Validation Workshop on the Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE) – a SE4All Centre of Excellence

12–13 March 2014, Nadi, Fiji

SPC Secretariat of the Pacific Community
UNIDO

Secretariat of the Pacific Community
Suva, Fiji
2014
# Table of content

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGENDA</td>
<td>iv</td>
</tr>
<tr>
<td>Summary of proceedings</td>
<td>1</td>
</tr>
<tr>
<td>Session 1: Words of welcome</td>
<td>2</td>
</tr>
<tr>
<td>Adoption of agenda, explanation of workshop objectives</td>
<td>2</td>
</tr>
<tr>
<td>Update on regional sustainable energy centres in other regions</td>
<td>2</td>
</tr>
<tr>
<td>Session 2: RE &amp; EE needs assessment on PCREEE</td>
<td>3</td>
</tr>
<tr>
<td>Session 3: Presentation on the technical mandate and programme options for PCREEE</td>
<td>4</td>
</tr>
<tr>
<td>Session 4: Presentation on institutional design options for PCREEE</td>
<td>4</td>
</tr>
<tr>
<td>Session 5: Financial sustainability and budget requirement for the first operational phase of the centre</td>
<td>5</td>
</tr>
<tr>
<td>Session 6: Discussion on the needs and technical mandate of the centre</td>
<td>5</td>
</tr>
<tr>
<td>Session 7: Presentation of options for the selection procedure and qualification criteria for the host organisation</td>
<td>6</td>
</tr>
<tr>
<td>Martin Lugmayr from UNIDO presented on the options for the selection procedure and qualification criteria for the host organisation</td>
<td>6</td>
</tr>
<tr>
<td>Session 8: Presentation of the workshop minutes</td>
<td>7</td>
</tr>
<tr>
<td>Workshop closing</td>
<td>7</td>
</tr>
</tbody>
</table>

## Annexes

<table>
<thead>
<tr>
<th>Annex</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annex 1: List of participants</td>
<td>8</td>
</tr>
<tr>
<td>Annex 2: Welcome statement by SPC</td>
<td>14</td>
</tr>
<tr>
<td>Annex 3: Private sector group discussion</td>
<td>16</td>
</tr>
<tr>
<td>Annex 4: Institutions group discussion</td>
<td>17</td>
</tr>
<tr>
<td>Annex 5: Government officials’ group discussion</td>
<td>22</td>
</tr>
<tr>
<td>Annex 6: CROP agencies group discussion</td>
<td>26</td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>08:30</td>
<td>Registration</td>
</tr>
<tr>
<td>09:00</td>
<td>Prayer</td>
</tr>
<tr>
<td>09:10</td>
<td>Adoption of the agenda, explanation of workshop objectives, logistics and proceedings, Mr. Fifita, SPC – PP slides (1)</td>
</tr>
<tr>
<td>09:20</td>
<td>Update on regional sustainable energy centres in other regions (e.g. West, East and Southern Africa, Caribbean), Mr. Lugmayr, UNIDO - PP slides (2)</td>
</tr>
<tr>
<td>09:50</td>
<td>Group Photo and Coffee break</td>
</tr>
<tr>
<td>10:20</td>
<td>RE&amp;EE Needs Assessment on PCREEE, Mr. Jose Mestre, AETS (consultant) and Mr. Peter Johnston (consultant) - PP slides (3)</td>
</tr>
<tr>
<td>10:30</td>
<td>• Summary of the Stakeholder Consultations</td>
</tr>
<tr>
<td>10:30</td>
<td>• Justification for the establishment of PCREEE</td>
</tr>
<tr>
<td>11:30</td>
<td>Discussion, questions and answers (moderated by Mr. Fifita, SPC)</td>
</tr>
<tr>
<td>12:00</td>
<td>Lunch</td>
</tr>
<tr>
<td>13:00</td>
<td>Presentation on the technical mandate and programme options for PCREEE, Mr. Mestre, AETS - PP slides (4)</td>
</tr>
<tr>
<td>13:00</td>
<td>• Needs and scope of mandate</td>
</tr>
<tr>
<td>13:00</td>
<td>• Result areas of the centre</td>
</tr>
<tr>
<td>13:00</td>
<td>• Potential priority activities for the first operational phase</td>
</tr>
<tr>
<td>13:30</td>
<td>Questions and answers (moderated by Mr. Lugmayr, UNIDO)</td>
</tr>
<tr>
<td>14:30</td>
<td>Coffee break</td>
</tr>
<tr>
<td>14:50</td>
<td>Presentation on institutional design options for PCREEE, Mr. Mestre, AETS - PP slide (5)</td>
</tr>
<tr>
<td>14:50</td>
<td>• Institutional set-up and legal status of the centre</td>
</tr>
<tr>
<td>14:50</td>
<td>• Integration in the existing institutional set-up in the Pacific</td>
</tr>
<tr>
<td>14:50</td>
<td>• Role and competencies of the bodies (Executive Board, Technical Advisory, Secretariat, Focal Institutions)</td>
</tr>
<tr>
<td>14:50</td>
<td>• Organization of the secretariat and staff structure</td>
</tr>
<tr>
<td>14:50</td>
<td>• Qualification criteria and selection process for the host institution</td>
</tr>
<tr>
<td>15:10</td>
<td>Questions and answers (moderated by Mr. Ronneberg, SPREP)</td>
</tr>
<tr>
<td>15:40</td>
<td>Financial sustainability and budget requirements for the first operational phase of the centre, Mr. Lugmayr, UNIDO - PP slides (6)</td>
</tr>
<tr>
<td>15:40</td>
<td>• Indicative budget for the first operational phase</td>
</tr>
<tr>
<td>15:40</td>
<td>• Funding pledges</td>
</tr>
<tr>
<td>15:40</td>
<td>• Financial sustainability strategy of the centre</td>
</tr>
<tr>
<td>16:00</td>
<td>Questions and answers (moderated by Mr. Mafalu Lotolua, Tuvalu)</td>
</tr>
<tr>
<td>16:30</td>
<td>Closure (participants are asked to read the draft project document for the next day)</td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>8:30</td>
<td>Welcome remarks, Mr. Fifita, SPC</td>
</tr>
<tr>
<td></td>
<td>Day 2 objectives, agenda and explanation of working groups, Mr. Divyn Singh, UNIDO Consultant, - PP slides (7)</td>
</tr>
<tr>
<td>6</td>
<td>Discussion on the needs and technical mandate of the centre in four working groups, moderated by Mr. Mestre, AETS, Mr. Johnston and Mr. Lugmayr, UNIDO, PP slides with key questions (8)</td>
</tr>
<tr>
<td>10:45</td>
<td>Coffee break</td>
</tr>
<tr>
<td>11:00</td>
<td>Discussion on the technical priority activities and efficient institutional set-up of the centre in three working groups, moderated by Mr. Mestre, AETS, Mr. Johnston and Mr. Lugmayr, UNIDO, PP slides with key questions (9)</td>
</tr>
<tr>
<td>12:30</td>
<td>Lunch break</td>
</tr>
<tr>
<td>13:30</td>
<td>Discussion on the indicative budget and financial sustainability strategy of the centre in three working groups, moderated by Mr. Mestre, AETS, Mr. Johnston and Mr. Singh, UNIDO, PP slides with key questions (10)</td>
</tr>
<tr>
<td>14:30</td>
<td>Presentation and discussion of the results of each working group to all participants by nominated team facilitators, moderated by ‘Inoke Finau Vala</td>
</tr>
<tr>
<td>15:30</td>
<td>Coffee break</td>
</tr>
<tr>
<td>15:50</td>
<td>Presentation of options for the selection procedure and qualification criteria for the host organization, Mr. Lugmayr – PPT (11)</td>
</tr>
<tr>
<td></td>
<td>Tour de table: Expectations of international partners from the centre and their potential financial and in-kind contributions to the centre</td>
</tr>
<tr>
<td></td>
<td>Discussion, moderated by Dr. Atul Raturi , USP</td>
</tr>
<tr>
<td>16:30</td>
<td>Presentation of the workshop minutes including made suggestions and changes in the project document, Mr. Singh – word document on screen (12)</td>
</tr>
<tr>
<td></td>
<td>Presentation of the recommendations to the forthcoming Energy Officials and Ministers Meeting, moderated by Mr. Fifita, SPC</td>
</tr>
<tr>
<td>17:00</td>
<td>Adoption of minutes by the participants and any other business</td>
</tr>
<tr>
<td></td>
<td>Closure of the day</td>
</tr>
</tbody>
</table>
VALIDATION WORKSHOP ON THE PACIFIC CENTRE FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY – A SE4ALL CENTRE OF EXCELLENCE
12–13 March 2014
Tanoa International Hotel, Nadi, Fiji

