

TECHNICAL ASSISTANCE COMPLETION REPORT

Division: PAHQ

TA No. and Name TA 6102 REG: Renewable Energy and Energy Efficiency Program for the Pacific			Amount Approved: US\$600,000 Revised Amount: N/A	
Executing Agency Pacific Department, Asian Development Bank	Source of Funding Danish Cooperation Fund for Renewable Energy and Energy Efficiency in Rural Areas		TA Amount Undisbursed US\$78,753.47	TA Amount Utilized US\$521,246.53
Date			Completion Date	
Approval 28 April 2003	Signing N.A.	Fielding of Consultants 12 January 2004	Original 31 May 2005	Actual 30 August 2006
			Closing Date	
			Original May 2005	Actual 28 March 2007
Description				
<p>The cost of providing energy in Pacific developing member countries (PDMCs) is very high as consumers are dispersed and domestic markets are small. The outer island communities are the most disadvantaged because of their remote and isolated locations. Despite the high cost, however, consumption of energy is expected to increase while PDMCs develop and modernize. Renewable energy sources in the form of hydropower, wind, solar, biofuel and geothermal hold high potential for contributing to sustainable development. This is particularly true in the remote rural areas where people are still dependent on fossil fuel for power generation and transportation.</p> <p>ADB launched the Renewable Energy, Energy Efficiency and Climate Change (REACH) Program to examine the potentially larger role of renewable energy and energy efficiency in meeting the rapidly growing demand for energy in Asia and the Pacific region. REACH brought together several trust fund initiatives provided by the governments of Canada, Denmark, and the Netherlands.</p> <p>In April 2003, the Asian Development Bank (ADB) approved the regional TA for Renewable Energy and Energy Efficiency Program (REEP) for the Pacific, a component of the REACH Program financed by the Danish Cooperation Fund for Renewable Energy and Energy Efficiency in Rural Areas. The Fiji Islands and Samoa were selected as recipient countries based on the selection criteria.</p>				
Expected Impact, Outcome and Outputs				
<p>The TA framework stated that the TA's expected goal (impact) was for rural populations in the PDMCs to have access to commercially viable energy services using mature renewable energy and energy efficiency applications.</p> <p>The expected purpose (outcome) of the TA were (i) to help create a policy environment and institutional arrangements—to include mobilizing external financing for a pipeline of potential renewable energy and energy efficiency projects—that will develop a market-based rural energy sector in Fiji and Samoa, and (ii) to build sufficient institutional and organizational capacity at relevant levels.</p> <p>The TA's expected outputs were divided into two phases. Phase 1, the inception phase (4 months), comprised a stocktake of past and ongoing renewable energy and energy efficiency initiatives in the region. Phase 2, the main implementation phase (20 months), included (i) an action plan for the adoption of appropriate policies, institutional arrangements, legal/regulatory measures, and financial schemes; (ii) a training needs analysis and training curricula for private and public sector key players in the two PDMCs; (iii) pipeline of projects for funding by ADB, Global Environment Facility (GEF), and/or other relevant financing sources; and (iv) final consultations and dissemination of lessons learned from the TA to other PDMCs with focus on establishing policy frameworks, building capacity and replicating/disseminating good practices.</p>				
Delivery of Inputs and Conduct of Activities				
<p>The REEP implementing agencies were the Ministry of Finance and National Planning in the Fiji Islands and the Treasury Department in Samoa. Steering committees were established in the two PDMCs with representatives from the stakeholder groups—other government agencies, business and industry, nongovernment organizations, academe, financial sector, and multilateral and bilateral institutions. Through the provision of technical support to the national implementing agencies and TA steering committees in the two participating PDMCs, the TA was to introduce an effective approach for creating a policy environment enabling a demand-driven private sector market for rural services. The performance of the implementing agencies and the steering committees in the two PDMCs were all satisfactory.</p> <p>TA implementation was assisted by a team of international (17 person-months [PM]) and domestic consultants (36 PM) recruited through a consulting firm. The consultants included: (i) one renewable energy and energy efficiency economist and policy specialist/Team Leader; (ii) one renewable energy and energy efficiency financing schemes specialist; (iii) one renewable energy and energy efficiency technical standards specialist; and (iv) two national renewable energy and energy efficiency technical experts, one for each PDMC. One assistant TA manager (12 PM) was recruited individually by ADB in the Philippines to assist ADB staff and the consultant's team leader with their duties. The terms of reference (TOR) for the consultants and the budget for consulting services, travel and workshops</p>				

were generally adequate. The economy and productivity of the input provision were satisfactory. Client response on the inputs provided was generally satisfactory, as confirmed by the performance evaluation reports (PERs) for the consultants. The consultant reports were satisfactory and acceptable to the implementing agencies, the steering committees, and ADB.

