

TECHNICAL ASSISTANCE COMPLETION REPORT

Division: PAHQ

Division: FARIQ

TA No. and Name TA 3961-FIJ: Preparing the Rural Electrification Project			Amount Approved: US\$400,000										
			Revised Amount: US\$400,000										
Executing Agency: Department of Energy (Ministry of Works and Energy)		Source of Funding: Japan Special Fund (JSF)	TA Amount Undisbursed US\$26,392.14	TA Amount Utilized US\$373,607.86									
<table><thead><tr><th colspan="3">Date</th></tr><tr><th>Approval</th><th>Signing</th><th>Fielding of Consultants</th></tr></thead><tbody><tr><td>30 October 2002</td><td>25 November 2002</td><td>10 July 2003</td></tr></tbody></table>			Date			Approval	Signing	Fielding of Consultants	30 October 2002	25 November 2002	10 July 2003	Completion Date	
			Date										
			Approval	Signing	Fielding of Consultants								
30 October 2002	25 November 2002	10 July 2003											
			Original 31 March 2004	Actual 26 April 2005									
			Account Closing Date										
			Original 31 March 2004	Actual 31 July 2005									

Description

In 2001, the Government of Fiji requested the Asian Development Bank (ADB) to undertake a project preparatory technical assistance (TA) to identify sustainable means to extend electricity supplies to approximately 40% of households that lacked access to electricity in rural areas throughout Fiji. Fiji's Strategic Development Plan stressed the need to maintain vibrant rural communities that over time will become increasingly better integrated into the processes of national development. Rural electrification was recognized by the Government as a priority long-term objective to develop the rural areas, improve the quality of life of rural people, increase income-generating opportunities, and improve the delivery of social services such as potable water supply, health care, and education. During the Country Programming Mission, it was agreed that a TA was required to formulate an affordable and sustainable means to deliver power to a geographically dispersed and economically and socially disparate rural sector.

The key government stakeholders in the rural power sector include: (i) the Fiji Electricity Authority (FEA), responsible for the supply and distribution of grid-based electricity throughout Fiji (limited to the three large islands of Viti Levu, Vanua Levu, and Ovalau); (ii) the Department of Energy (DOE), responsible for the provision of decentralized renewable energy-based electricity to rural areas that are beyond the reach of FEA's grids; and (iii) the Ministry of Finance and Planning, responsible for ensuring that financial resources are available for investment in rural electrification in accordance with government priorities.

Objectives and Scope

The objective of the TA was to assist the Government in formulating a rural electrification project (the Project) suitable for external financing. The Project was designed to reduce poverty through the improvement of rural people's access to power which would result in improvements in living standards, including social services that depend on electricity such as health care and education, and rural economic activities. Through FEA and DOE, the Government had largely developed the technical means to provide electricity in rural areas sustainably, hence no significant technical innovations were required under the Project. However, financial constraints in the Government had limited the implementation of rural electrification to a pace well below the Government's objectives for the rural sector. External financing of the Project by ADB would result in a substantial acceleration of investments in rural electrification.

The TA's scope was divided into two phases. Phase I comprised a review of current government policies and plans for rural electrification, a socioeconomic survey of representative rural areas, development of a needs profile for electricity in the rural sector, and consultations with stakeholders. Phase II comprised the specific identification of rural areas for electrification either through grid extensions or through decentralized renewable energy, with detailed engineering, costing, economic analysis, financial analysis, specification of institutional requirements for implementation and operation, and preparation of project documents and reporting to stakeholders.

The objectives and scope were relevant and appropriate. The participation of Government officials and other stakeholders was satisfactory.

Evaluation of Inputs

The TA required 12 person-months of international and 6 person-months of domestic consultant services, and was increased under a variation to 14.3 person-months international and 9 person-months domestic. The terms of reference for the consultants and the budget for consulting services, travel, and workshops 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) of the consultants.

The inputs were all delivered satisfactorily through a series of international consultancy inputs over 12 months by an economist/financial specialist, two electrical engineers (one for the conventional system and another for the renewable energy system), and a poverty/environment specialist. The international consultants were ably assisted by three domestic consultants (two for local community participation and one for rural energy planning), and one subcontracted staff from FEA. The performance of ADB and DOE were satisfactory.