Summary of proceedings

The Validation Workshop on the Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE) took place at the Tanoa International Hotel, Nadi, Fiji from 12–13 March 2014. The workshop was organised by the Secretariat of the Pacific Community (SPC) and the United Nations Industrial Development Organization (UNIDO).

Under the umbrella of the Framework for Action on Energy Security in the Pacific (FAESP) and its associated Implementation Plan for Energy Security in the Pacific (IPESP), SPC and UNIDO are assisting the Pacific Island countries and territories (PICTs) to establish the Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE). The initiative is supported by the Austrian Ministry for European and International Affairs and SIDS DOCK.

The Fourth Meeting of the Pacific Energy Advisory Group (PEAG), held at SPC in Suva from 3 to 4 December 2013, highlighted the promising renewable energy and energy efficiency developments in PICTs. On the other hand, concerns about the mid-term and long-term sustainability of these investments were raised at the meeting. The hardware investments and introduction of complex regulations and standards need urgent investments in local human resources to plan, design, implement and maintain renewable energy and energy efficiency projects and measures. This goes hand in hand with the empowerment of the local private sector and industry to take advantage of the growing sustainable energy market and job opportunities.

By considering the commonly shared capacity challenges in all PICTs the added value and the cost-effectiveness of a regional approach and a centre of excellence were underlined. Such a centre would support PICTs in the development of needed local capacities, applied research and the promotion of private sector participation along the value chain of sustainable energy investments.

The workshop was attended by about 30 participants, including region’s energy sector, government, private sector and non-state organisations. PICTs present at the workshop were from Cook Islands, Fiji, Kiribati, Papua New Guinea, Republic of the Marshall Islands, Samoa, Solomon Islands, Tonga and Tuvalu. Representatives of the following key stakeholders were also in attendance: AETS, Clean Energy Solutions, Environmental & Energy Consultants Fiji, Fiji National University (FNU), National University of Samoa, Papua New Guinea University of Technology, Pacific Power Association (PPA), Pacific Islands Forum Secretariat (PIFS), Secretariat of the Pacific Regional Environment Programme (SPREP), SPC, Sustainable Energy Industry Association of the Pacific Islands (SEIAPI), Solomon Islands National University (SINU), Tonga Institute of Science and Technology, UNIDO, University of Fiji, University of the South Pacific (USP), and Willies Electrical and Solar Power.

A list of participants is attached as Annex 1.
Session 1: Words of welcome

Solomone Fifita, Deputy Director (Energy) with the Energy Programme of SPC’s Economic Development Division (EDD), welcomed all delegates followed by an opening prayer from David Iro of Solomon Islands.

Solomone Fifita of SPC delivered a welcome statement. The welcome statement is attached as Annex 2. Martin Lugmayr of UNIDO also welcomed all participants.

Adoption of agenda, explanation of workshop objectives

Solomone Fifita of SPC delivered a presentation on agenda, workshop objectives and logistics. The objectives of the workshop:

1. Assess the need, demand and added value of PCREEE
2. Agreement on the institutional set-up and integration in existing regional/national structures
3. Agreement on the main pillars of the technical program
4. Agreement on the selection process and criteria for the host country
5. Validation of the draft project document
6. Instructions for the upcoming Energy Officials and Ministers Meeting

The agenda was adopted and Solomone Fifita of SPC delivered the house keeping rules followed by self-introduction of participants.

Update on regional sustainable energy centres in other regions

Martin Lugmayr from UNIDO delivered a presentation on the status of the global network of regional sustainable energy centres. On this, the following centres has been developed:

- ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE)
- Renewable Centre for Renewable Energy and Energy Efficiency (RCREEE) for the Arab region
- Southern African Centre for Renewable Energy and Energy Efficiency (SACREEE)
- East African Centre for Renewable Energy and Energy Efficiency (EACREEE)
- Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE)
- Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE)

The success stories of the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) was highlighted. The specific objectives of ECREEE are:

1. Policy, legal and incentive frameworks to promote RE&EE investments and markets are developed and implemented;
2. Capacities of local industry and the business sector on various RE&EE aspects are strengthened and applied;
3. Availability of investment and market data, awareness and advocacy on RE&EE are strengthened; and
4. Investments in RE&EE infrastructure, services and businesses are mobilized and implemented.

Under the governance structure of ECREE – the centre works closely with countries and with national focusing institutions.
The meeting noted that ECOWAS is a RE&EE observatory centre and information is widely available – [http://ecowas.int/](http://ecowas.int/). The meeting also noted that this centre received strong support from national countries, providing technical advice.

