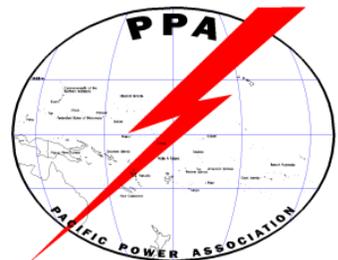


SUSTAINABLE ENERGY INDUSTRY DEVELOPMENT PROJECT (SEIDP)

*ICAO/UNDP/GEF Capacity Building Seminar on Low Emissions Aviation Measures
Nadi, Fiji 23 – 24th May 2018*





CONTENT

Background

Project Development Objective

Outcomes

Project Components

Solar and Wind Resource Assessments

Global Solar & Wind Atlas

BACKGROUND

- Pacific Power Association mandated to assist the utilities in resolving problems including the integration of RE & encourage them to be efficient and accountable in their operation;
- The World Bank has provided funding(USD5.66m) to the PPA to implement the Sustainable Energy Industry Project;
- Project covers 12 Pacific Is. Countries Fiji, FSM, Kiribati, Marshall Islands, Nauru Palau, PNG, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu
- Project components:
 - **Component 1.** Renewable Energy Resource Mapping
 - **Component 2.** Technical Assistance
 - **Component 3.** Project Implementation Support

PROJECT DEVELOPMENT OBJECTIVE

The Project Development Objective(PDO) is :

- to increase the data availability and capacity of power utilities of the Pacific Island countries to enhance their ability to incorporate and manage renewable energy technologies and long-term disaster risk planning

OUTCOMES

Expected outcomes:

- (a) increased publicly available information on renewable energy resources;
- (b) increased available energy sector planning tools, and people in the PPA and PIC power sector utilities who know how to use them;
- (c) improved institutional and technical capacity within the PPA and utilities for planning and management aimed at the successful integration and long-term management of power systems with higher levels of renewables once renewable projects become operational; and
- (d) strengthened planning capacity for disaster recovery and risk reduction.

PROJECT COMPONENTS

Component 1: Solar and Wind resource assessments.

Component 2. Technical Assistance.

Component 3. Project Implementation Support.

SOLAR AND WIND RESOURCE ASSESSMENTS

Solar & Wind resource assessment across 11 Pacific Island countries.

The resource maps will:

- provide a detailed assessment for solar and wind and potentially other renewable energy resources in the islands;
- increase the awareness and knowledge of governments and other energy sector players about renewable energy potential;
- provide baseline information for potential new public and private sector investment projects such as ICAO's initiative to reduce emissions from the aviation sector; and
- serve as an input for grid integration studies

SOLAR & WIND MAPS

- Phase 1 – Desk based assessment of wind and solar resource;
- Phase 2 – Installation of monitoring equipment on selected sites across the Pacific
- Phase 3 – validation of maps produced in Phase 1 using data from Phase 2

GLOBAL SOLAR & WIND ATLAS

- The World Bank launched the solar maps for the Pacific region in August 2017;
- The maps provide unvalidated data on the solar resource potential across the Pacific;
- Wind resource maps were launched in December 2017;
- The maps can be accessed online through the Global Solar Atlas website or the PPA website;
- Data collection as part of the SEIDP will validate the existing maps
- Solar and Wind maps available for download.

