



AIDE MEMOIRE

Scaling-up Renewable Energy Program in Low Income Countries (SREP)

Joint Multilateral Development Bank Scoping Mission

Vanuatu

11-14 February, 2013



I. INTRODUCTION

1. A joint mission¹ (Mission) from the World Bank (WB), Asian Development Bank (ADB) and the International Finance Corporation (IFC) visited Vanuatu from 11-14 February 2013 to conduct a scoping mission for the preparation of the Scaling-up Renewable Energy Program in Low Income Countries (SREP) Investment Plan under the Climate Investment Funds. This Aide Memoire (AM) records the understandings reached between the Government of Vanuatu and the Multilateral Development Bank (MDB) team. The Mission would like to express its appreciation for the cooperation and the hospitality extended by the Government.

2. The Climate Investment Funds (CIF) provides developing countries with grants, concessional loans, and risk mitigation instruments. The implementing agencies of CIF funded projects and programs in the Pacific are the WB, including the IFC and the ADB. The CIF's financial architecture rests on two trust funds: (i) the Clean Technology Fund (CTF); and (ii) the Strategic Climate Fund (SCF). The SCF includes the Forest Investment Program, the Pilot Program for Climate Resilience, and the Scaling-up Renewable Energy Program in Low-income Countries (SREP).

3. The objective of the SREP is to pilot and demonstrate the economic, social and environmental viability of low carbon development pathways in the energy sector by creating new economic opportunities and increasing energy access through the use of renewable energy. An initial group of six pilot countries has received funding under the SREP program (i.e., Kenya, Ethiopia, Mali, Nepal, Honduras and Maldives). In addition, a group of 'waitlisted' countries, including Vanuatu and Solomon Islands in the Pacific Region, were selected to receive SREP funding provided additional resources become available. In March 2012, the SREP sub-committee agreed upon the upper amount of funding and order of priority in which funding would be allocated to these 'waitlisted' countries: (i) Tanzania, US\$50 million; (ii) Liberia, US\$50 million; (iii) Yemen, US\$40 million; (iv) Armenia, US\$40 million; (v) Vanuatu (\$15 million) and Solomon Islands (\$15 million) in the Pacific region; and (vi) Mongolia, US\$30 million. As of December 2013, Liberia has secured SREP funding, implying that Pacific Regional (Vanuatu, Solomon Islands) will receive SREP funding once additional resources have become available for Yemen and Armenia (in this order).

4. In August 2012, the Government confirmed its interest to start with the preparation of the SREP investment plan and submitted the Confirmation of Interest Form and sent the invitation for the joint scoping mission in January 2013. The Government of Vanuatu has requested that WB/IFC and ADB assist in preparing the SREP investment plan for Vanuatu. The SREP Committee has allocated \$250,000 for the development of the Renewable Energy Investment Plan, which will detail the Governments priority renewable energy investments and will inform SREP Committee decisions for future funding allocations. The current scoping mission discussed and agreed with the Government on the scope of the SREP Investment Plan.

II. SECTOR BACKGROUND

5. Like many small island nations, Vanuatu became heavily dependent on fossil fuels to meet its commercial energy needs and today ranks among the nations with the highest petroleum energy intensity, anywhere in the world². Diesel is the largest volume imported (63%

¹ The Mission comprised (i) Kamlesh Khelawan, Senior Energy Specialist, WB, (ii) Renee Walmsley, Consultant, WB, (iii) Martina Tonizzo, Infrastructure Specialist, ADB, (iv) Jimmy Andeng, Operations Officer, IFC and (v) Federico Querio, Operations Officer, CIF SREP.

or 33 million litres) as it is also used in electricity generation (18 million litres including use for outer islands generation). Land transport is the largest consumption sector representing over 50 percent share of demand with electricity generation second at 36 percent. Over 80 percent of all electricity generated in Vanuatu is from diesel fuel.

6. About 73 percent of the population of Vanuatu still does not have access to electricity. Overwhelming, those without access, live in rural areas, and outside of Efate Island. The minority with access mostly reside in urban areas of the four electricity service concession areas on the four largest islands of Vanuatu: islands of Efate, Tanna, Malekula (UNELCO), and Santo (VUI). Even on these largest four islands, the share of those without access remains high: Efate (24 percent), Santo (65 percent), Tanna (86 percent), Malekula (84 percent).

7. Renewable energy generation options have emerged as economically attractive options for diesel fuel substitution; notably grid connected solar PV, and where appropriate hydro and geothermal. Renewable energy will also contribute to improving energy security. In the off grid and remote areas of Vanuatu, on-going studies indicate that renewable energy can make a significant contribution. The predominant source for these systems is expected to be solar PV-hybrids, and where feasible small hydro plants.