The meeting highlighted that to establish the centre was not an issue, but to know what the centre can offer, that’s an important area to think about. Linking to countries and technical authorities was a crucial component in establishing the centre. ECOWAS was driven by local people, and not donor driven.

The meeting highlighted that Pacific environment is very different when compared with Caribbean situation. Pacific environment normally has many small islands whereby the main office area is located far away from other islands. The meeting noted that no similar model to Pacific environment has been tested so far – the Caribbean centre is pretty new. UNIDO provided initial support in setting up ECOWAS but as the centre progressed, many partners joined in to assist. The PCREEE will not duplicate or compete with national companies – but will provide services at macro level and will promote local institutions.

**Session 2: RE & EE needs assessment on PCREEE**

Jose Mestre, consultant at AETS presented the results of the survey. The survey highlighted majority people are in favour of having such a centre; however, almost 40% mentioned that it would depend on the mandate.

The survey also highlighted positive aspects of establishing PCREEE and these are:

- A ‘one stop shop’ for research, policy support, capacity building and practical trials of projects
- PICTs needs assistance for rural energy developments
- Facilitate additional technical and financial assistance
- Assist private sector development
- Promote jointly RE&EE approaches
- Adapt technologies to the region
- Bring together similar activities under one roof
- Fill in the gaps in maintenance training
- Improve standards of equipment being used
- The centre should focus on energy security
- The centre mandate should also include petroleum products

The negative aspects of establishing PCREEE are:

- There are already regional institutions covering RE&EE
- There are other priorities in the energy sector

The meeting highlighted on to full fill gaps identified – there are a number of activities planned but with funding constraints, these energy activities cannot be achieved. During the 2012 Pacific Roll-out of International Year of Sustainable Energy for All event, the Certification and Accreditation Scheme for Technicians and Sustainable Energy Businesses was launched. This scheme was developed by SEIAPI and USP and aims to increase the level of professionalism of people working in the Pacific energy sector. The meeting highlighted that normally in all meetings the issue of trainings is highlighted, but at the end nothing much is achieved.

In terms of United Nations Framework Convention on Climate Change, PICs are not a major contributor of greenhouse gases but at regional level, PNG is the major emitter – though a lot of electricity has been generated from hydropower.
The meeting also suggested including a matrix to show the linkages on what other agencies (including national organisations/institutes) are doing in relation to the needs identified in the PCREEE project document. This will create partnership within agencies.

The meeting raised concern on how soon the centre could be established to provide services to local communities. The delay in getting the centre started will be creating more damage in the countries and loss of funds.

The meeting noted that the University of Fiji and Papua New Guinea University of Technology were interested in hosting the PCREEE centre. FNU, National University of Samoa, Papua New Guinea University of Technology, SINU, Tonga Institute of Science and Technology and USP highlighted on their institutions various renewable energy and energy efficiency programmes and courses.

The meeting suggested that PCREEE centre should be a ‘one-stop-shop’, where all countries needs are clearly identified and resources are available for all.

The meeting suggested identifying the priority areas for the centre to avoid duplication of work within other agencies. It also suggested including accredited and certified components for energy related equipment technicians but later clarified that the Adapting to Climate Change and Sustainable Energy (ACSE) project has a component to cover Technical Vocational Education and Education. The expected lessons learnt from this project on lack of regionally available, standardised and regular capacity development opportunities will be: capacity needs will be identified at the national level and the institutionalisation of training courses to meet these needs will be implemented through existing training and educational institutions and TVET providers.

**Session 3: Presentation on the technical mandate and programme options for PCREEE**

Jose Mestre of AETS delivered a presentation on proposed mandate and technical programme for PCREEE. The outcomes of the centre, which needs to be achieved, are:

1. Effective regional RE&EE promotion agency created and efficiently managed
2. Capacities of the public and private sectors on various RE&EE aspects strengthened and applied
3. Availability of investment and market data, awareness and advocacy on sustainable energy are strengthened
4. Investment and business opportunities for local companies and industry are created and implemented

Some of the issues highlighted on the proposed activities for the centre are:

1. Too many activities were listed under capacity building section. The query of whether the centre will be implementing all activities was highlighted.
2. Since PICTs are widely located, it was suggested to provide ICT capacity, whereby people could network with each other.
3. It was suggested to include accredited training component and more research based focus for the centre.

**Session 4: Presentation on institutional design options for PCREEE**

Jose Mestre of AETS presented on the proposed institutional set-up and legal status of the centre. Two options were proposed for establishing the centre inside a CROP agency/national institute:

1. As a project
2. As a centre/office

Centre status – options comparison

<table>
<thead>
<tr>
<th></th>
<th>Project</th>
<th>Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independency</td>
<td>Some dependency of the host institution management</td>
<td>Management concentrated inside the centre</td>
</tr>
<tr>
<td>Resources</td>
<td>Smaller team</td>
<td>More complex structure / costs</td>
</tr>
<tr>
<td>Setting-up process</td>
<td>Straightforward</td>
<td>May take further</td>
</tr>
<tr>
<td>Continuity</td>
<td>Partners may be less interested to collaborate with centre</td>
<td>Staff may be more pressured to ensure centre sustainability</td>
</tr>
</tbody>
</table>

Some of the issues highlighted on the proposed institutional set-up and legal status of the centre are:

1. No need for a separate executive officer – the renewable energy expert can do that job. The organisational chart of the centre needed to re-looked, current structure was too bulky.
2. The centre should be responsive to the needs of the countries, and agree on forming on its own – although the grouping is regional or subregional and centre on its own will work well.
3. Major concern for the centre will be how to implement its activities and suggestions were made on wherever the activities can fit in well, the centre to be based there. The centre should be accessible and user friendly and to have a cost-effective approach, centre to fit in existing organisations.
4. During the 2009 Forum Leaders Meeting, leaders envisaged to reduce forming new centres, better to host this centre within an existing organisation.
5. Sustainability and autonomy of the centre is a paramount issue and these needs to be highlighted clearly and strongly in the terms of reference document for the centre. The meeting highlighted that regional projects normally had their own board to guide the functions/make decisions for the projects.
6. Suggestions were made for the centre to tackle energy management issues.
7. Ideas floated for the centre to be sustainable, being a long-term entity while projects are short-term. Countries will need to fully utilise the centre to make it sustainable.

Session 5: Financial sustainability and budget requirement for the first operational phase of the centre

Martin Lugmayr of UNIDO delivered a presentation on the financial sustainability and budget requirements for the first operational phase.

