Completion Report

Project Number: 44099-012
Technical Assistance Number: 7798
August 2016

Promoting Energy Efficiency in the Pacific (Phase 2)

Asian Development Bank

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<table>
<tr><td colspan="3">TA Number, Country, and Name:

TA 7798-REG: Promoting Energy Efficiency in the Pacific (Phase 2)</td><td colspan="2">Amount Approved:
$8,754,545

Revised Amount:
Not applicable</td></tr>
<tr><td colspan="2">Executing Agency:
ADB</td><td>Source of Funding:
TASF-IV: $1,000,000
ATF-IBRD/GEF: $5,254,545
ATF-Australian: $1,000,000
ACEF-CEFPF: $1,500,000</td><td>Amount Undisbursed:
$1,605,038.41</td><td>Amount Utilized:
$7,149,506.59</td></tr>
<tr><td>TA Approval Date:

31 Mar 2011</td><td>TA Signing Date:</td><td>Fielding of First Consultant:

6 Nov 2011</td><td colspan="2">TA Completion Date
Original: 31 Mar 2015 Actual: 23 Oct 2015

Account Closing Date
Original: 1 July 2015 Actual: 23 Oct 2015</td></tr>
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Description

The subject TA was preceded by TA 6485-REG: Promoting Energy Efficiency in the Pacific (PEEP-1) to provide preliminary assistance to assess the potential for reducing fossil fuel consumption in five PDMCs through demand-side energy efficiency measures. Among its outputs, PEEP-1 identified a pipeline of prospective investments and activities for promoting energy efficiency to be implemented in potential follow-up TAs. The present TA (PEEP-2) built on PEEP-1's outputs and aimed to reduce energy consumption in the residential, commercial and public sectors and to assist the governments in establishing enabling policy and regulatory environments and implementation frameworks to move towards the strategic targets on fossil fuel imports, energy savings and greenhouse gas (GHG) emission reductions.

An application for co-financing was made to the Global Environment Facility (GEF) based on PEEP-1 outputs. The project identification form (PIF) was approved on 14 September 2009. A GEF-funded project preparation grant (PPG) of $200,000 was approved on 1 March 2010 and was used to further define the scope of PEEP-2. The official GEF Endorsement was granted to PEEP-2 on 10 February 2011.

Expected Impact, Outcome, and Outputs

PEEP-2's expected impact was a reduction in fossil fuel use by the power sector without a corresponding reduction in energy services. Its expected outcome was more efficient energy use and greater national energy security. The major outputs expected to be delivered by PEEP-2 included: (1) stakeholder access to comprehensive information on energy use; (2) energy efficiency practices mainstreamed into government policies and procedures; (3) energy efficiency programs implemented effectively and sustainably; (4) information dissemination and improved public awareness.

Relevant performance targets and indicators were established in the DMF to evaluate the implementation of designed tasks and activities and the delivery of the expected outputs. As per GEF requirements, a budgeted M&E plan was established, including "SMART" indicators (specific, measurable, achievable, relevant, and time-bound), as well as mid-term and end-of-project targets.

Delivery of Inputs and Conduct of Activities

PARD/PATE served as the Executing Agency. In-country Implementing Agencies (IAs) of the respective participating countries were: (i) Energy Department, Cook Islands; (ii) Department of Petroleum and Energy, Papua New Guinea; (iii) Ministry of Natural Resources and Environment, Samoa; (iv) Tonga Energy Road Map Implementation Unit, Prime Minister's Department, Tonga; and (v) Energy Unit, Ministry of Lands and Natural Resources, Vanuatu. In each country, a national steering committee was set up to provide guidance to the implementation of project activities led by a national implementation unit on a daily basis and to ensure coordination among participating agencies and other organizations.

PEEP-2 was implemented by a consulting firm that supplied 250 person-months of international and 182 person-months of national consulting services to support program management and implementation. Overall, the performance of the consultants was satisfactory. The specific tasks and activities were for the most part undertaken as planned, and the deliverables were of quality acceptable to the IAs and ADB.

PARD/PATE provided substantial inputs, support, guidance and supervision to the implementation of all tasks and activities and the delivery of deliverables and outputs. Hence, the overall performance of ADB can be assessed as satisfactory.

Evaluation of Outputs and Achievement of Outcome

Evaluation against the designed tasks and activities and the performance targets and indicators defined in the DMF has suggested a mixed level of accomplishment and quality of the aforementioned four major outputs of PEEP-2.

Output 1. An energy end-use database was established to provide basic functions meeting the minimum requirements.

