Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project

Inception Report

Final Version

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ANNEXES

1. INTRODUCTION

An Inception Phase (IP) is a key period in the United National Development Programme's (UNDP) project management cycle. The IP of the Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP) provides an opportunity for the Project Management Office (PMO) to become acquainted with the Project – its agreed strategy, expected outputs and outcomes, the stakeholders, the risks etc. It is also an opportunity for the stakeholders and partners to provide input on the work plan and to confirm implementation arrangements both at the regional and national levels. It also provides an opportunity to finalize any outstanding implementation details and present them to UNDP for clearance. The IP also brings new momentum to the project after the relatively quiet period during the project approval process. In addition it includes a review of the Project Document (ProDoc). Such review is of particular importance in this case due to the very significant time between initial project design and actual implementation, i.e. there is a need for adaptive management to reflect major changes in the project environment.

PIGGAREP's IP concluded with an Inception Workshop (IW) and the production of this final Inception Report. This Inception Report covers the activities conducted and the understandings reached with the stakeholders of the PIGGAREP during its IP (July – December 2007). This includes the review of the PIGGAREP ProDoc and the understandings reached at the IW, which was conducted in Apia, Samoa on 12th –16th November 2007.

2. BACKGROUND

The PIGGAREP is a regional climate change mitigation project that was approved for funding by the Global Environment Facility (GEF) in September 2006. The project is for eleven Pacific Island Countries (PICs) - Cook Islands, Fiji, Kiribati, Nauru, Niue, Papua New Guinea, Samoa, Solomon Island, Tonga, Tuvalu and Vanuatu with the (UNDP) as the GEF Implementing Agency and the Secretariat of the Pacific Regional Environment Programme (SPREP) as the Implementing Partner.

The global environment and development goal of PIGGAREP is the reduction of the growth rate of greenhouse gas (GHG) emissions from fossil fuel use in the PICs through the removal of the barriers to the widespread and cost effective use of feasible renewable energy (RE) technologies. The specific objective of the project is the promotion of the productive use of RE to reduce GHG emission by removing the major barriers to the widespread and cost-effective use of commercially viable RE technologies (RETs). PIGGAREP consists of various activities whose outputs will contribute to the removal of the major barriers to the widespread utilization of RETs. The project is expected to bring about in the PICs: (1) Increased number of successful commercial RE applications; (2) Expanded market for RET applications; (3) Enhanced institutional capacity to design, implement and monitor RE projects; (4) Availability and accessibility of financing to existing and new RE projects; (5) Strengthened legal and regulatory structures in the

energy and environmental sectors; and, (6) Increased awareness and knowledge on RE and RETs among key stakeholders.

3. COMMENCEMENT OF THE PIGGAREP

The PIGGAREP is a five-year project and its implementation began on the 9th of July 2007 with the commencement of the Project Manager's (PM) assignment at the PMO at SPREP.

4. TIMELINE OF MILESTONES

Below is a timeline of the milestones as part of PIGGAREP including its preparatory phase (i.e., the Pacific Islands Renewable Energy Project – PIREP):

i) Commencement of the PIREP – May 2003
ii) Submission of the PIGGAREP Executive Summary / Pipeline Entry – April 2004
iii) Submission of the PIGGAREP Project Brief – March 2005
iv) PIGGAREP STAP Review – April 2005
v) Approval of the PIGGAREP Project Brief by the GEF Council – June 2005
vi) Submission of the PIGGAREP ProDoc - April 2006
vii) Approval of the ProDoc by the GEF Chief Executive Officer – September 2006
viii) Duly signed ProDoc – 24 January 2007[1]
ix) Commencement of the PIGGAREP – July 2007
x) Inception Workshop – November 2007
xi) Expected commencement of implementing activities on the ground – January 2008

5. INCEPTION PHASE REVIEW

The IP review was a review of the following key areas in the ProDoc:

i) The institutional arrangements;
ii) The role and responsibility of various participants for achieving the project outcomes;
iii) The project management arrangements (organizational chart);
iv) The Monitoring and Evaluation (M&E) for the implementation of the project;
v) The co-financed activities;
vi) Capacity of the NCs and Country Teams;
vii) Project Operation Manual (POM);
viii) Operational criteria for assistance;

[1] The Project Document was co-signed by SPREP, UNDP PNG, UNDP Fiji, UNDP Samoa and as per UNDP policy for regional projects/programs three (3) participating countries, which in this case were Fiji, Samoa and Cook Islands

ix) The project risks;
x) An overall work plan for the first year of implementation;
xi) Disbursement of Project funds, and
xii) Strategic linkages at the national and regional levels.

The outcomes of the review together with relevant outcome of the recommendations presented to the IW are presented below:

5a) REVIEW OF THE PROJECT INSTITUTIONAL ARRANGEMENTS

5ai) Project Management Office (PMO)

A review of the staffing and budget of the PMO was conducted during the IP. While the preliminary PMO budget in the ProDoc was set at 20% of the total project budget based on two (2) professional staff - a PM and a Administrative / Financial Officer (AFO) and Task Specialists to be recruited on a needs basis, increases in SPREP's professional staff salary effective 1st January 2006 and 1st January 2008 and the need for a provision to pay for SPREP's administration and programme support costs[2] means that the PMO budget will be higher than 20% if no revisions are made to the PMO budget.

Further, the preliminary PMO budget in the ProDoc has a total provision of US$200,000 for the annual Multipartite Review (MPR) meetings. This is a significant amount and it's about 20% of the PMO budget.

The revision of the PMO budget and discussions within SPREP shows that if the position of AFO is to be replaced with two support staff positions of Assistant Project Accountant (APA) and Project Assistant (PA), project delivery will not be adversely affected but the capacity of the PMO will be strengthened more cost effectively. Furthermore, the provision for the MPR meetings (US$20,000 per PIC) be moved from the PMO budget to the indicative PIC country allocations. These two measures will maintain the PMO budget at max 20%, as it is in the approved ProDoc.

Task Specialists associated with the six (6) components of the PIGGAREP were intended to be recruited on a needs basis to assist the PM with the delivery of project activities. As there is no specific provisions in the PMO budget for Task Specialists, these are to be deleted and to be replaced consultancy provisions that are incorporated in the activities in the overall work plan and budget.

The Terms of Reference (ToR) for the APA and PA are attached as **Annex 1**.

[2] The SPREP Meeting of 1993 endorsed that SPREP charge a 10-15 % project management fee on projects that it manages. However, earlier UNDP/GEF projects like the International Waters Project (IWP) were charged an Administration / Programme Support fee based on a cost recovery basis. These are costs relating to office space, water, electricity, Information Technology, Accounts and Administrative support and do not include project staff remunerations.

Inception Workshop Outcome No. 1

The Inception Workshop agreed with the retention of the proposed PMO costs at 20% of the project budget by:

i) Replacing the AFO position with two support staff positions of Assistant Project Accountant (APA) and Project Assistant (PA);
ii) Moving the budget for PICs attendance at MPR meetings to the indicative PIC country budget allocations, and
iii) That the temporary positions of Task Specialist in the PMO be deleted.

5aii) Country Team

The Country Team approach at the national level is based on the realization that to effectively tackle cross sectors issues like climate change there is a need to bring together many actors from different crosscutting thematic areas. It includes inviting the national government to designate an agency to host a team of sectoral representatives and national experts that could facilitate policy and decision-making, and implement climate change related renewable energy projects. However, experiences in the PIREP as well as in the Pacific Island Energy and Strategic Action Planning (PIEPSAP) project have shown that having project-based national teams/committees is not a sustainable set-up. There is therefore a need at national levels to streamline this coordination arrangement and to integrate the coordination of PIGGAREP with the bigger coordination of climate change and the energy sector as well as with the related PIGGAREP co-financing activities.

At the national level, there is a general acceptance of the Country Team as a **coordination approach** rather than a compulsory name for a separate set up to coordinate PIGGAREP national activities. In most PICs, the names of the Country Teams may be different (e.g. PIEPSAP Country Team, PIREP Country Team, PIGGAREP Country Team, Bio-fuel Country Team, etc) but their compositions are just about the same people and their ToRs overall are the same. In the national consultations during the IP, it became obvious that some PICs (Cook Is, Fiji, Kiribati, Solomon Is and PNG) need more of a National Climate Change Committee and National Energy Committee to deal with all climate change and energy-related issues rather than a dedicated PIGGAREP country team. Both Nauru and Niue have consultative committees for their REP-5 projects. In others (Samoa, Tonga and Vanuatu), they prefer using their existing and functional committees.

There is therefore a general appreciation that the reference to the Country Team in the ProDoc is for a coordination approach rather than for all the national coordination setup to be called a PIGGAREP Country Team.

For national coordination to be most productive, meetings should be kept as informal as possible in order to allow frank and open discussions. There is

therefore no need for rules and procedures for the meetings of the PIGGAREP. However, there is a need to clarify the monitoring and evaluation responsibilities of the country team in its ToR.

The ToR for the Country Team has been revised and is attached as **Annex 2**.

Inception Workshop Outcome No. 2

The Inception Workshop agreed with the following clarifications:

i) That the use of the term "Country Team" in the ProDoc is for purposes of project activities coordination rather than referring to a name of a team in the country that specifically work on PIGGAREP activities;

ii) That the term "**National Project Coordination (NPC)"** be the generalized name for the institutional setup for coordination of PIGGAREP activities in the country regardless of the actual names of the institutions involved, and

iii) That each NPC establish its own rules and procedures for its meetings if and when necessary.

5aiii) Project Advisory Committee (PAC)

As for the Country Team above, experiences in the PIREP as well as in PIEPSAP have shown that having project-based regional Project Advisory Committees (PACs) is not a sustainable set-up. There is therefore a need to streamline the coordination of PIGGAREP activities at the regional level with those of the members of the PAC and to integrate the coordination of PIGGAREP with the existing bigger regional coordination set up for climate change and energy issues.

Basically, the regional agencies in the PIREP PAC and those that were proposed to be in the PIGGAREP PAC are either members or observers in the Council of Regional Organisation in the Pacific's Energy Working Group (CROP EWG). During the 3.5 years of the PIREP, its PAC only met formally twice whereas the CROP EWG met more regularly and matters relating to the PIREP and those of other regional agencies were discussed at the EWG meetings. The duties and responsibilities of the PIGGAREP PAC are all within the advisory and coordination roles of the CROP EWG. As in the current version of the ProDoc, the members of the PIGGAREP PAC include all the PIGGAREP National Coordinators, collaborating agencies and co-financing partners. The meetings costs of the PAC, as different from the costs of the annual MPR meetings, will obviously increase the PMO budget to more than the 20% ceiling. There is therefore a need to utilize the regional coordinating role of the CROP EWG, which is a more cost effective and sustainable arrangement. There is therefore no need for a PAC to facilitate the coordination of project activities at the regional level, as this will be done through the EWG.

Inception Workshop Outcome No. 3

The Inception Workshop agreed:

i) That the coordination of PIGGAREP at the regional level be through the CROP EWG rather than a PIGGAREP PAC, and

ii) That the PAC be removed from the institutional and management structure of the PIGGAREP.

5aiv) Project Steering Committee (PSC)

On the other hand, there is a need for the PIGGAREP to have in its Institutional Arrangement a dedicated mechanism that review and endorse Quarterly Progress Reports (QPRs) and quarterly Financial Reports (FRs) including quarterly work plans and requests for quarterly advances. In addition such mechanism will have the ultimate authority to suspend disbursement if project performance benchmarks (i.e. operational criteria) are not met.

The external mid-term review undertaken of the PIEPSAP project in August 2006 highlighted the need for such a setup in the form of a dedicated Project Steering Committee (PSC). This is the highest policy level meeting of the parties directly involved in the implementation of the project.

The Annual Monitoring of the PIGGAREP will occur through the MPR meetings. The PSC will consider recommendations from the MPR and approve annual work plans and budgets as well as the budget revisions.

The PSC will be made up of representatives from UNDP, SPREP and the PICs.

The ToR for the PSC is attached as **Annex 3**.

Inception Workshop Outcome No. 4

The Inception Workshop approved that:

i) A PSC for the PIGGAREP and its ToR, as shown Annex 3 be part of the project management structure;

ii) UNDP Samoa, UNDP Fiji and UNDP PNG will be represented in the committee and that the four PIC representatives will be Tonga, Tuvalu and Vanuatu (regional) and Fiji (non-regional), and

iii) That one of the three regional representatives and the non-regional representative be rotated on an annual basis.

5av) PIGGAREP National Coordinators

PIGGAREP National Coordinators were intended in the ProDoc to be positions fully funded by the PIGGAREP. However, further analysis during the IP revealed that the 20% of the project funds already allocated to the PMO is barely sufficient for that purpose. To add another 11 funded positions at an estimated average personnel and operational costs of USD10,000 per PIC over five years will raise the PMO costs to 30%. This is considered too high, as it will mean reduced funds for country activities. Furthermore, while the main intention of having National

Coordinator positions was to build local capacity when they are absorbed into the civil service at the end of the project, experiences e.g. in the Pacific Islands Climate Change Action Programme (PICCAP) and the Strategic Action Plan for International Waters (SAP-IWP) have shown that this is not the case in most PICs. PIGGAREP may be a regional project coordinated from SPREP but it is of fundamental importance that its activities are seen and are actually integrated into national priorities and daily activities. This is more effectively achieved through utilizing existing staff, as the experiences in the PIREP and PIEPSAP have shown. In addition since PIGGAREP was initially designed major changes have taken place including the announcement, preparation and/or implementation of several major regional climate change mitigation and/or energy initiatives such as EU REP-5, EU REP-7, WB/GEF Sustainable Energy Financing Project (SEFP) and the Cooperation Programme of the Italian Government and 14 PIC SIDS. All these initiatives are bigger than PIGGAREP in monetary terms. Thus it seems appropriate that costs for any required additional national staff, if any, should be shared among such regional/sub-regional interventions and not to be the sole responsibility of one particular project. In addition such set-up would also help national level coordination and collaboration efforts between these major regional initiatives.

Inception Workshop Outcome No. 5

The Inception Workshop agreed with the clarifications that:

i) That the national coordinator should not automatically be viewed as a (full-time) position but as a role placed on an existing staff in the designated national host agency, and

ii) On a case-by-case basis, any needed additional national project-paid staff should be clearly justified and preferably be cost-shared among on-going and planned regional/sub-regional interventions.

Therefore, the national coordinator should not be viewed as a position but as a role placed on an existing staff in the designated national host agency. It is to be emphasized that the designated national host agency for coordinating the PIGGAREP is not to implement all the PIGGAREP activities but to be shared with members of the NPC, NGOs, the private sector as well as regional and international organizations.

SPREP has written to PICs to nominate project coordinators. The nominated coordinators can be seen in **Annex 4.**

The ToR for the National Coordinator has been reviewed and is attached as **Annex 5.**

5b) REVIEW OF THE ROLE AND RESPONSIBILITY OF VARIOUS PARTICIPANTS FOR ACHIEVING THE PROJECT OUTCOMES

The barriers to RE development and application in the PICs cannot be removed without a high degree of participation from all the relevant stakeholders. With active stakeholder participation, RE will receive wider recognition and support. Two key decisions made during the IP will have implications on the regional participants in the PIGGAREP. The first is the approval by the Forum Officials' Committee meeting that the Pacific Power Association (PPA) be a member of the Council of Regional Organizations in the Pacific (CROP). CROP has now a dedicated technical agency specializing on the energy sector only. The second is to do with the Forum Leaders agreeing to the need to rationalise the functions of SOPAC with the work programmes of the Secretariat of the Pacific Community (SPC) and the SPREP with the view to absorbing those functions of SOPAC into SPC and SPREP. Even though the details of the Regional Integration Framework restructuring is yet to be decided upon, considering the amount of committed funding and on-going projects at the SOPAC Energy Programme, not all of which are reflected in the PIGGAREP national work plans, it is very likely that a regional energy programme will be in place, either within SPC, SPREP or otherwise.

The major project stakeholders and their overall roles are described below:

i) Pacific Island Country Governments and the National Project Coordination (NPC) - The PIC governments and their respective NPCs will take a direct lead role in the management; coordination and implementation of all project activities in their respective countries and will provide logistical support to the project. An existing staff in the designated national host agency will play the role of Project Coordinator for the PIGGAREP (alternatively if on a case-by-case any additional national staff would be needed such should preferably be cost-shared among on-going and planned regional/sub-regional interventions).

ii) NGO and Local Community – Local NGOs (e.g. Alofa Tuvalu in Tuvalu, Nauru Island Association of Non-government Organisation (NIANGO) and the Tonga Association of Non-government Organisation (TANGO)) are very active in public awareness activities. A representative of the NGOs or local groups will participate in the meetings of the NPC. The NPC can give a NGO the lead role in conducting public awareness campaigns or other activities in the country work plan depending on the relative strength and expertise in the NGO.

iii) Private Sector – The private sector in each country is expected to be involved in the project and be represented in the NPC. These include UNELCO of Vanuatu and Willies Electrical in the Solomon Is. They will

also be included in the tender for consultancies in the project. Where appropriate targeted capacity building activities will be conducted for the private sector in selected countries to strengthen their capacity to put in competitive bids for renewable energy tenders.

iv) Banks and Financing Institutions - Banks and financial institutions are encouraged and are expected to participate and cooperate in this project by providing loans to local RE production, supply, contracting businesses and RESCOs. They are also expected to play a major role in the management of renewable energy credit facilities that are expected to be created under the auspices of the project, subject to the outcome of feasibility studies and the relevant consultation meetings.

v) International and Regional Organizations and Partnerships - The PICs are fully aware of their limited resources and expertise and have therefore established regional organizations such as, Pacific Islands Forum Secretariat, PPA, SOPAC, SPC, SPREP and the USP to facilitate regionalism, in terms of common approaches, cost effectiveness, and complementarity of efforts. These organizations, together with international NGOs like the IUCN, WWF and Greenpeace as well as National NGOs like Alofa Tuvalu, VANREPA and international programmes like the Renewable Energy and Energy Efficiency Partnership (REEEP) will be involved as appropriate through SPREP to provide joint activities and backstopping services to the PICs in the execution of the PIGGAREP activities.

A revision of the Summary List of Stakeholders and Key Roles in the PIGGAREP is attached as **Annex 6.**

Inception Workshop Outcome No. 6

i) The Inception Workshop approved the proposed revised overall role and responsibilities of the various participants in the PIGGAREP as presented in **Annex 6.**

5c) REVIEW OF THE PROJECT MANAGEMENT ARRANGEMENTS (ORGANIZATIONAL CHART)

The implementation of the PIGGAREP will be based on 11 individual PIC-specific 4.5 years work plans and budgets. If feasible, economical, practical, etc common activities among PICs will be undertaken regionally. The 11 work plans and budgets will be revised at least once a year (or more frequent if a need arise). Each PIC will review its work plan and budget through its NPC and submit to the PSC (through the PMO at SPREP) at least a month before the annual MPR meetings. The PSC will then review these submissions, taking into consideration the agreed-to operational criteria.

As mentioned earlier in the review of the Project Institutional Arrangements, the organizational chart for the PIGGAREP will now include a PMO with a PM, APA and PA rather than a PM, AFO and Task Specialists. The use of Country Team will be as an approach rather than a name for the local coordination set up. The formal regional PAC will be removed with its functions de facto taken care of by the CROP EWG. A PSC will be formed and in addition the Project Coordinators will not automatically be a PIGGAREP-paid position, but a role placed on an existing staff of the designated national host agency (alternatively if on a case-by-case any additional national staff is absolutely required such needs to be cost-shared among on-going and planned regional/sub-regional interventions).

The modified organizational chart is attached as **Annex 7**.

Inception Workshop Outcome No. 7

i) The Inception Workshop agreed with the revised PIGGAREP organization chart, as in **Annex 7**.

5d) REVIEW OF THE MONITORING & EVALUATION (M & E) FRAMEWORK FOR THE IMPLEMENTATION OF THE PROJECT

Monitoring and evaluating the PIGGAREP will be conducted in accordance with UNDP and GEF procedures and as specified in the ProDoc.

The PIGGAREP Project Brief was approved with indicative country activities per PIC (Annex I to the Project Brief). These country activities were reviewed and updated as part of the national consultative workshops undertaken during the IP in particular in light of the very significant time between initial project design and actual implementation. In addition the co-financing activities were reviewed and updated too. Based on these, preliminary revised draft work plans and budgets were produced for each PIC.

The preliminary revised draft work plans and budgets were presented at the IW , 12-16 November in Apia, Samoa and were the basis for the preparation of a revised overall project work plan and budget for 2008 that was also presented at the IW.

For details please refer to: i) **Annex 12** for the Summary Record from the Inception Workshop; ii) **Annex 12b** for the final workshop agenda; iii) **Annex 13** for the overall work plan and budget for 2008, and iv) **Annex 14** for the PIC PPMs and Annual Targets.

At the IW the revised country specific work plans and budgets presented was used as the basis for updating the Project Plan Matrix (PPM)/Logical Framework Matrix and its impact indicators for project implementation, their corresponding means of verification as well as the yearly targets and milestones for each PICs.

The national PPMs, targets and milestones were then consolidated into a regional PPM and Annual Targets by which the PIGGAREP will be monitored and evaluated against. Please refer to: i) **Annex 14** for the post Inception Workshop revised overall Project Planning Matrix (PPM)/Log Frame and ii) **Annex 15** for the post Inception Workshop country specific Project Planning Matrixes (PPMs)/Log Frames.

The revision of the M & E framework for the PIGGAREP that was carried out after the Inception Workshop is attached as **Annex 8**.

Inception Workshop Outcome No. 8

i) The Inception Workshop agreed that each PIC finalize their Project Planning Matrices as well as their Annual Targets and submit them to the PMO by 28th November 2007.

By the 28th November, not all the 11 PICs have submitted their revised work plans, project planning matrices and annual targets. The M & E framework circulated with the draft Inception Report circulated on 10th December 2007 therefore included an incomplete /outdated national M & E frameworks.

However, the difficulty of completing and updating the overall project level M & E framework stems from the inability to adequately complete the national M & E frameworks which again is the result of being unable to complete in detail the national work plans. At the centre of this difficulty is the need to clearly subsume the co-financing activities into PIGGAREP now, while in actual fact, a lot of the details about the co-financing activities (what, where, when, whom and at what costs) are not yet confirmed. This is in case of PIGGAREP's two new key co-financing activities: the European Development Fund's (EDF 10) renewable energy programme for 7 PICs (a total of 13.95 million Euro) and the government of Italy – PIC Cooperation programme involving all the 11 PIGGAREP PICs (a total of US$ 10 million). Whilst the financing agreements and communiqué have been signed for these two initiatives (specifying country level allocations in monetary terms), project identification and development (including detailed design) are currently underway. It may take at least another 6–12 months before the detailed project activities are available. It is not until these detailed baseline activities are known that the incremental barrier removal activities can be specified including which ones that directly address productive uses of renewable energy (PURE). While this situation is unfortunate it is outside the control of the project. These will then impact on the PPMs and the annual targets for each country.

Nevertheless the PIGGAREP PMO is of the view that the revised overall project level PPM and Annual Targets for the time being are acceptable in context of an M&E Framework. Individual PIC PPMs and Annual Targets can be treated as "work in progress" which then will be updated annually at the annual MPR meetings where the overall PPM and Targets will be updated too.

5e) COORDINATE ALL CO-FINANCING SOURCES WITH THE PROJECT WORK PLAN

The preliminary draft work plans and budgets for each of the 11 participating countries consist of incremental activities that are proposed to be supported by the PIGGAREP. These activities are linked to and build upon parallel ongoing and planned base-line co-financing activities.

Discussions at the national consultative workshops covered the co-financing requirements. It was revealed that the bulk of some co-financing activities are almost completed, such as the Kiribati EDF 8-funded outer islands solar electrification project and the PIEPSAP project. In addition some are likely not to materialize such as the wind power project in Tonga.

With the increasing pressure on the limited available co-financing activities in the PICs, e.g., from greenhouse gas mitigation projects proposed as part of the GEF Pacific Alliance for Sustainability (GEFPAS), PICs are becoming more conservative with the amounts they are proposing as co-financing activities. For instance, Tonga's allocation for renewable energy under its EDF 10 National Indicative Programme is 5 million Euros. Of this amount, Tonga would only like to commit an amount corresponding to what it will receive under the PIGGAREP and to save the rest for its projects under GEF PAS. The challenge is drawing a line between specific activities that are co-financing PIGGAREP and those that co-finance project activities to be part of GEF PAS.

However, new co-financing options are available such as the following:

i) Cooperation Programme of the Italian Government and 14 PIC SIDS – US$10 million;
ii) IUCN Oceania Energy Programme – 3[3] million Euro from Italy and 1 million Euro from Austria
iii) Renewable Energy Programme for 7 PICs to be funded from the 10th EDF National Indicative Programmes (Multi Country RE Programme). Four PIGGAREP PICs (Kiribati, Nauru, Niue and Tonga) are in this programme – 13.95 million Euro;
iv) Renewable Energy Activities of the PNG Sustainable Energy Ltd – US$10 million;
v) A collaboration programme between Tuvalu, e8 and the PPA – US$50,000;
vi) AusAID/REEEP collaboration over three years for projects to be implemented in the Pacific region to help improve access to reliable, clean and affordable energy sources – A$ 1.5 million;
vii) PPA-e8 training workshop on PV for power utilities – US$50,000; and,

[3] This amount is from the 10 million from Italy in (a) above.

viii) Taiwan-funded Small Is States Sustainable Solar Initiative – US$50,000

At the IW there was a session dedicated to discussing and coordinating, and where possible get confirmation of all co-financing sources, with the PIGGAREP work plan. The discussions were meant to clarify how PIGGAREP and various key initiatives/opportunities fit together in the PICs renewable energy development efforts. Representatives of the organizations and donor agencies that finance the above major co-financing initiatives were invited to the IW, and a number of them attended. The major findings from that session are:

i) That there will be a successor EU-funded RE programme besides the REP-5 and it will involve 7 PICs. This programme with an estimated budget of 13.95 million Euro for 4 PICs in the PIGGAREP will be from 2008 – 2013 and has been identified by PICs as part of their co-financing activities.
ii) REEEP will be managing AusAID's A$1.5 million for RE & EE activities in the PICs and is interested in supporting relevant activities of the PIGGAREP.
iii) All the 11 PICs in the PIGGAREP are participating in the Italian-funded energy programme and PICs have identified this Italian programme as part of their co-financing activities.

As noted above in (5d), whilst the financing agreements and communiqué have been signed for some of these major initiatives (specifying country level allocations in monetary terms), project identification and development (including detailed design) are currently underway (and may take at least another 6 – 12 months before the detailed project activities are confirmed). It is not until these detailed baseline activities are known that the incremental barrier removal activities can be specified including which ones that directly address productive uses of renewable energy (PURE). These will then impact on the PPMs and the annual targets for each country.

Inception Workshop Outcome No. 9

i) The Inception Workshop agreed that the PICs and the PMO continue to work towards urgently confirming and detailing the co-financing activities, ensuring that they are subsumed into PIGGAREP with clear amounts for these parallel activities.

5f) REVIEW THE CAPACITY OF THE NPCS AND COUNTRY TEAMS IN PROVIDING AND/OR OBTAINING PROJECT EXECUTION SERVICES AND DAY-TO-DAY PROJECT MANAGEMENT

The capacity of the national coordinators and the Country Teams to effectively coordinate PIGGAREP at national levels were discussed and reviewed at the national consultative workshops. The PMO is of the view that the Country Teams

(see **Annex 9**) are made up of highly qualified, experienced and committed people, as evidenced by their strong expressions of the need for proper coordination and better direction in the energy sector. Most have expressed the need for continuous meetings and discussions not as a PIGGAREP Country Team but as a Team looking over the whole energy sector. As alluded to above, experience has shown that the usefulness of project-by-project country teams depends of how often they meet and the issues tabled for their deliberations. Project-based committees are therefore less active than sector-based committees. In addition in most cases, country teams /committee names may differ, but it is de facto the same people who sit in these committees. Therefore in PICs without an overall sector Energy Committee, the PIGGAREP country team was encouraged to seek their governments' endorsement to take up the role of a National Energy Committee.

