

CHALLENGES AND OPPORTUNITIES FOR RENEWABLE ENERGY IMPLEMENTATION IN THE PACIFIC



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ADB

Opportunities

- Tariffs are high (generally >40c/kWh) improving financial viability of RE
- Extensive Pacific experience with PV solar, wind and hydropower
 - Lessons from planning and implementation
 - Robust technology suitable for the Pacific
- High political awareness
 - Most Pacific countries have energy policies and renewable energy targets
- International community is providing increasing resources to assist

Challenges

- Limited technical capacity to:
 - manage consultants and contractors during construction (requires expensive PMUs)
 - conduct operation and maintenance (particularly for wind farms and biofuels)
- Inability of existing grids to absorb large amounts of intermittent supply
- Land acquisition issues during construction and operation
- Few qualified domestic consultants and contractors
- Weak regulatory and policy frameworks

ADB Overview

- Asia-Pacific 2010 ADB approved \$17.5 billion
- Pacific 2010 ADB approved:
 - \$233 million in concessional lending and grants
 - \$86 million in co-financing
 - \$30 million in technical assistance grants
- Current and planned operations
 - Ongoing
 - 7 ongoing loan/grant projects (approx \$280 million)
 - 10 ongoing TA grants (approx \$10 million)
 - Pipeline for 2012-2013
 - 6 loan/grant projects (approx \$133 million)



Renewable Energy - Hydropower

- PNG: 2010, Town Electrification Investment Program, Tranche 1 \$57 million financing for Divune, Ramazon, and Lake Hargy Hydropower
- Samoa: 2011, Power Sector Expansion Project (\$100 million), includes rehabilitation of existing hydropower plants and FS's for small Hydropower
- Samoa: 2009, Preparing the Afulilo Environment Improvement Project, augmentation of Afulilo Hydropower
- FSM, Pohnpei: 2011/12, TA to assist PUC with Nanpil Hydropower and assessment of alternative hydro
- Samoa: 2012/13, Renewable Energy Project, including support for small hydropower
- Solomon Islands: 2012, Promoting Access to Renewable Energy in the Pacific, feasibility studies for 5 Hydropower plants
- Vanuatu: 2012, Feasibility Studies for 2 hydropower plants
- PNG: 2012/13, Port Moresby Grid Development Project, including upgrade of Rouna Hydropower cascade

Renewable Energy

➤ **Grid-connected Solar**

- FSM, Yap State: 2012 Project to finance grid connected solar (300kW)
- Tonga: 2012, Outer Island Renewable Energy Project, \$5 million grant, 750kW grid connected solar on 'Eua, Ha'apai, and Vava'u
- Vanuatu: 2012, 40kW grid-connected solar on Santo

➤ **Wind Power**

- FSM, Yap State: 2012 Project to finance wind generation (1.5MW)

➤ **Coconut Oil**

- Solomon Islands: 2010, Promoting Access to Renewable Energy, install CNO generator on Auki, Malaita, and extend distribution
- Marshall Islands: 2009, Improved Energy Supply to Poor Households, \$1.76 mil. grant for generator upgrades and CNO
- PNG: 2010 study on CNO diesel replacement options

Financing Partnerships

- **Pacific Region Infrastructure Facility**
 - **ADB, AUS, NZL, WB and IFC, EU and EIB**
- **Pacific Infrastructure Advisory Center**
- **Global Environment Facility – LDC Fund**
- **Climate Investment Funds – PPCR**
- **Strategic Climate Fund - SREP**
- **ADB Clean Energy Financing Partnership Facility**
- **Japan Fund for Poverty Reduction**

Thankyou



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