Small Renewable Energy Projects under CDM in the Pacific Island Countries - Opportunities & Issues

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• The Pacific Island Countries (PIC’s)
• Access to Energy/Electricity in the PIC’s
• Energy Sector including Renewable Energy (RE) in the PIC’s
• Small RE CDM in the PIC’s – Issues and Concerns
• PoA Development in PIC’s – Opportunities, examples and Barriers
• Support Needed for CDM/PoA uptake in PIC’s
Access to Energy/Electricity in the PIC’s

- Characterised by small size, long distances between islands, and isolated populations
- Around 30% have access to electricity, ranging from less than 25% in some countries to over 95% in others
- Grid-based, publicly distributed electricity only on the main island; Limited supply to rural areas
- Half or more of the region’s energy use - based on traditional biomass; > half of households primary energy source
- Unique and difficult challenges – topography, poorly developed infrastructure; fragmented energy markets; economies of scale and limited financial resources

Source: SPC (2012)
Energy Sector in the PIC’s

• Varying but high dependence on fossil fuels – around 90% petroleum in overall commercial energy consumption.
• Transport accounts for the largest percentage of petroleum use in PIC’s – 75% on average
• Electricity generation - typically 20% or more
• The existence of national energy policies varies from “adopted but not enforced” to varying phases of working drafts.
• Renewable energy options- increasingly attractive means of promoting access to energy/electricity
Renewable Energy in the PIC’s

- Wide variation in resource availability - mainly involving solar, wind and biomass.
- Significant gaps in knowledge of potential resources - impede the development of RE projects.
- Solar energy – most replicable RE project type - reasonable experience
- Hydropower potential is mainly confined to Melanesia: PNG, the Solomon Islands, Vanuatu and Fiji.
- Biomass – potential resource in most PICs - Complex issues, including food supply conflicts, land leasing and environmental concerns
- Wave and OTEC - unknown potential - capital intensive - upfront costs for feasibility, exploration and quantification of real potential
CDM in the PIC’s

- Slow progress in accessing carbon financing through the Clean Development Mechanism (CDM).
- Designated National Authorities (DNAs) are being established lately - only seven registered CDM projects exist (5 in PNG and 2 in Fiji).
- Registered projects - issues on commissioning and project monitoring - non-issuance of CER’s (credits).
- Viable projects exist (mainly programmatic) - limited awareness and stakeholder capacity on:
  ✓ current and latest developments CDM modalities and procedures
  ✓ Simplified or flexible procedures applicable for PIC’s/SIDs

Small RE CDM in the PIC’s – Issues and Concerns

- Relatively small domestic markets and limited private sector development
- Mostly micro or Nano scale projects with high diversity and dispersion
- Low CER volumes - high sustainable development impacts
- Limited institutional frameworks, technical capacity and human resources – CDM still deemed as complex and not worth pursuing
- Even under PoA, high transaction cost (documentation & verification costs)
- Issues with monitoring post registration
PoA – an Opportunity for PIC’s?

- Potential to overcome the barriers of low economies of scale & high transaction costs to the volume of CERs
- **Automatic additionality** for micro-scale projects:
  - Type I RE under 5 MW; Type II EE under 20 Gwh/yr; Type III Projects under 20k tCO2e/yr
- New SSC methodologies – Rural electrification; Electrification of communities thro’ extension of grid/mini-grid
- Possible to use **many or combination** of methodologies in a PoA
- Can involve **multi-countries** as long as the each host country DNA provides the approval
- Possible to expand boundary of a registered PoA

Examples of PoA’s under Development in PIC’s

- Technical Support Facility (TSF) under ADB Carbon Market Programme - ‘Programme of Activities (PoA) for Sustainable Renewable Energy Power Generation in Papua New Guinea (PNG)
- EU ACP CDM capacity building initiative implemented by UNEP Risoe Centre - has identified several potential CDM project opportunities in PIC’s - includes 5 potential PoA’s
- Regional Biogas PoA - Ably Carbon Sdn Bhd - biogas recovery, flaring and/or utilization systems on palm oil mills - Malaysia, PNG & Solomon Islands
- CarbonSoft Open Source PoA, LED Lighting Distribution: Oceania – Includes Fiji, PNG, Solomons, Samoa in South Pacific
Barriers to PoA Development in PIC’s

- Limited stakeholder awareness, knowledge and capacity
- Coordinating and managing entity
- Project Developer’s capacity to develop and monitor programmes
- Need data for baselines
- Validation and Verification of some CPA’s can drive up costs
- Still takes a long time to register a CDM project (average 2 years)

Support Needed for CDM/PoA Development in PIC’s

- Capacity building including handholding of host country DNA’s as well as stakeholders
- Bringing potential opportunities/actors together (Facilitators)- Regional Coordinating Body?
- Premium for Pacific credits - High SD Impacts
- Energy consumption data - Baseline
- Standardised Baselines (SB’s)
  - Region/Country/Sector specific?
  - Role of host country DNA’s in developing SB’s
  - Funding for SB development – Host country support; Private sector; Donor Agencies
  - Capacity building of stakeholders
Thank You!