The national coordinators (see **Annex 4**) also are highly qualified and experienced nationals. Most have got university degrees with about a third with postgraduate degrees. Preliminarily, it seems that it would be beneficial to most to receive increased exposure and hands-on project coordination experience, some encouragement from their superiors and to build their confidence to coordinate and conduct consultation meetings, and to share ideas with their more senior counterparts from other agencies in the energy sector.

The IW provided a training opportunity for the coordinators on the project cycle of a GEF/UNDP project in particular on aspects related to implementation phase including required reporting and project management requirements (budgetary planning, budget reviews, and mandatory budget rephasings). In addition it was an opportunity to reiterate the PIGGAREP goal, objectives, and outcomes to which SPREP, UNDP and the 11 PICs have signed-on to deliver on.

Inception Workshop Outcome No. 10

i) The Inception Workshop agreed that the project implementation should as much as possible involve hands-on involvement of national counterparts and experts as part of the project's capacity building effort.

5g) PREPARE A PROJECT OPERATIONS MANUAL (POM)

Originally a POM was planned to be prepared as a supplement to the UNDP Results Management User Guide, but for the time being the UNDP Results Management User Guide is considered sufficient. After six (6) months of country level implementation the need for a dedicated POM will be re-assessed.

Inception Workshop Outcome No. 11

i) The Inception Workshop agreed with the use of the UNDP Results Management User Guide instead of a POM for the project implementation, with the provision for a reassessment of the need for a POM in six months' time.

5h) OPERATIONAL CRITERIA FOR ASSISTANCE, INCLUDING ALLOCATION OF FUNDS TO INDIVIDUAL COUNTRIES AS PART OF THE PROJECT

The PIGGAREP was among others designed based on equal sharing of the required base-line co-financing activities and equal sharing of the GEF incremental resources. Therefore it is proposed that as a starting point each participating PIC get an indicative total allocation of US$380,000. Out of these, each PIC will set aside US$20,000 for national and regional coordination activities while the rest would be for national activities. However, the full disbursement of the indicative allocation will be based on the approved work plan and budget for each PIC and compliance with the Operational Criteria for assistance.

The Operational Criteria is attached as **Annex 10**. At the, the proposed Operational Criteria was reviewed and discussed. Among the findings during the discussions are:

i) The Operational Criteria is a living document, which will be regularly reviewed to cope with the project circumstances.
ii) There are sufficient PIC representations in the PSC to safeguard PIC interests in the application of the criteria.

It is to be noted that the PSC has the authority to reallocate the indicative allocations to other PICs and activities giving due consideration to the project's set timeline, goal and objectives.

Inception Workshop Outcome No. 12

i) The Inception Workshop approved the Operational Criteria for assistance under the PIGGAREP, as presented in **Annex 10**.

5i) PROJECT RISKS

A key risk to the PIGGAREP is the world price of oil. When the PIGGAREP was designed in 2004, the price per barrel was US$ 44. At the end of October 2007 this has more than doubled to US$ 92 per barrel. While price may fluctuate in the short to medium term, it is not expected that it will go down to the 2004 price levels during the life of the PIGGAREP.

In addition ineffective national and regional coordination as well as the lack of real political support to RE at national levels are always risks to regional projects. However, the outcome of the 2007 Forum Leaders' meeting to some extent will assist addressing the last mentioned risk through their communiqué in which "*Leaders believe there remains a need for continued high level support to address*

the region's energy needs and more specifically efforts to secure equitable access to reliable and affordable energy for all Forum Members".

During the Inception Workshop, a session dedicated to finalize the risk management strategy for project implementation. This was part of the Project Planning Matrix exercise in which the overall project level risks were to be derived from the Assumptions/Risk column of each PIC's PPM.

Inception Workshop Outcome No. 13

i) The Inception Workshop agreed that each PIC complete their respective PPM and submit to the PMO which will then compile the overall project level risks and consult PIC s on the mitigation strategies.

5j) OVERALL WORK PLAN FOR THE FIRST YEAR OF 'ON – THE –GROUND' IMPLEMENTATION

A preliminary draft overall work plan for the first year of project implementation was produced during the IW. This was based on the preliminary draft national work plans presented by the PIC participants. The IW emphasized the need to include in the national work plans the co-financing/baseline activities as well as the incremental/PIGGAREP activities. It was then appropriate that PICs be given the opportunity to revise their work plans and to submit them to the PMO by 28th November. However, by 28th November not all the 11 PICs have submitted their revised work plan.

As mentioned in (5d) above, the PIGGAREP PMO is of the view that as a starting point the current version of the overall project level work plan is acceptable in context of an M&E Framework. As with the PIC PPMs and Annual Targets, the PIC work plans have to be treated as "work in progress", which will be updated at the annual MPR meetings where the overall PPM and Targets will be updated too.

Inception Workshop Outcome No. 14

i) The Inception Workshop agreed that PICs will finalize their revised work plans and submit to the PMO by 28th November so as to allow the PMO to consolidate these and come up with a final overall work plan and budget for 2008.

5k) DISBURSEMENT OF PROJECT FUNDS

The PIGGAREP was designed to be implemented according to UNDP's National Execution (NEX) modality. Operationally this could involve (as in earlier GEF-funded, UNDP implemented and SPREP-executed regional environment projects) a set-up with advance of funds to SPREP according to quarterly project work plans and then SPREP advance part of the project funds to the PICs for the execution of national activities according to county specific quarterly work-plans. At the end of the quarter, PICs report to SPREP who then report to UNDP with a

request for a top up for the next quarter. Such operational set-up as part of PICCAP, SPBCP and the IWP has proven to be very problematic. For many reasons, narrative and financial reports are not prepared on time or incomplete, expenses are not accounted for and some funds get trapped in the local bureaucracies. This has then led to delays in the flow of project funds and project activities are held up/delayed.

To address this issue, PIGGAREP should as much as possible be implemented through direct payments of services and goods from SPREP or through reimbursements based on mutual agreement. Only in exceptional circumstances should project funds be advanced to PICs.

The implementation of the PIREP as well as the PIEPSAP project as NEX projects, but with an operational set-up that works largely through direct payments and reimbursements has demonstrated that this is a practical, cost effective and efficient arrangement. It is however the intention of the PMO that each PIC will be updated quarterly on the balance of its indicative allocation.

Inception Workshop Outcome No. 15

The Inception Workshop agreed that the:

i) Implementation of the PIGGAREP be through direct payments and reimbursements basis and only in exceptional circumstances advanced payment of project funds, and;

ii) Reassessment of the effectiveness of the proposed payment at the first TPR meeting in 2008.

5l) STRATEGIC LINKAGES AT THE NATIONAL AND REGIONAL LEVELS

It is very crucial that the sustainability of the PIGGAREP be strengthened through strategic linkages at the national and regional levels. At the national level, PIGGAREP activities should be linked to adopted national policies, action plans and strategies. For instance, the energy sector submission to Kiribati's National Development Strategy: 2008 – 2011 includes the planned PIGGAREP interventions in Kiribati. PICs are currently preparing their Second National Communications under the United Nations Framework Convention on Climate Change (UNFCCC) where PIGGAREP activities should be listed as part of the national effort to reduce greenhouse gas emissions.

At the regional level, it is important to continue to report the PIGGAREP via the action plan resulting from the Pacific Energy Ministers' Meeting (2007 PPEM). Additionally, the PIGGAREP should continue to be reported as a key intervention in the Pacific Plan's initiative relating to the Pacific Islands Energy Policy (PIEP) and the Pacific Islands Framework Action on Climate Change.

At both levels, there is a real and urgent need to ensure greenhouse gas mitigation and renewable energy is mainstreamed into the planning and budgetary processes.

Inception Workshop Outcome No. 16
The Inception Workshop:

i) Agreed that the PICs and regional project stakeholders ensure that their respective PIGGAREP activities are linked to their MDGs, Pacific Plan and National Development Strategy effort and that proper acknowledgement of PIGGAREP and its key stakeholders (GEF, UNDP and SPREP) are made, as appropriate.
ii) Agreed that the PM take Inception Workshop Outcomes 1-16 above into account in revising the preliminary draft Inception Report and to circulate a final draft Inception Report, including a final Workshop Summary Record, by December 10th 2007.
iii) Agreed that December 20th 2007 be the last day for any further inputs and comments on the final draft Inception Report and for the final version to be circulated to the project stakeholders before the end of 2007.

6. CONCLUSION AND WAY FORWARD

The Inception Phase was a much-needed opportunity for consensus building with all the project stakeholders, particularly on the findings and recommendations from the reviews undertaken by the PMO during the Inception Phase.

The key issue that the PIGGAREP has come across in the Inception Phase is how to reconcile the reality of the baseline/co-financing activities of the PIGGAREP and the requirements of the GEF. Initial co-financing activities were identified during the project design phase (as part of PIREP), but at the commencement of the implementation phase of PIGGAREP 3 years later, not surprisingly circumstances have changed. As such some co-financing activities have been completed, cancelled, on-going or delayed. Even at this very moment, new key co-financing activities to the PIGGAREP are confirmed to take place during the life of the PIGGAREP (2007-2012), but whereas financing agreements and communiqués have been signed the details are yet to be worked out. But as the PIGGAREP is to provide additional value via incremental activities to ongoing baseline activities, these incremental activities can only be accurately determined when the baseline details are known and confirmed. This situation has affected the anticipated Inception Phase outputs of confirmed country work plans, an overall project level work plan and confirmed PPMs and Annual Targets for the M & E Framework. To mitigate these, the Inception Phase has came up with an overall project level PPM and Annual Targets which is not so different from that in the ProDoc. While the individual PIC work plans are subject to change, the PMO is of the view that the values in the overall (and aggregated) project level PPM and Annual Targets will not change significantly despite possible future changes at the country work plan level. It is therefore very important for the project stakeholders to appreciate that the individual PIC work plans, PPMs and Annual Targets are "work in progress" which are expected to be much more firm and

detailed during the years 2008 and 2009 as the key co-financing activities unfold. This therefore means that project implementation in 2008 and 2009 will be a gradual ascend, reaching a peak in 2010 and retaining that level in 2011 and then gradually descending in 2012.

This Inception Report, as a record of the understandings reached with the project stakeholders during the Inception Phase will subsequently be incorporated into a revised ProDoc.

Annex 1

Terms of Reference[3]

Post Description: **ASSISTANT PROJECT ACCOUNTANT (APA)**

Background:

The Pacific Islands Greenhouse Abatement through Renewable Energy Project (PIGGAREP) is a 5-year project funded by the Global Environment Facility (GEF), implemented by the United Nations Development Programme (UNDP) and executed by the Secretariat of the Pacific Regional Environment Programme (SPREP). The Project Management Office (PMO) for the PIGGAREP is based at SPREP's headquarters at Apia, Samoa.

The global environment and development goal of PIGGAREP is the reduction of the growth rate of GHG emissions from fossil fuel use in the Pacific Island Countries (PICs) through the removal of the barriers to the widespread and cost effective use of feasible renewable energy (RE) technologies. The specific objective of the project is the promotion of the productive use of RE to reduce GHG emission by removing the major barriers to the widespread and cost-effective use of commercially viable RE technologies (RETs). PIGGAREP consists of various activities whose outputs will contribute to the removal of the major barriers to the widespread utilization of RE technologies (RETs). The project is expected to bring about in the PICs: (1) Increased number of successful commercial RE applications; (2) Expanded market for RET applications; (3) Enhanced institutional capacity to design, implement and monitor RE projects; (4) Availability and accessibility of financing to existing and new RE projects; (5) Strengthened legal and regulatory structures in the energy and environmental sectors; and, (6) Increased awareness and knowledge on RE and RETs among key stakeholders.

Responsibilities and Accountabilities:

The Assistant Project Accountant (APA), PIGGAREP will work under the joint supervision of the Project Manager of the Project and SPREP's Finance Manager. Working in association with SPREP's Finance and Administration staff, he/she will assume direct responsibility for the provision of all financial support to the PIGGAREP PMO. Duties and responsibilities include:

- Provide advice and assistance to the PIGGAREP PM and other PMO staff in relation to the management and administration of the Project funds;
- Become well versed in the SPREP and UNDP financial regulations/procedures required for the proper and secure implementation of GEF-related projects with a focus on the PIGGAREP;

[3] This ToR is subject to be revised to meet the standard recruitment policy of SPREP.

- Be responsible for checking and verifying Requests for Payment and Purchase Orders, to ascertain whether sufficient funding is available, that requests are charged to correct budget lines, and disbursements are in accordance with SPREP's (or where appropriate, UNDP's) financial regulations/procedures;
- Prepare and verify disbursements of PIGGAREP project funds to participating countries, collaborating regional organizations and programmes and other relevant entities;
- Check, verify and reconcile Accountable Advances and Incidental Travel claims requests;
- Prepare monthly Bank reconciliation;
- Prepare monthly Accounts Payable reconciliation;
- Work closely with the Finance team to ensure PIGGAREP accounts are regularly updated and maintained;
- Verify and confirm that SPREP administration and operational costs are charged to the PIGGAREP on a cost recovery basis;
- Prepare project Financial Reports (monthly, quarterly, six monthly, annually) as well as ad hoc reports, as and when needed by the Project Manager, UNDP and National Coordinators;
- Monitoring closely of delivery against annual budget;
- Liaise with auditors and provide assistance to ensure the timely completion of the annual audit for PIGGAREP;
- Work closely with National Coordinators to ensure country financial reports are submitted on a timely basis as well as verify and confirm these reports are reconciled;
- Liaise with National Coordinators regarding the timely completion of the country programme annual audits;
- Assist the Project Manager in preparing financial reports for presentation at PIGGAREP Project-related meetings;
- Assist the PMO in preparing budgets (monthly, quarterly, six monthly, annually);
- Work closely with UNDP on budget revisions periodically;
- Work closely with UNDP regarding the provision of project funds on a quarterly basis;
- Assist the Finance team to establish and design the ACCPAC Financial System to reflect Performance Based Output Budget Design as it relates to the PIGGAREP;
- Assist to design, establish and maintain the chart of accounts for the PIGGAREP;
- Assist to train/update participating country Project and Administration Staff on the financial systems;

- Assist to refine and administer Financial Reports used by SPREP, UNDP and the PIGGAREP in respect of programme accounting;
- Assist the SPREP Finance team in completing their duties when time permits;
- Provide backstopping and support to SPREP staff to build capacity in financial management of GEF-supported projects; and,
- Perform other duties as required.

Desired Qualifications and Experience

Candidates must have appropriate tertiary qualifications and an excellent knowledge of accounting procedures with at least five years of working experience in this field. Sound administrative skills are important with a good understanding of work planning and budget preparation together with some familiarity with the UNDP reporting requirements. An appreciation of climate change and renewable energy issues in the Pacific island countries would be highly regarded. Candidates must also have the ability to work long hours, from time to time, with minimum or without supervision; a proven ability to work as a part of an inter-disciplinary and/or multi-cultural team; the ability to meet project deadlines (often under difficult conditions) and to travel within the Pacific region.

Final Draft

Terms of Reference[4]

Post Description: **PROJECT ASSISTANT (PA)**

Background:

The Pacific Islands Greenhouse Abatement through Renewable Energy Project (PIGGAREP) is a 5-year project funded by the Global Environment Facility (GEF), implemented by the United Nations Development Programme (UNDP) and executed by the Secretariat of the Pacific Regional Environment Programme (SPREP). The Project Management Office (PMO) for the PIGGAREP is based at SPREP's headquarters at Apia, Samoa.

The global environment and development goal of PIGGAREP is the reduction of the growth rate of GHG emissions from fossil fuel use in the Pacific Island Countries (PICs) through the removal of the barriers to the widespread and cost effective use of feasible renewable energy (RE) technologies. The specific objective of the project is the promotion of the productive use of RE to reduce GHG emission by removing the major barriers to the widespread and cost-effective use of commercially viable RE technologies (RETs). PIGGAREP consists of various activities whose outputs will contribute to the removal of the major barriers to the widespread utilization of RE technologies (RETs). The project is expected to bring about in the PICs: (1) Increased number of successful commercial RE applications; (2) Expanded market for RET applications; (3) Enhanced institutional capacity to design, implement and monitor RE projects; (4) Availability and accessibility of financing to existing and new RE projects; (5) Strengthened legal and regulatory structures in the energy and environmental sectors; and, (6) Increased awareness and knowledge on RE and RETs among key stakeholders.

Duties and Responsibilities

The Project Assistant (PA) will be responsible to the Project Manager of PIGGAREP to perform the following:

- Provide secretarial, project delivery assistance and routine administrative support;
- Review and draft correspondence as required in accordance with the Correspondences Manual;
- Organize and finalize logistical arrangements for project meetings and workshops; including the preparation and follow-through travel proposals,

[4] This ToR is subject to be revised to meet the standard recruitment policy of SPREP.

purchase orders and requests for payments of per diems and related costs for SPREP sponsored participants;

- Assist the Project Manager and staff process overseas travel, prepare and follow-through travel proposals, purchase orders and requests for payments of per diems and related costs;
- Distribute project and programme documents and meeting records;
- Process and follow up payment of project accounts and invoices;
- Ensure inwards correspondence is actioned during Project Manager and staff duty travels;
- Maintain liaison with the Project Manager and staff while on duty travel;
- Serve as secretary for project meetings and other meetings as and when required;
- Assist in obtaining financial and budgetary information as required;
- Assist with recruitment process of project staff;
- Ensure familiarization and compliance in the implementation of all relevant Administration and Financial policies and procedures;
- Assist with the updating of the programme Calendar of Events;
- Assist in management and overseeing the maintenance of photocopy and other equipment including supplies of consumables are adequately provided for;
- Assist in obtaining quotes and purchasing local office supplies as required;
- Work in cooperation with other Secretaries to ensure proper coordination and consolidation of programme support activities;
- Undertake any other duties as may be directed from time to time;
- Back up support and other responsibilities as required;
- Provide secretarial assistance and support and other scheduled work plans in the other areas when the other Programme Assistants are either on duty travel, sick and annual leave;
- Assist with reception and customers' services duties as required;
- Assist with the distribution and dissemination of PIGGAREP publication as required by the Information Resource Centre (IRC) Manager; and
- Assist with the operations of SPREP's Archival Repository with the Information and Records Management and IRC as required.

Desired Qualifications and Experience

Candidates must have a Diploma in Secretarial Studies or equivalent tertiary qualification with at least five years of working experience in this field. Sound administrative skills

are important with an experience in processing travel arrangements and arranging meetings and workshops. Familiarity with processing payments would be an advantage. An appreciation of climate change and renewable energy issues in the Pacific island countries would be highly regarded. Candidates must also have the ability to work long hours, from time to time, with minimum or without supervision; a proven ability to work as a part of an inter-disciplinary and/or multi-cultural team; the ability to meet project deadlines (often under difficult conditions) and to travel, if needed, within the Pacific region.

Annex 2

Final Draft

Terms of Reference

NATIONAL PROJECT COORDINATION (NPC)

Background

The Pacific Island Countries (PICs) are currently heavily dependent on fossil fuels, with petroleum accounting for an estimated 90% of the commercial energy consumption. Petroleum consumption is largely responsible for the Greenhouse Gases (GHG) emission in the PICs. A regional synthesis of the PICs GHG inventories from their first National Communication under the United Nations Framework Convention on Climate Change (UNFCCC) highlighted that the GHG emission per capita in the PICs is almost 25% of the global Carbon Dioxide (CO2) emissions per capita arising from fossil fuel combustion. Most of the GHG emissions in the PICs are from the combustion of fossil fuels for power generation and in transportation. Power generation is only from fossil fuel in some PICs and the transport sector runs 100% on fossil fuel. RETs have been known in the region for more than three decades; however, there has not been a comprehensive regional effort to promote them for mitigating GHG emission. Although a number of small-scale rural renewable electrification and energy efficiency projects have been carried out in the PICs over the last two decades, their impacts in terms of reducing the growth rate of GHG emissions have been minimal.

The fact that the PICs are small in size, situated in the Tropics, along the Pacific Rim of Fire and surrounded by the vastest ocean on Earth makes the PICs just about the region with the highest RE potential per capita. Studies carried out during the project preparatory stage indicated that the PICs could reduce the CO2 emissions by at least 2 million tons by 2015 by utilising commercially viable RE technologies. However this potential cannot be fully realised unless barriers identified during the preparatory phase are removed.

The PIGGAREP is the first attempt in the PICs to comprehensively address the inter-related barriers to the widespread utilisation of commercially viable RETs. It is a collective attempt to address the technical, financial, market, institutional, policy and awareness barriers at the same time since they are interrelated and intertwined. The PIGGAREP will therefore involve a high degree of coordination with related activities of national, regional and international stakeholders.

The **country team approach** established during the PICCAP and continued in PIREP as well as in PIEPSAP, is based on the realisation that to effectively tackle climate change issues there is a need to bring together many actors from different crosscutting thematic areas. It involves inviting the national government to designate an agency to host a team of sectoral representatives and national experts, which could facilitate policy and

decision-making, and the implementation of climate change-related projects and issues. During the project development stage (under PIREP), PICs were required to form PIREP Country Teams with, as a minimum, a senior officer from the Energy Unit/Office, the Climate Change Coordinator and a senior environment officer. Some PICs did not want to form a separate Team and preferred to utilize their existing Climate Change country teams, which already have adequate energy sector representatives. Others opted to form a working group and report to a National Climate Change Team. Weaknesses were however observed during the PIREP because project-based teams / committees were seen to focus mostly on project-specific issues instead of sector-wide issues. Consultations during the PIGGAREP Inception Phase revealed the general acceptance of the country team as an approach rather than to be the name for all the institutional setups for the coordination of the PIGGAREP at the national level. The PIGGAREP country team approach is therefore a continuation of the momentum built during the PIREP with modifications to reflect the magnitude and complexity of the PIGGAREP and the need for strengthened coordination at the national climate change and energy sectors. During the project, the national institutional setup to coordinate PIGGAREP will be supported financially and technically and made responsible for coordinating, implementing and managing in-country activities.

Purpose

The National Project Coordination (NPC) will be responsible for the overall management, coordination and implementation of the PIGGAREP in-country activities within the contexts of its own climate change and energy sector developments.

Duties & Responsibilities

- Decide the exact size and composition of the NPC.
- Prepare a preliminary meeting schedule based on the implementation plan/schedule of activities specified in the UNDP Project Document (ProDoc).
- Prepare, during the inception phase, a national status paper for each of the proposed in-country activities in PIGGAREP and thereby determine exactly which, if any, of the proposed activities that does not need to be implemented in the country (since they already have been undertaken).
- Based on the status paper, and in consultation with the PM/SPREP, determine exactly which of the in-country activities that will be implemented by national professionals and other relevant national stakeholders from the private sector and civil society in the country.
- Determine the exact work of responsibility between the identified national stakeholders.
- Forward, during the inception period, Memorandum of Agreements (MoA) containing comprehensive and confirmed implementation arrangements for the in-country activities to the PM/SPREP and UNDP-Apia.
- Be responsible for the PIGGAREP in-country activities that are to be implemented by national stakeholders (from government, private sector and civil society).
- Be responsible for the monitoring of all in-country project activities.
- Implementation of specific national activities as agreed in the work plans.

- Through the PM/SPREP, request external expertise/technical assistance for those specific in country activities that are deemed not possible to implement by national stakeholders represented in the NPC (e.g. due to lack of capacity, knowledge, availability, etc), if needed, and indicate what kind of expertise is preferred (regional organisations, national consultants, regional consultants and international consultants – in that order of priority).
- Cooperate and coordinate with external experts (regional organisations, national consultants, regional consultants and/or international consultants) and provide them with necessary input and assistance.
- Review draft reports by consultants engaged by the NPC.
- Submit quarterly progress reports to the PM/SPREP.
- Inform, and justify to, the PM/SPREP about any possible delays during the project.
- Inform ministries and other agencies of government (professionals and politicians), NGOs and the private sector about the PIGGAREP project and its outcomes.

Members

The NPC as a minimum will consist of:

- A senior officer from the country's Energy Unit/Office
- A representative from the power utility and/or private power generator
- A senior environment / climate change officer
- A representative of the business community / chamber of commerce

The PIGGAREP National Coordinator will provide the secretariat to the NPC and will chair the first meeting of the NPC. The first meeting of the team will select the permanent chairperson.

Meeting Frequency

The NPC will meet at least bi-monthly, and/or when the need arises.

Annex 3

Final Draft

Terms of Reference

PROJECT STEERING COMMITTEE (PSC)

1.1 Background

The PIGGAREP is a regional climate change mitigation project that was approved for funding by the Global Environment Facility in September 2006. The project is for eleven Pacific Island Countries - PICs (Cook Islands, Fiji, Kiribati, Nauru, Niue, Papua New Guinea, Samoa, Solomon Island, Tonga, Tuvalu and Vanuatu) with the United National Development Programme (UNDP) as its Implementing Agency and the Secretariat of the Pacific Regional Environment Programme (SPREP) as the Implementing Partner.

The global environment and development goal of the PIGGAREP is the reduction of the growth rate of greenhouse gas (GHG) emissions from fossil fuel use in the PICs through the removal of the barriers to the widespread and cost effective use of feasible renewable energy (RE) technologies. The specific objective of the project is the promotion of the productive use of RE to reduce GHG emission by removing the major barriers to the widespread and cost-effective use of commercially viable RE technologies (RETs). It consists of various activities whose outputs will contribute to the removal of the major barriers to the widespread utilization of RETs. The project is expected to bring about in the PICs: (1) Increased number of successful commercial RE applications; (2) Expanded market for RET applications; (3) Enhanced institutional capacity to design, implement and monitor RE projects; (4) Availability and accessibility of financing to existing and new RE projects; (5) Strengthened legal and regulatory structures in the energy and environmental sectors; and, (6) Increased awareness and knowledge on RE and RETs among key stakeholders.

The PIGGAREP was designed on an equal contribution by the participating PICs and for resources to be shared equally, on an indicative and performance-based basis, according to agreed operational criteria.

The Annual Monitoring of the project will occur through Multi-partite Review (MPR) meetings. The project will therefore be subject to a MPR at least once every year, however as a Monitoring and Evaluation (M&E) process, it does not have the authority to suspend disbursement if project performance benchmarks are not met. Neither does it have the authority or opportunity to review and approve Quarterly Progress Reports (QPRs) and quarterly Financial Reports (FRs) including quarterly work plans and request for quarterly advances. There is therefore a need for a dedicated Project Steering Committee (PSC).

The Terms of Reference for the PSC are in line with UNDP's new requirements in this area as outlined in the UNDP Results Based Management User Guide.

1.2 Organization

The PSC is responsible for the overall direction and management of the project and it covers the following three interests:

i. UNDP and its representatives as the GEF Implementing Agency for PIGGAREP provides project management oversight;
ii. SPREP and its representatives as the Implementing Partner for PIGGAREP is responsible and accountable for the day-to-day project management, monitoring and evaluation of project interventions, achieving project outputs, and for the effective use of UNDP resources; and,
iii. The 11 participating PICs represents the direct beneficiaries of the project and is responsible for the day-to-day coordination, implementation and monitoring of all in-country/national project activities.

1.3 Overall Responsibilities

The PSC is responsible for the overall direction and management of the PIGGAREP project and has responsibility and authority for the project. The PSC reviews and approves yearly and quarterly project plans and authorizes any major deviation from these agreed plans. It ensures that required resources are committed and arbitrates on any conflicts within the project and/or negotiates a solution to any problems between the project and external bodies. In addition, it approves responsibilities of the Project Manager. It can delegate its project assurance responsibilities.