8. The Government of Vanuatu has prepared a National Energy Road Map (“Road Map”) for developing the energy sector in a systematic, rational, and strategic and sustainable manner over the medium term with funding and technical assistance from the World Bank and AusAID. The Road Map directly responds to the highest priority objectives in the energy sector from a national development perspective and addresses the key constraints that have held back Vanuatu’s energy sector in the past from delivering affordable modern energy access. It presents a systematically structured pathway and a balanced multi-prong action plan for implementation, including specific near and mid-term investments (on-grid and off-grid) for expanding access, least cost renewable energy development, and for energy supply and demand-side efficiency improvements. The Road Map is being finalized by the Government and will be submitted to the Council of Ministers for approval by March 2013.

III. MISSION ACTIVITIES

9. The Mission met with a range of stakeholders in Port Vila, including the Department of Energy, Mines and Mineral Resources (DEMRR), Vanuatu Meteorology and Geo-Hazards Department (VMGD), the Energy Taskforce, the Geothermal Task Force, Vanuatu Utilities Regulatory Authority (URA), UNELCO, VUI and KuTh Energy. A list of persons met is included in Appendix A.

10. **Technical Assistance Cost Estimate.** The Government has requested the World Bank to apply for the \$250,000 allocated by SREP Committee for preparation of the Renewable Energy Investment Plan and administer the technical assistance. The preparation of the Investment Plan will consist of two phases: (i) assessment of the renewable energy and preparation of a Renewable Energy Investment Plan, and (ii) preparation of project proposals for potential financing by SREP. The preparation of the Investment Plan will be implemented over a 6 month period and is expected to commence in June 2013 and be completed in December 2013.

² ADB (quoted in “Options for increasing the efficiency of Vanuatu’s oil and gas supply chain” Draft report, April 2012, Hale and Twomey, and David Butcher and Associates)

11. **Implementation Arrangements.** The Implementing Agency (IA) will be the Department of Energy, Mines and Mineral Resources (DEMRR), which is hosted within the Ministry of Lands, Environment, Energy, Geology, Mines and Minerals. The Project Management Unit (PMU), within the Vanuatu Meteorology and Geo-Hazards Department, will be responsible for project management and fiduciary aspects of the project. The Energy Taskforce will provide overall strategic guidance and advice and the Energy Technical Team will provide technical advice. The Energy Taskforce and the Technical Team were established to undertake the above roles for the development of the Vanuatu National Energy Road Map (NERM) and will continue to play this role for the sector during the implementation of the NERM and development of the Investment Plan.

12. Consultants will be recruited in accordance with World Bank *Selection and employment of Consultants* (2011, as amended from time to time). The IA, in conjunction with the PMU will provide support to the consultants, including (i) arranging meetings with relevant Government stakeholders, (ii) providing access to all relevant data, (iii) assisting the consultants to arrange public consultation forums and workshops, and (iv) providing a suitably furnished office with utilities and telecommunications access.

Table 1: Cost Estimates and Financing Plan
(\$'000)

Item	Total Cost
B. WB Financing^a	
1. Consultants	
a. Remuneration, travel and accommodation	200.0
2. Equipment	5.0
3. Workshops and seminars ^b	20.0
4. Other (administration and operational costs)	10.0
4. Contingencies (max 10 percent)	15.0
Subtotal	250.0

^a Financed by Scaling Up Renewable Energy Program in Low-income Countries (SREP)

^b Will include consultation workshops in Port Vila and outer Islands

13. The following indicative schedule is proposed for project development:

Table 1: Proposed Processing Schedule

Milestones	Expected Completion Date
• Approval of SREP IP preparation grant	March 2013
• Consultant Recruitment and mobilization	June 2013
• MDB Joint Mission – workshops/consultations to validate draft SREP IP with key stakeholders	September 2013
• Final draft SREP IP	November 2013
• MDB Joint Mission to finalize SREP IP	December 2013
• Disclosure of SREP IP for 2-week public consultations	January 2014
• Independent technical review of the SREP IP	January 2014
• MDB internal quality review of SREP IP	February 2014
• Submission of the SREP IP to the SREP Sub-Committee	March 2014
• Endorsement by SREP Sub-Committee	April 2014

Source: WB/IFC/ADB estimates

14. **Action Items.** The following actions are needed to continue the preparation of the project:

1. Request for funding to the SREP Committee for the development of the Investment Plan by the SREP Focal Point in Vanuatu; and
2. Preparation of consultants' Terms of Reference (ToR) for the preparation of the Investment Plan. The ToR will be prepared by DEMMR in consultation with the Energy Task Force by March 1, 2013. Any delays in completing the development of the ToR will negatively impact on the preparation of the program.