Evaluation of Outputs

The TA determined that the proposed Project would have substantial socioeconomic benefits to Fiji, and would significantly contribute in the Government's effort to reduce poverty. The Government had previously identified two sustainable technical

solutions to rural electrification: (i) extension of the national grid systems into rural areas on the large islands where grids exist that are feasible geographically and justified economically, and supported by appropriate ancillary infrastructure (in particular, roads); and (ii) provision of decentralized renewable energy-based systems (solar photovoltaic technology) to supply electrical loads to small households in areas where grid extensions are not an available option. The TA confirmed that the technical solutions proposed by the Government's rural electrification policy were appropriate to the rural sector. The TA also confirmed the appropriateness in the Fiji context of the proposed institutional solutions including operation and maintenance of grid extension schemes by FEA and implementation of decentralized systems by DOE with operation and maintenance by small private sector companies collectively known as Renewable Energy Service Companies (RESCO). The TA likewise produced the necessary documentation for a possible rural electrification loan, including the draft Report and Recommendation of the President (RRP). The Project proposed to provide long-term finance to accelerate the implementation of rural electrification components in specific areas identified by the TA in accordance with existing policy.

The Project would have four major components: (i) implementation by FEA of grid extension schemes in areas where they are technically and economically justified; (ii) support to a proof-of-concept project, conducted by DOE with private sector participation, designed to implement a significant number of solar home systems in remote villages to establish the feasibility of the RESCO approach to decentralized rural electrification; (iii) capacity building within FEA in the areas of planning, economic analysis (as applied to the identification of future projects), project management, and supervision of private sector contractors employed to install grid extension schemes; and (iv) a substantial cofinancing component for the implementation of DOE's solar home system program, including capacity building within DOE in the areas of planning, computerized mapping, training and supervision of the RESCO. The Project would provide electricity to about 7,000 rural households through grid extensions and a further 3,200 rural households through decentralized solar home systems.

The proposed Project was estimated to cost US\$18.5 million and the proposed financing plan was as follows: US\$10.1 million loan from the ADB, US\$4.9 million direct counterpart support from the Government, US\$1.3 million in contributions from beneficiary communities and the RESCO, and US\$2.3 million to be cofinanced by the Government of France.

The Government was satisfied with the quality and timeliness of the outputs delivered by the TA. Unfortunately, during the latter part of TA implementation, the Government had difficulty in deciding whether to make the Project a stand-alone venture or to make it a component of a larger power sector development project.

Overall Assessment and Rating

Partly successful. The TA was successful with regard to achieving its preparatory outputs for the Project. However, the TA was not successful in achieving its expected outcomes because the Government decided in mid-2004 to defer the Project, pending a wider review of the power sector in Fiji.

Major Lessons Learned

The Project failed to proceed due to an unexpected change of perspective within the Government concerning the role of rural electrification within the overall national power sector priorities. The "ownership" of the rural power sector in Fiji is complex: FEA is responsible for the development, and operation and maintenance of the national grids on the three large islands; DOE is responsible for the implementation of decentralized renewable energy-based systems in all other areas, utilizing the RESCO for operation and maintenance. The primary focus of the proposed Project was on harnessing grid extensions—based on their high potential to reduce rural poverty—with operation and maintenance by FEA. The TA determined that there was considerable merit in pursuing decentralized renewable energy-based solutions in remote areas. Unfortunately, FEA was facing other urgent investment needs and was embarking on a development program that would likely affect rural power sector development.

During TA preparation, the Government could not ensure adequate cooperation from FEA. Support from FEA with regard to provision of technical and financial data, participation in stakeholders' meetings, and discussion of priorities was limited; FEA considered much essential information as proprietary and confidential, particularly on the technical aspects of its grids, supply constraints, future investment plans, the adequacy of the tariff in rural areas, and related issues. It is therefore essential that in the formulation of a future TA, the roles and responsibilities, and authority of the various government stakeholders are clearly defined, and clear arrangements are in place to ensure effective coordination and decision-making.

Recommendations and Follow-Up Actions

It is unlikely that the Government would support the proposed Project as a separate loan in the short term, pending further discussions with ADB (and possibly other development institutions) regarding strategies and priorities for national energy planning and the role for rural electrification within the national strategy. The proposed Project could, however, form a component of the overall power sector plan to be ultimately developed. Alternatively, the proposed Project could be revived at a later date if the Government decides that rural electrification could be pursued as a stand-alone undertaking.