Basically, the PSC is responsible for making executive management decisions for the PIGGAREP project when guidance is required by the Project Manager, including approval of project plans and revisions. This PSC is consulted by the Project Manager for decisions when project manager tolerances (concerning time and cost) have been exceeded.

1.4 Specific Responsibilities

To be responsible for the project, the PSC should as the project progresses:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints (concerning time and cost).
- Review (yearly and quarterly) project stages and approve progress to the next stage.
- Commit project resources required by the next stage.
- Provide ad-hoc direction and advice for exception situations when tolerances (concerning time and costs) are exceeded.
- Assess and decide on project changes through revisions.

- Assure that all planned deliverables (during each yearly and quarterly stage) are delivered satisfactorily.
- Responsible to monitor the identified risk(s) and advise the Project Manager of any change in its status and to take action to ameliorate the risk.

At the end of the project:

- Assure that all products are delivered satisfactorily.
- Review and approve an End of Project Report.
- Make recommendations for follow-on actions if required.
- Notify project closure to all the project stakeholders.
- Approve Lessons Learned Report and its passage to appropriate authorities.
- Decide on recommendations for follow-up actions and its passage to appropriate authorities.

1.5 Composition

There shall be equal number of PICs representatives to that of non-PICs in the PSC.

There shall be 3 representatives from UNDP with one selected from each of the 3 UNDP Country Offices in the Pacific respectively. There shall be one representative of the SPREP Director. There shall be 4 representatives from the 11 PICs with 3 regional representatives being one each from Polynesia, Melanesia and Micronesia and also one non-regional representative selected from the remaining 8 PICs who are not regional representatives. Two of the four PIC representatives will rotate on an annual basis with a replacement to one of the three regional representatives and the non-regional representative. The Project Manager will participate in the PSC in a secretarial and advisory capacity.

During its first meeting to take place by end of 2008 the PSC will discuss and decide on the need and feasibility to include additional members to the PSC including possible representatives from the co-financing partners, CROP EWG members and donors and development partners.

1.6 Meeting Frequency and Lines of Communication

The PSC will meet at least quarterly or more often if there is a need. The meetings will be held so that they enable the approval of quarterly work plans and budgets.

The PSC will meet in person where possible otherwise teleconferencing will be used. The PSC will communicate through e-mail, telephone, conference calls, fax, etc. between the meetings.

1.7 Preparations

The Project Manager will be responsible for ensuring that the necessary preparations are in place for the PSC meetings including circulating draft agenda, distributing meeting documents such as a final draft quarterly and yearly works plans, organizing teleconferencing facilitates, etc. In addition the Project Manager will be responsible for preparing minutes.

Annex 4

PIGGAREP National Coordinators

	Country	Name	Contact
1	Cook Is	Mata Nooroa, Director of Energy	nooroa@blackrock.co.ck
2	Fiji	Makereta Sauturaga, Director Energy	msauturaga@fdoe.gov.fj
3	Kiribati	Kireua Kaiea, Energy Planner	kireua_bk@yahoo.com
4	Nauru	Thomas Start, Utilities Policy Officer, Nauru Utilities Authority	thomas.star@naurugov.nr
5	Niue	Speedo Hetutu, GM, NPC	gm.npc@mail.gov.nu
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Annex 5

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Terms of Reference

NATIONAL COORDINATOR (NC)

The Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP) is aimed at reducing the growth rate of GHG emissions from fossil fuel use in the Pacific Island Countries (PICs) through the removal of the barriers to the widespread and cost effective use of feasible renewable energy technologies (RETs). It consists of various interventions whose outputs will contribute to the removal of the major barriers to the widespread utilization of commercially viable RETs. The project is expected to bring about in the PICs: (1) Increased number of successful commercial RE applications; (2) Expanded market for RET applications for power generation and productive uses; (3) Enhanced institutional capacity to design, implement and monitor RE projects; (4) Availability and accessibility of financing to existing and new RE projects; (5) Strengthened legal and regulatory structures in the energy and environmental sectors; and, (6) Increased awareness and knowledge on RE and RETs among key stakeholders. PIREP is a 5-year project financed by the Global Environmental Facility (GEF), with the United Nations Development Programme (UNDP) as the implementing agency, and executed by the Secretariat of the Pacific Regional Environment Programme (SPREP).

Background

The Pacific Island Countries (PICs) are currently heavily dependent on fossil fuels, with petroleum accounting for an estimated 90% of the commercial energy consumption. Petroleum consumption is largely responsible for the Greenhouse Gases (GHG) emission in the PICs. A regional synthesis of the PICs GHG inventories from their first National Communication under the United Nations Framework Convention on Climate Change (UNFCCC) highlighted that the GHG emission per capita in the PICs is almost 25% of the global Carbon Dioxide (CO2) emissions per capita arising from fossil fuel combustion. Most of the GHG emissions in the PICs are from the combustion of fossil fuels for power generation and in transportation. Power generation is only from fossil fuel in some PICs and the transport sector runs 100% on fossil fuel. RETs have been known in the region for more than three decades; however, there has not been a comprehensive regional effort to promote them for mitigating GHG emission. Although a number of small-scale rural renewable electrification and energy efficiency projects have been carried out in the PICs over the last two decades, their impacts in terms of reducing the growth rate of GHG emissions have been minimal.

The fact that the PICs are small in size, situated in the Tropics, along the Pacific Rim of Fire and surrounded by the vastest ocean on Earth makes the PICs just about the region with the highest RE potential per capita. Studies carried out during the project preparatory stage indicated that the PICs could reduce the CO2 emissions by at least 2

million tons by 2015 by utilising commercially viable RE technologies. However this potential cannot be fully realised unless barriers identified during the preparatory phase are removed.

The PIGGAREP is the first attempt in the PICs to comprehensively address the inter-related barriers to the widespread utilisation of commercially viable RETs. It is a collective attempt to address the technical, financial, market, institutional, policy and awareness barriers at the same time since they are interrelated and intertwined. The PIGGAREP will therefore involve a high degree of coordination with related activities of national, regional and international stakeholders.

Duties and Responsibilities

The person to carry the role of a National Coordinator (NC) will be identified by the PIC government from within the existing staff of the designated host agency. This person will be part of the PIC co-financing activities towards the PIGGAREP. Under the direction of the designated host government agency and in consultation with the NPC and the PIGGAREP Project Manager (PM), the role of a NC shall involve the following:

- Ensure that all PIGGAREP activities are integrated into the daily activities of the participating local agencies and the relevant adopted national strategies, action plans and policies;
- Serve as the technical focal point for the national level activities of the PIGGAREP within the designated government agency, including coordinating all local project consultation meetings and providing guidance to consultants and contractors and reviewing their reports;
- Responsible for the day-to-day coordination and monitoring of all national project activities, studies and co-financing activities;
- Responsible for the formulation and preparation of annual and quarterly work plans and budgets, ensure achievement of project objectives and the timely completion of all reporting obligations of the project, including progress reports on the various parallel funded activities;
- Serve as the national representative to the annual Multi Partite Review (MPR) meetings;
- Facilitate liaison and networking between and among the NPCs;
- Foster and establish strong links with all national co-financing activities; and,
- Assume responsibility for the widespread dissemination of PIGGAREP best practices and experiences as well as highlighting SPREP's, GEF's and UNDP's roles in the project.

Deliverables

The NC is responsible for the submission of the following deliverables, among others: a) Project Progress and where required, financial reports, b) national meeting and training workshop reports, c) reports on all nationally-managed project studies and consultancies; and, d) progress reports on the various parallel funded activities of the project at the national level.

Qualifications & Experience

The person to assume the role of NC preferably shall have the following basic required qualifications and expertise:

- An university degree or equivalent in energy, environment or a related field and/or at least 5 years of project management/coordination experience;
- Proven track record of project management/coordination experience with GEF- and UNDP funded projects or similar national projects;
- Ability to coordinate the work of consultants/sub-contractors
- Proven ability to work as part of an interdisciplinary team
- Ability to meet project deadlines
- Practical experience with renewable energy projects/programmes;
- Excellent interpersonal skills; and,
- Excellent working knowledge of English.

Annex 6

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Summary List of Stakeholders and Key Roles in the PIGGAREP

Stakeholder	Key Role in the PIGGAREP
UNDP SAMOA MULTI COUNTRY OFFICE (MCO), UNDP FIJI MULTI COUNTRY OFFICE (MCO), UNDP PNG MULTI COUNTRY OFFICE (MCO) AND UNDP-GEF REGIONAL COORDINATION UNIT (RCU)	• Provide GEF Implementing Agency oversight on the project implementation (e.g. financial and substantial oversight, monitoring, evaluation, administrative backstopping, coordination with other UNDP initiatives, etc)
SPREP	• Implementing Partner as per standard UNDP/GEF rules and procedures under the National Execution (NEX) modality (e.g. responsible for the day-to-day planning and overall management of project activities, reporting, accounting, monitoring and evaluation, supervision of contractors, management and audit of UNDP resources, etc). Linkage with co-financing activities. • Linking of the project to other climate change related activities in the PICs (e.g., Second National Communications, the Climate Change Framework, UNFCCC, Kyoto Protocol, Climate Change Legislations and Policies, Climate Resource Monitoring through the PICGOS; Information dissemination through the *Pacific Environment Information Network (PEIN)*[5] and the Pacific SIDSNet website) • Linking of the project to other major regional energy activities like REP-5, Italy-PIC Cooperation Programme, EDF 10 REP-7, SEFP, etc • Manage all project consultancies and contracts
National Project Coordination (NPC)	• Coordination of the implementation of all project activities in-country • Revision of country work plan and budget and re-prioritization of country activities

[5] PEIN is the 2004 winner of the prestigious Stockholm Challenge Award, which is an international competition that each year looks for new models for the information society of tomorrow. The Pacific Islands Environment Network (PEIN) provides access to PICs to 20,000 volumes of on-line environmental-related information, across 14 Pacific island countries.

Stakeholder	Key Role in the PIGGAREP
SOPAC[6]	• Implement Energy Legislation, Policy and Strategic Action plan development as part of PIGGAREP where appropriate • Provide Training and Technical Advice and Support as part of PIGGAREP where appropriate • Provide data and analysis from on-going and new biomass, wind and solar Renewable Energy Resource Assessment. • Information dissemination through the Pacific Energy Newsletter • Linking up PIGGAREP gender activities with SOPAC's Pacific Energy and Gender Network • Collaboration on Clean Development Mechanism support and Capacity Building • Provision of energy data for support to policy decisions and PIGGAREP studies • Provide a platform for implementation of complementing energy efficiency activities
REP-5 PMU	• Implementation of co-financing activities in Nauru and Niue • Assistance to stakeholders in Nauru and Niue to integrate REP-5 activities with PIGGAREP.
REEEP	• Joint activities in areas relating to Policy and Regulation as well as Finance and Business in renewable energy
USP and local training institutions like FIT and CADT in Fiji.	• Training Activities
Greenpeace	• 100% RE islands study in Niue. • Information dissemination, awareness raising, working with key governments and lobbying for Pacific interests at international meetings.
World Wildlife Fund	• Information dissemination through the *South Pacific Currents*
IUCN	• Interface between the PIGGAREP and the Italy-PIC Cooperation Programme as well as the Austrian government funded energy programme
Private Sector	• Conduct some of the resource monitoring activities and feasibility studies • Installations of the co-financing hardware projects
Banks and Financing Institutions	• Represented in the PAC • Financial support to RE development activities • Possible management partners of the RREF

[6] Areas of collaboration between PIGGAREP and the PIEPSAP have been discussed. The PIEPSAP has been extended to August 2008. Future of SOPAC's coordination of the EWG and its core energy programme is subject to the implementation of the 2007 Forum Decision on the Regional Integration Framework.

Stakeholder	Key Role in the PIGGAREP
Pacific Power Association	• Training and Technical Advice and Support • Resources Assessment activities of the power utilities • Tariff studies and reviews • Tender Evaluation • Information dissemination through the Pacific Power Magazine • Interface between the PIGGAREP and the power utilities

Annex 7

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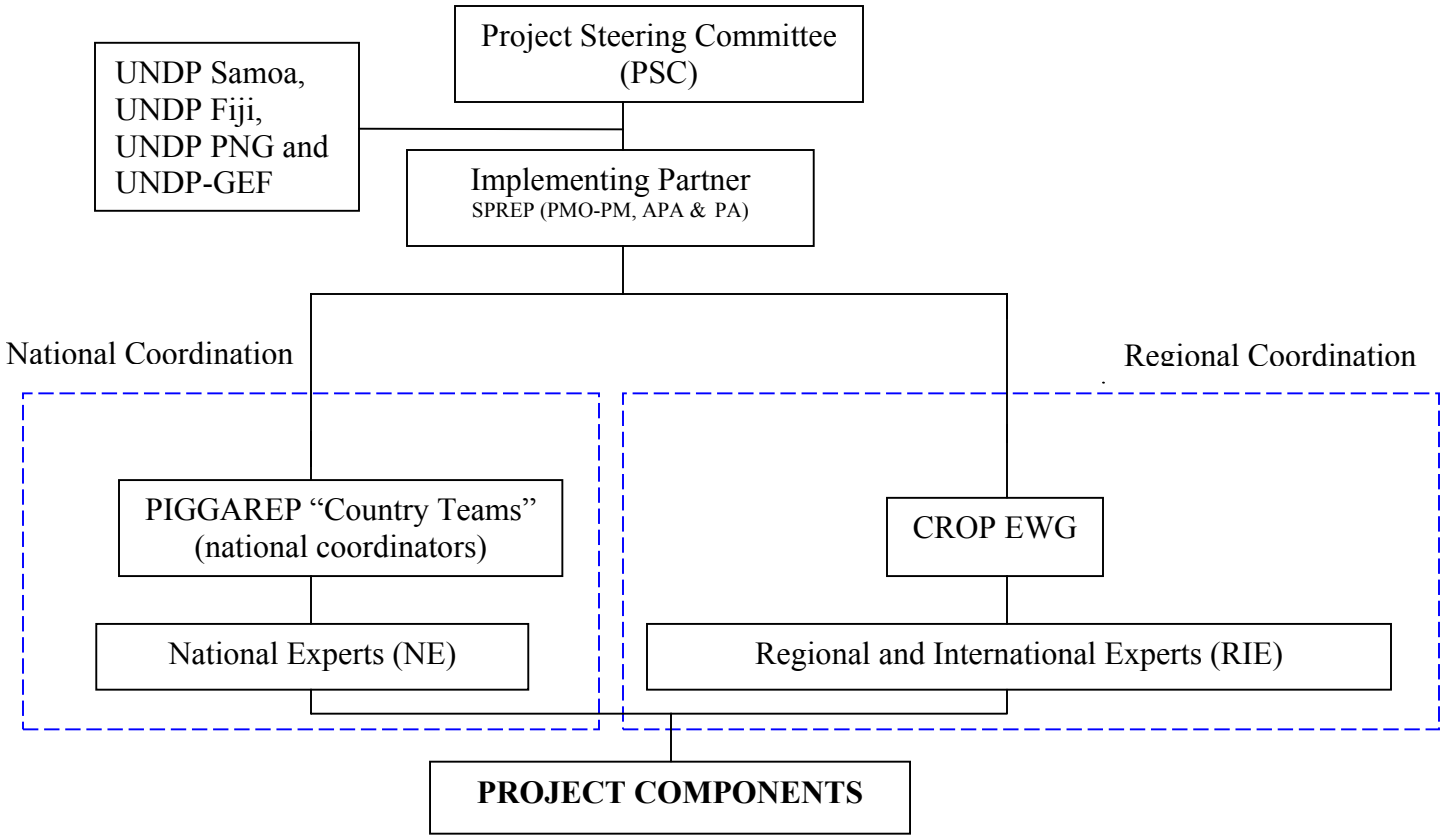
PART II: Organigram of Project

PIGGAREP Organizational Chart



Annex 8

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MONITORING AND EVALUATION FRAMEWORK

The review of the M & E framework was based on the **Part IV: Monitoring and Evaluation Plan and Budget** of the ProDoc. The changes were only in the following paragraphs 77, 78, 81, 82, 83 and 105 and in the Tables below. The revised paragraphs and Tables are presented below:

77. Day to day monitoring of implementation progress will be the responsibility of the PM ~~in consultation with the Task Specialists~~ based on the project's AWP and its indicators. As part hereof the Implementing Partner then will inform the UNDP PPR (UNDP Samoa), of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. In addition the UNDP PPR (UNDP Samoa), UNDP Fiji and UNDP PNG will monitor progress during Country Office field visits to the PICs covered by the respective Country Offices that are participating in PIGGAREP[5] as well as via other meetings and communications with government counterparts and other relevant stakeholders on a cost recovery basis charged to UNDP Samoa. Subsequent to field visits, meetings, communications, etc UNDP Fiji and UNDP PNG will brief UNDP PPR (UNDP Samoa) as well as UNDP-GEF RCU of findings and recommendations including forwarding copies of relevant Field Visit Reports, Mission Reports, Meeting Minutes, etc.

78. The PMO, UNDP and UNDP-GEF will fine-tune the progress and performance/impact indicators of the project in consultation and agreement with key stakeholders at the IW. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at the IW. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the AWP. Targets and indicators for subsequent years would be defined annually at the MPR meeting as part of the monitoring and planning processes undertaken by key project partners including Implementing Partner, government counterparts, UNDP and UNDP-GEF.

81. UNDP PPR (UNDP Samoa), UNDP Fiji and UNDP PNG and UNDP-GEF RCU, as appropriate, will conduct yearly field visits to appropriate sites, or more often based on an agreed upon scheduled to be detailed in the project's Inception Report/AWP to assess first hand project progress. Any other member of the MPR meeting ~~PAC~~ can also accompany, as decided by the MPR Meeting ~~PAC~~. A Field Visit Report will be prepared by UNDP PPR (UNDP Samoa), UNDP Fiji, UNDP PNG and UNDP GEF RCU respectively and circulated no less than one month after the visit to the PMO and all the project stakeholders ~~PAC members~~.

[5] a) UNDP Samoa covers the following three (3) PICs participating in PIGGAREP: Samoa, Cook Islands, and Niue; b) UNDP Fiji covers the following seven (7) PICs participating in PIGGAREP Fiji, Kiribati, Nauru, Solomon Islands, Tonga, Tuvalu and Vanuatu; and c) UNDP PNG covers PNG.

82. Annual Monitoring will occur through the MPR. ~~This is the highest policy level meeting of the parties directly involved in the implementation of a project~~. The project will be subject to a MPR at least once every year. The first such meeting will be held within the first twelve months of the start of full implementation. The Implementing Partner will prepare an Annual Project Report (APR) and submit it to UNDP PPR (UNDP Samoa) and the UNDP-GEF RCU at least two weeks prior to the MPR for review ~~and~~ comments. ~~The TPR has the authority to suspend disbursement if project performance benchmarks are not met.~~ Benchmarks will be developed at the Inception Workshop, based on delivery rates, and qualitative assessments of achievements of outputs.

83. The APR will be used as one of the basic documents for discussions in the MPR meeting. The Implementing Partner will present the APR to the <PR - highlighting policy issues and recommendations for the decision of the MPR participants. The Implementing Partner also informs the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary.

Strategy	Indicator	Annual Targets					
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
I. DEVELOPMENT OBJECTIVE/GOAL							
Reduction of the growth rate of GHG emissions from fossil fuel use in the PICs through the widespread and cost effective use of RE resources and application of feasible RE technologies	Cumulative CO2 emissions reduced (ktons)	0	13.2	53.0	132.5	238.6	371.1
II. IMMEDIATE OBJECTIVES/OUTCOMES							
A. Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground	A1. No. of resource monitoring studies completed	0		3	5	7	10
	A2. No. of RE projects successfully rehabilitated / upgraded	0		1	2	3	
B. Expansion of the market for RET	B1. No. of RET company established	0			1	2	3

Strategy	Indicator	Annual Targets					
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
market for RET applications	B2. Total additional RE-based energy system capacity installed in PICs (MW)	0	5	15	30	40	50
	B3. Value of income generating opportunities in PICs gained from RE	0		.5	2	3	At least US$ 5 million
	B4. No of additional social services (schools, health centres, telecommunication, etc) in each PICs using RE				2	4	At least 6
	B5. Million litres of copra oil use as a fuel				.2	.5	1
	B6. No. of feasibility studies completed			1	4		
	B7. No. of new RE grid connected projects installed		1				2
C. Enhancement of institutional capacity to design and implement RE	C1. No. of RE project designed and implemented by local experts in each PIC	0			1	2	4
	C2. No. of energy offices that have established national energy coordination committees, have clear mandates, strategies and action plans	0	2	4	6	8	10
D. Improvement of the availability of funding for existing and new RE projects	D1. Total value of new investments in RE	0	20	40	60	80	At least US$100 million
E. Strengthened legal and regulatory structures in the energy and environmental sectors	E1. No. of PICs having adopted national energy policy and Action Plans	0	2	4	7	9	10
	E2. No. of PICs with draft Energy Legislations	0	0	1	2	3	

Strategy	Indicator	Annual Targets					
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	E3. Updated regional synthesis of the energy sector GHG emission inventory / Energy data base						1
F. Increased awareness and knowledge about RE among key stakeholders	F1. No. of PICs nationals participating in local RE training		50	150	250	350	500
	F2. No. of PICs with comprehensive annual RE awareness programme		3	5	10		

Impact Table

Key Impact Indicators	Target	Means of Verification	Sampling Frequency	Location
Cumulative CO2 emissions reduced	0.37 M tons by 2010 or 2 M tons by 2015	Monitoring and evaluation report on avoided GHG emissions with respect to baseline National communications and GHG inventories	Start, middle and end of the PIGGAREP; Energy Offices to monitor and report after PIGGARREP	PICs
No. of commercially sustainable rehabilitated / upgraded RE projects	3 by 2011	Monitoring & Evaluation based on data from the project sites Project Reports Annual Energy Sector Reports	Same as above	PICs
Total additional RE-based energy system capacity installed in PICs (MW)	At least 100 MW of additional RE installed in PICs by 2015	Registry of companies, files from responsible ministry Power Utilities statistics Annual Energy Sector Reports	Same as above	PICs
Value of income generating opportunities in PICs gained from RE	5 million by 2010	Chamber of Commerce Reports Household income surveys	Same as above, except Trade Department or Ministry	PICs

Key Impact Indicators	Target	Means of Verification	Sampling Frequency	Location
Total value of new investments in RE-based energy systems	100 million by 2015	Trade and Investment Reports Bank Loan reports	Same as above	PICs

Annex 9

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Annex 10

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Operational Criteria for Assistance, Including Allocation of Funds to Individual Countries as Part of the PIGGAREP

PIGGAREP has a total budget of USD 5.23 M from the GEF. From this, 20% or 1.046 M will be for the costs of the PMO. The remaining 80% will then be shared among the 11 participating PICs. The PIGGAREP is, among others, designed based on equal sharing of the required co-financing activities and equal sharing of the GEF resources. Therefore it is proposed that each participating PIC get an indicative total allocation of US$380,000. Out of these, each PIC should set aside US$ 20,000 for local and regional coordination activities, leaving US$360,000 for country specific activities. The US$360,000 is only an indicative amount, which can only be accessed by meeting the following Operational Criteria.

a) Work Plan and Budget.
Each PIC must ensure that the following operational criteria are met for activities to be included in the annual work plan:

1. Activities must be directly linked to an adopted national climate change / energy policy, plan or strategy or link to regional level policies such as the Pacific Islands Framework for Action on Climate Change (PIFACC) and Pacific Islands Energy Policy (PIEP) and associated strategic plan
2. Activities must build on or add value to on-going or planned activities on GHG mitigation (particularly on RE development and utilization)
3. Co-financed activities (i.e., parallel activities that are subsumed to PIGGAREP and/or incremental activities financed from other sources other than GEF) are actual and not fictitious. They should be part of the PIGGAREP log frame (i.e., project planning matrix)
4. Activities must demonstrate a direct positive impact on the performance of existing RE installations or the installations of new RE systems
5. RE development and utilization activities that are implemented during the implementation period of the PIGGAREP
6. Relevant activities are agreed by their respective owners/implementers to be part of the PIGGAREP. In that regard, a letter of co-financing has to be provided by their respective owners/implementers.

b) Rolling of Activities in the Work Plan and Budget

7. Project coordinators in each PIC should as soon as practical inform the PM of any change in circumstance that warrant a carryover of activities to a future annual work plan
8. PICs must utilize and/or commit at least 75% of its approved annual budget

9. PICs can only carryover, from one year to the other, activities to a total of up to 25% of their budget for that year
10. A PIC which spend less than 75% of its annual approved budget shall forfeit from its indicative budget the equivalent of 25% of its approved annual budget minus the actual spending

c) Reallocation from the Indicative Budget of a PIC

11. The MPR shall make recommendations to the PSC on the allocation of forfeited project funds between regional and national activities
12. Reallocation of forfeited funds to national activities shall be no less than 50% of forfeited the amount.

This set of Operational Criteria shall be reviewed at the annual MPR meetings and where necessary and upon consensual agreement of the parties delete, replace and/or make amendments.

Annex 11

Final Draft – PROJECT RISKS

The review of the project risks was based on the Risks and Assumptions section of the ProDoc, which are paragraphs 28 –30, and is presented below:

Risks and Assumptions

28. A detailed overview of risk and assumptions is specified in the Project Planning Matrix (PPM), which is included in Section II. Overall risk for the project is considered moderate. The principal risks, i.e. possible barriers to successful project implementation and externalities that may reduce project effectiveness, relate to: (i) the sustainability of the support by key stakeholders in the region; (ii) lack of interest of the private sector (iii) the price level for conventional energy, i.e. world market development for fossil fuels and (iv) coherence of the PIGGAREP requirements with the co-financing activities in terms of the timing of activities and monitoring and evaluation requirements. Experience in the region has shown that the risk of lacking or fading government support in the field of RE, energy policy and energy sector related institutional development is real, i.e., the project has to establish effective means to monitor and to the extent possible mitigate these risks. Mitigation measures include a strong emphasis on PIC hands-on project management and participation, mobilizing private sector participation and a continuous dialogue between the project's donors, Implementing Partner, implementing agency, regional organizations and national governments.

Summary of Key Project Risks

Key Risk	Level of Risk	Commentary and Mitigating Actions
Ineffective local participation and coordination The capacity in the PICs to effectively coordinate and implement major regional projects is low. At times, the very limited available local capacity is fully absorbed on many externally funded projects thereby diverting attention from higher priority activities.	Low to Moderate	Dedicated project personnel from the existing staff of the designated national host agency assure efficiency of implementing project activities. ~~The project will fund full-time National Project Coordinators (NPC) in each participating country, which governments will absorb into its service at the end of the project.~~ Local authorities should play the lead role in the management of the implementation of their respective project activities.
Ineffective regional coordination and collaboration with the private sector	Low to Moderate	~~Regular meetings of the Project Advisory Committee (PAC) to exchange work programmes and implementation plans.~~

Key Risk	Level of Risk	Commentary and Mitigating Actions
Regional organizations continue to carry out energy-related activities in the PICs on their own losing the potentials for synergetic work towards wider achievement of energy-related objectives		Use the CROP EWG for the coordination of the PIGGAREP with other related regional initiatives of CROP agencies. Participation of the private sector in the PIGGAREP country teams. More collaboration and joint activities with the PPA as the specialized CROP technical agency on Energy. Utilize the expertise within the Energy Working Group (EWG) of the Council of Regional Organisations in the Pacific (CROP)
Failure of the Demonstration Projects A failure of the demonstration projects will essentially mean a return to the BAU scenario with the lack of investor and donor confidence to finance more hardware installations and the possible Regional Renewable Energy Fund (RREF).	Low to Moderate	The package of capacity building and enabling environment activities, centred on each demonstration project, over a period of 5 years with the regular monitoring and progress reporting will facilitate the success of these projects.
Market/Economic External Risks A drop in fossil fuel prices makes RE less attractive to RESCOs and investors.	Low	A significant fall in fossil fuel prices is highly unlikely given that at 2005 oil prices reached an all time high (in nominal prices). A drop in oil prices will not change the environmental attractiveness of the demonstration projects.
Difficulty of synchronizing PIGGAREP M&E requirements with those of the co-financing activities.	Low	Continuous participation of the co-financing partners in the annual MPR meetings. Representation of some of the co-financing partners in the CROP EWG. More active coordination and synchronization activities by the National Coordinators.