However, the implementer's original design concept was more comprehensive and offered more functionality than the final product offers, in part due to limited availability of energy end-use data in the participating countries.

Output 2. (i) A set of national energy-efficiency (EE) targets were established using sound methodology and well received by the PDMCs; (ii) The task relating to minimum energy performance standards (MEPS) proved irrelevant and was abandoned upon review of the existing Pacific Appliance Labelling and Standards (PALS) program, resulting in substantial decrease of total greenhouse gas (GHG) emission reductions attributable to PEEP-2; (iii) A fairly complete set of quality knowledge products relating to building sector EE technologies, best practices and rating schemes were developed, establishing a solid basis for establishing EE building codes with high relevance and applicability in the participating countries; (iv) A comprehensive energy audit training program was implemented with good learning outcomes achieved; and (v) No activities relating to supporting EE service providers were carried out due to the underdeveloped market and non-existence of energy service companies (ESCOs) in the participating countries.

Output 3. A total of 34 EE projects relating to EE lighting and building EE measures were developed. The expected energy savings (3,411MWh/year) and GHG emission reductions (3,204 tonnes of CO_2 equivalent per year) are subject to substantial uncertainties (downward adjustment) due to significantly delayed project completion and limited measurement and verification (M&V) activities. This output was significantly downscaled as compared to the originally designed "national-scale" EE programs, inevitably leading to the DMF quantitative performance targets and indicators not being fully accomplished. The relevance of assessing participation in Clean Development Mechanism (CDM) to GHG reductions of this scale is also low: transaction costs for accessing CDM are too high for such small scale reductions.

Output 4. (i) EE information dissemination targeting the general public was conducted through various forms of public education programs in the participating countries. (ii) Additional knowledge products were developed and regional workshops were held to share EE best practice and lessons.

Collectively, the above outputs contributed to the achievement of the expected outcomes of PEEP-2. However, time-bound quantitative performance targets and indicators are unlikely to be achieved, due primarily to the down-scaling of Output 3. These targets and indicators and the extent to which improvements can be attributable to PEEP-2 are technically difficult to assess without undertaking a dedicated study.

Overall Assessment and Rating

Overall, this RETA is rated partly successful. This rating is the result of a balanced assessment of all tasks, activities and outputs of the RETA. In the GEF Supplementary Appendix prepared for this RETA, outputs 1, 2, 3, and 4 are rated partly successful (low effectiveness), successful (relevant and effective in most aspects), partly successful (low efficiency), and successful (relevant, efficient, and effective), respectively. Sustainability of all four outputs is positive, in particular vis-à-vis knowledge products produced and information dissemination.

Major Lessons

At TA conceptualization and design stage, a holistic and in-depth background study and stakeholder consultation should be undertaken to the extent reasonable to ensure the value and relevance of major components of a TA. Regional initiatives and programs on similar themes and areas carried out by other agencies prior to or in parallel with a proposed TA should be identified and assessed to avoid unnecessary overlapping or repetition and thus increase efficiency, effectiveness, and sustainability. Proposed TA tasks and activities should be critically evaluated and justified before finalization, so as to ensure their relevance and value. Examples in PEEP-2 include the MEPS under Output 2 and CDM under Output 3.

Performance targets and indicators in a DMF should be carefully designed to be realistic and achievable within the scope and timeframe of a TA. Particular care must be taken when it comes to establishing quantitative targets and indicators. To avoid over-commitment, expected deliverables and outputs should be commensurate with defined inputs and should consider country/region specific circumstances relating to enabling policy and regulatory framework, institutional setup and capacity, market conditions and technology penetration.

The detailed tasks and requirements in the TOR for consultants should be clear and aligned with the TA report and GEF document, and where appropriate should make explicit reference to performance targets and indicators. Moreover, consultants' proposed approach and methodology should be critically evaluated in the course of ADB evaluating submitted technical proposals. In this case, during contract negotiations, significant reductions in consultant scope were agreed, leading to some deviation from the scope approved in the TA report and endorsed by GEF.

Recommendations and Follow-Up Actions

As the immediate next step after the PEEP-2 completion, it would be useful to undertake M&V for the EE projects implemented under Output 3 to ascertain the operation and performance. Moving forward, it is suggested that follow-up ADB projects targeting energy efficiency in the Pacific should build on achievements under PEEP-2 and place the emphasis on (i) exploring policy instruments to address market failures and create an enabling environment for promoting EE implementation; and (ii) experimenting innovative financing mechanisms for catalyzing commercial investments in EE.

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