15. **Disclosure.** The WB and Government of Vanuatu confirmed their understanding and agreement to classify the Aide Memoire as Restricted and for Official Use Only.

Appendices

- A. List of Persons Met
- B. SREP Scoping Mission presentation
- C. Renewable Energy References
- D. List of Stakeholders
- E. Mission Announcement Letter
- F. Terms of Reference – Scaling Up Renewable Energy Program – February 11-14, 2013, Vanuatu.

Appendix A: List of Persons Met

Ministry of Finance and Economic Management

Mr. Tony Sewen Director (Acting), Department of Finance and Treasury
 Mr. Frederick Hosea Expenditure Analyst, Treasury

Ministry of Lands, Environment, Energy, Geology, Mines, and Minerals

Mr. Leo Moli Director (Acting), Department of Energy
 Mr. Christopher Simelum Energy Officer, Department of Energy
 Mr. Chris Ioan Director, Department of Water

Ministry of Infrastructure and Public Utilities

Mr. Jotham Napat Director, Vanuatu Meteorology and Geo-Hazards Department
 Mr. Tevi Obed Climate Change Adaptation Specialist, Vanuatu Meteorology and Geo-Hazards Department
 Mr. Brian Phillips Manager, Vanuatu Meteorology and Geo-Hazards Department
 Mr. M. Dalesa Scientific Officer, Vanuatu Meteorology and Geo-Hazards Department
 Mr. Jesse Benjamin Mitigation Officer, Vanuatu Meteorology and Geo-Hazards Department

Office of the Prime Minister

Mr. Benjamin Shing Director, Department of Strategic Policy, Planning, and Aid Co-ordination
 Mr. Jerry Lapi Officer, Department of Strategic Policy, Planning, and Aid Co-ordination

Utilities Regulatory Authority

Ms. Lizzie Taura Manager - Regulation, Utilities Regulatory Authority
 Mr. James Ryan Chief Economist
 Ms. Maureen Malas Project Manager
 Mr. Olivier Fernandez Regulatory Analyst, Finance
 Mr. Romney Marum Project Manager

Power Utilities

Mr. Philippe Mehrenberger General Manager, UNELCO
 Mr. Peter Allen General Manager, Vanuatu Utilities & Infrastructure

Development Partners

Mr. Simon Cramp Director, Governance for Growth Program, AusAID
 Mr. Adrien Mourgues Attaché (Cooperation), European Union

Private Sector

Mr. David McDonald Managing Director, KUTH
 Mr. Stephen Robinson Business Development Director, KUTH
 Mr. Tim Hewatt Vanuatu Representative, KUTH

Appendix B: SREP Scoping Mission Presentation



SREP Scoping Mission
Presentation.pptx

Appendix C
Vanuatu Renewable Energy References

1.	Options for increasing the efficiency of Vanuatu's oil and gas supply chain – Draft Report	ADB	April 2012
2.	Country Operations Business Plan Vanuatu 2012-2014	ADB	September 2011
3.	Vanuatu Electricity for Rural Development (VERD) Program, (Program Design Document)	AusAID	November 2011
4.	Vanuatu: Efate Geothermal Power and Island-Ring Grid Development Framework	Castlerock	January 2012
5.	Global Partnership for Output-Based Aid: Improved Electricity Access in Vanuatu	Castalia	September 2012
6.	2011 Annual Report – Energy the Pillar of Development	Department of Energy	-
7.	Overview of Potential CDM Project Opportunities in Vanuatu	Department of Meteorology of Climate Change, Ministry of Infrastructure and Public Utilities	May 2012
8.	Draft Vanuatu Infrastructure Strategic Investment Plan	Government of Vanuatu	September 2012
9.	Draft Final Report: Options for Increasing the Efficiency of Vanuatu's Oil and Gas Supply Chain	Hale & Twomey, and David Butcher and Associates	November 2012
10.	Renewable Energy Country Profiles	International Renewable Energy Agency	2009
11.	Performance Benchmarking for Pacific Power Utilities	PPA	December 2011
12.	Promoting Access to Renewable Energy in the Pacific (Vanuatu Component): Brenwe and Wambu Hydropower Pre-Feasibility Studies – Draft Report	SMEC & ADB	June 2013
13.	Towards an Energy Secure Pacific: A Framework for Action on Energy Security in the Pacific	Secretariat of the Pacific community	June 2010
14.	The Energy Access Situation in Developing Countries	UNDP	November 2009
15.	UNELCO Annual Technical Reports 2006-2010	UNELCO	-
16.	Electrification Rurale De Vanuatu	UNELCO	2006
17.	Electricity Tariff Review Final Decision” May 2010URA; “Monthly Energy Market Report for February 2012; Utilities Regulatory Authority Act No. 11 of 2007	URA	2012