The meeting highlighted on the current membership for the centre since not all PICTs are members of UNIDO. As for the membership fees, the meeting noted that PICTs are reluctant to pay for extra fees apart from their annual membership fees. As the centre progresses, more development partners are anticipated to support the centre.

Session 6: Discussion on the needs and technical mandate of the centre

Participants were divided into four groups: universities, energy officials, private sector, and CROP agencies group and they discussed on the: (i) needs and technical mandate of the centre; (ii) technical priority activities and efficient institutional set-up of the centre; and (iii) indicative budget and financial sustainability strategy of the centre.
Working Group of Private Sector
In the Pacific, there is no specific body looking after training only and another looking after standards only. Therefore our group’s suggestion for the centre will be to look after these two areas – training and standards. Also acting as secretariat for the standards and guidelines for products. Private sector group discussion is attached as Annex 3.

Working Group of Institutes (Universities)
Research training to be the main focus of the centre, training should be given to skill technician who can make it happen in various region. Adaptation research is one aspect of the centre, and tailor training on hands-on laboratories or the vocational approach. Research will allow exchange activities by professional. The research will identify the demand areas for the training and identify institutions which can deliver this research. Training on competency for standards, levels of the trainings to be considered by the centre. Donors and multilateral organisations should partner in for long term sustainability of the centre. Institutions group discussion is attached as Annex 4.

Working Group of Government Officials
Mandate of centre: Support, accommodate country needs. Provide directions and looking at clear needs for PICTs. Government officials’ group discussion is attached as Annex 5.

Working Group of Regional Organizations (CROPs)
The centre should focus on the continuity of project funding when the projects are over eg NorthREP and research to be shared with members. Transport takes up lots of fossil fuel; this should be reflected in the centre. Government should provide tax rebates to private sector. CROP organisations group discussion is attached as Annex 6.

In terms of capacity building and applied research: integrated building codes, carry out accredited training but it should also include other unaccredited trainings. Trainings should be given to all – technicians and policy level. Fuel testing is another way of research. Research should be disseminated via climate change portal. Centre should provide assistance to government and should focus on proposal templates. There is a gender toolkit

Summary points: to go with existing organisation – can be USP. We should also consider the centre to operate as its own, because different countries have different needs. Centre to be responsive and national. Solutions are for the centre to be regionalised. Centre should also be in efficient centre on timing, funding. It will be a system of decision making.

Session 7: Presentation of options for the selection procedure and qualification criteria for the host organisation

Martin Lugmayr from UNIDO presented on the options for the selection procedure and qualification criteria for the host organisation.

The meeting made two suggestions: (i) to have the centre in an existing organisation or (ii) to have the centre as a stand-alone body.

The meeting suggested that in order to get the centre up and running and we should know how soon we want the centre to be established.

The meeting noted that prior to PPA being in existence, the utilities discussed common issues during the energy ministerial meetings and therefore PPA was formed to discuss all issues such as; exchange information on operational of equipment, and maintenance etc. the meeting also noted
that about 20 years ago, there was discussion and also an advertisement to have energy as its own organisation, but this organisation never formed.

SPREP has expressed their interest in hosting PCREEE.

The meeting also noted a Pacific example as how Pacific Aviation Safety Office (PASO) was formed as an independent organisation and was working on a loss. Currently, PASO is going through a reform process to improve its effectiveness and long-term financial viability.

The meeting also suggested to establish the centre within an existing organisation and when there is secured funding, the centre can then be an independent body.

Session 8: Presentation of the workshop minutes

The participants went through the outcomes documents for this workshop. The workshop outcomes are listed below: (the outcomes is draft at the moment PNG: organisations engaged in the workshop should be included in the outcomes document, so the ministers know that we were present for this meeting, so when countries do the bidding, they can come and collect more information from this meeting participants. Minutes to be finalised by 17 March and project document will be released on 24 March. Comments on the outcomes from the participants should come in by 21 March. The outcomes of the workshop is listed below:

Workshop closing

Andrew Daka facilitated this session and thanked SPC and UNIDO for organising this workshop. Martin Lugmayr and Solomone Fifita thanked all participants for their active contributions followed by a closing prayer from David Iro Fuluga.
Annex 1: List of participants

VALIDATION WORKSHOP ON THE PACIFIC CENTRE FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY (PCREEE) – A SE4ALL CENTRE OF EXCELLENCE
TANOA INTERNATIONAL HOTEL
NADI - FIJI
12 - 13 MARCH 2014

LIST OF PARTICIPANTS

<table>
<thead>
<tr>
<th>COUNTRY REPRESENTATIVES</th>
<th>1. Mr. Alexander Tama Henry</th>
</tr>
</thead>
<tbody>
<tr>
<td>COOK ISLANDS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Mr. Alexander Tama Henry</td>
</tr>
<tr>
<td></td>
<td>Renewable Energy Project Developer</td>
</tr>
<tr>
<td></td>
<td>Renewable Energy Development Division</td>
</tr>
<tr>
<td></td>
<td>Office of the Prime Minister</td>
</tr>
<tr>
<td></td>
<td>Private Bag</td>
</tr>
<tr>
<td></td>
<td>Avarua</td>
</tr>
<tr>
<td></td>
<td>Rarotonga</td>
</tr>
<tr>
<td></td>
<td>COOK ISLANDS</td>
</tr>
<tr>
<td></td>
<td>Tel: [682] 25 494 ext 808</td>
</tr>
<tr>
<td></td>
<td>Fax: [6820 20 856</td>
</tr>
<tr>
<td></td>
<td>E-mail: <a href="mailto:alex.henry@cookislands.gov.ck">alex.henry@cookislands.gov.ck</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIJI</th>
<th>2. Mr. Denise Chand</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fiji National University</td>
</tr>
<tr>
<td></td>
<td>Lecturer</td>
</tr>
<tr>
<td></td>
<td>College of Engineering, Science &amp; Technology</td>
</tr>
<tr>
<td></td>
<td>Private Mail Bag</td>
</tr>
<tr>
<td></td>
<td>PO Box 7222</td>
</tr>
<tr>
<td></td>
<td>Nasinu</td>
</tr>
<tr>
<td></td>
<td>FIJI</td>
</tr>
<tr>
<td></td>
<td>Tel: [679] 338 1044</td>
</tr>
<tr>
<td></td>
<td>Fax: [679] 337 0375</td>
</tr>
<tr>
<td></td>
<td>E-mail: <a href="mailto:Denise.Chand@fnu.ac.fj">Denise.Chand@fnu.ac.fj</a> / <a href="mailto:denisecandfnu@hotmail.com">denisecandfnu@hotmail.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIJI</th>
<th>3. Mr Inia Saula</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Principal Energy Analyst</td>
</tr>
<tr>
<td></td>
<td>Energy &amp; Rural Electrification Department</td>
</tr>
<tr>
<td></td>
<td>P O Box 2493</td>
</tr>
<tr>
<td></td>
<td>Government Buildings</td>
</tr>
<tr>
<td></td>
<td>Suva</td>
</tr>
<tr>
<td></td>
<td>FIJI</td>
</tr>
<tr>
<td></td>
<td>Tel: [679] 3386006</td>
</tr>
<tr>
<td></td>
<td>Fax: [679] 3386301</td>
</tr>
<tr>
<td></td>
<td>Email: <a href="mailto:inia.saula@fdoe.gov.fj">inia.saula@fdoe.gov.fj</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIJI</th>
<th>4. Dr. Syed Ghani</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Senior Lecturer / ACTING DIRECTOR - CCCEESD</td>
</tr>
<tr>
<td></td>
<td>University of Fiji</td>
</tr>
<tr>
<td></td>
<td>Department of Science</td>
</tr>
<tr>
<td></td>
<td>School of Science and Technology</td>
</tr>
<tr>
<td></td>
<td>Private Mail Bag</td>
</tr>
<tr>
<td></td>
<td>Saweni</td>
</tr>
</tbody>
</table>