Key Risk	Level of Risk	Commentary and Mitigating Actions
OVERALL RISK	**LOW TO MODERATE**	

29. The achievement of the PIGGAREP overall objective is among others based on the assumptions that there will be political stability in the PICs and there will be effective in-country support not only from the governments, but also from the communities too. Oil prices are currently on an all time high and it is assumed that it will stay this way for the foreseeable future. It is furthermore assumed that with successful projects on the ground, there will be confidence in RETs. Thus when communities, governments, investors, etc see, touch, read and hear about successful projects they will give RE their support.

30. As part of the Inception Phase the project risks and assumptions will be reviewed, and where necessary additional project risks will be identified. In addition, also as part of the Inception Phase, a detailed risk management strategy for project implementation will be prepared.

Annex 12

Summary Record of the PIGGAREP Inception Workshop

Introduction

The Inception Workshop of the Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP) was held at the SPREP Headquarter, Apia on 12th –16th November 2007. The workshop objectives were to:

i) Present, review and endorse the draft Inception Phase report;
ii) Assist the key project stakeholders in understanding and taking ownership of, and making commitments to, the project's goals and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the Project Plan Matrix (PPM)/Log Frame. This will include reviewing the PPM (including indicators, means of verification and assumptions), imparting additional detail as needed, and on the basis of this exercise finalize the first Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project;
iii) Introduce key stakeholders to the UNDP-GEF team which will support the project during its implementation, namely the UNDP Principle Project Representative (PPR)/UNDP Samoa, UNDP Fiji and UNDP PNG and the UNDP-GEF Regional Technical Advisor for Energy and Climate Change (E&CC RTA) from the UNDP Regional Centre in Bangkok (RCB) and clarify their roles, support services and complementary responsibilities vis-à-vis the Implementing Partner/SPREP, National Coordinators, Country Teams, etc;
iv) Provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the Annual Project Report (APR), Multi-partite Review meetings (MPR), as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget rephasings, and
v) Provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of References (ToRs) for project staff and decision-making structures will be discussed again, as needed in order to clarify for all, each party's responsibilities during the project's implementation phase.

Workshop Participants

The workshop was attended by representatives from ten (10) Pacific Island Countries (Cook Is, Fiji, Kiribati, Niue, PNG, Samoa, Solomon Is, Tonga, Tuvalu and Vanuatu), UNDP Country Offices in the Pacific (Fiji, PNG and Samoa) and the UNDP Regional Centre in Bangkok (RCB), Pacific Power Association (PPA), Secretariat of the Pacific Applied Geoscience Commission (SOPAC), the Renewable Energy and Energy Efficiency Partnership's (REEEP) South East Asia and Pacific Regional Secretariat, the Project Management Unit for the Renewable Energy Programme for 5 PICs (REP-5) and a Non-Governmental Organisation (Alofa Tuvalu). An apology was received from Nauru. The Participants List is attached as **Annex 12a**.

Session 1: Registration and Official Opening

The Agenda is attached an **Annex 12b**. Reverend Lotu Uele led the workshop with a prayer. Mr. Asterio Takesy, Director of SPREP, delivered the Welcome Address while the Opening Remarks was by Ms. Naheed Haque, Resident Representative of the UNDP Samoa Multi-Country Office. The Opening Address was by Hon. Tapuai Sepulona Moananu, Associate Minister of Environment, Ministry of Natural Resource and Environment, Government of Samoa. The drafted texts of the speeches during the workshop's Opening Ceremony are attached as **Annex 12c**.

Session 2: Overview of PIGGAREP & Draft Inception Phase Report [Facilitator: Silia Kilepoa-Ualesi]

The objective of this session was to provide an overview of PIGGAREP as well as present the draft Inception Report, which is one of the key deliverables from the Inception Phase.

Mr Thomas Jensen of UNDP Samoa presented an overview of the PIGGAREP Project Document (ProDoc) highlighting that it is more than 3 years since the submission of the Project Brief in March 2003 and hence the need now to review the ProDoc. The presentation also covered the baseline situation for the PIGGAREP, its goal, objectives, outputs, strategies and activities. The management arrangement for the PIGGAREP was presented together with the risks, M & E format and the GEF budget for the project.

The PIGGAREP Project Manager presented the draft Inception Report which contained review of the signed ProDoc conducted by the Project Management Office (PMO). The review covered the following key areas:

i) The institutional arrangements;
ii) The role and responsibility of various participants for achieving the project outcomes;
iii) The project management arrangements (organizational chart);
iv) The Monitoring and Evaluation (M&E) for the implementation of the project;

v) The co-financing activities;
vi) Capacity of the NCs and Country Teams;
vii) Project Operation Manual (POM);
viii) Operational criteria for assistance;
ix) The project risks;
x) An overall work plan for the first year of implementation;
xi) Disbursement of Project funds, and
xii) Strategic linkages at the national and regional levels

The outcomes of the review were sixteen (16) recommendations. These recommendations were introduced to the participants to think about during the week and to be revisited, discussed and endorsed or otherwise later in the week in **Session 9**.

Session 3: UNDP/GEF Project Cycle [Facilitator: Benjamin Jesse]

The objective of this session was to provide an overview of the UNDP/GEF project cycle in particular monitoring and evaluation (M & E) requirements during implementation phase. Ms Karakate Bhamornbutr of the UNDP RCB provided an Overview of GEF/UNDP Project cycle covering the progression from a concept, to a proposal, to a project document and then to the implementation. The concepts of delegation of authority and authorized spending limit were covered together with the various roles of the UNDP Country Offices, UNDP-GEF Regional Coordination Unit and the UNDP-GEF Headquarter in a project.

Mr Manuel Soriano presented UNDP-GEF's specific M & E requirements, highlighting GEF's strategic emphasis on impact, sustainability and replicability. The presentation also highlighted the need for the PIGGAREP activities to be monitored and reported together with their corresponding co-financing activities.

Session 4: Work Plans and Budgets [Facilitator: David Akaruru]

The objective of this session was to present the 11-draft country work plans and budgets and the proposed revised overall PIGGAREP work plan and budget

Each of the participating PICs presented their draft work plans and budget. The PIGGAREP Project Manager presented Nauru's. The activities to be supported by the PIGGAREP were mentioned together with their co-financing activities. While PICs were earlier advised to keep their budgets within US$360,000 some went above this number with a reserve list of projects/ activities.

The Project Manager managed to put together all the 11 work plans and budgets into a draft overall work plan and budget for 2008. The total budget for 2008, not including the PMO costs, totaled US$893, 254.

Session 5: Parallel and Co-Financing Activities and Opportunities [Mafalu Lotolua]

The objective of this session was to confirm and coordinate all co-financing sources with the PIGGAREP work plan including to clarify how PIGGAREP and various key initiatives/opportunities fit together in PICs renewable energy development efforts. This session also facilitated the clarification of the role and responsibility of various stakeholders for achieving the project outcomes; establish links and coordination between participants and activities; linking each participant to the work plan and delivery of project outcomes; and, strengthen links to project stakeholders.

Presentations were from the PPA, the Danish-funded Pacific Islands Energy Policy and Strategic Action Planning (PIEPSAP) project, SOPAC's core energy programme, REEEP, REP-5 PMU, the 10th European Development Fund, Alofa Tuvalu and the UNDP Samoa Country Office.

Session 6: Other Climate Change and Energy Sector Linkages and SPREP Integration [Facilitator: Tony Neil]

The objective of this session was to raise awareness on important climate change and energy sector linkages and to demonstrate how the implementation of PIGGAREP activities will be integrated into other activities of SPREP.

Jan Cloin of SOPAC gave a presentation on a planned joint SOPAC, SPREP and UNDP capacity building project on CDM.

Thomas Jensen of the UNDP Regional Centre in Bangkok (RCB) provided an overview of key findings of the recently launched advocacy report Overcoming Vulnerability to Rising Oil Prices: Option for Asia and the Pacific.

Seve Paeniu of SPREP gave two presentations on Mainstreaming and the National Sustainable Development Strategy strengthening in the PICs and an Update on the GEF Pacific Alliance for Sustainability (GEF PAS).

Dr Frank Griffin of SPREP gave a presentation on Wastes and the Energy Sector.

Tamara Logan and Nanette Wontoon of SPREP gave the workshop lively presentations on a Communication Strategy for disseminating PIGGAREP news, lessons learnt and information as well as tips on how to deal with the media.

Session 7: Reviewing the Project Plan Matrix [Facilitator: Kireua Kaiea]

The objective of this session was to review and finalize the Project Plan Matrix (PPM)/Log Frame covering: a) goal and objective/purpose statements; b) component objective statements; c) individual success indicators; d) baseline and target figures for

each indicator; e) means of verification of each indicator; and f) assumptions for each indicator.

This session provided an opportunity to review the original PIGGAREP PPM. A bottom-up approach was taken in which each PIC translated their work plans and budgets, presented in Session 4, into a Project Planning Matrix / Log frame. Resources persons from the agencies and programmes present at the workshop assisted each PIC with the construction of their PPMs.

Following from the PPM, each country was to then compile its own Annual Targets and Monitoring Plan.

The 11 individual PPMs, Annual Targets and Monitoring Plans were then to be combined into regional ones, which will then replace the originals in the ProDoc.

Session 8: Lessons Learnt from Earlier & Ongoing GEF and UNDP Regional Environment and Energy Interventions [Facilitator: David Akaruru]

The objective of this session was to provide operational level experiences and lessons learned from past and on-going GEF and UNDP energy and environment projects and programs in the Pacific.

The workshop was presented with experiences and lessons learnt from the South Pacific Biodiversity Conservation Programme (SPBCP) and Strategic Action Plan for International Waters (SAP-IWP), the Pacific Islands Climate Change Action Programme (PICCAP), the Pacific Islands Renewable Energy Project (PIREP) as well as the PIEPSAP project. All presentations highlighted the operational difficulties involved in advancing project funds to a multiple number of PICs. The PIREP and PIEPSAP presentations highlighted that is possible to implement regional projects with minimal advancement of project funds to PICs.

Session 9: Project Management Structure [Facilitator: 'Ofa Sefana]

The objective of this session was to review and finalize project management structure at country as well as regional levels.

The workshop revisited the recommendations in the draft Inception Report and the following are the outcomes of the discussions:

Recommendation 1

The Inception Workshop agreed with the retention of the proposed PMO costs at 20% of the project budget by:

- Replacing the AFO position with two support staff positions of Assistant Project Accountant (APA) and Project Assistant (PA);

- Moving the budget for PICs attendance at multipartite review meetings to the indicative budget allocation per PIC, and
- That the temporary positions of Task Specialist in the PMO be deleted.

Concerns were raised about the capacity of the PMO to effectively manage the PIGGAREP with the options of either recruiting an assistant at professional officer level to assist the PM or support through training attachments. It was agreed that the capacity of the PMO be reassessed in mid-2008 with the appropriate recommendation to be made to the first multipartite review (MPR) meeting.

Recommendation 2

The Inception Workshop agreed with the following clarifications:

- That the use of the term "Country Team" in the ProDoc is for purposes of project activities coordination rather than referring to a name of a team in the country that specifically work on PIGGAREP activities;
- That the term "**National Project Coordination (NPC)"** be the generalized name for the institutional setup for coordination of PIGGAREP activities in the country regardless of the actual names of the institutions involved, and;
- That each NPC shall have an established rules and procedures for its meetings.

Recommendation 3

The Inception Workshop agreed:

- That the coordination of PIGGAREP at the regional level be through the CROP EWG rather than a PIGGAREP PAC, and
- That the PAC be removed from the institutional and management structure of the PIGGAREP.

Recommendation 4

The Inception Workshop approved that:

- A PSC for the PIGGAREP and its ToR, as shown Annex 3 be part of the project management structure;
- UNDP Fiji and UNDP PNG will be represented in the committee and that the four PIC representatives will be Tonga, Tuvalu, Vanuatu as the regional representatives with Fiji as the non-regional representative.
- One of the three regional representatives and the non-regional representative be rotated on an annual basis. .

Recommendation 5

The Inception Workshop agreed with the clarifications that:

- The role of the national coordinator, which should not automatically be viewed as a (full-time) position, as in addition to normal duties of an existing staff in the designated national host agency, and
- On a case-by-case basis, any needed additional national project-paid staff should be clearly justified and preferably be cost-shared among on-going and planned regional/sub-regional interventions.

Recommendation 6

- The Inception Workshop approved the proposed revised overall role and responsibility of the various participants in the PIGGAREP as presented in **Annex 6.**

Recommendation 7

- The Inception Workshop agreed with the revised PIGGAREP organization chart, as in **Annex 7**.

Recommendation 8

- The Inception Workshop agreed that each PIC finalize their Project Planning Matrices as well as their Annual Targets and submit them to the PMO by 28th November 2007 for consolidation.

Recommendation 9

- The Inception Workshop agreed that the PICs and the PMO continue to work towards urgently confirming the co-financing activities, ensuring that they are subsumed to PIGGAREP with clear amounts for these parallel activities.

Recommendation 10

- The Inception Workshop agreed that the project implementation should as much as possible involve hands-on involvement of national counterparts and experts as part of the project's capacity building effort.

Recommendation 11

- The Inception Workshop agreed with the use of the UNDP Results Management User Guide instead of a POM for the project implementation, with the provision for a reassessment of the need for a POM in six months' time.

Recommendation 12

- The Inception Workshop approved the proposed Operational Criteria for assistance under the PIGGAREP, as presented in **Annex 10**.

Recommendation 13

- The Inception Workshop agreed that each PIC complete their respective PPM and submit to the PMO which will then compile the overall project risks and consult PIC s on the mitigation strategies.

Recommendation 14

- The Inception Workshop agreed that they will finalize their revised work plans and submit to the PMO by 28th November so as to allow the PMO to consolidate these and come up with the proposed overall work plan and budget for 2008.

Concerns were raised concerning the need to streamline activities in the PIC work plans and budgets to make them more practical and achievable.

Recommendation 15

The Inception Workshop agreed that the:

- Implementation of the PIGGAREP be through direct payments and reimbursements basis and only in exceptional circumstances advanced payment of project funds, and;
- Reassessment of the effectiveness of the proposed payment at the first TPR meeting in 2008.

Recommendation 16

- The Inception Workshop agreed that the PICs and regional project stakeholders ensure that their respective PIGGAREP activities are linked to their MDG, Pacific Plan and National Development Strategy effort and that proper acknowledgement of PIGGAREP and its key stakeholders (GEF, UNDP and SPREP) are made, as appropriate.
- Agreed that the PM take recommendations 1-16 above into account in revising the preliminary draft inception report and to circulate a final draft Inception Report, including a final Workshop Summary Record, by December 10th 2007.
- Agreed that December 20th 2007 be the last day for any further inputs and comments on the final draft Inception Report and for the final version to be circulated to the project stakeholders before the end of 2007.

Session 10: Project Risk and M & E Plan [Facilitator: Idau Kopi]

The objective of this session was to finalize the risk management strategy for project implementation and review and finalize the PIGGAREP Monitoring and Evaluation Plan including the Annual Targets Table.

Participants from the PICs, assisted by the workshop resource people, continued translating their draft works plans and budgets into PPMs / Log frames thereby identifying the indicators, the means of verification and the assumptions made and risks anticipated. The PPM and log frames were then translated into an Annual Targets Table and a Monitoring Plan.

Session 11: Training

The objective of this session were to provide some training on quantifying / estimating GHG emission.

Manuel Soriano from the UNDP/GEF gave a presentation on how to estimate GHG emission. This was to enable participants to estimate the GHG emission reductions based on their respective work plans and budgets.

Session 12: Summary Record & Next Steps [Facilitator: Nixon Kua]

The objective of this session were to review and endorse the workshop Summary Record and to outline the next steps before implementing project activities on the ground.

The workshop agreed that each PIC be given another opportunity to go back to their respective countries and further consult their country teams and finalize their Work Plans and Budgets, PPM's / Log frames, Annual Targets and Monitoring Plans and submit them to the PM by 28th November 2007.

The PSC will have a teleconference in January 2008 on the work plan and budget for the first quarter of 2008. Meanwhile, PICs were encouraged to start planning for the implementation of their activities to immediately at the beginning of the first quarter of 2008.

The summary record was agreed to by consensus.

The workshop was closed with a prayer by Ms Silia Kilepoa-Ualesi

Workshop Presentations and Working Papers
A CD containing the workshop presentations and working papers was given to the participants at the end of the workshop.

Annex 12a

Participants List

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13. SOPAC Mr Gerhard Zieroth Project Manager – PIEPSAP SOPAC Suva	**14. SOPAC** Mr Jan Cloin Energy Adviser SOPAC Suva	**15. European Union** Mr Thomas Opperer European Union Delegation of the European Commission to the Pacific

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Annex 12b

PIGGAREP Inception Workshop

Final Agenda

INTRODUCTION

The overall objectives of the Inception Workshop (IW) are to:

1. Present, review and endorse the draft Inception Phase report;

2. Assist the key project stakeholders to understand and take ownership of the project's goals and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the Project Plan Matrix (PPM)/Log Frame. This will include reviewing the PPM (including indicators, means of verification and assumptions), imparting additional detail as needed, and on the basis of this exercise finalize the first Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project;

3. Introduce key stakeholders to the UNDP-GEF team which will support the project during its implementation, namely the UNDP Principle Project Representative (PPR)/UNDP Samoa, UNDP Fiji and UNDP PNG and the UNDP-GEF Regional Technical Advisor for Energy and Climate Change (E&CC RTA) from the UNDP Regional Centre in Bangkok (RCB) and clarify their roles, support services and complementary responsibilities vis-à-vis the Implementing Partner/SPREP, National Coordinators, Country Teams, etc;

4. Provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the Annual Project Report (APR), Tripartite Review Meetings, as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget rephasings, and

5. Provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of References (ToRs) for project staff and decision-making structures will be discussed again, as needed in order to clarify for all, each party's responsibilities during the project's implementation phase.

MONDAY	**12th NOVEMBER**
SESSION 1:	**REGISTRATION AND OFFICIAL OPENING**
0830 – 0900	Registration
0900 – 0930	Prayer [Reverend Lotu Uele] Welcome Address [Mr Asterio Takesy, Director of SPREP] Opening Remarks [Ms Naheed Haque, Resident Representative, UNDP Samoa Multi-Country Office] Opening Address [Hon. Tapuai Sepulona Moananu, Associate Minister of Environment, Ministry of Natural Resource and Environment, Government of Samoa]
0930 – 1000	*Morning Tea*
1000-1030	Introductions by participants including expectations
SESSION 2:	**OVERVIEW OF PIGGAREP & DRAFT INCEPTION PHASE REPORT [Facilitator: Silia Kilepoa-Ualesi]** *The objective of this session is to provide an overview of PIGGAREP as well as present the draft Inception Report, which is one of the key deliverables from the Inception Phase*
1030 – 1100	Overview of PIGGAREP Project Document [Thomas Jensen, Energy Adviser, UNDP Samoa]
1100 - 1200	Presentation of draft Inception Phase report [PM-PIGGAREP]
1200 – 1230	Q&A
1230 – 1330	*Lunch*
SESSION 3:	**UNDP/GEF PROJECT CYCLE [Facilitator: Benjamin Jesse]** *The objective of this session is to provide an overview of the UNDP/GEF project cycle in particular M&E requirements during implementation phase*
1330 – 1400	Overview of GEF/UNDP Project cycle with a focus on the Implementation Phase [Karakate Bhamornbutr, UNDP-GEF]
1400 -1430	Presentation of UNDP-GEF specific monitoring and evaluation (M & E) requirements [Manuel Soriano, UNDP-GEF]
1430 – 1500	Q&A

1500 – 1530	*Afternoon Tea*
SESSION 4:	**WORK PLANS AND BUDGETS [Facilitator: David Akaruru]** *The objective of this session is to present the 11 draft country work plans and budgets and the proposed revised overall PIGGAREP work plan and budget*
1530 - 1700	Presentation of draft Country Work Plan & Budgets [PICs delegates]

END OF DAY 1

TUESDAY	**13th NOVEMBER**
SESSION 4: Cont'd	**WORK PLANS AND BUDGETS [Facilitator: Molipi Tausi]**
0830 - 1000	Presentation of draft Country Work Plan & Budgets [PICs delegates]
1000 –1030	*Morning Tea*
SESSION 5:	**PARALLEL AND CO-FINANCING ACTIVITIES AND OPPORTUNITIES [Mafalu Lotolua]** *The objective of this session is to confirm and coordinate all co-financing sources with the PIGGAREP work plan including to clarify how PIGGAREP and various key initiatives/opportunities fit together in PICs renewable energy development efforts. This session will also facilitate the clarification of the role and responsibility of various stakeholders for achieving the project outcomes; establish links and coordination between participants and activities; linking each participant to the work plan and delivery of project outcomes; and, strengthen links to project stakeholders.*
1030 -1100	PPA - e8 Collaboration [Tony Neil, Executive Director, PPA]
1100 - 1130	PIEPSAP [Gerhard Zieroth, Project Manager, PIEPSAP]
1130 – 1200	SOPAC Core Energy Programme [Jan Cloin, Energy Adviser, SOPAC]
1200 – 1230	REEEP [Ms Eva Oberender, Policy and Programme Officer, SE Asia and Pacific Regional Secretariat for REEEP].

1230 – 1330	*Lunch*
1330 - 1400	REP – 5 [Ms Katerina Syngellakis, Senior Engineer, REP-5 PMU]
1400 - 1430	EDF 10 REP-7 [Thomas Opperer, EU Office in Apia]
1430 – 1500	Alofa Tuvalu [Molipi Tausi]
1500 – 1530	*Afternoon Tea*
1530 – 1630	UNDP Samoa Multi-Country Office [Thomas Jensen]

END OF DAY 2

WEDNESDAY 14th NOVEMBER

SESSION 6: OTHER CLIMATE CHANGE AND ENERGY SECTOR LINKAGES AND SPREP INTEGRATION [Facilitator: Tony Neil]

The objective of this session is to raise awareness on important climate change and energy sector linkages and to demonstrate how the implementation of PIGGAREP activities will be integrated into other activities of SPREP.

0830 – 0900	Introduction to the joint SOPAC-SPREP-UNDP CDM Capacity Building Project [SOPAC/SPREP/UNDP]
0900 – 0930	Overcoming Vulnerability to Rising Oil Prices: Options for Asia and the Pacific [Thomas Jensen, Associate Programme Specialist, UNDP REP-PoR]
0930 – 1000	Mainstreaming Climate Change/Energy and the climate change and the energy-related outcomes of the SIS Leaders' and the Forum Leaders' meetings [Seve Paeniu, Sustainable Development Adviser, SPREP]
1000 – 1030	*Morning Tea*
1030 – 1100	An update on the GEF PAS [Seve Paeniu, Sustainable Development Adviser, SPREP]
1100 – 1130	Marine Pollution and the Petroleum Sector [Dr Frank Griffin, Pollution Prevention and Waste Management Adviser, SPREP]
1130 – 1200	Public Awareness [Tamara Logan, Education and Social Communications Officer, SPREP]

1200 – 1230 Writing Press Releases [Nanette Woonton, Associate Media and Publication Officer, SPREP]

1200 – 1300 Lunch

A break was included mid-week to provide an opportunity for informal bi-lateral discussions between agencies and the PIC representatives.

FIELD TRIP in the afternoon

END OF DAY 3

THURSDAY 15th NOVEMBER

SESSION 4: Cont'd WORK PLANS AND BUDGETS [Facilitator: Speedo Hetutu]

0830 – 0915 Proposed overall revised PIGGAREP Work Plan and Budget including 2008 Annual Work Plan and Budget [PM-PIGGAREP]

SESSION 7: REVIEWING THE PROJECT PLAN MATRIX [Facilitator: Kireua Kaiea]

The objective of this session is to review and finalize the Project Plan Matrix (PPM)/Log Frame covering: a) goal and objective/purpose statements; b) component objective statements; c) individual success indicators; d) baseline and target figures for each indicator; e) means of verification of each indicator; and f) assumptions for each indicator.

0915 - 1000 Presentation of the current Project Planning Matrix (PPM) / Log Frame [PM-PIGGAREP]

1000 – 1030 Morning Tea

1030 - 1230 Review and finalization of Project Plan Matrix [PM-PIGGAREP & Manuel Soriano, UNDP-GEF]

Note: The following will be covered in the review: a) Goal and Objective/Purpose statements; b) Component objective statements; c) Individual success indicators; d) Baseline and target figures for each indicator; e) Means of verification of each indicator; and f) Assumptions for each indicator.

1230 – 1330 Lunch

SESSION 8:	**LESSONS LEARNT FROM EARLIER & ONGOING GEF AND UNDP REGIONAL ENVIRONMENT AND ENERGY INTERVENTIONS [Facilitator: David Akaruru]** *The objective of this session is to provide operational level experiences and lessons learned from past and on-going GEF and UNDP energy and environment projects and programs in the Pacific*
1330 – 1400	South Pacific Biodiversity Conservation Programme (SPBCP) and Strategic Action Plan for International Waters (SAP-IWP) [Easter Galuvao, UNDP Samoa]
1400 – 1430	Pacific Islands Climate Change Adaptation Programme (PICCAP) and Pacific Islands Renewable Energy Project (PIREP) [PM – PIGGAREP]
1430 -1500	PIEPSAP [Gerhard Zieroth, Project Manager, PIEPSAP]
1500 – 1530	*Afternoon Tea*
SESSION 9:	**PROJECT MANAGEMENT STRUCTURE [Facilitator: 'Ofa Sefana]** *The objective of this session is to review and finalize project management structure at country as well as regional levels*
1530 – 1600	Presentation of current Project Management Structure including proposed revision and changes to Terms of References [PM-PIGGAREP]
1600 – 1630	Proposed operational criteria for PIGGAREP assistance to be used when allocating funds to participating PICs [PM-PIGGAREP & UNDP Samoa]

END OF DAY 4

FRIDAY	**16th NOVEMBER**
SESSION 10:	**PROJECT RISK AND M&E PLAN [Facilitator: Idau Kopi]** *The objective of this session is to finalize the risk management strategy for project implementation and review and finalize the PIGGAREP M&E Plan including the Annual Targets Table.*

0830 - 0900	Presentation of project risk including update and proposed risk management strategy [PM-PIGGAREP]
0900 – 0930	Presentation of PIGGAREP M&E Plan [PM-PIGGAREP]
0930 – 1000	Review and finalize the PIGGAREP M&E Plan [PM-PIGGAREP & Manuel Soriano, UNDP-GEF]
1000 – 1030	*Morning Tea*
1030 – 1130	Review and finalize the PIGGAREP M&E Plan [PM-PIGGAREP & Manuel Soriano, UNDP-GEF]
SESSION 11:	**TRAINING** *The objective of this session is to provide some training on quantifying / estimating GHG emission.*
1130 - 1230	Quantifying/Estimating GHG Emission [Manuel Soriano, UNDP-GEF]
1200 - 1300	*Lunch*
SESSION 12:	**SUMMARY RECORD & NEXT STEPS [Facilitator: Nixon Kua]** *The objective of this session is to review and endorse the workshop Summary Record and to outline key next steps*
1330 - 1400	Presentation of draft Summary Record [PM-PIGGAREP]
1400 - 1500	Discussion and endorsement of Summary Record
1500 – 1530	*Afternoon Tea*
1530 -1600	Next Steps including: a) timeline for review and endorsement of the work plans and budget; b) future project meetings, and c) revision and signature of revised Project Document

END OF WORKSHOP

Annex 12c

Speeches during the Workshop's Opening Ceremony

Welcome Address
By Mr Asterio Takesy, Director of SPREP

- Reverend Lotu Uele
- Hon. Tapuai Sepulona Moananu, Associate Minister of Environment for the government of Samoa
- Ms Naheed Haque, UNDP Resident Representative, UNDP Country Office in Samoa
- Representatives from the UNDP Regional Centre in Bangkok
- Representatives of the UNDP Country Offices in Fiji and Papua New Guinea
- Executive Director of the Pacific Power Association and representatives of CROP agencies
- Co-financing partners, collaborating agencies and programmes
- Distinguished Country Representatives
- Ladies and Gentlemen

First of all let me say thank you very much to Reverend Lotu Uele for the inspiring reminder from the Words of the Creator and the prayer this morning.