SOLAR MAPS

SOLAR RESOURCE MAP

PHOTOVOLTAIC POWER POTENTIAL

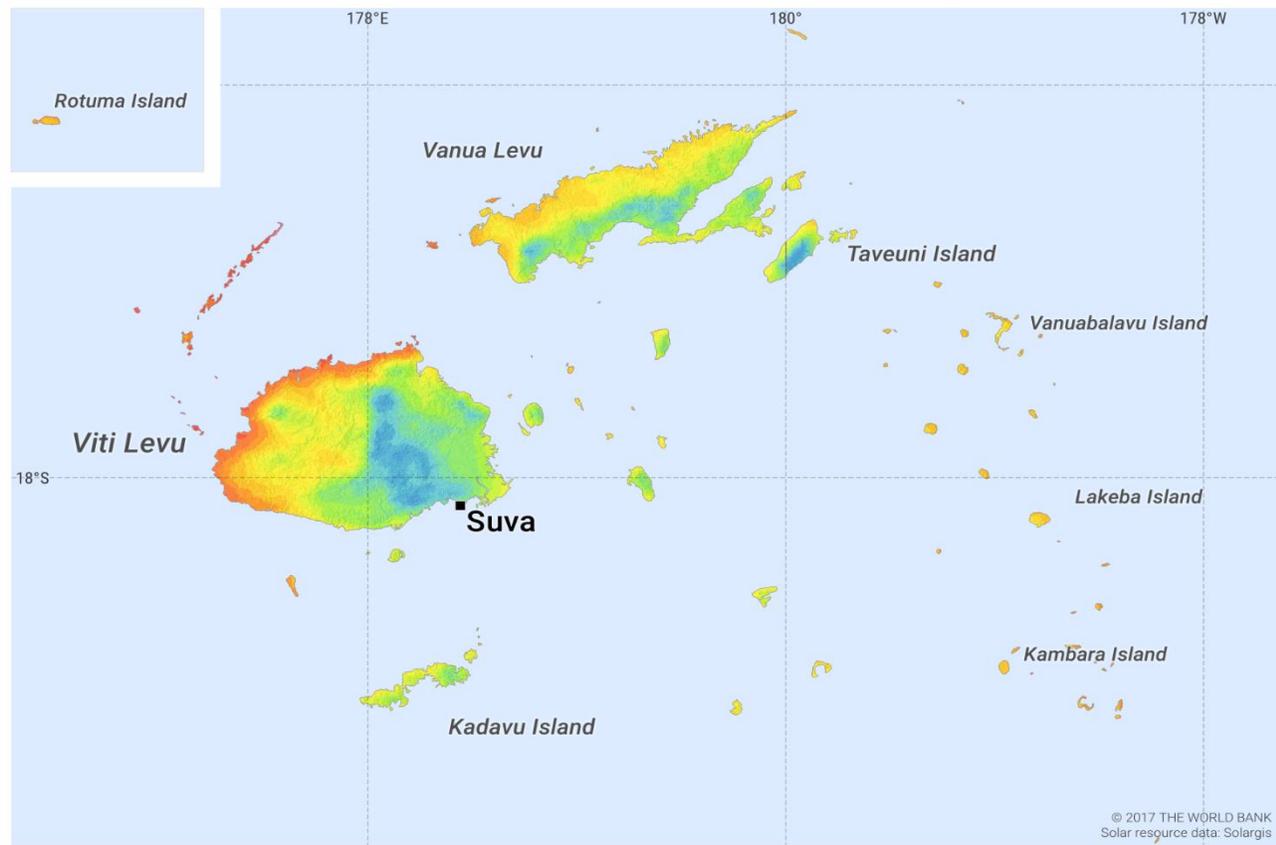
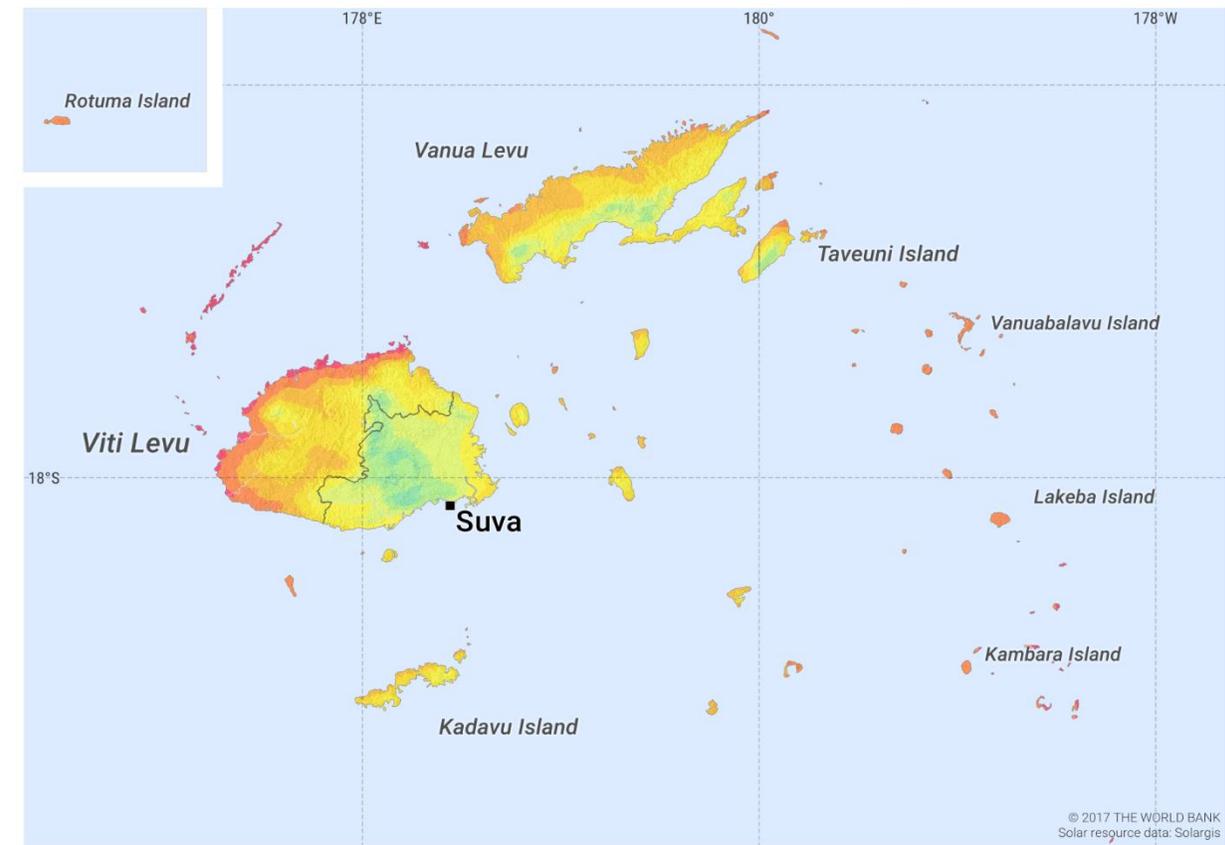
FIJI



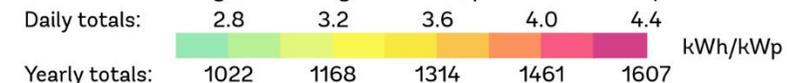
SOLAR RESOURCE MAP

DIRECT NORMAL IRRADIATION

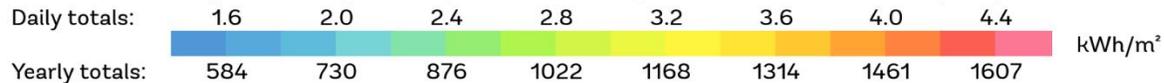
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Long term average of PVOUT, period from 2007 (1999 in the western hemisphere) to 2015



Long term average of DNI, period from 2007 (1999 in the western hemisphere) to 2015



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