8
<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>Title/Position</th>
<th>Address</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>FJII</td>
<td></td>
<td></td>
<td>Lautoka</td>
<td>Tel: [679] 6640 600 Ext: 157 Fax: [679] 6640070 Mob: [679] 9769422 E-mail: <a href="mailto:SyedG@unifiji.ac.fj">SyedG@unifiji.ac.fj</a></td>
</tr>
<tr>
<td>KIRIBATI</td>
<td>Ms Miriam Iakobwa Tikana</td>
<td>Assistant Energy Planner</td>
<td>Ministry of Public Works &amp; Utilities Energy Office P.O Box 498 Betio Tarawa KIRIBATI</td>
<td>Tel: [686] 26192 Fax: [686] 26172 E-mail: <a href="mailto:mitikana@gmail.com">mitikana@gmail.com</a></td>
</tr>
<tr>
<td>PAPUA NEW GUINEA</td>
<td>Mr. Garaio Gafiye</td>
<td>Manager/Consultant Clean Energy Solutions</td>
<td>P. O. Box 1145 Goroka 441, EHP</td>
<td>Mob: [675]-72826105 Tel: [675]-77250678 E-mail: <a href="mailto:cespng@gmail.com">cespng@gmail.com</a> / <a href="mailto:ggafiye@yahoo.com">ggafiye@yahoo.com</a></td>
</tr>
<tr>
<td>PAPUA NEW GUINEA</td>
<td>Mr. John Dujambi</td>
<td>Director ATCDI The Papua New Guinea University of Technology Private Mail Bag LAE Morobe Province 411</td>
<td>Tel: [675] 473 4999 Fax: [675] 475 7667 E-mail: <a href="mailto:jdujambi@gmail.com">jdujambi@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>REPUBLIC OF MARSHALL ISLANDS</td>
<td>Mr. Walter Myazoe Jr.</td>
<td>Energy Officer Energy Planning Division</td>
<td>P.O Box 1727 Majuro MH 96960</td>
<td>Tel: [692] 6253206 Fax: [692] 6257471 E-mail: <a href="mailto:wmyazoe@gmail.com">wmyazoe@gmail.com</a></td>
</tr>
<tr>
<td>SAMOA</td>
<td>Mr. Sione Foliaki</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Name</td>
<td>Position &amp; Details</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| SAMOA        | Assistant Chief Executive Officer (ACEO) – Energy Ministry of Finance | Private Mail Bag  
Apia  
SAMOA  
Tel: [685] 34344  
Fax: [685] 21312  
E-mail: sione.foliaki@mof.gov.ws |
| SAMOA        | Mr. Jonathan Lee Gautt Yoshida | Lecturer  
Science Department  
National University of Samoa  
PO Box 162  
Apia  
SAMOA  
Tel: [685] 20072  
E-mail: j.yoshida@nus.edu.ws |
| SOLOMON ISLANDS | Mr David Iro Fulaga         | Willies Electrical  
Managing Director  
Willies Electrical and Solar Power (WHC LTD)  
PO BOX R169  
Ranadi  
SOLOMON ISLANDS  
Tel: [677]-30477  
Mob: [677] 7499576  
Email: dif@solomon.com.sb |
| SOLOMON ISLANDS | Mr. Solomon Pita           | Head of Industrial  
Solomon Islands National University  
Institute of Technology  
School of Technology & Maritime Studies  
P.O Box R113  
Honiara  
SOLOMON ISLANDS  
Tel: [677] 30111 ext 274 / +677 30573  
Fax: [677] 30390  
E-mail: dit@sinu.edu.sb |
| TONGA        | Mr. Inoke Finau Vala         | Director – Tonga Energy Road Map Implementation Unit  
Ministry of Public Enterprises  
PO Box  
Nuku’alofa  
KINGDOM of TONGA  
Tel: [676] 28-144 |
| TONGA | 14. Mr. Nonga Soakai  
Deputy Director of Education - Tonga Institute of Science and Technology (TIST and TVET)  
Tonga Institute of Science and Technology (TIST)  
'Anana  
Nuku'alofa  
TONGA  
Tel: [676] 21213 / 24950  
Mob: [676] 7756914  
E-mail: soakai.n@gmail.com |
|---|---|
| TUVALU | 15. Mr. Mafalu Lotolua  
General Manager  
Tuvalu Electricity Corporation  
Vaiaku  
Funafuti  
TUVALU  
Tel: [688] 20352  
Fax: [688] 20699  
E-mail: mlotolua@tectuvalu.tv / mafaluloto2@gmail.com |
| DEVELOPMENT PARTNERS | |
| CONSULTANT | 16. Mr. Peter Johnston  
Consultant  
Environmental & Energy Consultants Fiji  
P.O Box  
Samabula  
FIJI  
E-mail: johnston@unwired.com.fj |
| CONSULTANT | 17. Mr. José Mestre  
Consultant  
AETS  
17 Avenue André Marie Ampère  
64140 Lons - France  
Tel: +33 (0)5 59 72 43 23  
E-mail: jose.mestre@aets-consultants.com |
| PACIFIC ISLANDS FORUM SECRETARIAT | 18. Ms Linda Kaua  
Economic Reform Officer  
Pacific Islands Forum Secretariat  
Private Mail Bag  
Suva  
FIJI  
Tel: [679] 331 2600  
Fax: [679] 322 0249  
Email: lindak@forumsec.org.fj |
<table>
<thead>
<tr>
<th>Organization</th>
<th>Number</th>
<th>Name</th>
<th>Title/Position</th>
<th>Address</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACIFIC POWER ASSOCIATION</td>
<td>19.</td>
<td>Mr Andrew Daka</td>
<td>Executive Director</td>
<td>Pacific Power Association</td>
<td>Tel: [679] 330 6022</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Private Mail Bag, Suva</td>
<td>Fiji</td>
<td>Fax: [679] 330 2038</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Email: <a href="mailto:andrewd@ppa.org.fj">andrewd@ppa.org.fj</a></td>
</tr>
<tr>
<td>SEIAPI SECRETARIAT</td>
<td>20.</td>
<td>Mr. Geoff Stapleton</td>
<td></td>
<td>SEIAPI – Sustainable Energy Industry Association of the Pacific Islands</td>
<td>Tel: <a href="mailto:gses@bigpond.com">gses@bigpond.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PO Box 57</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ulladulla</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2539</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AUSTRALIA</td>
<td></td>
</tr>
<tr>
<td>SPREP</td>
<td>21.</td>
<td>Mr. Espen Ronneberg</td>
<td>Climate Change Adviser</td>
<td>Secretariat of the Pacific Regional Environment Programme SPREP</td>
<td>Tel: [685] 21929 ext 248</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PO Box 240</td>
<td>Fax: [685] 20231</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>APIA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SAMOA</td>
<td></td>
</tr>
<tr>
<td>UNIDO</td>
<td>22.</td>
<td>Mr. Divyn Singh</td>
<td>Consultant</td>
<td>United Nations Industrial Development Organization (UNIDO)</td>
<td>Office: +43 (0)1 26026 3595</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Energy and Climate Change Branch</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Vienna International Center</td>
<td>E-mail: <a href="mailto:D.SINGH@unido.org">D.SINGH@unido.org</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P.O. Box 300</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A-1400 Vienna</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Austria</td>
<td></td>
</tr>
<tr>
<td>UNIDO</td>
<td>23.</td>
<td>Mr. Martin Lugmayr</td>
<td>Renewable Energy Expert</td>
<td>United Nations Industrial Development Organization (UNIDO)</td>
<td>Office: +43 (0)1 26026 3595</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Energy and Climate Change Branch</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Vienna International Center</td>
<td>E-mail: <a href="mailto:M.LUGMAYR@unido.org">M.LUGMAYR@unido.org</a></td>
</tr>
</tbody>
</table>
| UNIVERSITY OF SOUTH PACIFIC | 24. Dr. Atul K. Raturi  
Head of School  
School of Engineering & Physics  
University of the South Pacific  
Private Mail Bag  
Suva  
FIJI  
Tel: (679) 32 32437  
Fax: (679) 32 31511/ 32 31538  
E-mail: atul.raturi@usp.ac.fj |