I have the honour to say **Talofa** and a very good morning to you all and welcome to the SPREP Secretariat - your regional agency that has been tasked with promoting cooperation in the Pacific islands region and providing assistance in order to protect and improve the environment and to ensure sustainable development for present and future generations.

In protecting and improving the environment of the region, SPREP can't ignore the fact that our region faces major environmental threats, which will adversely affect the lives of all peoples in our region. One of these is Climate Change, a priority global subject that has consistently featured and discussed at the annual meetings of the Forum Leaders.

The world is currently trying to address Climate Change through Adaptation measures and reducing the emission of greenhouse gases. We all know that the region's greenhouse gas emission is insignificant compared to other regions of the world. We also know that as a region, we are among the most vulnerable to the impacts of climate change. But the dilemma we have is that while we are the most vulnerable, we are also heavily relying on fossil fuel, which produces most of the greenhouse gas emissions. So while we are most vulnerable to the impacts of climate change, our small economies are equally most vulnerable to the prices of fossil fuel – which has recently reached US$90 per barrel.

But with these most vulnerables, we are also the regions with the highest renewable energy potential per capita in the world. We are in the midst of the largest ocean on earth with its unlimited wave, tidal and ocean thermal energy. We are scattered around the

Tropics where the sun always shine, there are flowing water and the climate is conducive to the planting of energy trees. The tropical wind is always blowing and we are along the Pacific Rim of Fire with its potential for geothermal power generation.

The challenge we have, therefore, is to participate in the global effort to reduce greenhouse gas emission in such a way that will also advance our other sustainable development effort. It therefore makes sense that our region reduces our greenhouse gas emission by harnessing our renewable energy resources and at the same time facilitates the access to clean, reliable and cost-effective energy sources for our manufacturing and service industries, water supplies, health services, education, transportation, telecommunication and etc. This is what I believe our collective effort on the PIGGAREP should provide to our region and I encourage you to keep this in mind during the course of your workshop.

It would be a remiss on my part not to acknowledge that PIGGAREP is another key milestone in the long history of close and strong collaborations between SPREP, UNDP and the GEF to address the sustainable development challenges of the region. I would therefore like to thank the Resident Representative and her UNDP colleagues and the GEF for their continuous support and assistance. I have no doubt that PIGGAREP will be a platform from which to launch various similar partnerships and collaborations on greenhouse gas mitigation and renewable energy for our region.

I wish you all the best in your workshop. Once again welcome to SPREP. Do take time out to look around our facilities and feel free to contact any of my staff if they will be of any assistance to you.

Soifua

Opening Remarks

By Ms Naheed Haque, Resident Representative, UNDP Samoa Multi-Country Office

- Hon. Tapuai Sepulona Moananu, Associate Minister of Environment, Ministry of Natural Resource and Environment, Government of Samoa,
- Director of SPREP, Mr. Asterio Takesy,
- Distinguished representatives of countries participating in the PIGGAREP project,
- Officials from CROP organizations,
- UNDP colleagues,
- Ladies and Gentlemen.

It is with great pleasure that I, on behalf of the United Nations Development Programme (UNDP) Samoa Multi-Country Office welcome you to this week's deliberations as part of the Inception Workshop for the Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project - or PIGGAREP for short.

PIGGAREP as you are aware is a five (5) year climate change mitigation project in 11 Pacific Island Countries. The project is funded by the Global Environment Facility (GEF) with a total approved budget of US$5.23 million and is executed by SPREP. UNDP is the GEF Implementing Agency for PIGGAREP.

UNDP supports energy activities to reduce poverty and achieve sustainable development objectives at the local, national and global levels. Its work is focused on strengthening national policy frameworks to support energy for poverty reduction; promoting rural energy services to support growth and equity; promoting clean energy technologies to mitigate climate change; and increasing access to investment financing for sustainable energy. Activities in these areas complement and help integrate GEF programmes in the field of climate change and support sustainable livelihoods.

Let me mentioning two recent examples that illustrate the context in which PIGGAREP will be implemented and the timeliness as well as the very significant opportunities it provides.

Firstly, in the Communiqué from the 38th the Pacific Islands Forum meeting in Tonga the leaders reiterated their deep concern over the serious and growing threat posed by climate change to the economic, social and environmental well being of Pacific Island Countries, their communities, peoples and cultures. In addition they welcomed the guidance from the International Panel on Climate Change (IPCC) that it is physically and economically feasible to mitigate climate change and that with concerted international support, adaptation can also succeed. Conversely, without serious action, the global economy and the fragile resources of the Pacific will be severely affected.

Secondly, end of last month, UNDP launched the advocacy report 'Overcoming Vulnerability to Increasing Oil Prices – Options for Asia and the Pacific'. As part of this report a unique Oil Price Vulnerability Index (OPVI) was created. The OPVI is a composite of selected indicators that reflects not just a country's economic performance and the resilience of its economy, but also to the extent to which it depends on imported oil. For the 24 Asia-Pacific countries for which comparable data was available and for which the index initially has been calculated, of the seven (7) most vulnerable, four (4) is Pacific Island Countries. And the most vulnerable country is the Maldives, a Small Island Developing State (SIDS) like the Pacific Island Countries. We now are rapidly approaching US$100 a barrel, which further will increase the negative macro-and micro level impacts not only economically, but just as importantly socially and environmentally. Later this week there will be a presentation of the key findings in this report including the OPVI and perhaps you will reflect on the implications on your own respective countries.

Which brings me back to the project at hand. To recapitulate then the global environment and development goal of PIGGAREP is the reduction of the growth rate of green house gas (GHG) emissions from fossil fuel use in the Pacific Island Countries through the removal of the barriers to the widespread and cost effective use of feasible renewable energy technologies. And the specific objective of the project is the promotion of the productive use of renewable energy to reduce GHG emission by removing the major barriers to the widespread and cost-effective use of commercially viable renewable energy technologies.

PIGGAREP began implementation on the 9th of July 2007 with the commencement of Solomone Fifita as Project Manager. The first 4-months of the project were set aside for an Inception Phase. As part hereof consultation workshops in the participating countries were undertaken covering aspects such as management issues, risks and preliminary draft country work plans and budgets. The expected key outcome from the Inception Phase is a revised UNDP Project Document including in particular updated and detailed country work plans and budgets.

The Inception Phase is of particular importance in this case due to the very significant time lag between initial project design and actual implementation. As such there is a need for adaptive management to reflect major changes in the project environment. In addition we now are at the end of the inception period and therefore it is paramount that suggestions, issues, and concerns in particular by the participating countries concerning the current project design and set-up are voiced at this point in time.

The key overall objectives of the Inception Workshop this week includes: 1) to present, review and endorse the draft Inception Phase report; 2) to assist key project stakeholders to better understand and take ownership of the project's goals and objectives: 3) to finalize the first annual work plan; 4) to provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements; and 5) to enable all major parties to understand their roles, functions, and responsibilities within the project's decision-making structures.

In addition this week's workshop will be an opportunity to introduce you as key stakeholders to the UNDP/GEF team which will support the project during its implementation. These include: UNDP Samoa Multi-Country Office as the UNDP Principle Project Representative (PPR), UNDP Fiji, UNDP PNG and finally but not least the UNDP-GEF Regional Technical Energy and Climate Change team from the UNDP Regional Centre in Bangkok (RCB).

We would like to express our gratitude towards the GEF for providing the resources for PIGGAREP. This new cooperation project adds substantially to the support provided by GEF to the Pacific Island Countries towards climate change mitigation. In addition we would like to thank very much SPREP for hosting this week meetings.

Finally we sincerely hope that full support and cooperation will be provided from the participating counties and collaborating partners to ensure the successful implementation of the PIGGAREP so that the targeted goal and objective are realized to make a difference to the lives of the Pacific people.

With these words I hereby wish you the best for a successful and rewarding week.

Thank you.

Opening Address

By Hon. Tapuai Sepulona Moananu, Associate Minister of Environment, Ministry of Natural Resource and Environment, Government of Samoa.

- Reverend Lotu Uele
- Mr Asterio Takesy, Director of SPREP
- Ms Naheed Haque, UNDP Resident Representative, UNDP Country Office in Samoa
- Representatives from the UNDP Regional Centre in Bangkok
- Representatives of the UNDP Country Offices in Fiji and Papua New Guinea
- Executive Director of the Pacific Power Association and representatives of CROP agencies
- Distinguished Country Representatives
- Ladies and Gentlemen

On behalf of the government and the people of Samoa, I would like to say Talofa Lava and to extend a warm welcome to you all to the shores of Samoa. I am sure this is not the first time for many and for the first timers, I am sure this will not be your last visit to Samoa.

In September this year, we launched Samoa's National Energy Policy after our Cabinet endorsed it. This national policy highlights the priority that the Samoa government places on renewable energy. Renewable Energy will improve the security of our overall energy supply. It is a solution to the environmental problems that we get from fossil fuel but also to the economic burdens of heavily relying on a finite commodity that is concentrated in the most volatile area of the world – the Middle East.

As we are all too familiar with, over the past two years there has been a marked rise in oil prices, with crude oil prices continuing to rise to a record peak of above US$90/bbl this month, which will no doubt be reflected in increased product prices.

The Forum Secretariat has estimated that fuel imports are now triple the value of merchandise exports in Kiribati, Samoa and FSM. In the case of Fiji, its combined export earnings in 2006 from three of the country's major industries, gold, sugar and textiles, only accounted for two-thirds of the country's total fuel import bill.

It is estimated that for every $10 increase in the price of oil, national incomes for the Federated States of Micronesia and Kiribati reduce by over 4% and by at least 2% in Tonga, Tuvalu, Palau and the Solomon Islands. The effect is significant since the price of oil has increased by approximately $45 since 2002, which translates into at least 5 years of lost growth for some island countries.

These indicators clearly demonstrate the serious impact that increases in the cost of fossil fuels have had and will continue to have on our fragile economies. It is therefore imperative that we need to urgently accelerate our effort to utilize our renewable energy resources.

Samoa is currently generating around 45% of its electricity from renewable energy – hydropower. And to demonstrate the priority and confidence that we have on renewable energy, government is presently working on a Power Sector Expansion loan from the Asian Development Bank to further harness our hydro and other renewable energy resource potentials. I understand from your programme that you will have an opportunity to visit some of our hydro and wind monitoring sites.

I have been informed that the PIGGAREP is funded by the Global Environment Facility (GEF) whose resources are supposed to add value to on-going and planned activities on renewable energy. I also understand we have with us this morning some of the key donors, agencies and programmes on renewable energy in the region. I therefore sincerely hope that some joint activities and partnerships will be established during the course of your workshop.

A regional project such as PIGGAREP covering 11 Pacific Island Countries and involving many country-specific activities has many challenges. We are well too aware of previous experiences from earlier GEF-funded projects. But I would put it to you the PIGGAREP National Coordinators from the participating islands countries. The success of the PIGGAREP and the useful impacts it will have on your respective countries are entirely within your hands. So I'll challenge you all to be proactive, innovative, efficient and diligent in performing your responsibilities in the PIGGAREP. No doubt the success of the PIGGAREP will open the door for more resources from the GEF for our region.

I wish you all the best with your deliberations and I am honored to declare this PIGGAREP Inception Workshop open.

Soifua

Annex 13

Revised 2008 Overall Project Work Plan and Budget

This 2008 overall work plan and budget contains priority activities identified through a consultative process by the 11 PICs participating in the PIGGAREP. It contains a general indication of what the PICs intend to carry out with PIGGAREP's support, in the pursuit of its renewable energy development efforts. It is not the intention of this overall work plan to detail how the baseline and incremental activities interact in each of the identified activities. Nor is it possible to give each activity a title that comprehensively covers the details of the incremental activities.

This work plan is however an initial step in the country level project activity approval process of the PIGGAREP. From this work plan, each PIC will then extract each activity and develop it through a Project Activity Summary (PAS) template (with further detailing in project proposals, TOR, etc as required). It is in the PAS that information about the specific baseline and the incremental activities are provided and where the titles for incremental activities can be modified to better reflect the characteristics and details of the incremental activities (as they eventuate). The budget for each activity will be detailed in the PAS and it will here that cost items will be classified as either "direct payments" or "reimbursements" – the two preferred methods that were approved at the Inception Workshop. Each PAS will then be approved by the PSC.

This overall project level work plan is therefore "work in progress" that attempts to retain the country-drivenness and country-specific characteristics of PIGGAREP while reflecting the reality of the co-financing activities. As noted above in (5d) and (5e), whilst the financing agreements and communiqué have been signed for new major co-financing initiatives (specifying country level allocations in monetary terms), project identification and development (including detailed design) are currently underway. It may take at least another 6–12 months before the detailed project activities are available. It is not until these detailed baseline activities are known that the incremental barrier removal activities can be specified including which ones that directly address productive uses of renewable energy (PURE)..These will then impact on the PPMs and the annual targets for each country.

It should be mentioned that there are baseline activities whose details are available now. Experiences in completing the PAS for these activities have shown the desire by PICs to combine their activities in the work plan (to be treated as project components instead of separate projects) as well as combining their activities with those of other PICs (to sub-regional activities).

The PIGGAREP is therefore based on an overall project level PPM and Annual Targets, which is not so different from that in the ProDoc. While the individual PIC work plans are subject to change, the PMO is of the view that the values in the overall (and aggregated) project level PPM and Annual Targets will not change significantly despite possible future changes at the country work plan level. It is therefore very important for

the project stakeholders to appreciate that the individual PIC work plans, PPMs and Annual Targets are "work in progress" which are expected to be much more firm and detailed during the years 2008 and 2009 as the key co-financing activities unfold. This therefore means that project implementation in 2008 and 2009 will be a gradual ascend, reaching a peak in 2010 and retaining that level in 2011 and then gradually descending in 2012.

				Year 1 Quarters					
Project Code	**Activity**	**Outcome**	**Lead / Collaborating Agencies**	**1**	**2**	**3**	**4**	**Year 1 Total**	**Comments**
CK1	Mangaia Power System Upgrade	Technical	French and Aust govts, SOPAC and MIC	10,000	10,000			**20,000**	Based around Vergnet Pacific offer to assist in rectifying the problems at Mangaia.
CK4	Public Awareness Campaigns	Awareness	Energy, Media & NGOs			2,500	2,500	**5,000**	With support from Environment and its Climate Change activities
CK8	Wind Farm integration study	Technical	Energy / TAU	15,000	15,000			**30,000**	
CK11	MAM Wind resource assessment	Technical	Energy, MET & OMIA		5,000	5,000	5,000	**15,000**	For Mauke, Atiu & Mitiaro
CK13	Exposure visit to the recycling facilities for cooking oil at USP and NZ	Awareness	Peter Marett				5,000	**5,000**	To address the environment problems relating to the disposal of used cooking oil.
CK16	RE / Green Award Programme for the tourism sector	Awareness	Energy / Tourism				5,000	**5,000**	
CK17	Support to the Committee working on renewable energy standards	Technical Awareness	Transport / Energy	750	750	750	750	**3,000**	
	Sub-total Cook Is			**25,750**	**30,750**	**8,250**	**18,250**	**83,000**	
COMMENTS: The co-financing activities in the Cook Is include an upgrade of the Mangaia Wind Power Project and a government-funded environment awareness programme for schools. Cook Is has signed the communiqué with the Italian government and has submitted project proposals to be considered for funding under this programmer. They include 1) Rehabilitation of Mangaia Wind Power, 2) Installation and Commissioning of a Grid Connected Hybrid System (Solar PV & Diesel) for Mitiaro, 3) Development of a National Renewable Energy Plan, 4) Installation and Commissioning of a Grid Connected Hybrid System (Solar PV & Diesel) for Pukapuka/Nassau and 5) Installation and Commissioning of a plant that provide for the processing of copra for biofuel on Pukapuka.									
FJ1	Hydro resource assessment in one of the potential hydro site	Technical	DoE	500	500	500	500	**2,000**	This activity involves the installation of a long term monitoring station at a hydro site that has been deemed viable for further developments
FJ4	Strengthen energy statistics in terms of renewable based data (prices, capacity, supply, potential, etc, etc)	Technical	DoE			5,000	5,000	**10,000**	This is to fund surveys and workshops to be conducted with all relevant RE stakeholders and also the finalization of the Renewable Energy Database
FJ5	Establishment of the Biogas market	Market	DoE			10,000		**10,000**	This is to fund formulation of a Biogas Implementation Framework, Policies that should govern the implementation of the

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters 1	2	3	4	Year 1 Total	Comments
									Biogas Programme
FJ6	Holistic training provided for Energy staff, rural communities, village technicians and relevant stakeholders of the Renewable Energy sector	Market	DoE	5,000	5,000	5,000	5,000	**20,000**	This involves the training of the rural communities in terms of project management, maintenance of renewable based projects
FJ7	PIGGAREP National Coordinator (salary and other benefits); Project Post for Energy Statistics	Institutional	DoE	10,000	10,000	10,000	10,000	**40,000**	This involves the training of the Energy staff in areas that are relevant to the development of the Energy Sector such as economics, accounting, policy, management, etc. Such short courses are offered by USP, TPAF, PSC and international institutions
FJ8	Review / adopt / enact relevant policies, frameworks, legislations for RET; Enactment of Fiji's Energy Bill	Policy	DoE	2,500	2,500	2,500	2,500	**10,000**	This is to fund the review of existing policies and frameworks for the development of renewable energy technologies and the formulation of the Renewable Energy Research, Development Policies and Acts
	Sub-total Fiji			**18,000**	**18,000**	**33,000**	**23,000**	**92,000**	
COMMENTS: The co-financing activities in Fiji include the following activities, which have been proposed to the Italian government. They include 1) Enactment of Fiji's Energy Bill & review/adoption and re-enactment of relevant policies, frameworks and legislations for RETs, 2) Detailed designing for hydro projects in the Bua (Navakasali/Naruwai), Cakaudrove areas and 3) Detailed designing and construction of hybrid (wind/diesel) project on Gau Island (Vadravadra) - to include maintenance, management, etc. It also include various programmes co-financed by the Government of Fiji through the Department of Energy's such as the Renewable Energy Development Programme & Rural Electrification. There are other co-financing programmes being funded by UNDP Fiji, etc that are yet to be confirmed and will be reflected once it has firmed up.									
KI3	Technical visits to biofuel developments either in Vanuatu and Majuro or Philippines	Technical Awareness	KCMC, PUB, EPU		10,000			**10,000**	
KI4	Technical visits to PV-Grid developments in Tuvalu.	Technical Awareness	EPU, SEC & PUB	10,000				**10,000**	
KI5	Consultations on the National Energy Policy and drafting of an Action Plan	Policy	EPU, MELAD, MISA				7,000	**7,000**	
KI10	Refresher technical training following the EDF 8 OI electrification project.	Technical	SEC			10,000		**10,000**	
K12	Feasibility study on PV-grid pilot		SEC, EPU, PUB			9,000	9,000	**18,000**	

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters 1	2	3	4	Year 1 Total	Comments
	project at SEC Headquarter.								
KI5	Training component related to the installation of the new RESCO Manager		SEC			17,000		**17,000**	
KI16	Migrating RESCO Manager to an open source platform.		SEC		6,000	6,000	7,000	**19,000**	
KI22	Public awareness campaigns	Awareness	EPU, MELAD & media		500		500	**1,000**	Awareness raising activities linking RE projects to mitigating potential to climate change, and their benefits to environment and economy
	Sub-total Kiribati			**10,000**	**16,500**	**42,000**	**23,500**	**92,000**	
COMMENTS: The co-financing activities for Kiribati include 1) Govt of Italy and PIC Cooperation Programme, 2) EU EDF 10 REP-7, 3) the SOPAC PIEPSAP Project and 4) KSECL, SOPAC and REEEP demonstration project at Myana.									
NA2	Information dissemination	Awareness				2,500	2,500	**5,000**	
NA3	Awareness raising and public education	Awareness				2,500	2,500	**5,000**	
NA4	Create an 'Energy and Environment' curriculum for the schools	Institutional Awareness	Energy Efficiency Officer (Utilities) and schools	10,000	10,000	10,000	10,000	**40,000**	
	Sub-total Nauru			**10,000**	**10,000**	**15,000**	**15,000**	**50,000**	
COMMENTS: The PIGGAREP activities identified for Nauru is based largely on four key on-going projects: 1) the EU-funded Support to the Energy Sector in five ACP Pacific Islands (REP-5), 2) the Govt of Italy and PIC cooperation, 3) the SOPAC PIEPSAP Project and 4) the EU EDF 10 renewable energy programme. The REP-5 is currently under implementation and involves the installation of a 20-50 kW grid-connected PV project worth A$1 million. The Italian proposals include water tanks and solar power for computers at the schools.									
NI4	Capacity Building, NPC/Private Sector/	Awareness	NPC	1,000	2,000	1,000	1,000	**5,000**	NPC
NI6	Energy Coordinator / AFO	Institutional	NEAP	3,750	3,750	3,750	3,750	**15,000**	NPC
NI7	Develop renewable energy plans and targets for 2010, 2020 and 2050	Policy	NEAP	1,500	1,500	1,500	1,500	**6,000**	GON NZAID AusAID
NI8	Develop/Review fiscal policies to facilitate the achievement of the RE targets / Expansion	Policy	NEAP			3,000	3,000	**6,000**	NPC/GON
	Sub-total Niue			**6,250**	**7,250**	**9,250**	**9,250**	**32,000**	
COMMENTS: The co-financing activities in Niue include: 1) The EU-funded support to the Energy Sector in 5 Pacific ACPs (REP - 5) and the EDF 10 Renewable Energy Programme (REP-7). **The REP-5** The overall objective of the REP-5 programme is poverty alleviation by improving the access to electricity and thus the living conditions of the Pacific Island States. The specific objectives for the programme are to improve the overall efficiency of the energy sector and, where									

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters 1	2	3	4	Year 1 Total	Comments
justified, increase production through renewable energy sources to allow a better allocation of limited resources for sustainable development, reducing local pollution and environmental risks associated with current energy generation practices. The activities planned under the REP-5 programme are in line with the "Eco-Nation" memorandum of understanding (MoU) signed between Greenpeace and the Government of Niue. The agreement aims to make Niue the first country to produce 100% of its electricity through renewable energy sources. The programme has 2 components: (1) an energy efficiency component, coordinated by the Economic Planning Development and Statistics Unit (EPDSU). The renewable energy component is coordinated by the Niue Power Corporation (NPC). The EE component deals with replacing electric stoves and electric water heaters with LPG stoves (costing about NZ$450-700) and solar water heaters (costing about 3,000 - 4,500). Recipients make a contribution of 14-28% of the total costs of the units. By the end of July 2007 total demand was: 51 LPG cook tops 201 LPG stoves 216 medium solar water heaters 19 large solar water heaters Considering that 108 households that cook with electricity hadn't applied for the project and 66 households that cooked with electricity hadn't applied for any LPG kitchen appliances, the potential maximum number of appliances to be delivered is: 426 LPG kitchen appliances (426 = 51+201+108+66) 235 solar water heaters (235 = 216 + 19) Since LPG appliances are responsible for 80% of electricity savings and require only 20% of the project budget, a strategy that maximizes the reduction on electricity demand is to leave the option to apply for LPG kitchen appliances open until the project ends and be selective on who receives a solar water heater. Alternatively, a project like PIGGAREP can pick up those who are not in the programme now after the REP-5 ends and more importantly to pick up on the public awareness campaigns and monitoring of this project.. The expected total funding required to finance the project is around one million NZ dollars. Niue is still deciding on whether its RE component will be on solar PV or wind or both. PIGGAREP's support will therefore focus on the following: 1. Picking up the public awareness campaigns after REP-5, i.e., from 2009-2012. 2. Support to the training, monitoring and review activities after REP-5. 3. Funding of a EEO / Energy Coordinator at NEAP 4. Develop a RE plan and targets for 2010, 2020 and 2050 and the associated fiscal policies required to meet those targets 5. Training in PV and SWH for the private sector 6. Conduct of energy audits 7. Pilot demonstration of PV for water pumping and CFLs for energy efficiency 8. Training for NPC technical staff **EDF 10 Renewable Energy Programme (REP-7)** The financing agreement was signed in October 2007. A design study is expected to take place in early 2008.									
PN1	Buakap Aidpost Solar PV System		ATCDI at PNG University of Technology			4,452		**4,452**	Have vaccine fridge to treat emergencies, etc
PN2	Investigating The Possibility Of Using Coconut Oil As A Substitute Fuel For Diesel Engines		Department of Mechanical Engineering at PNG University of Technology	6,148				**6,148**	Identify effect on diesel engines and make improvements. Cheap fuel for engines. Growers will have a market to sell their crop & generate additional income.
PN3	Rehabilitation of the Bogo School Micro Hydro Power Scheme		ATCDI at PNG University of Technology	2,673				**2,673**	Continue to provide electricity for the Health Centre to continue with provision of improved medical services.
PN4	Solar Photovoltaic Project for the Baiteta Village Aidpost In the Madang LLG, Madang Province		ATCDI at PNG University of Technology	2,774		2,000		**4,774**	Have vaccine fridge to treat emergencies, reduce long distance travel & decrease health problems.

				Year 1 Quarters					
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
PN5	Clinical Waster Gasifier Project for Asaro Health Centre in the Eastern Highlands Province		ATCDI at PNG University of Technology	1,292				**1,292**	Completely burn hospital wastes and minimize environmental pollution
PN6	Renewable Energy Training in the four regions of PNG for Development workers (1. Kokopo - New Guinea Islands, 2. Lae - Momase, 3. Goroka - Highlands and 4. Port Moresby - Southern)		ATCDI at PNG University of Technology				3,000	**3,000**	Development workers can have basic knowledge to assess projects like micro hydro & solar power
PN7	Exposure visit / training attachments visit to (1) CASE in Perth WA, Australia, (2) RPC in Nimbin, Qld, Australia		ATCDI at PNG University of Technology				5,000	**5,000**	Improved performance by staff with improved design of projects & local trainees to benefit greatly.
PN11	PIGGAREP - PNGSEL - Bismark Energy Ltd and New Guinea Gold Collaboration on Geothermal Energy		PNGSEL				70,000	**70,000**	
	Sub-total PNG			**12,887**	**-**	**6,452**	**78,000**	**97,339**	

COMMENTS: The PIGGAREP activities identified for PNG will build on the following key initiatives: 1) Govt of Italy and PIC Cooperation Programme and PNGSEL's biofuel, geothermal and solar PV project for the Western Province.

