consultation with key stakeholders; revised draft delivered to SPC and PRIF in Oct.

Final Review: Conducted by UNDP in Mar-Apr 2021.

Endorsement: Energy Ministers and CROP Heads; Samoa Energy Minister signed Chair's Message in support of FESRIP.

6th August: PI Forum Leaders endorsed the FESRIP

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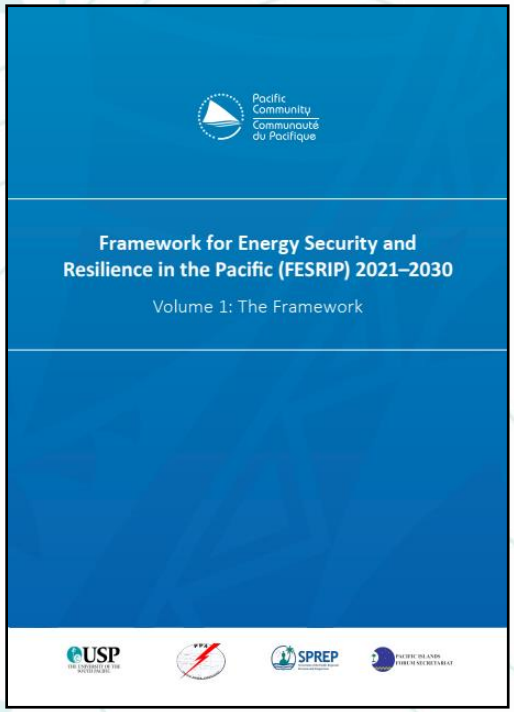
FESRIP 2021-2030 (cont.)

LONG-TERM GOAL: Access to secure, robust, sustainable and affordable electricity, transport fuel and household energy services that are resilient to climate change and natural disasters.

KEY PARTIES:

- SPC (lead);
- SPREP (environmental aspects & CC);
- PPA (power utilities);
- USP (education, training & research); and
- PIFS (regional policy alignment)



ONE FRAMEWORK MANY PARTNERS

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FESRIP Priority Initiatives

Priority A: Energy Policy, Planning and Capacity Development	
1. Development and implementation of robust national energy policies, plans and legislation	SPC, lead; PPA for power sector
2. Capacity development in the energy sector	USP, lead in cooperation with the other CROP agencies
3. Database development with energy resilience/security indicators	SPC and PPA, co-leads
4. Rectifying gender imbalance in the energy sector	SPC, lead
5. Non-commercial household energy	SPC, lead in cooperation with USP
Priority B: Energy Sector Finance and Cooperation	
6. Financing a regional energy framework	PIFS, with participating CROP agencies
7. Regional support to Pacific Island territories	SPC, lead
8. Cooperation in sustainable and resilient energy with other island regions	SPC, PPA and SPREP, co-leads
9. Cooperation with the private sector in energy	PPA and SPC, co-leads; PIFS

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FESRIP Priority Initiatives (cont.)

Priority C: Sustainable Electric Power Development (PPA lead for grid-based electrification; SPC for off-grid/mini-grid)	
10. Climate-resilient power generation and distribution for island grids	PPA and SPC, co-leads
11. Overcoming technical limitations to high penetrations of renewable energy	PPA, lead
12. Financial and management mechanisms for sustainability of outer island and remote rural electrification	SPC and PPA, co-leads
13. Inspection and maintenance of RE technologies	SPC, lead with PPA
14. Regional RE standards for hurricanes and natural disasters	SPC and PPA, co-leads
15. Implementation of national goals and NDC commitments for renewable electricity	SPC, SPREP and PPA, co-leads
16. Expanding and increasing the range of RE technologies	No overall lead; SPC for ocean energy
17. Independent energy regulation	SPC, initial lead

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FESRIP Priority Initiatives (cont.)