| ORGANISERS - SPC SECRETARIAT | 25. Mr Solomone Fifita  
Deputy Director – Energy  
E-mail: solomonf@spc.int |

| | 26. Ms Atishma Lal  
Information Assistant  
E-mail: atishmal@spc.int |

| | 27. Ms Pooja Pal  
Administrative Assistant  
E-mail: poojap@spc.int |
Annex 2: Welcome statement by SPC

**WELCOME STATEMENT**

for the

**VALIDATION WORKSHOP ON THE PACIFIC CENTRE FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY (PCREEE) – A SE4ALL CENTRE OF EXCELLENCE**

**TANOA INTERNATIONAL HOTEL, NADI – FIJI, 12 - 13 MARCH 2014**

[Solomone Fifita, DDE, EDD, SPC]

Good morning and Bula to you all

- To the Executive Director of PPA, Mr Andrew Daka, and fellow representative of CROP agencies
- Mr Martin Lugmayr & Mr. Divyn Singh from UNIDO
- Mr. Jose Mestre and Mr. Peter Johnston (AETS consultant)
- Heads / CEOs of national energy offices and power utilities
- Representatives from training institutes and universities
- Representatives of SEIAPI and the private sector

I bring to you greetings from the Director of EDD, Captain John Hogan, who is unable to join us this morning due to his other commitments to the preparations for the Joint regional energy and transport officials and ministers meetings here in Nadi later this month. I understand some of you will be attending that meeting which will have a ADB-SPC conference on Pacific and Caribbean Conference on Effective and Sustainable Regulation of Energy and Water Services on 25-27 March as a curtain raiser and will end with a ASU VOCTEC and IUCN Workshop on Small Wind Energy Systems for Policy Makers in the Pacific Region on 5 & 6 of April here in Nadi too.

Our workshop is significant in a few ways:

1. **It is a demonstration of an effective collaboration**
   
   In about June last year, SPC and UNIDO started talking about this centre for RE & EE for the Pacific. In December, we were able to present a concept to the meeting of the PEAG and I am glad that 3 months later, we have developed the concept into some form of a draft project document that will be the subject of our discussions over the next two days. On that note, I thank Martin and his UNIDO team for their support and to the consultants for producing the report over a very short period of time.

   On a personal level, I have visited a few of the countries and organisations and spoken to them about this centre and am sure people must have been saying - what the hell is this guy talking about. I am happy that the consultants have now helped in clarifying the dream I have shared with others.

2. **Our workshop is also significant because once the bulk of you arrived at this hotel last night, the power went off. The power went off for about 3 hours but it gave us the opportunity to chat and get to know each other, while enjoying the free drinks and food – thanks Tanoa. At exactly 6 this morning, the power went off again and am glad that the back-up generator kicked in – not instantaneously but at least we have power.**

3. **And lastly, the Bible says men (and women to be gender balanced) will not live on bread alone. This morning, we are happy to prove that man will live on water too. Sione has been here since Sunday and miraculously, the Fiji water has kept this going to this very moment.**

14
We have a very interesting mix of interests in our workshop. We have those from National and regional training institutes / universities, we have those from the energy offices, we have representatives from the private sector and we have representatives from CROP agencies. We will therefore be looking at this centre from various perspectives and hopefully we can come to some common understanding and agreement at the end.

It will be an interesting two days and SPC and UNIDO certainly look forward for your kind guidance on how to take this centre for RE and EE in the Pacific forward.

I am sure Nadi and Tanoa are just so familiar with you all. Enjoy the workshop, stay away from the bar and make use of the pool and the gym.

Again, Bula and welcome.