There were two tripartite meetings held in each country to discuss ongoing project activities and address issues affecting the efficient implementation of REEP. ADB provided significant input, guidance, and review.

However, implementation was delayed because the preparation of the workshop required more time than expected. Other reasons for the delay were the additional time needed to hire the consultants and address the administrative requirements to financially close the TA.

Evaluation of Outputs and Achievement of Outcome

The outputs of the REEP TA were in accordance with the scope of work required in the TOR. The outputs were generally achieved and in several areas exceeded expectations.

TA outputs were evaluated as follows: (i) **Stocktake**. As planned, a stocktaking report on renewable energy experiences and lessons learned worldwide and in the Pacific was presented in the Mid-term Report; (ii) **Action Plan**. Upon the recommendation of the implementing agencies and steering committees of Fiji and Samoa, the TA coordinated and supported the ongoing activities of the Pacific Islands Energy Policies and Strategic Action Plan (PIEPSAP) Project in developing a rational energy policy and strategic action plan. The institutional framework—for development of Energy Efficiency Service Companies (EESCO)—and the regulatory framework were established. The TA also helped in the initial formation of renewable energy associations; (iii) **Training needs analysis and training curricula**. REEP evaluated the capacities of selected institutions in Fiji and Samoa and recommended upgrades on existing courses as well as support tools; (iv) **Pipeline of projects for funding by external sources**. Five renewable energy projects (three in Fiji and two in Samoa) and a sub-regional energy efficiency project (development of EESCOs) were developed, exceeding the minimums set under the TA. Funding applications for GEF of Fiji's Rotuma Electrification for Biofuel Project and the sub-regional EESCO Project were prepared. The steering committees and the proposed proponents/developers of the projects identified agreed with the components of the identified projects; and (v) **Final consultations and dissemination of lessons learned**. Project activities and results were presented in the Fiji Islands and Samoa through the Steering Committee members and some Pacific regional meetings and workshops. A final regional workshop was conducted to share the lessons learned from REEP to the energy planners, utilities, and business sector of the 14 ADB PDMCs. The project workshop also exceeded the TA requirements through an increased budget obtained from the Technical Centre for Agricultural and Rural Co-operation (CTA) that allowed additional international participation, additional days of presentations and the inclusion of more overseas resource persons.

Overall Assessment and Rating

The TA was successful in achieving the expected outcomes and the governments were satisfied with the REEP outputs.

Major Lessons

Three major lessons can be drawn from the TA: (i) the lack of equitable and negotiable terms for independent power producers was found to be a significant barrier to the large scale private development of renewable energy for power generation; (ii) the private sector is eager to participate in renewable energy and energy efficiency development but to be effective it needs further development of technical and business skills specific to that development; (iii) a lack of finance mechanisms for the private sector implementation of renewable energy and energy efficiency was not found to be a major barrier in Fiji and Samoa, rather the lack of finance activity was more due to a lack of demand for such finance as well as a lack of understanding by the financial institutions of the lending risks.

Recommendations and Follow-Up Actions

The Fiji Islands and Samoa governments and other major stakeholders had expressed their support and interest in implementing the proposed prioritized projects identified under REEP to develop and utilize new and renewable energy sources to meet the rapidly growing demand for energy and reduce dependence on fuel oil. Follow-up activities should be conducted to pursue the realization of the developed project concepts and TA papers under REEP and mobilize external financing. Ongoing power sector development projects by ADB and other organizations have to be examined to ensure that the proposed projects under REEP could become a part of the overall energy sector development plans of both PDMCs. Policy strategies and incentives, institutional and regulatory frameworks and capacity development initiated under REEP have to be enhanced and expanded to create an enabling environment for the proposed renewable energy and energy efficiency projects.