Priority D: Low-Carbon Transport Energy	
18. Land transport energy use	SPC, lead
19. Marine transport energy use	SPC, USP and SPREP, co-leads
20. Air transport energy use	No specific lead
Priority E: Improved Energy Efficiency	
21. Improved energy efficiency within buildings and economy wide	No specific lead
Priority F: Petroleum and Other Liquid Fuel Services	
22. Petroleum advisory services: fuel pricing, contracting, monitoring and biofuels	SPC, lead
23. Petroleum advisory services: fuel storage, distribution infrastructure and miscellaneous	SPC, lead

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IEA Web-based Data Platform

Renewable Energy Space Analytics Tool (RE-SAT) - funded by the UK Space Agency

A web-based data platform that exploits earth observation data and other sources of data to:

- Provide a powerful analytics tool to support strategic energy planning.
- Help SIDS define the best renewable energy mix, planning where to locate different assets and estimate power production taking account of environmental variables.
- Minimise the risks in investing and make the transition to renewable energy a reality.

Beneficiary Countries (Phase 1):

- Tonga,
- Palau
- Vanuatu

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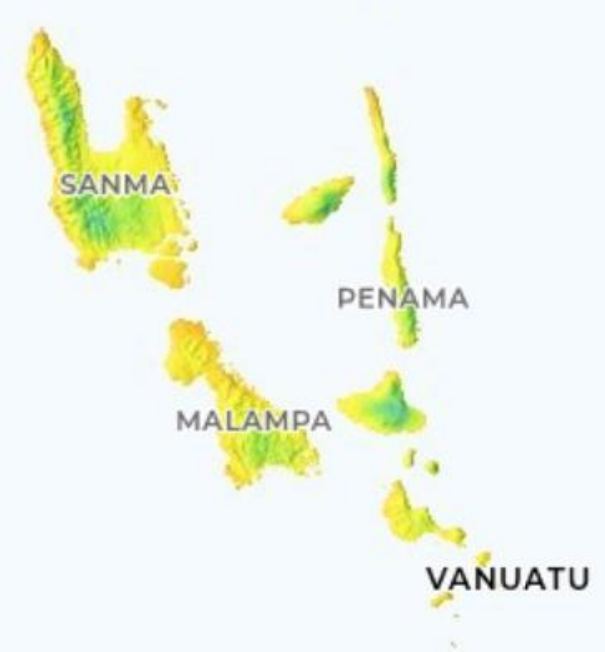
Solar and Wind Resource Assessment by PPA

Sustainable Energy Industry Development Project (SEIDP) – funded by the World Bank

Resource mapping of solar and wind capacity across 12 PPA member countries:

- Phase 1–Project inception, preliminary modeling, and implementation planning:
- Phase 2: Ground-based data collection
- Phase 3–Production of validated wind resource atlas



Solar map of part of Vanuatu

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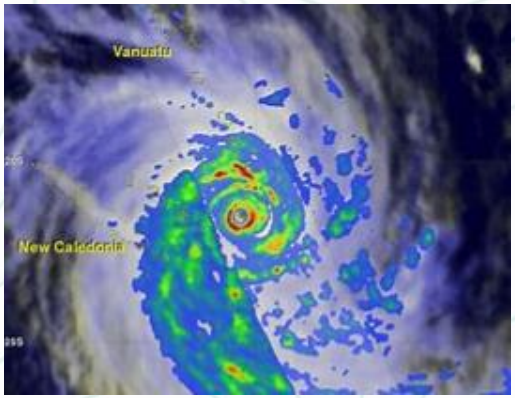
Importance of Climate and Weather information

Climate and weather information important for decision making in the energy sector:

- Building of climate resilient RE technologies,
- Determine suitable type of RE technologies,
- Disaster preparedness,
- Data collection prior to and after a natural disaster.



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Suggested Way Forward

- More data collection is required on:
  - Solar and Wind,
  - Rain (for hydro and PHES), and
  - Ocean (wave, tide and OTEC).
- Consistent and prolong period of data collection E.g a decade of data collection.
- Collaboration on data collection and sharing is important.

Wind meter

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Thank you

Questions??

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