Malo ‘aupito
Annex 3: Private sector group discussion
Annex 4: Institutions group discussion

Validation Workshop – Institution Discussion Group - Tanoa International, Nadi, Fiji

Working Session 1: Scope of mandate – Needs and Gaps

The group discussed:

Question 1. Added Value of the proposed regional RE and EE Centre with strong technical Mandate

- Two Key areas are
  - Research
    - Adaptation research on existing RE & EE systems, technologies and products that can be adapted in the region.
    - Research will allow exchange activities between research professionals, academics, students and technicians
    - Research will help identify the RE and EE demand areas of development
    - Applied Research in manufacturing of RE products
    - Donor Partners both bilateral and multilateral capacity build regional and national RE and EE human resources and infrastructure
  - Training: Facilitate / Give advice on:
    - Training for already skills technician so that they can carry out the job back in their countries
    - Tailor training RE and EE trainings to be “hands on” laboratories that be practical and effective for various uses or RE and EE activities in member countries. Such training will enable the transfer of knowledge, skills and resources in the field.
    - Training on competencies and standards for technicians and RE and EE professional and partners
    - Training to be stratified on the following levels:
      - Research
      - Design
      - Management of RE and EE initiatives
      - Competencies
      - Hands on / practices
    - Training should consider social impact of RE technologies on end users (communities)
    - Directed Practical training Solar Photo voltaic
    - Training delivery, either online or fulltime arrangements with regional and national training institutions involving students, technicians an end users.

Question 2: Practical Services and Benefits you would expect from PCREE and how synergies could be created to your ongoing projects/programs in RE/EE. Identify at least 5 services and benefits:

- Services/Benefits: The Centre to provide:
  - Some form of scholarship for research, training (both short and long term) and industrial attachments for professionals, technicians and community groups
  - An avenue for partnership development between regional and national institutions and outside stakeholders
  - Capacity building for end user to manage the RE technologies, systems and products for sustainability and continuity
  - Advise on private sector and national and regional institutions on collaborative effort on institutional and business undertakings
o Energy Audit and audit advise of RE and EE undertakings
o Advise on accepted Energy devices
o Advise on vetting of RE devises
o Advise on RE and EE quality assurance of services and products
o Research data services management and disbursement and access for regional, national and international interest
o Sharing of data on various RE and EE initiatives to avoid duplication and maximizing of opportunities and the use of available resources by regional organisations.

Question 3: Which needs and gaps should PCREEE address in the electricity sector? What is currently not sufficiently covered by other national/regional programme in RE and EE? Identify 5 key gaps for RE and 5 key gaps for EE?

Five Key gaps in RE
- Provide liaison between electricity providers and regional institution and governments agencies
- Conduct studies of electricity in the member countries
- Build and develop the RE technologies and conduct awareness of its use and state of care and management
- Provide advise and resources to independent providers of RE electricity developments
- Provide seed funding for new starters who have potentials and skills in

Five Key gaps in EE
- Provide support the use of metering
- Provide support industrial training and attachment for students and technicians for EE requirements
- Advise and mentor private sectors on management of energy efficiency to be made part of their operations
- Provide advise on the need for EE for electricity providers and consumers

Questions 4: Which needs and gaps should PCREEE address with regard to decentralized and off-grid RE system (e.g. mini-grids, stand-alone systems, and solar lighting services)? What is currently not sufficiently covered by other national / regional programs and initiatives (please identify 5 key gaps).

Five Key Gaps
- Decentralise training
- Awareness and community outreach on RE
- Research and case studies
- Awareness on its social impact
- Baseline studies on RE and EE activities in the region
- Netting

Question 5: Needs and Gaps Should PCREEE address in non-electricity areas such as sustainable transport, sustainable cooking and solar thermal heating? What is currently not sufficiently covered by other national/regional programs and initiatives (identify 5 key gaps).

Five Key Gaps
- Encourage use of public transportation
- Encourage more energy efficient cooking stoves
- Give advice on bio mas development
- Give advice on bio fuel development
- Work with government on reducing the use of fossil fuel
Question 6: Needs and Gaps PCREEE should address in EE areas such as standards for the buildings and appliances efficient lighting, technical and commercial grid losses, demand and supply side management, industrial efficiency? What is currently not sufficiently covered by other national/regional programs and initiatives (identify at least 5 key gaps)

Five Key Gaps
- Liaise with region government to include RE and EE standards and requirements into national building cords and regulation
- Promote EE designs to regional government
- Encourage an audits of existing lightings used by regional countries
- Baseline studies on technical and commercial grid loses in the region energy establishments
- A study on the RE and EE demand and supply needs of the regional countries

Question 7: Which needs and gaps should PCREEE address with regard to the empowerment of local private sector and industry to take advantage of sustainable energy investment and job opportunities? What is currently not sufficiently covered by other national/regional programmes and initiatives (identify five key gaps)

Five Key Gaps
- Promoting RE and EE as investment opportunities for the private sector in the regional
- Work with private sector on RE and EE funding scheme in the regional countries
- Partner with private sector, national institution, and regional institution on applied research and studies of RE and EE for sustainability and development
- Work with private sector for maintaining and monitoring quality of RE products and services
- Build capacity of private sector to compete in the RE and EE markets.

Question 8: Which activities should the centre not focus on?

The Centre Should not Focus on:
- Be a RE and EE regulatory institution in the region
- Not play a commercial RE and EE Role but provide support for private sector to develop their RE and EE businesses
- The roles played by the other CROP organisations

Working Session 2: Technical Programme of the Centre

Question 1: If capacity development and applied research is one of the centre’s focus area, please suggest at least 5 priority activities for RE and Five priority for EE. Refer to the Identified gaps in the previous session.

Five RE priority activities
- Liaise with CROP organisation to identify roles overlaps and differences
- Diffusion of RE to rural communities in the region
- Engage in research, innovation and design and testing of prototypes of RE technologies that meets the regions environment and conditions
- Assessing of RE products imported into the countries of the region for quality assurance and as a measure to ascertain their relevance to the local environ and conditions
- Conduct an inventory of RE data available and organize a system of data management and access
- Liaise with education and training institutions to identify research areas of RE and collaborate to conduct researches in the identifies areas for each institutions
- Setting up of centres of excellence in regional/national institutions
- Do a baseline study of RE developments in member countries and territories
- Do a case study of a successful RE project
Five EE priority activities
- Assess EE initiatives in each of the member countries and territories
- Conduct awareness of EE for professionals, technicians and consumers
- Diffusion of EE technologies into the communities of the member countries
- Conduct training on EE for professionals and technicians and the private sector
- Conduct research of EE initiatives and practices in the member countries in partnership with the national and regional institutions
- Do a case study of a successful EE projects in the region

Question 2: If the promotion of local sustainable energy businesses is one of the focus areas, suggest at least five priority activities. Refer to the identified needs and gaps.