Govt. of Italy and PIC Cooperation Programme

This cooperation on a Sustainable Energy Programme for the Pacific Small Island States has 5 sub-programmes covering adaptation, assessment of energy requirements and strengthening of energy policies and action plans, rural electrification, development of biofuels and development of renewable energy sources. PNG has identified the Rural Electrification sub-programme and the Development of RE sources sub-programme as its priority sub-programmes. The PNG University of Technologies is taking the lead in developing proposals to be funded by the Italian government. They include the following:

1. Baiteta solar PV project (Madang Province)
   ATCDI has got K6,000.00 (US$1, 968). ATCDI will submit a proposal to the Italian to cover the Solar modules, batteries, regulator, cables, light fittings, cables, battery enclosure, module
2. The Biodiesel project (Unitech, Lae)
   ATCDI will submit a proposal to the Italian to cover a Personalized Biodiesel Production System, Diesel Engine for Testing Fuel, Dynameter plus accessories, Exhaust Gas Analyzer, Engine Performance Analyzer, Wear Particle Analyzer (Model 56), Oxygen Bomb Calorimeter and an expendable supplies & services (including coconut oil).
3. The Bogo MHP project rehabilitation (Simbu)
   ATCDI spent US$6500 to install in 1993. For this project ATCDI will submit a project proposal to the Italian to cover the following Turbine/generator, uPVC pipes and fitting, cement, timber, angle iron and steel bars.
4. Buakap solar PV project (Huon, Morobe)
   This is a new project. A new Aidpost building has been built funded by the Rotary Club). For this project ATCDI will submit a project proposal to the Italian to cover solar modules, batteries, regulator, cables, light fittings, battery enclosure and module security frame.
5. The gasifier project (Asaro, EHP)
   The gasifier itself was funded by GEF/SGP with a grant of US$3929. The gasifier will be transported to site and installed. For this project ATCDI will submit project proposals for co-financing from the Italian.
6. Solar PV and micro hydropower training
   The training will be conducted in the four regions. For this project ATCDI will submit a proposal to the Italian to cover the local transport, resource materials, copying & printing of lecture materials, refreshments, Certificates and contingencies.

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters 1	2	3	4	Year 1 Total	Comments
7. ATCDI staff development This is a project to develop capacity of ATCDI staff by visiting/attachment to two RE organisations abroad for 2 weeks. Organisations selected are CASE in Perth and Rainbow Power Company (RPC) in Nimbin NSW. For the staff development training ATCDI will submit project proposals for support by the Italian. 8. Bago solar PV project (Pomio, ENB). This is a new project located in the New Guinea Islands region. For this project ATCDI will submit a project proposal to the Italian to cover Solar modules, batteries, regulator, cables, light fittings, Cables, battery enclosure, module security frame. PIGGAREP will support Projects 1- 8 above through the provision of airfares, truck hire and local transport, labor costs, equipment hire, accommodation and per diem allowances. **Sustainable Energy Ltd's Co-financing activities** 1. PNGSEL is keen to develop rural power supply using straight coconut oil/biodiesel to provide power supply to remote rural communities, where the cost of petroleum diesel is very high. PNGSEL has an initial budget of K1.7 million to start the production of biodiesel and coconut oil for local generation of power supply to remote villages (Pomio Coconut and Biodiesel Rural Electrification Project). Coconuts in these rural areas have been left unattended because of the high cost of transport and a market available locally will promote coconut tree rehabilitation and grow local economies as well as improve education and health programs through the availability of power supply. Our model will include the availability of Micro Finance Banking and communications, including an internet cafe. PNGSEL is also implementing a trail bio-diesel project at Aroma. Aroma project will trial the use of small scale biofuel production to provide power to 480 people (80 households). Under this model being tested PNG SEL provides a local coconut plantation owner with oil extraction machinery and arranges a purchase agreement of buy straight coconut oil (SCO) at a set price. SCO will be used to power the adjacent villages. A small scale trial of biodiesel production for local vehicles will also being trailed. Total load is estimated at 144,000kWh, requiring around 50kVA installed capacity. A 13.5kVA genset has also been provided for the plantation. As this is a trial of a model for small-scale sustainable electrification it would be useful if it could be co-funded as a feasibility study. A PIGGAREP support in training and exposure of PNGSEL staff in the production of coconut oil and biodiesel for the generation of rural power supply would add value to our rural electrification programs as we will be looking to roll out these programs throughout the country, wherever there is an abundant supply of coconuts. A sub-section of the above would be the exposure to the technical aspects of processing equipment and the associated advantages and disadvantages of the different types available on the market. Such an exercise would assist greatly in our sourcing of the right equipment and processors from the very beginning instead of half way through the exercise when funding can be a real issue. 2. The other area of interest is in Photovoltaic. We have identified areas where Solar Powered Stations would be the only beneficial option for some rural village settings. The budget for the current project for one of the villages in the Western Province (Mabudawan Solar Power Station Project) is about K7 million Kina for a 300KW solar power station. This exercise is a first for our Engineers and some exposure/training on the design and construction aspects of solar power stations between 10 kW to 300 kW would definitely add value to these projects. Again, we will be looking to construct a number of these projects throughout the country and the high initial capital costs involved does not leave any room for mistakes as mistakes can result in the project being abandoned and a lot of money wasted. 3. An agreement has been signed between PNG Sustainable Energy Limited, Bismarck Energy and New Guinea Gold for feasibility studies to be carried out on the potential of a geothermal power station at the Sinivit gold mine in East New Britain. The plan is for Bismarck Energy to construct the geothermal power plant and sell electricity to New Guinea Gold the developer of Sisnivit Gold mine. 4. Cooperation Agreement between PNG Sustainable Energy Limited (PNG SEL) and New Guinea Ireland Provincial Government (NIPG) is been prepared for signing by January 2008 to pave way for the parties to investigate the rehabilitation of Sohun Micro Hydropower Station and the development of potential hydro and biodiesel resources in New Ireland Province. The investigations would identify, quantify and consolidate the rehabilitation requirements together with other resources and provide options for harnessing and development. Sohun has 231kW generation capacity but current output is only 60-80 kW due to mechanical and low-flow problems. According to previous studies, it is anticipated that a total generation reserve of over 1MW would be developed to support power supply to Namatanai District Headquarter and communities along the peripherals of power generation and transmission routes. PIGGAREP assistance is required in the completion of the rehabilitation study. 5. PNGSEL is also interested in investigating the potential for wind power generation in Hula Peninsula. This would aim to cater for the population on the Hula Peninsula, around 11,970 people (1,855 households). Load is estimated at 820kW or 3.5GWh/a. Following a detailed evaluation the aim would be to install around 900kW of wind power and a similar capacity of diesel in a hybrid setup. Hula is expected to be an area of good wind potential based on ground observations and some measurements nearby. Another possibility would be to use larger turbines and interconnect with a nearby 22kV PNG Power line. Assistance is required from PIGGAREP to carry out feasibility study and train local engineers to plan and design wind farms. 6. Ormand is a storage hydro in the Eastern side of Central Province. Total installed capacity has been estimated at 5MW for an annual output									

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters 1	2	3	4	Year 1 Total	Comments
of 33.8 GWh/a. It has been suggested that it is expandable to 8MW with annual output increasing to 63 GWh/a. The population within range of medium voltage distribution lines is around 39,053 people (6,083 households). This hydro could also be connected to an existing PNG Power 22kV line nearby. Assistance could be co-funding of a feasibility study. 7. Kimadan is a 3 stage run of river hydro in the middle of New Ireland Province. Total installed capacity has been estimated at 5.1MW for an annual output of 29.6 GWh/a. The population within range of medium voltage distribution lines is around 30,980 people (6,024 households), while there are some commercial loads including a large Palm Oil plant. The connection of Kavieng town would require around 160km of high voltage lines. Assistance could be co-funding of a feasibility study.									
SA1	2.3.1 (3.1.3) - Capacity Building training needs on RETs (ADB)	Technical	Energy Division, energy stakeholders, EPC, Private sector, MWCSD, SWA,		1,000			**1,000**	
SA2	2.3.2 (3.1.4) - Training programme on RETs (ADB)	Technical	Energy Division, PSC, Energy Stakeholders, SWA, MWCSD, MNREM, RDIS		1,000			**1,000**	
SA4	2.4.1 Coordinate the development of an RE programme with the RDIS	Technical	RDIS, Energy Division, MNREM, EPC, MAF, SWA	1,000				**1,000**	
SA5	2.2.4 Establish the Designated National Authority (DNA) for CDM activities	Technical	Energy Division, MNREM, MWTI, MWCSD, EPC, SUNGO, consultants		2,500			**2,500**	
SA6	2.2.5 Build capacity in CDM process and implementation	Technical	Energy Division, MNREM, MWTI, MWCSD, EPC, SUNGO, consultants			5,000		**5,000**	
SA7	2.2.7 Establish a Clean Energy Fund	Technical	Energy Division, MNREM, MWTI, MWCSD, EPC, SUNGO, consultants		2,500			**2,500**	
SA8	2.2.8 Build capacity in Clean Energy Fund operational processes	Technical	Energy Division, MNREM, MWTI, MWCSD, EPC, SUNGO, consultants			5,000		**5,000**	
SA9	3.6.1 Consultancy to identify relevant DSM activities	Technical	EPC, Energy Division, MNREM, NUS, consultants				1,000	**1,000**	
SA10	3.6.2 Develop DSM strategies	Technical	EPC, Energy Division, NEC				1,000	**1,000**	
SA11	Hydro data collection programme	Technical	EPC, MNREM, Energy Division, Energy Stakeholders	30,000				**30,000**	EPC

				Year 1 Quarters					
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
SA13	Assess the practicality of RESCOs in maintaining RE-based energy facilities	Market	Energy Division, EPC, energy stakeholders, private sector, MNREM				10,000	**10,000**	
SA14	RE and related products Development & promotion annual programme	Market	SAME, Energy stakeholders, private sector, MNREM			10,000		**10,000**	
SA15	2.4.3 (2.1.2, 5.3.1, 4.3.1) – Conduct of prefeasibility studies on identified projects for 1 potential source identified in 2.1.1	Finance	Energy Division, RDIS, MNREM, MAF, MWCSD, NUS, EPC, SWA, consultants			5,050		**5,050**	
SA16	2.4.4 (2.1.3) Conduct of full feasibility study on identified projects in 2.1.1	Finance	Energy Division, RDIS, MNREM, MAF, MWCSD, NUS, EPC, SWA, consultants				7,100	**7,100**	
SA17	1.4.1 (3.4.2) Development of an Energy demand and supply database - collection of RE data.	Finance	Energy Division, Statistics, energy stakeholders, EPC, MNREM, MWTI, MOR, Gas companies, Oil companies	825				**825**	
SA18	2.4.2 Develop funding proposals for 2.4.1	Finance	RDIS, Energy division, MNREM, MAF, MWCSD, NUS, EPC, SWA, consultants		1,000	1,025		**2,025**	
SA19	1.2.2 (2.1.4) Develop an Energy Bill - RE component	Policy & Regulation	Energy Division, energy stakeholders, MNREM, AG, consultants	1,500				**1,500**	
SA20	Development of standards required to meet GHG emission reduction requirements and use of RE for local manufacture and export productions - trainings dissemination	Policy & Regulation	SAME, private sector, energy stakeholders, MNREM, EPC, MWTI, MWCSD			1,000	1,000	**2,000**	
SA21	2.2.1 (4.1.4, 4.2.3, 4.4.1, 5.2.1, 5.3.1)National energy awareness campaign day	Info & Awareness	Energy Division, energy stakeholders, MNREM, MAF, MWTI, MESC, RDIS, NUS, EPC, SSC, SAA, STA, Oil companies, gas companies,		10,000			**10,000**	

				Year 1 Quarters					
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
			SUNGO, SAME, COC, MEDIA						
	Sub-total Samoa			**33,325**	**18,000**	**27,075**	**20,100**	**98,500**	

COMMENTS: The PIGGAREP activities identified for Samoa will build on xxx key initiatives: (1) the ADB Power Sector Expansion Project, (2) Govt of Italy and PIC cooperation programme, and (3) the joint UNDP, PIEPSAP and SOPAC Energy Projects.

The ADB Power Sector Expansion Project

The project involves a TA - Preparing the Power Sector Expansion Program - that will (i) develop a comprehensive reform program, including a regulatory framework, that would enable private sector participation and enhance the efficiency in the sector; (ii) develop a program to reform the Electric Power Corporation's (EPC) internal business and management procedures to enhance governance and cost efficiency; and (iii) prepare an investment road map to diversify the country's energy resources, meet future load growth, and reduce the burden of diesel imports.

This TA will then lead to 2 very important initiatives:

The Power Sector Expansion Project will comprise of (i) three investment components under the Electric Power Corporation's (EPC) investment plan, (ii) assistance to project management, and (iii) technical assistance (TA) programs to (a) improve EPC's financial performance; (b) establish effective regulation of the power sector; (c) establish a designated national authority; and (d) establish a clean energy fund. The investment components include two core and 16 candidate investment subprojects, and a project management component which will be implemented from 2008 to 2015. Component A comprises the Hospital feeder upgrading project-Stage 1 which forms part of EPC's underground cabling program for the transmission network to provide protection from cyclones. Component B comprises the supply and installation of pre-payment meters for all consumers by 2012. Component C comprises five generation and eleven transmission candidate subprojects identified under EPC's investment plan. The proposed ADF IX grant of $18.1 million to the Government will ease the macroeconomic impact of the large financing requirements for the power sector expansion project. A loan in the amount of $23.9 million is being provided in conjunction with this grant.

A TA to implement Samoa's National Energy Policy. The TA will consist of a:

Component 1- Regulatory Reform in the Power Sector

Component 1 will support the Government's overarching goal for the power sector to provide sustainable and reliable electricity services to all consumers at affordable prices. Component 1 will help establish the regulatory requirements for the power sector, including the drafting of a new electricity act to govern the sector and amendments to the EPC Act (1980), and establishment of a regulatory body and its roles and functions.

Component 2 - Establishment of a Clean Energy Fund

Component 2 will contribute to the Government's vision to enhance the quality of life for all Samoans through sustainable energy development. The CEF will promote and facilitate development of clean energy of initiatives for clean energy, environmental improvement, and climate change adaptation.

Component 3 - Establishment of a Designated National Authority

Component 3 will contribute to the Government's vision to enhance the quality of life for all Samoans through sustainable energy development.

Component 4 - Resident Financial Management Advisor to the Electric Power Corporation

The financing needs for the power sector and EPC to meet growing electricity demand places substantial requirements on EPC to improve internal financial management controls, accounting and reporting. As part of EPC's forward looking investment plan and need to improve timeliness of tariff adjustments, EPC will commence preparing 5-year financial projections. There is an opportunity to improve the existing tariff structure and introduce bulk power purchase agreements with large consumers to provide incentives for energy conservation and demand-side managements.

The Cluster TA includes the following components:

Component 1- Regulatory Reform in the Power Sector.

The objectives of Component 1 are to promote good governance, stakeholder participation, and a conducive environment for cost-effective private sector participation and investments.

Component 2 - Establishment of a Clean Energy Fund.

Component 2 will provide assistance to the Government to establish and strengthen the institutional capacity and technical capability of a clean energy fund (CEF) in Samoa. This will complement the activities under the proposed Power Sector Expansion Project and the proposed Component 3 for the Establishment of a Designated National Authority for utilizing the carbon development mechanism (CDM).

Component 3 - Establishment of a Designated National Authority

Component 3 will provide assistance to the Government to establish and strengthen the institutional capacity and technical capability of a designated national authority (DNA) in Samoa to promote clean, indigenous and renewable energy through the use of CDM.

Component 4 - Resident Financial Management Advisor to the Electric Power Corporation

Component 4 will support the Government's overarching goal for the power sector to provide sustainable and reliable electricity services to all consumers at affordable prices by assisting EPC to improve cost effectiveness of power supply. It will support EPC to improve cost-effectiveness of power supply and prepare submissions for timely tariff adjustments to enable the provision of reliable electricity services to all consumers at affordable prices. It will also support energy conservation and demand-side management through the preparation of a new tariff structure and bulk power purchase agreements.

Govt of Italy and PIC cooperation

				Year 1 Quarters					
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
This cooperation is on a Sustainable Energy Programme for the Pacific Small Island States and covers 5 sub-programmes on adaptation and renewable energy. Samoa has identified the "Assessment of energy requirements and strengthening of energy policies and action plans" as well as the "Development of Biofuels" sub-programmes to be its priority areas. The former is about activities on: o Technology assessment of energy requirements and infrastructure in the mid and long term and of the most appropriate renewable energy mix capable of meeting those needs o Advise and technical assistance for the development of sustainable transport technologies, including non-motorized solutions in order to reduce pollutants and GHG emissions o Development of human resources specialized in the planning, implementation and management of energy policies, strategies and plans o Strengthen the participation of all actors in the design and implementation of renewable energy policies and practices, in particular of rural women o Strengthen national capacities for the development of national and regional energy markets as well as of the appropriate financial instruments The later is about development of biofuel from sources such as ethanol from sugarcane, cassava and breadfruits as well as coco diesel from copra. The activities include: Assessment of the viability of biofuel production from diversified sources Feasibility studies and pilot projects / testing for the utilisation of biofuels for local transportation and power generatrion for small enterprises Technical studies and process analysis for biofuels production **Joint PIEPSAP, UNDP and SOPAC Energy Projects** The PIEPSAP Project (2004-2008) has assisted Samoa with the following activities: Draft policy statements and strategies produced in September 2005 including renewable energy targets National Energy Policy endorsed by Samoa Cabinet in June 2007 GIS/MIS consultancy for power utility incepted in December 2006 with GIS/MIS system fully operational by 2nd quarter 2007 Cost-shared with UNDP TRAC the Preparatory Phase for the Samoa PV Rural Electrification Programme. Since the PIEPSAP will continue to operate for just another year (up to mid August 2008), discussions of the collaborations between PIEPSAP and PIGGAREP has resulted the suggestion of the following activities to be picked up by PIGGAREP. PIGGAREP's follow-up support to the PIEPSAP's activities will focus on the following activities: o 1.Co-operation in developing strategic energy action plan o 2. Follow-up in cooperation with UNDP on the Preparatory Phase for the Samoa PV Rural Electrification Programme including support for the implementation of such PV program o 3. Support for EPC wind energy development including comprehensive feasibility studies (including geotechnical analysis) and identification of funding sources, possibly CDM Furthermore, UNDP, SOPAC, RISOE and the government of Samoa is working on a Upolu wind resource assessment project (US$32,000). The project will select, install, and operate two (2) wind monitoring stations and after one year with successful minimum data recovery rates analyze the data and assess the wind resource potential on Upolu. The expected main outcome of the Project is to assess the wind resources in Upolu, Samoa. The Government of Samoa through the Electric Power Corporation (EPC) and in cooperation with UNDP and the Danish NGO the Organisation for Sustainable Development have replaced the current diesel generator with photovoltaic (PV) based power systems on Apolima Island. The expected overall outcome is to improve livelihoods through a reliable, effective and environmentally friendly 24-hours power supply for the nine (9) households and one (1) church on Apolima Island including PV based streetlights. In relation to the above, UNDP Samoa, PIEPSAP and SOPAC have undertaken a preparatory phase for the Samoa Photovoltaic (PV) Electrification Programme. The preparatory phase (US$47,000) will undertake a household survey of un-electrified households in Samoa; determine the resources available and the technical, economical, financial, and institutional feasibility of carrying out a Samoa Rural Electrification Program based on PV; and prepare a Program Document (i.e. investment plan) for a Samoa PV Rural Electrification Program. The expected outcome of the preparatory phase is a properly formulated and detailed PV based rural electrification program to provide the remaining up to 1,200 non-electrified households in Samoa with 24-hours power. Samoa, UNDP and SOPAC have been working on a CocoGen project, looking at th feasibility of using copra oil for power generation. Following discussions between EPC Management, UNDP and SOPAC representatives on 19 July 2007 the Work Plan and Budget for the EPC CocoGen Phase II has been revised to accommodate suggestions and concerns of the EPC Board. The following version acknowledges that given revised maximum blend mixtures of 5% CNO on the one hand and increased supply cost for diesel may change the economics of the project significantly. Revised scheduling also considers the critical nature of the supply chain. In addition an analysis of various options for institutional arrangements for CNO production now takes precedence over technical design issues. The work plan is based on the assumption that EPC's preferred supplier of new generation equipment for Savaii power station will allow a 5% CNO addition to the diesel fuel without negative consequences for warrantees or operational characteristics of the diesel engines.									

				Year 1 Quarters					
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
SI3	Economic feasibility study of production/use of coconut oil /bio-fuel as fossil fuel substitute in power generation in rural areas.	Study report compiled and forwarded for actioning	MME, Italian Gov't	4,000	4,000			**8,000**	A study to see if coconut oil can be used to power generators so that they can be used in rural communities as an extension for from the schools and clinics
SI5	Feasibility study for mini hydropower plants on Rori (Malaita) under Rural Electrification Framework	Economically viability established	SIEA, MME, SOPAC	2,500	2,500	2,500		**7,500**	To kick-start the Rori Mini-hydro scheme
SI6	RE Electricity Pricing Study	RE Pricing Template formulated	MME, SIEA, SOPAC	2,500	2,500	2,500		**7,500**	High priority. To produce a standardized rural electrification tariff calculation guidelines, and tariff calculation templates that provide pro-forma methods of calculating tariffs using costs based on generation technology, location and other factors, as
SI8	RE surveys and assessments for hydro, wind and solar	Survey Reports	MME,SIEA,SOPAC			2,000	2,000	**4,000**	There are potential sources and sites on the 7 main islands of the Solomon Is for hydro and almost all populated rural communities on the coastal areas of the islands for solar
SI11	Support to investment Development Projects	Financial & Technical	SIG, MME, SIEA, Private Sector	2,000	2,000	2,000	1,000	**7,000**	
SI12	RE Conservation and Efficiency Programmes	Conservation and efficiency measures in place	MME, SIEA, SIG, SOPAC	300	500	500	200	**1,500**	
SI14	Setup of RE Unit	TA, Unit in place	SIG, SIEA, (REEEP?)	2,000	2,000	2,000	2,000	**8,000**	
SI16	Energy Supply/Demand Studies	Study Report	MME, SIEA, (SOPAC?)	300	1,000	1,000	200	**2,500**	

				Year 1 Quarters					
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
SI17	Economic feasibility study of production/use of coconut oil /bio-fuel as fossil fuel substitute in power generation in outer islands SIEA power stations.		MME, SIEA, Private or SOPAC		1,000	2,000	2,000	**5,000**	
SI18	Feasibility study of solar Grid interactive system for National Referral, Lata, Kira Kira, Auki, Malu'u,Gizo, Tulagi and Helena Goldie Hospitals	Study Report presented for proper action	MME, SIEA, Private		2,000	2,000	1,000	**5,000**	
SI20	Micro Biofuel Enterprise Development	Micro Biofuel development structure	Frelin Enterprise & Fred Conning		2,000	2,000	2,415	**6,415**	
SI21	Rural Communities Solar PV lightings/water pumping projects feasibility studies and funding	Hardware and then Access to Electricity	MME, SITAFE, Private Solar PV Companies			2,000	2,000	**4,000**	
SI22	Solar system grid connect at SITAFE	Demonstration	Choice Electrics, Australia, SITAFE		2,500	2,500	2,500	**7,500**	
SI24	Technical Support to the SITAFE Renewable energy library centre	Technical/resources materials	Australia (OTEN -NSW TAFE)		2,000			**2,000**	
SI26	Micro hydropower pre-feasibility study at various sites at Atoifi Hosp., Kounabusu (Kwaio), Manawai (upgrade), Masupa'a, River Side and Rara village, all in Malaita	Power base for rural market outlet / industries	PELENA (Renewable Company)		2,000	2,000	1,000	**5,000**	

				Year 1 Quarters					
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
SI27	Biofuel Study & Development	Complement Frelin Enterprise & Fred Conning	Pro Solution, (SOPAC?)		1,000	1,000	1,000	**3,000**	
	Sub-total Solomon Is			**13,600**	**27,000**	**26,000**	**17,315**	**83,915**	
COMMENTS: The PIGGAREP activities identified for the Solomon Is will build on the following key initiatives: 1) Govt of Italy and PIC Cooperation Programme, 2) the SOPAC PIEPSAP Project, 3) Energy Division's Renewable Energy Activities and 4) SIVEC's RE Development Activities. The proposals to the Italian government are for the electrification of schools and clinics/area health centres located in the rural areas that have no connection to the national grid right throughout Solomon Islands.									
TO1	Joint annual committee meetings	Institutional	**EPU**, HSES & NFSES	6,000				**6,000**	The joint annual meetings should then lead to the establishment of the National Steering Committee
TO2	Technical evaluation of the solar installations	Technical	**EPU**, HSES & NFSES	3,000				**3,000**	Ha'apai's, installed in 2002, is to be evaluated next year while Niua's, installed in 2006, will be in Year 2 and both on Year 5.
TO3	Training of village water committees and island technicians	Awareness	**EPU**			6,000		**6,000**	Training is to be part of the JICA solar water pumping project for Niuatoputapu. Also include training for NFF and Ha'apai technicians based on the outcome of the evaluations.
TO09	Training on RE for AMREC	Awareness	**EPU** & **AMREC**		5,000			**15,000**	To cover solar, wind and bio-fuel. To begin early in the project thereby allowing AMREC members to bid for activities in the Italian and EDF 10 projects.
TO11	Energy Legislation Review	Policy	**EPU & Crown Law** & Consultant				20,000	**20,000**	A follow-up to the RE Bill. To review existing energy-related legislations and whether they can all be merged into an Energy Bill.
TO12	Wind resources assessments	Technical	**EPU**	2,500	2,500	2,500	2,500	**10,000**	To sites will be selected based on the Vergnet wind atlas project which will be completed by Sept 07.
TO14	Biofuel feasibility study	Market	**EPU & Waste Mgmt Ltd**	10,000	10,000			**20,000**	A development License has been granted to WM. Study is to look at the feasibility of the distilling operations.
TO15	Demonstration of the viability of copra oil for remote islands electrification	Technical Financial	**EPU** and Island Community				5,000	**5,000**	To begin after the exposure visit to Vanuatu and other PICs.

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters 1	2	3	4	Year 1 Total	Comments
TO17	RE Awareness Programme	Awareness	**EPU**	1,500	1,500	1,500	1,500	**6,000**	To include production of a RE documentary, establishment of an RE information centre at the EPU and the District Solar Energy Societies, a monthly radio programme and an annual RE award programme.
	Sub-total Tonga			**23,000**	**29,000**	**10,000**	**29,000**	**91,000**	

COMMENTS: The PIGGAREP activities identified for Tonga will build on three major initiatives: (1) Ha'apai and Niua Solar Electrification, (2) Govt of Italy and PIC cooperation and (3) the EU EDF 10.

Ha'apai and Niua Solar Electrification
The Ha'apai Solar Electrification project has 169 solar home systems, installed in 2002, and was funded under the PREFACE. The project provides power to 169 households, 6 schools, 1health centres, 11community halls and 20 churches. The Niuafo'ou Solar Electrification project, on the other hand, has 169 solar home systems, installed in 2006, and was funded by NZAID. The funding included a furnished and equipped office building and a vehicle. The project provides power to 169 households, 8 schools, 1health centres, 12 community halls and 10 churches. The Energy Planning Unit and the established Solar Electricity Society Incorporated [Inc] in each island group are jointly managing this project through staffing, on-going monitoring and maintenance activities.

The Budget, Aid and Project division of the Ministry of Finance is responsible for coordinating the financial support by JICA for village water supplies. JICA will fund solar water pumps for the villages of Hihifo, Falehau and Vaipoa at Niuatoputapu. These solar water pumping project does not have a training component.

PIGGAREP will provide support to conduct joint annual meetings of the District Solar Electricity Society Incorporated. These should then lead to the formation of the National Steering Committee (NSC). This committee will then oversee all the financial and administrative affairs of the solar electrification programme at the national level. Members of the NSC can be selected to the Renewable Energy Authority that is stipulated in the draft Renewable Energy Bill, which is expected to be passed by the House in 2008. PIGGAREP will also support a technical evaluation of the installed systems at both Ha'apai and Niuafo'ou to be followed with some hands-on technical training workshops for the island technicians. These training workshops will also include training for the village water committees of Hihifo, Falehau and Vaipoa at Niuatoputapu who will receive solar water pumps through the generosity of the Japanese government.