18.	National Population and Housing Census	Vanuatu National Statistics Office	2009
19.	Achieving Universal Access to Modern Energy in East Asia and the Pacific, One Goal Two Paths, Flagship Report	World Bank	2011
20.	Lao PDR – Power to the People, Twenty Years of National Electrification, A Success Story - Asia Sustainable alternative Energy program (ASTAE)	World Bank	2011
21.	Towards More Equitable Land Governance in Vanuatu: Ensuring Fair Land Dealings for Customary Groups” Draft Discussion Note	World Bank	April 2012
22.	Vietnam – State and People, Central and Local Working Together, The Rural Electrification Experience - Asia Sustainable alternative Energy program (ASTAE)	World Bank	2011

Appendix D: Preliminary List of Stakeholders

Government	
Energy Task Force	
Mr. Simeon Athy	Director General and Chairman, Office of the Prime Minister
Mr. Jotham Napat	Director, Vanuatu Meteorology and Geo-Hazards Department, NAB Chair & UNFCCC Focal Point
Mr. Joe Ligo	Director General, Ministry of Lands & Natural Resources
Mr. Johnson Binaru	Director General, Ministry of Infrastructure & Public Utilities
Mr. Leo Moli	Acting Director, Department of Energy, Mines and Mineral resources
Mr. Benjamin Shing	Director, Department of Strategic Planning and Aid Coordination, Office of the Prime Minister
Mr. Tony Sewen	Director, Ministry of Finance and Economic Management
Mr. Simon Cramp	Director, Australian Agency for International Development, Governance for Growth
Energy Technical Team	
Ms. Lizzie Taura	Manager - Regulation, Utilities Regulatory Authority
Mr Howard Aru	Director General, Ministry of Health
Mr. Jesse Dick Joe	Director General, Ministry of Education
Ms Angeline Saul	Acting Attorney General, State Law Office
Ms. Simil Johnson	National Statistics Office
Hotels & Resorts Association	Manager of Eratap Beach Resort
Mr. Peter Allen	General Manager, VUI (Private Sector)
Mr. Philippe Mehrenberger	General Manager, UNELCO (Private Sector)
Geothermal Steering Committee	
Mr. Joe Ligo	Director General (Chairman), Ministry of Lands and Natural Resources
Mr. Albert William	Director of Environment and Vice Chairman, Geothermal Steering Committee
Mr. Russell Nari	Mama Groan Coordinator, Department of Lands
Mr. Brian Philip	NAB Secretariat and Secretary, Geothermal Steering Committee
Mr. George Maniuri	Director General, Ministry of Finance and Economic Management
Mr. Jean Marc Pierre	Director, Lands Department
Mr. Christopher Loan	Director of Water & Commissioner of Mines
Mr. Leo Moli	Acting Director, department of Energy, Mines and Mineral Resources
Development Partners	
Mr. Adrian Mourgues	Attache Cooperative, European Union Delegates
Mr. Simon Cramp	Director, Australian Agency for International Development, Governance for Growth
	<ul style="list-style-type: none"> • NZ MFAT • United Nations Development Program • JICA • European Union • European Investment Bank • Pacific Islands Forum Secretariat • PPA, SPREP, IUCN • REEEP
Private Sector	
Mr. Philippe Mehrenberger	Managing Director, UNELCO Vanuatu Ltd.
Mr. Peter Allen	General Manager, Vanuatu Utilities and Infrastructure (VUI)
Mr. David McDonald	Managing Director, KuTh Energy
Mr. Randall Vallette	General Manager, Pacific Petroleum
	General Manager, Origin LPG Gas

Industry Sector Hotels Association	Manager, Eratap Beach Resort
Consumers and Community	
Provincial Council Members	
Women's Groups	<ul style="list-style-type: none"> • National Council of Women • Vanuatu Women's Centre
Non-Government Organizations	<ul style="list-style-type: none"> • VANGO • VANREPA • Save the Children • ACTIV • Live and Learn • World Vision • Vanuatu Christian Council • Wan Smol Bag
Electrical retailers and suppliers	
	<ul style="list-style-type: none"> • Rapid Electric • Vate Electric • South Pacific Electric • Switch On Electrical • Solar Vangobal • Green Tech • Energy4All • Pacific Power and Paint • JEM Solar • Cloud Zero

Appendix E: Mission Announcement Letter and Terms of Reference



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