Govt of Italy and PIC cooperation
Tonga has identified the Adaptation and the Rural Electrification sub-programmes as its priority for the Italian funds. The Rural Electrification sub-programme is to do with new installations of solar home systems and the rehabilitation of existing facilities as well as the development of other RE technologies such as wind, according to local potential.

Three key activities for the Italian funds are:

1. The provision of improved lighting for the people of Ovaka, Hunga, Lape, Nuapapu, Matamaka, Falevai, Taunga, Otea, Kapa, 'Olo'ua and Ofu in the Vava'u Group. This will involve a total of 1445 people, 289 households, 11 schools, 2 health centres, 12 community halls, 16 churches and 7 retail shops.

2. The provision of improved lighting for a total of 3 villages in the island of Niuatoputapu [Hihifo, Vaipoa and Falehau] and Lofanga Island in the Ha'apai Group. There are 139 households and 430 people at Hihifo, 83 and 300 at Vaipoa, 78 and 290 at Falehau and 50 and 184 at Lofanga. This component will therefore benefit 350 households and 1204 people in total, in addition to 4 schools, 1 health centre, 4 community halls, 8 churches and 5 retail shops.

3. The third component is intended to strengthen the capacities of the District Solar Electricity Society Incorporated (Niuatoputapu, Vava'u and Ha'apai) to effectively manage their photovoltaic projects. There are currently 169 installed systems at Ha'apai and this will increase to 353 with the inclusion of Lofanga. 290 systems are planned to be installed at Niuatoputapu and 289 for Vava'u with Italian funds.

This component will also include overseas tertiary training and local training activities for local contractors and the local communities. It will also include office buildings for the District Solar Electricity Society Incorporated of Ha'apai, Vava'u and Niuatoputapu, a vehicle for Niuatoputapu and a boat each for inter-island transportation, monitoring and maintenance activities in Ha'apai and Vava'u. This is to bring all the district solar energy societies to bar with the Niuafo'ou Solar Electricity Society Inc, which has been fully established, equipped and staffed through the generosity of NZAID.

PIGGAREP will support and complement the Italian-funded initiatives through an exposure visit by Tongan officials to the RE developments in Vanuatu, New Caledonia and other PICs. PIGGAREP will also support a technical evaluation of the solar home systems to be provided by the Italians and a follow-up training for the island technicians and the island communities. These are timed to take place after the completion of the Italian assistance at the end of 2009.

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters 1	2	3	4	Year 1 Total	Comments
The EU EDF 10 Tonga will receive a total of 5.9 million Euro from the European Union's 10th EDF. This is generally for renewable energy for development and sustainable livelihoods. The Financing Agreement is to be signed in November 2007 during the Forum Meeting in Nuku'alofa. The EU will then send a study team to consult Tongan authorities on project activities to be supported. It is expected that the EDF 10 will be an opportunity to focus more on hardware installations like solar PV and a wind power generator. PIGGAREP will therefore complement these through the conduct of a wind monitoring exercise. Vergnet Pacific is currently at the final stage of producing a wind atlas for Tonga (to be completed in October 07) and the monitoring sites will be selected based on this atlas. Based on the outcome of the wind monitoring, PIGGAREP will support the conduct of feasibility studies at the most promising sites. The EDF 10 project can the support the installation of a wind turbine, based on the results of the PIGGAREP studies. Similarly, feasibility studies and demonstration of bio-fuel and biogas will be supported by PIGGAREP in anticipation that the EDF-10 will pick up the hardware and installation if the studies prove that the applications are technically and economically viable. To support the expansion of the RE market in Tonga, PIGGAREP will support a training on renewable energy specifically targeting the members of AMREC. The timing is such as to enable members of AMREC to competitively bid for the supply and/or installations of hardwares under the Italian and EDF-10 funds. This training, in addition to the current effort to have a RE Legislation, will also aim at promoting the establishment of RESCOs. PIGGAREP has therefore allowed for a support to members of the AMREC and others who may want to establish themselves as a RESCO. It is expected that the RE Bill will be passed by the House in 2008. This will then lead the way to the formation of the RE Authority. The EPU is aware that Tonga has to have a National Energy Policy and an Energy Act rather than just a RE policy and Act. PIGGAREP will provide support to this through a review of the other energy-related legislations and whether these can be merged into an Energy Act. The Italian government, as can be seen above, will be providing capacity building support to the District Solar Energy Societies. PIGGAREP would support this with an awareness programme which will involve establishing a RE information centre in each of the District Solar Energy Society offices. A RE documentary wil be produced and made available at these centres. An annual award programme for outstanding performance on RE and a monthly radio programme which can be heard at the most remote island with PV will be supported by PIGGAREP.									
TV3	Dissemination of biogas technology introduced by PIEPSAP	Awareness	Alofa Tuvalu			5,000	5,000	**10,000**	
TV4	Support to TEC's outer island grid connected renewable energy projects	Technical	TEC	5,000	5,000	5,000	5,000	**20,000**	Studies of wind potential and solar hybrid system. Also includes exposure visits to RE development projects in Vanuatu and other PICs
TV5	Study and establishment of a RE Unit at TEC	Institutional	TEC				25,000	**25,000**	A follow-up to the PIEPSAP-funded base tariff review study. Unit will also look at loss reduction, DSM and fuel substitution
TV6	Training of TEC Outer Islands Supervisors on RE Technology			20,000				**20,000**	
TV7	Support implementation of Policy and Strategic Action plan	Policy Institutional	Energy			6,250	6,250	**12,500**	
	Sub-total Tuvalu			**25,000**	**5,000**	**16,250**	**41,250**	**87,500**	
COMMENTS: The PIGGAREP activities identified for Tuvalu will build on four (4) key initiatives: (1) the Tuvalu Grid-connected PV project, (2) the Alofa Tuvalu's Amatuku Project, (3) the SOPAC PIEPSAP Project, and (4) the Italian Funding. 1) The Tuvalu Grid-connected PV project The overall goal and purpose of this project is To provide momentum in Tuvalu for the shift from full reliance on diesel generation to a hybrid system with a renewable energy source: To reduce both CO2 emissions and fossil fuel consumption To be a successful pilot model of grid-connected solar power generation in the Pacific region									

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters 1	2	3	4	Year 1 Total	Comments
To enhance good relationships and e8 visibility in the Pacific region To disseminate a symbolic message about the prevention of global warming world wide The project is a partnership between the e8, the Tuvalu government, the TEC and the PPA. It will involve the installation of 40 kW panels as the roof over the existing soccer field's stadium. This will account for about 5% of the peak demand of TEC. The annual power generation output is estimated at about 56 MWh and the project cost is estimated at US$412,000 and to be completed by end of 2008. PIGGAREP's support will focus on the Undertakings by TEC and the Energy Department, as contained in the LoA for this project, signed on 12th June 2007. This will include but not limited to the following: 1. To take over all of the solar power generation facilities on an "AS IS" basis after they are constructed 2. To assume the full responsibility for operation and maintenance for the long term sustainability of the solar power generation facilities. 3. To assume the responsibility for the monitoring of the solar power generation facilities after commissioning. This information will include the electricity production and consumption, tariff collection, and operation and maintenance information, environmental and social impact and other relevant information. 4. To assume all liability for the solar power generation facilities such as replacement of inverters, etc after the two year warranty provision from the date of notice of completion of the construction. Installation of the project is expected to be completed by Jan 2008 and the only training in this project will be during the installation. Thereafter, PIGGAREP will support the conduct of annual technical training, maintenance and monitoring, for the engineers of TEC. 2) The Alofa Tuvalu's Amatuku Project Alofa Tuvalu is a NGO working on the concept of "Small is Beautiful" (SiB), a 10 year practical program, started in 2004 for primary objective to assist the Tuvaluans to survive as a nation, and if possible, to allow them to remain on their ancestral land. Within the framework of the 10-year SIB, the Amatuku Project as a parallel activity, concerns a complementary study and immediate RET's implementation of 2 biogas digesters, a small coconut biodiesel plant, a small windmill and PV systems. In parallel to this 30 months program, once the first biodigester and biodiesel plant are installed, a training program will be put together with teachers and technicians from TMTI and Tuvalu's other schools, after they got a training on biomass themselves. 3) Govt of Italy and PIC Cooperation Programme This cooperation is on a Sustainable Energy Programme for the Pacific Small Island States and covers 5 sub-programmes on adaptation and renewable energy. Tuvalu has identified the "Development of renewable energy sources" sub-programme as its priority area. This sub-programme is about activities on: Photovoltaic stand alone electrification in urban areas Photovoltaic integration into the national grid Wind energy data collection and assessment Biogas from household waste and waste management Assessment of the geothermal, tidal and wave power generation potential PIGGAREP's support will focus on preparing a wind fuel saving project for Funafuti, dissemination of the biogas technology and support to TEC's grid connected RE projects in the outer islands. 4) The SOPAC PIEPSAP Project The PIEPSAP Project (2004-2008) has assisted Tuvalu with the following activities: Energy policy developed in multi-stakeholder consultation. National Energy Policy endorsed by the Tuvalu Cabinet in October 2005 Strategic Action plan prepared in March 2006 reviewed and refined by Tuvalu task force, final version circulated in April 2007 Support to TEC in renewable energy resource assessment wind and biomass. Wind measuring equipment procured with installation in May 2007. Training in biogas construction performed in May 2007, 8 m3 plant constructed and commissioned A review study of the base tariff at TEC Since the PIEPSAP will continue to operate for just another year (up to mid August 2008), discussions of the collaborations between PIEPSAP and PIGGAREP has resulted the suggestion of the following activities to be picked up by PIGGAREP. PIGGAREP's follow-up support to the PIEPSAP's activities will focus on the following activities: 1. Support implementation of Policy and Strategic Action plan 2. Dissemination of biogas technology introduced by PIEPSAP 3. Preparation of wind fuel saving project for Funafuti 4. Support to TEC's outer island grid connected renewable energy projects									
VU5	Vanuatu Hydropower Resource	Market	Energy Unit, Consultant			5,000	5,000	10,000	

				Year 1 Quarters					
Project Code	Activity	Outcome	Lead / Collaborating Agencies	1	2	3	4	Year 1 Total	Comments
	Mapping								
VU6	Feasibility Study of the Tasiriki River hydro resource potential	Technical	EU			10,000	10,000	20,000	
VI11	Review of the Rural Electrification Policy	Policy	Energy Unit, NACCC, SOPAC		6,000	7,000	7,000	20,000	
VU12	Renewable Energy and Energy Efficiency Programmes		Energy Unit, SOPAC, Unelco			2,000		2,000	
VU14	Review of the 2002 Talise Mini Hydro Feasibility Study		Energy Unit, Consultant		9,000	9,000		18,000	
VU16	Study of the viability of changing fishery freezers to run on RE		Fisheries, Consultant			10,000		10,000	
VU17	Community Awareness		VANREPA, local Theatre Group		1,500	1,500		3,000	
VU18	Identification & Promotion of income generation activities		VANREPA, Peace Corps				3,000	3,000	
	Sub-total Vanuatu			**0**	**16,500**	**44,500**	**25,000**	**86,000**	

COMMENTS: The PIGGAREP activities identified for Vanuatu will build on four major initiatives: (1) the JICA-funded Sarakata Hydro Project, (2) the joint Energy Unit and UNELCO EU ACP Energy Facility-funded projects on bio-fuel , (3) the VANREPA's EU ACP Energy Facility-funded project on wind and (4) the Italian-PIC cooperation programme.

The Sarakata Hydro Project
Sarakata has two 300 kW turbine generators, installed in 1994 and 1995, that supplied 70% of the electricity to Luganville, Santo in 1995. Growth in demand has made it impossible for the hydro generators to meet the peak demand, hence this 3rd phase to install a new 600 kW hydraulic turbine generator. This project will benefit the approx 20,000 residents of Santo.

The Sarakata project is owned by the GoV. The project is managed by the Power Utility (UNELCO). UNELCO pays GoV the equivalent of the price of oil saved from generating from hydro at Sarakata. This money goes to the Sarakata Fund which is specifically used to support other rural electrification projects, solar PV and grid-extension, in Vanuatu.

In preparation for the growing demand for electricity in Luganville, PIGGAREP will support the further assessment of the potential downstream and the conduct of a feasibility study which will include risks assessment. The support will also include building the general awareness of the surrounding communities about hydro, it benefits, how to avoid potential disasters and how they can help to look after the hydropower project system.

The joint Energy Unit and UNELCO EU ACP Energy Facility-funded projects on bio-fuel
On 17 July 2007, the European Commission approved the final selection of proposals that will benefit from grant co-funding from the 9th European Development Fund. From the entire PICs, Vanuatu was the only country with proposals to be funded from this facility. Three out of the four approved projects were joint Energy Unti-UNELCO projects. These include the provision of renewable energy using locally produced copra oil as biofuel to: (1) 4 villages of North East Malekula island, Malampa Province, (2) 3 villages in Ambae Island, Penama Province, and (3) 2 villages of Vanua Lava island, Torba Province.

At Malampa, the project will bring energy to 660 households, 6 primary schools and one College, 2 dispensaries, in the villages of Lavalsal, Vao, Orap and Wala in the North East of Malekula Island. This will increase the rate of access to energy from 6.8% to 7.8%.

At Ambae, the project will bring energy to 185 households, 1 primary schools, a branch of the University of the South Pacific (USP), 1 hospital and 1 dispensary, in the villages of Saratamata, Lolowai and Longana in East Ambae. This will increase the rate of access to energy from 6.8% to 7.1%.

At Torba, the project will bring electricity to 103 households, 2 primary schools, 1 college, 1 dispensary, in the villages of Sola and Mosine on Vanua Lava Island in the TORBA Province.

Project Code	Activity	Outcome	Lead / Collaborating Agencies	Year 1 Quarters 1	2	3	4	Year 1 Total	Comments
PIGGAREP will support these projects with studies to look at the sustainability of UNELCO's copra oil supply line including potential value-added products and the environment impacts of its bio-fuel production and use. This study will also look at potential financial risks to UNELCO's copra oil effort and identify mechanisms which could be used to stabilize copra oil prices. Given UNELCO's 25% RE goal and its current and future RE programmes (as well as others' in Vanuatu), PIGGAREP will support a study of the potential benefits of registering these as CDM projects and building the local capacity to effectively manage CDM projects. **The VANREPA's EU ACP Energy Facility-funded project on wind** The Answer is Blowing in the Wind – Improving access to energy services for the communities of Futuna & Aneityum Islands (Vanuatu) using wind technology is the fourth Vanuatu project to be approved for funding under the EU ACP Energy Facility. The main activities of the project will focus on: i) the installation of wind turbines at key public institutions at communities in Futuna and Aneityum, installation of battery banks with sufficient capacity to enable households to recharge batteries, ii) the establishment of an island focused Renewable Energy Service Cooperative (RESCoop) for the management and maintenance of the systems on both Futuna & Aneityum Islands, iii) the setting up of a billing system for the delivery of energy and the rental of efficient lighting kits and recharge battery 'tokens' to households, aimed at sustaining the RESCoop, iv) the training of selected members on the operation, maintenance, financial management of the installed systems as well as potential energy uses and sustainable energy consumption, and v) the identification and promotion of new opportunities and income-generating activities, training of would-be local entrepreneurs. The final direct beneficiaries are over 1,100 people. Approx. 237 households, 4 schools, several kindergartens, 5 health centres (dispensaries), community governing offices, tourism, fishing and handicraft cooperatives, business centres with access to energy from this project. PIGGAREP will support VANREPA's wind project in the areas of awareness and the support and identification of income generating opportunities. PIGGAREP will also provide support to establishing an environment which is conducive to investments on RE in Vanuatu. As such, the Electricity Act will be reviewed to allow private generators to come in and generate RE and sell to the grid. An annual RE and EE programme will be conducted to give due recognition to achievements and innovative ideas in these two areas. **The Italian-PIC cooperation programme** Vanuatu has proposed the following activities to be funded under this programme: o the development of human resource(s) on the implementation and management of policies, strategies and action plans; institutional strengthening by encouraging the participation of relevant stakeholders including the involvement of rural women; and energy data collation and analysis. All these areas are consistent with and given prominence in the Vanuatu National Energy Policy framework. o rehabilitation of solar PV projects on the islands of Santo and Malekula; and (ii) to progress the proposed Talise River hydropower project on the island of Maewo in Penama province o wind resource assessment programme in the six Provinces of Torba (Sola – Vanua Lava Island, and Gaua Island), Sanma (Port Olry Village – Santo Island), Penama (Ahivo area – Pentecost Island), Malampa (Norsup area – Malekula island) and Tafea (Ipota – Erromango Island), (White grass area – Tanna Island), Shefa (Tongariki island).								
	Grand Total for Year 1 Country Activities:			**177,812**	**178,000**	**237,777**	**299,665**	**893,254**	

PMO Costs					
International Consultants (PM)	25,310	25,310	25,310	25,310	101,240
Local Consultant - PA	2,500	4,500	4,500	4,500	16,000
Local Consultant - APA	3,000	9,000	6,000	6,000	24,000
Administration Fess	4,500	4,500	4,500	4,500	18,000
Contractual Services - Ind	1,250	1,250	1,250	1,250	5,000
Travel, Audits and Reviews	10,000	15,000	5,000	5,000	35,000
Contractual Services - Co	1,250	1,250	1,250	1,250	5,000
Equip and Furniture	500	500	500	500	2,000
Comm & Audio Equip	750	750	750	750	3,000
Supplies	500	1,000	1,000	706	3,206
Info Tech Equip	3,000	3,000	3,000	3,000	12,000
Audio Visual and Print Prod	500	500	500	500	2,000
Total for PMO	**53060**	**66,560**	**53,560**	**53,266**	**226,446**
GRAND TOTAL FOR 2008	**230,872**	**244,560**	**291,337**	**352,931**	**1,119,700**

Annex 14

Revised Overall Project Planning Matrix (PPM)/Log Frame

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
I. DEVELOPMENT OBJECTIVE/GOAL			
Reduction of the growth rate of GHG emissions from fossil fuel use in the PICs	GHG emissions in PICs reduced by at least 2 million tons by 2015.	Monitoring and evaluation report on avoided GHG emissions; Project follow-up report, statistical reports and official publications	Support from the PIC Governments throughout project life Political stability in the region
II. IMMEDIATE OBJECTIVES/OUTCOMES			
A. Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground	At least 10 resource monitoring studies completed by 2010 At least 3 RE projects rehabilitated / upgraded by 2011	Resources monitoring reports Monitoring & Evaluation based on data from the project sites	Support from the projects sites, the landowners and the meteorology offices
B. Expansion of the market for RET applications	At least one RET company in 3 PICs by 2012 At least 100 MW of additional RE-based energy systems installed by 2015 1 million litres of copra oil use as fuel by 2012 4 feasibility studies completed by 2010 2 RE-grid connected projects by 2012	Registry of companies, files from responsible ministry Power Utilities statistics Energy Office Reports Feasibility study reports Installation reports	Feasible RE-based energy (power and productive use) projects will be identified. Productive use projects are identified and are commercially viable.
C. Enhancement of institutional capacity to design and implement RE	At least one RE project designed/implemented by local experts in 4 PICs by 2012 At least ten energy offices have established national energy coordination committees, have clear mandates, strategies and action plans by 2012	Annual Reports of the Energy Offices Cabinet decisions.	Energy gets a higher profile in the PIC governments
D. Improvement of the availability of funding for existing and new RE projects	At least US$100 million of new investments in RE by 2015	Bank records, project files at responsible ministry or agency national surveys	Successful projects on the ground are convincing to banks, investors and the private sector
E. Strengthened legal and regulatory structures in the energy and	At least 10 PICs have adopted Energy Policies and Action Plans by	Government gazettes Legal records and parliamentary records	PICs governments are supportive of the new Act to promote RE

environmental sectors	2012. 3 PICs with draft Energy Legislations by 2011.		
F. Increased awareness and knowledge about RE among key stakeholders	500 PICs undertake local training on RE by 2012. Comprehensive annual RE awareness programmes in 10 PICs by 2010	Training Reports Media reports	Community support and participation in the awareness programme

Annex 15

Revised country specific Project Planning Matrices (PPMs)/Log Frames: 2008 -2012

Cook Islands

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
PROJECT GOAL/OBJECTIVE			
Reduction of the growth rate of GHG emissions from fossil fuel use in the Cook Is	GHG emissions in the Cook Is reduced by at least 50 tons by 2015.	Monitoring and evaluation report on avoided GHG emissions; Project follow-up report, statistical reports and official publications	Support from the Cook Is Government throughout project life Political stability in the region
OUTCOMES			
A. Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground			
CK1- Mangaia Power System Upgrade	The 40 kW Mangaia wind/diesel Power System becomes fully operational by Year 2012 2 productive activities supported by the Mangaia Power System by EOP.	Rehabilitation contract Rehabilitation Reports	Funding for upgrade confirmed Productive activities are implemented and supported by the GCI.
CK5 -Rarotonga and Aitutaki Wind Power Development Project. TAU RE development activities.	A 2 MW wind farm at Rarotonga becomes operational by Year 2015. 2 productive activities supported by the Rarotonga Power System by EOP.	Rarotonga wind farm integration study report, geo-technical analysis report, updated feasibility study report, tender document, duly signed contract with wind turbine supplier, commissioning report, monitoring visit reports, TAU annual report,	Land owners in Rarotonga agree to use of land for wind farm, financing identified and agreed to
CK13 -Technical design and resizing of individual Pukapuka SHS to suit each household's needs	100% operational Pukapuka diesel/PV hybrid system by Year 2015 *2* productive activities supported by the Pukapuka Power System by EOP.	Feasibility study report, design specification document, tender document, duly signed contract with suppliers, commissioning report, monitoring visit reports, Energy Division monthly generation data report	Pukapuka island council continues to support the proposed hybrid system
CK14 -Technical assistance to conduct a feasibility study of the Rakahanga wind-diesel hybrid project including identifying and	100% operational Rakahanga diesel/wind hybrid system by Year X *2* productive activities supported by the Rakahanga Power System by EOP.	Feasibility study report, design specification document, tender document, duly signed contract with suppliers, commissioning report, monitoring visit reports, Energy Division monthly generation data report	Rakahanga island council continues to support the proposed hybrid system

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
costing the missing components			
CK5 - Rarotonga and Aitutaki Wind Power Development Project. TAU RE development activities.	100% operational 200-300 kW Aitutaki wind/diesel system by Year 2012 *2* productive activities supported by the Aitutaki Power System by EOP.	Feasibility study report, design specification document, tender document, duly signed contract with wind supplier, commissioning report, monitoring visit reports, Energy Division monthly generation data report	Aitutaki member of Parliament and island continues to support the proposed hybrid system
CK16 - Biofuel feasibility study for the Northern Group	*2* feasible bio-fuel applications by Year 2010 *2* Biofuel-based productive activities implemented by EOP	Bio-fuel feasibility study report for Northern Group Report on commercial/cottage industries using biofuels for meeting energy requirements	Northern Group people are interested in using biofuels Sustained interest in productive uses of biofuels is present
CK11- MAM Wind resource assessment	*2* identified potential wind energy sites in Mauke, Mitiaro and Atiu by Year 2011 *2* potential productive use applications supported by wind energy by 2011	Wind resource assessment report including wind atlases for Mauke, Mitiaro and Atiu Report on potential commercial/cottage industries using wind energy for meeting energy requirements	
CK15 - Biofuel Development Project	*2* feasible bio-fuel applications by 2011 *2* Biofuel-based productive activities implemented by EOP	Monitoring visit reports, Energy Division monthly generation data report	Bio-fuel in power systems in Northern group is feasible
B. Expansion of the market for RET applications			
CK17- Exposure visit to the recycling facilities for cooking oil at USP and NZ **CK18** -Technical support to the marketing of the recycled cooking oil	*10,000 liters* of spent cooking oil collected from private sector and used for power generation and transportation annually starting Year 2010 *10,000 litres* of recycled/processed spent cooking oil used for transport annually starting 2011 Cumulative *X kWh* of electricity generated using	Bio-fuel feasibility study report for Northern Group, energy company registered, cooking oil sale contracts with outer island councils, bio-fuel sale contracts with government departments for use in government vehicles, bio-fuel sale contracts with outer island councils for use in power systems Record of annual power generation from users of	a) Cooking oil for power generation and transportation feasible b) Private sector, outer island councils and government departments interested in buying and using cooking oil for power generation and transportation

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
	recycled/processed spent oil by EOP *3* sellers of recycle/processed spent oil by EOP *2* productive activities that utilizes recycled/processed spent oil by EOP	recycle/processed spent oil Registry of business establishments Report on productive uses of recycled/processed spent oil	
C. Enhancement of institutional capacity to design and implement RE			
CK11 - MAM Wind resource assessment and wind power training	8 technicians from Atiu, Mitiaro, Aitutaki and Mauke trained on operation and maintenance of wind/diesel systems *2* feasible wind energy sites by 2011 *2 MW* capacity of planned and designed feasible wind power generation projects by EOP	Wind energy resource assessment reports Wind energy project documents	
D. Improvement of the availability of funding for existing and new RE projects			
E. Strengthened legal and regulatory structures in the energy and environmental sectors			
CK22 -Support to the Committee working on renewable energy standards	*X number* of approved national technical RE standards by EOP *Y number* of standards compliant RE equipment suppliers/manufacturers annually starting Year Y	Document on national technical RE standards,	Political stability
CK2- Tariff Review Study	*X number* of approved and implemented policies/regulations supportive of RE electricity by EOP	Documentation of parliamentary approval of policies/regulations Official gazette of Government policies/regulations	Island administrations agrees to proposed changes in local tariffs and implement such Revised Energy Act to refer to national technical RE standards, national wide tariff review study
F. Increased awareness and knowledge about RE among key stakeholders			
CK20 - Energy Office RE information centre	Operational and adequately staffed RE Information Centre in Rarotonga by Year X *Y number* of satisfied	Letter from Minister of Transport & Energy approving the establishment of Energy Office RE Information Centre	Political stability, government budget for core positions Energy Divisions continues

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
	clients of the centre each year starting Year Y		
CK4 - Public Awareness Campaigns	Completed Public wind energy awareness campaigns on Rarotonga by Year X *X number* of interested wind energy project developers and investors by Year X	TV spots, newspaper articles, public meetings including at community level, etc Enquiries from Ministry of Energy for potential wind energy project permits.	Local governments and citizenry are interested and support the campaign program.
CK19 - Schools Environment Awareness Programme	Completed National RE awareness campaign in schools by Year X *X number* of households that are utilizing RE each year starting Year X	Letter from Minister of Education approving National RE awareness campaign in schools, pamphlets, outputs from b, poster competition Household energy surveys	Local schools and the CKI citizenry are interested and cooperate in the program
CK21 - RE / Green Award Programme for the tourism sector	Annual implementation of the National RE/Green Award Program for tourism sector starting Year X	Documentation of the yearly awards	Interest on the Awards from the Tourism industry is sustained

Fiji

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
I. DEVELOPMENT OBJECTIVE/GOAL			
Reduction of the growth rate of GHG emissions from fossil fuel use in Fiji	GHG emissions in Fiji reduced by 242.85 tons by 2012	Monitoring and evaluation report on avoided GHG emissions; Project follow-up report, statistical reports and official publications	Support from the Fiji Government throughout project life Political stability in the country
II. OUTCOMES			
A. Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground			
FJ1 - Hydro resource assessment in one of the potential hydro site	1 hydro site assessed by 2010	Hydro Assessment report	No monitoring equipments
FJ2 - Detailed designing for hydro projects in the Bua (Navakasali/Naruwai), Cakaudrove areas	3 hydro projects detailed designing completed by 2009	Detailed designing report & tender documents for construction	Land issues
FJ4 - Strengthen energy statistics in terms of renewable based data (prices, capacity, supply, potential, etc, etc)	Energy statistics collated; energy database updated and energy statistics yearbook printed by 2010	Energy Statistics yearbook	Limited access to energy statistics Limited resources to collect, update and print energy statistics book
FJ3 - Detailed designing and construction of hybrid (wind/diesel) project on Gau Island (Vadravadra) - to include maintenance, management, operation, etc (holistic approach)	• 1 hybrid (wind/diesel) detailed designing completed by 2012 • 27.45 kg CO2 reduced every year	Detailed designing report & tender documents for construction Design report	Incomplete consultancy on detailed designing of hydro and wind (hybrid) projects Lack of political will No financial resources to construct these hydro/wind projects (CO2 reduction does not become a reality
B. Expansion of the market for RET applications			
FJ5 - Establishment of the Biogas market	• Biogas framework finalized and implemented by 2009 • 3 private companies recruited under the biogas market (designs, construction, maintenance, operation, etc) by 2010	• Biogas Framework report • Project follow up report • Biogas Projects reports	• Limited resources • Lack of local expertise on biogas technologies • Land issues • Environment issues

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
	• 12 biogas projects implemented under the Biogas market by 2011 • 6.03 tons CO2 reduced every year		
C. Enhancement of institutional capacity to design and implement RE			
FJ6 - Holistic training provided for Energy staff, rural communities, village technicians and relevant stakeholders of the Renewable Energy sector	• 8 Energy staff trained on an annual basis	• Training reports	• High staff turnover • Limited permanent positions being filled
D. Improvement of the availability of funding for existing and new RE projects			
FJ7 - PIGGAREP National Coordinator (salary and other benefits); Project Post for Energy Statistics	• 2 personnel recruited • 2 Training packages for rural communities (technician, users) established by 2008 • 4 of trainings conducted every year till 2010 • 15 participants trained during each training session till 2010 • 2 project posts established • 20. 58 tons CO2 reduced	• Project follow up report • Training reports • Project follow up reports	• Limited accessibility of training venues • Limited resources • Trainees do not practice RET skills • Project posts not being approved by PSC • Personnel does not meet MQR
E. Strengthened legal and regulatory structures in the energy and environmental sectors			
FJ8 - Review /adopt / enact relevant policies, frameworks, legislations for RET; Enactment of Fiji's Energy Bill	• Review of Renewable Energy Development Programme undertaken by mid 2008 • REDP framework completed and implemented by 2008 • Draft Bill on the Promotion of the Development, Use and Dissemination of New and Renewable Energy by 2008 • Remote Area Power Supply Systems (RET) User Guide and Maintenance Advice printed and	• REDP Review Report • REDP Framework Report • Draft REDP Bill • RAPS (RET) User/Maintenance Guide • Energy Act	• Limited resources • Lack of political will

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
	disseminated to relevant stakeholders by 2008 • Energy Act passed in Parliament by 2010		
F. Increased awareness and knowledge about RE among key stakeholders			
FJ9 - RE advocacy programmes for the general public and schools (through trade fairs / shows, the radio, newspapers and TV	• 2 RET videos produced (1 on user/maintenance; 1 on general information) by 2012 • 2 radio advertisements/interviews per year till 2012 • 3 newspaper advertisements per quarter till 2012 • 2 TV(RET based) interviews, programmes integrated into the Fiji One TV programme till 2012	Project follow up report	Limited resources Unavailability of site for RE Information site
FJ10 - Establishment and funding of a RE information centre in the Energy Office	RE Information Center established by 2012 4 of RET displays installed by 2012	Project follow up report Follow up report	

Kiribati

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
DEVELOPMENT OBJECTIVE/GOAL			
Reduction of the growth rate of GHG emissions from fossil fuel use in Kiribati.	GHG emissions in Kiribati reduced by at least 3.18 ktons by 2012 and 780 M tons by 2015 from wind and biofuel when implemented..	Monitoring and evaluation report on avoided GHG emissions; Project follow-up report, statistical reports and official publications	Support from the Governments throughout project life and Political stability in the country.
II. OUTCOMES			
A. Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground.			
KI3 - Technical visit to Biofuel development in Vanuatu/Majuro or Philippines.	3 technical staff technical exposure visit to Biofuel in selected PICs.	Technical visit report.	Assumption: Support from country where training will be carried for technology transfer. Risk: Resignation of the technical staff trained.
KI4. Technical visits to PV-grid development in Tuvalu.	3 technical staff technical exposure visit PV-grid to Funafuti.	Technical visit report.	Same as above.
KI7. Wind Monitoring for Christmas Islands	Installation of wind monitoring device on Christmas and wind data log recording.	Installed wind monitoring system and recorded wind data.	Assumption: Availability of TA Risk: Delay in securing project fund and procurement.
KI9. EU EDF 10 REP-7 Renewable Energy	Implementing Solar PV project for SHS and community solar system in rural areas.	Quarterly assessments report on the project.	Assumption: Availability of local experts during the course of the project. Risk: Delay in implementing of the project and procurement.

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
B. Expansion of the market for RET applications			
KI8. Wind power feasibility studies for Christmas Islands	Feasibility study carried on site and preparation of report.	Feasibility study report.	Assumption: Availability TA. Risk: Preparation and submission of report
KI10. Refresher technical training following the EDF 8 OI electrification project.	Successful commercial and sustainable expansion on SEC 1,000 SHS by 2015.	SEC administration records on the small	Assumption: Availability assistance Risk: Project delays due to procurement.
KI12. Feasibility study on 6kW PV-grid pilot project at SEC Headquarter.	TA training for installation to local technicians and manual report preparation.	Number of local technicians' trained and Manual report	Assumption: Availability of TA Risk: Resignation of trained technicians.
KI13. Feasibility study on utilizing biofuel for transport and electrification.	TA to carry out the feasibility study and report.	Feasibility study report	Assumption: Availability TA. Risk: Preparation and submission of report.
KI20. SOPAC-REEEP Pacific Micro Energy Service Company Project	Procurement and installation of LUTW systems on the selected outer islands for the pilot project.	Number of successfully installed LUTW solar systems in households.	Assumption: Availability of SEC technician for installation on the island. Risk: Delay in the procurement.
C. Enhancement of institutional capacity to design and implement RE			
KI1. EPU Energy Planning Budget	Ministry operational plan to be carried out by EPU annually based on the national development strategy 2008 - 20012	Quarterly report on national activities carried out by EPU to be monitored by Secretaries.	Assumption: Availability of EPU staff to carried out time framed activities. Risks: Delays in completing activities for reporting.

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
KI11. Training and research on RETs	2 staffs specialized RE Masters Degree..	University records.	Assumption: Availability of scholarship funding sufficient for the training. Risk: Resignation of the technical staff trained.
D. Improvement of the availability of funding for existing and new RE projects			
KI2 - PIGGAREP committee quarterly meetings	Assistance of project proposals on applicable RETs by stakeholders.	Project proposals developed are perused and recommended by committee members before submission to potential donors.	Assumption: Availability of expert in drafting project proposals. Risks: Inefficient submission of project to donors through funding procedures and under-prioritizing RETs in development funding.
E. Strengthened legal and regulatory structures in the energy and environmental sectors.			
KI5 - Consultations on the National Energy Policy and drafting of an Action Plan	Energy Policy and Strategic Action Plan in place by 2010	Published Energy Policy and Action Plan	Assumption: Endorse by parliament Risk: Commitment of government and availability of consultant.
KI6 - Review of the existing Electricity Act.	Drafting of national electricity act and in place by 2010.	Published energy act.	Same as above.
KI18 - Review of the existing EIA processes with a view to including renewable energy	Inclusion of RE in EIA review.	Published revised EIA	Same as above.

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
sources.			
KI19 - Development of a National Climate Change Mitigation Policy and Plan.	Climate change mitigation policy and plan development.	Published CC Mitigation policy and plan document.	Same as above.
KI17. SOPAC PIEPSAP Project	Drafting of NEP and NSAP.	Published NEP and NSAP.	Assumption: Endorse by parliament Risk: Commitment of government and availability of consultant.
F. Increased awareness and knowledge about RE among key stakeholders			
KI21 - Training on assessing the GHG saving potential of new renewable energy and energy efficiency projects	Training on GHG saving carried out.	Attendance record of participation.	Assumption: Selection of staff to be trained to carry out the activity. Risks: Trained staff changing post.
KI22 - Public awareness on RETs.	2 radio ads annually. 4 newspaper ads annually.	Records of advertisement.	Assumption: Availability of reports to be advertised. Risk: Informative ads presentation.
KI9. EU EDF 8	RESCO hardware component procurement and installation	Installed RESCO hardware component.	Assumptions: Availability of TA for installation of components. Risks: Delay in procurement.

Nauru

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
I. DEVELOPMENT OBJECTIVE/GOAL			
Reduction of the growth rate of GHG emissions from fossil fuel use in Nauru	GHG emissions in Nauru reduced by at least xxx tons by 2015.	Monitoring and evaluation report on avoided GHG emissions; Project follow-up report, statistical reports and official publications	Support from the Nauru Government throughout project life Political stability in the region
II. OUTCOMES			
A. Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground.			
NA8- Wind monitoring	Wind monitoring study completed at 2 sites for 2 years.	Wind monitoring report and data from the project sites.	Permission granted from the land owners with the assistance from the Govt.
NA9 - Investigation into grid connected PV	Grid connected PV feasibility studies for the airport and 1 school Grid connected PV study for the whole of Nauru.	Grid connected PV feasibility study report. Grid connected PV report	Support from Govt. 24 hour grid electricity availability assumed from 2009 onwards
NA1 - The REP- 5 in Nauru	At least 1 successfully implemented renewable energy installation	Nauru Utilities Authority (NUA) annual report.	Successful training for maintenance and assuming improved grid stability
B. Expansion of the market for RET applications			
NA9 - Investigation into grid connected PV	At least *50kW* of RE systems connected to the grid by 2012.	NUA annual report.	Stable grid and 24 hour grid electricity availability assumed from 2009 onwards
NA7 - Training in renewable energy systems	At least *5* electrician from NUA and private sector trained in RETs	NUA training reports	Not enough people with minimum qualifications to participate in the training.
C. Enhancement of institutional capacity to design and implement RE			
NA5- Energy Officer	At least one Govt staff dedicated to development / implementation of renewable energy projects Creation of Energy Office with *2* staff at the utility.	NUA annual report NUA annual report.	Financial and human capacity constraints. Continued support from Govt, support from NUA management.
D. Improvement of the availability of funding for existing and new RE projects			
NA10- Govt of Italy and PIC cooperation	At least *$2* + million of new investment in RE	Financial agreements with donors	Continued support from donors and in-country

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
and EDF 10 RE programme	by year 2012.		capacity to implement.
E. Strengthened legal and regulatory structures in the energy and environmental sectors			
NA11- The SOPAC PIEPSAP Project	Government endorsement of an Energy Policy New legislation on the energy sector	Cabinet records. Parliamentary records	Continuation of Govt support of RE. Continuation of Govt support of RE and capacity to develop legislation
F. Increased awareness and knowledge about RE among key stakeholders			
NA3- Awareness raising and public education – educational material, information days in all communities, (working with NGOs and community leaders), school fairs, renewable energy competitions, meetings with government officials, information days for government	Comprehensive documentation of a RE projects and distribution to schools and the community. Participation in RE school competitions and information days Documentation available on RE from the utility's Energy office. At least one NGO working on renewable energy issues and information dissemination	Project monitoring survey. Activity reports of AMU and Energy Office Energy office records NGO annual report and Energy Office activity reports	Support from Govt and NUA Same as above. Same as above. On-going coordination between Energy office and NGOs.

Niue

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
I. DEVELOPMENT OBJECTIVE/GOAL			
Reduction of the growth rate of GHG emissions from fossil fuel use in Niue	GHG emissions in Niue reduced by at least xxx tons by 2015.	Monitoring and evaluation report on avoided GHG emissions; Project follow-up report, statistical reports and official publications	Support from the Niue Government throughout project life Political stability in Niue
II. OUTCOMES			
A. Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground.			
NI10 - Grid Connected Wind Power Study	Wind monitoring study completed at the recommended site (Hakupu) for 2 years. Grid connected PV study for the whole of Niue.	Wind monitoring report and data from the project site. Grid connected PV report.	Permission granted from the landowners with the assistance from the govt. Support from MET office.
NI9 - PV Study for Water pumping - Hybrid system	PV for water pumping study. At least 1 RE successfully implemented.	PV for water pumping report. Evaluation report through NPC & Govt.	Support from PWD & MET. Same as 1 above.
NI11- Study on RE Storage	Study on RE storage	Report for RE Storage.	Environment issues.
B. Expansion of the market for RET applications			
NI3 - Review/ Monitoring/ Expansion	More international suppliers active in RET's in Niue.	Listing of companies form Chamber of Commerce.	Markets too small.
NI10 - Grid Connected Wind Power Study	At least *75kW* of RE system connected to the grid by 2011.	NPC annual report.	Land issues.
NI4 - Capacity Building, NPC/Private Sector/	At least *5* electrician from NPC and private sector trained in RET's	NPC training reports	Not enough people with minimum qualifications.

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
C. Enhancement of institutional capacity to design and implement RE			
NI4 - Capacity Building, NPC/Private Sector/	At least *one* RET designed and implemented by NPC with Technical Assistance.	NPC Annual reports	Increase annual budget form GoN for NPC new RE initiatives.
NI6- Energy Coordinator / AFO	Creation of Energy Office with *1* staff at utility.	NPC annual report.	To be supported by the revised energy policy.
D. Improvement of the availability of funding for existing and new RE projects			
NI2 - EDF 10 RE Programme	At least *$1* + million of new investment in RE by year 2012.	Project files provided.	Influx of successful projects.
NI12- Tariff Study RE	RE tariff study	NPC reports	Has to have good RET system in place
E. Strengthened legal and regulatory structures in the energy and environmental sectors			
NI7 - Develop renewable energy plans and targets for 2010, 2020 and 2050	Development of RE targets 2010, 2020 & 2050. .	Parliamentary records.	Govt continuation of support of RET's.
NI8 - Develop/Review fiscal policies to facilitate the achievement of the RE targets / Expansion	Review fiscal policies to facilitate RE targets	Report on fiscal policies to support RE	Revised Energy Policy which emphasis more on RET's.
F. Increased awareness and knowledge about RE among key stakeholders			
NI5 - Public Awareness/Campaigns	Comprehensive documentation of a RE projects and distribution to schools and the community. Documentation available on the internet.	Project monitoring survey. The Govt website	Support from NPC and Govt and good internet access.

SOLOMON ISLANDS

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
I. DEVELOPMENT OBJECTIVE/GOAL			
Reduction of the growth rate of GHG emissions from fossil fuel use in the PICs	GHG emissions in PICs reduced by at least 2 million tons by 2015.	Monitoring and evaluation report on avoided GHG emissions; Project follow-up report, statistical reports and official publications	Support from the PIC Governments throughout project life Political stability in the region
II. IMMEDIATE OBJECTIVES/OUTCOMES			
A. Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground	10 hydro resource monitoring studies completed by 2010 At least 2 RE (hydro) and 1 biofuel projects commercially sustainable in SI by 2015	Resources monitoring reports Monitoring & Evaluation based on data from the project sites	Support from the projects sites, the landowners and the meteorology offices. Availability of funds
B. Expansion of the market for RET applications	At least 4 RET company in SI by 2010 At least 23 MW of additional RE-based energy systems installed by 2015. 5-10% of the 85% rural populace without electricity will have access to power A least 30 additional social services (schools, health centres) in SI using RE	Registry of companies, Files, Ministry of Commerce Employment and Trade, SIEA, Statistical data from Statistics Division (MoF)	Feasible RE-based energy (power and productive use) projects will be identified. Productive use projects are identified and are commercially viable. Gold Ridge Mining Ltd preliminary negotiations are solved and political will Proper feasibility studies done and reports are representative of actual situations
C. Enhancement of institutional capacity to design and implement RE	At least 3 RE project designed/implemented by local experts in SI by 2010 Energy Division has established national energy coordination committees, has clear mandates, strategies and action plans	Annual Reports of the Energy Office	Energy gets a higher profile in the SI Government (SIG)
D. Improvement of the availability of funding for existing and new RE projects	US$40 - US$60 million of new investments in RE by 2015	Bank records, project files at Ministry of Mines and Energy or agency	Successful projects on the ground are convincing to banks, investors and the private sector.

			The major Project like the proposed Ngalimbiu Hydro Scheme takes off the ground
E. Strengthened legal and regulatory structures in the energy and environmental sectors	SI has a reviewed Electricity Act in place by 2010 RE Unit established (RE Policy in place) by 2010 Updated SI's synthesis of the energy sector GHG emission inventory	Government gazettes Legal records and parliamentary records	SIG is supportive of the new reviewed Electricity Act and RE Policy to promote RE Proper and accurate records are kept
F. Increased awareness and knowledge about RE among key stakeholders	Comprehensive documentation of 3 RE projects and accessible via internet based information system by 2010, Radio, TV, Newspaper columns, Flyers, Posters, Documented Awareness Talks in Schools Extent of energy sector professionals, politicians, investors, senior government officials and the general public that are aware of the benefits of RE and local success stories Percentage approval rating for RE technologies and projects in SI At most 5-10 additional SI nationals with a university degree on the technical aspects of RE	Project Reports and Ministry of Mines and Energy Web-pages Wider RE participation by these energy key stakeholders Statistical Report (MoF) Graduates in RET degrees	Access to the internet continues to increase in the SI, Funding availability Media support Funding availability Media support Proper Administration/ execution of Staff Development Plan Specific funding is available

Tonga

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
I. DEVELOPMENT OBJECTIVE/GOAL			
Reduction of the growth rate of GHG emissions from fossil fuel use in the Tonga	Reduction on GHG emission through utilization of RE technologies by around (19.47%) 6.33Gg CO_2 equivalent by 2011 Around 3.9 Gg CO_2 equivalent reduced annually	2nd NatCom Report. Project Report.	Government will ratify the Kyoto Protocol and place a priority on CC and GHG mitigation. Continuing donor support. Political stability.
II. OUTCOMES			
A. Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground			
TO2 Technical evaluation of the solar installations	360 installed SHS evaluated in 2008	Evaluation Report	Possible cost overruns due to remoteness and unreliability of the shipping and air services.
TO4 Govt of Italy – PIC Cooperation	At least 80 new demonstration & 289 rehabilitated SHS by 2011.	Italian Project Report/EPU Annual Report	Delays in the implementation
TO6 Technical evaluation of the Italian solar installations	289 SHS installed through Italian funding evaluated by 2010	Evaluation Report	The Italians will fund SHS hardwares.
TO8 EU EDF 10	At least 1 – 2MW (19%) installed capacity of a large scale wind & solar sources by 2011. Around 19.47% of electricity produced from RE	EDF Project Report/EPU Annual Report	EU bureaucracy and delays in the implementation
TO12 Wind resources assessments	2 sites assessed by end of 2009	Monitoring Report / Wind Atlas produced.	Landowners agree to put up the monitoring tower in their land.

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
Demonstration of the viability of copra oil for remote islands electrification (linked to TO4)	One demonstration conducted by end of 2009	Demonstration Report	No increases in the world price for copra oil. There is interest on biofuel from local entrepreneurs.
Wind Power Feasibility Studies	2 Wind power feasibility studies completed by end of 2010.	Feasibility study reports.	Wind resource assessments in TO10 are completed before 2010.
Biofuel feasibility study	1 Feasibility study completed by end of 2008.	Feasibility study report.	Availability of private sector funds to complement PIGGAREP's 20 k budgeted for the study.
B. Expansion of the market for RET applications			
TO10 RE Market Support Development	2 licenses issued by the RE Authority to 2 RE Operators by end of 2010.	RE Authority licensing report.	RE Bill is passed by Parliament in 2008.
Wind Power Feasibility Studies	2 Wind power feasibility studies completed by end of 2010.	Feasibility study reports.	Wind resource assessments in TO10 are completed before 2010.
Biofuel feasibility study	1 Feasibility study completed by end of 2008.	Feasibility study report.	Availability of private sector funds to complement PIGGAREP's 20 k budgeted for the study.
C. Enhancement of institutional capacity to design, implement and manage RE projects			
TO1 Joint annual committee meetings	A National Solar Energy Society is incorporated and registered.	Registration of Societies and Businesses.	Unwillingness of the District Committees to merge as a National Society.
D. Improvement of the availability of funding for existing and new RE projects			
E. Strengthened legal and regulatory structures in the energy and environmental sectors			

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
TO11 Energy Legislation Review	An Energy Bill is drafted by end of 2011	Draft Energy Bill	Planned political reform in 2010 takes place peacefully. Tonga Power will become a private entity by 2010.
F. Increased awareness and knowledge about RE among key stakeholders			

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
TO3 Training of village water committees and island technicians	At least 50 village committee members trained by end of 2010	Training Reports	
TO5 Exposure visit to the Vanuatu, N.Caledonia and other PIC RE developments	SHS monthly fee collection rate increased to 98%.	Solar Energy Committee Annual Reports	
TO7 Training of island technicians and the island communities	2 officers exposed to new RE innovative ideas by end of 2009 At least 100 people trained by end of 2012	Travel Reports Training Reports.	
TO9 Training on RE for AMREC	At least 7 members of the AMREC participate in the training At least 5 members of the AMREC tender for the supplies and services for the EDF 10 project	Training Reports EDF 10 Tender Evaluation Reports	
TO17 RE Awareness Programme	Establishment of RE Centre for the Public. SHS Training Materials, brochures, posters in Local language Publication of SHS Training Materials, brochures, posters in Local language		

Tuvalu

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
I. DEVELOPMENT OBJECTIVE/GOAL			
Reduction of the growth rate of GHG emissions from fossil fuel use in Tuvalu	GHG emissions in Tuvalu reduced by at least 969 tons by 2012	Monitoring and evaluation report on avoided GHG emissions prepare annually.	Support from the Government throughout project life Stable Govt.
II. OUTCOMES			
A. Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground			
TV2- Preparation of wind fuel saving project for Funafuti	Wind turbine to be operational by 2010.	Wind monitoring Feasibility study report.	Assumption – Staff knowledge in wind turbine Risk-Staff turnover
B. Expansion of the market for RET applications			
TV4-Support to TEC outer islands grid connected RE Projects.	Three (3) outer islands grid connected solar PV connected by 2009	Reduction in the procurement of diesel fuel for the 3 islands.	Assumption-Project in operation Risk – Staff turnover and availability of backup supply
TV8-Implement 2 biogas digesters for human (1x6m^3) and animal waste (1x8m^3)	Construction of biogas digesters for human and animal wastes by 2008	Construction report	Assumption – Availability of expert on digesters Risk-Staff turnover
TV9 – Installation and Implementation (sheds & machinery) of a 5kw gasification unit-including	Construction of sheds and machinery for a 5kw gasification unit.	Construction report	Assumption-Availability of expert on gasification. Risk-Staff turnover

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
domestic waste streaming and collection and compost toilet			
C. Enhancement of institutional capacity to design and implement RE			
TV5-Study and Establishment of RE unit at TEC	A RE Unit established at TEC by 2009	TEC Annual and Board meetings report	Assumption – Availability of technical staff. Risk – Staff turnover
D. Improvement of the availability of funding for existing and new RE projects			
E. Strengthened legal and regulatory structures in the energy and environmental sectors			
TV7-Energy Policy and Strategic Action Plan yet to be approved by Parliament in 2008	Energy Policy and Strategic Action Plan in place and adopted by 2008	The published Energy Policy and Action Plan	Assumption- – Endorse by parliament Risk- Support of parliament
F. Increased awareness and knowledge about RE among key stakeholders			
TV1-Maintenance and monitoring Training TEC Engineers	5 TEC Engineers Trained in maintenance and monitoring in grid connected PV system in 1st quarter of 2008	Prepare training report TEC Annual Report	Assumption – Better qualify engineers Risk – Engineers not leave TEC
TV6-Training of TEC Outer Islands Supervisors on RE Technology	7 TEC Supervisors trained on RE sources	Prepare training report TEC annual report	
TV3- Dissemination of biogas technology introduced by PIEPSAP	More than 90% of Tuvalu population aware of biogas technology by end of 2008		

VANUATU

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
I. DEVELOPMENT OBJECTIVE/GOAL			
Reduction of the growth rate of GHG emissions from fossil fuel use in Vanuatu	GHG emissions in Vanuatu reduced by at least 561 tons by 2015.	Monitoring and evaluation report on avoided GHG emissions; Project follow-up report, statistical reports and official publications	Support from the Vanuatu Government throughout project life Political stability in Vanuatu
II. OUTCOMES			
A. Improved knowledge about RE resources potential and increase the number of successful commercial RE applications on the ground			
VU 2 Purchase and installation of equipment (current meter, portable GPS, rain gauges,)	All equipments purchased and installed by end 2009 B	Report on successful installation of equipment (procurement receipts, installation manual, etc)	Timely supply of equipment
VU 5 Vanuatu Hydropower Resource Mapping	Mapping of all hydropower sites in the country by end of 2008 - at least 30KW of hydropower developed by 2012	Map printed and available	Availability of human resources, data availability and accuracy
VU 6 Feasibility Study of the Tasiriki River hydro resource potential	Feasibility study completed, EIA and Disaster Risks assessed and recommendations provided by end 2010	Report on feasibility study	Data availability and accuracy

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
VU 14 Review of the 2002 Talise Mini Hydro Feasibility Study	Feasibility study completed by end 2008 Feasibility study completed. - at least 50 kW hydro is build by 2012	Report on feasibility study.	Availability of data and appropriate consultant.
VU 16 Study of the viability of changing fishery freezers to run on RE	Study completed and recommendations provided by end of 2008	Report of study	Accessibility of site, data availability and accuracy and availability of suitable consultant.
B. Expansion of the market for RET applications			
VU 18 Identification & Promotion of income generation activities	Income generation activities identified and promoted by end 2010	List of income generating activities including potential value and Market	Accessibility to Market, Willingness of the community to participate
C. Enhancement of institutional capacity to design and implement RE			
VU 9 CDM Study	Study completed including recommendations by end 2009 - 3 REP prepared for funding under CDM	Report of study List of CDM opportunities, - Project proposal documents	Data availability and accuracy, availability of suitable consultant - Availability of human resources
D. Improvement of the availability of funding for existing and new RE projects			
VU 4 Drafting of a Project / Financing Proposal	Project / Financial proposal completed by end of 2010 At least 30kW of hydro project discussed for funding with donors.	Robust Project / financial proposal	Timely completion of proposal components
E. Strengthened legal and regulatory structures in the energy and environmental sectors			

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Critical Assumptions and Risks
VU 10 Review of the existing Electricity Act	Study completed and recommendations provided by end of 2009 - two IPP selling RE to utility by 2012	Report on study-recommendations on price stabilization mechanisms - Contract document with the IPP and concessionaire	Willingness of investors to produce RE and sell to concessionaire, Political will
VU 11 Review of the Rural Electrification Policy	Review of the Rural Electrification Policy completed and endorsed by COM by 2009 - at least 20 kW (Solar PV) of REPs installed in rural areas by 2012	Progress report on consultation meetings. -Rural Electrification Policy document.	Political will, availability of SOPAC personnel to conduct review study
F. Increased awareness and knowledge about RE among key stakeholders			
VU 8 Community Training on the NE Malekula, Saratamata and Vanualava	Community training conducted in all three provinces by mid 2012 - 3 RESCO formed.	Training Manual and training report including no. of trained participants	Commitment of trainer and participants
VU 12 Renewable Energy and Energy Efficiency Programmes	Awareness raising conducted in 5 schools by end 2012	Performance details, report on awareness raising	Willingness of schools to participate, , availability of funds
VU 17 Community Awareness	Awareness raising conducted on the two islands by end 2010	Performance details, local theatre group drama and video - feedback from communities	Participation of local theatre group
VU 19 Provincial seminars and visibility actions	At least two provincial seminars provided and visibility actions (radio/TV /newspaper programs, etc) by end 2010	Seminar documents, radio talk shows, TV spots/documentary, newspaper ads etc	Willingness to participate in seminars, approval from community leaders