Five key priority activities
- Work with private sector to identify scale of RE business demand in the countries
- Work with the governments of the member countries and territories to create a model of investments in RE that local businesses can compete / apply for
- Identify prospective financial resources and assist businesses and institutions to apply
- Provide training for technicians of RE business for the growth and development of investments in RE
- Host a entrepreneurship excellence award for RE best business practices in the region
- Liaise with multilateral organisation(s) and bilateral donors to invest in major RE projects for countries of the region
- Provide facilities and advise on RE business models / plan for small and medium scale investments (community solar/hydro projects).

Question 3: If knowledge management and awareness is one of the focus areas of the centre, please suggest at least 5 priority activities for EE

Five key priority activities
- Draw up and conduct high school education and awareness programme for the promotion of EE in the countries and territories
- Sponsor the production and publication of successful EE initiatives undertaken in the region
- Provide advice and technical support to governments of the region to develop / review RE and EE regulations, policies, or legislation that will help them to raise the level their EE performances
- Work with CROP organizations on advancing EE objectives

Question 4: Propose at least 5 priority activities for off-grid energy services (stand-alone systems, mini-grids, efficient cooking stoves).

Five key priority activities
- Conduct training on stand- alone systems, mini-grids and EE devises
- Establish a records of RE and EE accepted products and devices that are relevant for the regions
- Develop a bibliography of RE and EE resources in the region and outside that can be accessed for purposes of adaption, referencing for knowledge and skills acquisition
- Develop and deliver community awareness programme for EE
- Work on prototypes of devices and technologies that may be invented or adapted by the regional countries

Question 5: How gender issues could be at best mainstreamed in the technical programme of the centre? Give some concrete suggestion
Mainstreaming gender issues into the centre
- Encourage certification and licensing of women in RE
- Include gender into RE and EE policies and regulations
- Promote a women involvement in RE investments
- Provide training for women to be RE technicians
- Provide scholarship for women RE technicians
- Encourage women professionals (engineers, others) to be involved in RE and EE researches
Annex 5: Government officials’ group discussion

Government & Statutory Bodies

Working Session 1: Scope of Mandate – Needs and Gaps to be addressed

Q No 1.
RE
- Tailor-made maintenance training for Rural Technicians
- Accommodate country needs
- One-Stop Shop concept
- Provide direction
- Localise the training
- Coordination/mediate

EE
Provide advice
- Boarder control –inefficient lights, other white goods, etc.
- Supply and Demand side
- Energy efficient driving techniques
- Building Code

Q No 2.
RE & EE
- Accessibility –information /on the ground projects
- Flexibility – implementation –tailor made
- Share best practice

Q No 3.
Needs Electricity Sector
RE (Awareness/Information)
- Feed in Tariff
- Grid Stability
- Tariff Study – Review
- Regulatory Role/legislation
- Electrification Master Plan
- Electricity Act/Policy Development
- Smart Meter

EE
Minimum Performance Standards & Labeling /Other white goods/inefficient lights
Supply & Demand Side
Building Code

Q No 4. Needs & Gaps to Address Decentralised and Off Grid
- Management of the system/program
- Technicians – capability/training
- Technician –Salary
- Evaluate the program-sustainability
- Provide Awareness-best design and standards/best practice
- SHS fee - monthly collections

Q No 5. Needs & Gaps to Address Non-Electricity Areas
Advise
- Improve technology we have now (including awareness, public transport, energy efficiency/vehicle
- Share information – best practice
- Sustainable cooking – EE cooking stoves/Caloric values/types of biomass
- Solar Thermal Heating – standardized /awareness – driers/water heaters
Q No 6. Needs & Gaps in EE
- Building Code & Appliances
- Office Lights
- Technical and Commercial Grid losses
- Demand and Supply Side Management
- Industrial Efficiency
- Tailor made – awareness/training (island countries)
- Share information – best practice

Q No 7. Needs & Gaps address empowerment of local/private sector
- Enabling strategy
- Enabling environment for private sector participation
- Financial support
- Opportunities
- Security of Investment
- Credibility/vetting process

Q No. 8
- Pacific Energy Plan
- Transport
- Petroleum
- RE & EE Courses /University Courses

Working Session 2: Technical Program of the Centre

Q No 1. RE
- System design- (stand-alone/off grid, Mini –grid, etc)
- Secure Scholarship from Donors
- Renewable Energy Resource Assessment
- Tailor made training – country needs
- Installation guide lines – Stand alone/ Grid connect/SHS/Wind
- Monitoring & evaluation
- Pilot/demo projects

Q No 2. EE
- Establishment of EE education curriculum – primary & secondary schools
- Energy Audits
- Pilot/demo projects
- EE – Awareness materials – tailor made
- Awareness standards
- EE Policy

Q No 2.
- Enforce enabling environment
  ✓ Policy
  ✓ Financial/security
  ✓ Standards
  ✓ Legal
  ✓ Accreditation

Q No 3. RE
- Sharing of best practice
- Sharing through website/newspapers/radios/talkback show/etc.
- Identify best university/institution products

EE
Share economic of scale to public
Promote awareness – schools/industries/hotels/resorts/public/private, etc.

Q No 4.
- Standard training & applied training and monitoring
- Assist in programming maintenance and system services
- Research/Promote Energy Efficient stoves
- Financial Support

Q No 5.
- Policy/mandate-encourage participation of women in all facet of RE & EE and establishment of the Centre
- Mandate women membership of the Board and also employment at the Centre.

Working Session 3: Institution Set-Up of the Centre

Q No 1.
- The Centre should be stand alone/independent /autonomous. Not to be under any institution/university. This will allow healthy competition from institutions in terms of proven technologies for island countries. The establishment of the Centre under a current structure of university is not fare practice, even with different mandate, it is still a tenant.
- Members of the Board include Reps from Polynesia, Melanesia and Micronesia. They will take turns for 5 years phase 1, however at 3rd year, ½ board members to be changed. Also CROPS and Donor Agencies will also be invited as members/observers.
- Chairmanship – nominated from member country and to be rotated among Polynesia, Melanesia and Micronesia.

Q No 2.
- A good example is PPA establishment where we can learn from.
- This is a New initiative and need focus

Q No 3.
- Clear Mandate/constitution/responsibility/measurable output/timeline
- Institutional framework
- Monitoring and implementation plan in place
- Polynesia, Melanesia and Micronesia take turns members and chairmanship

Q No 4.
- Link through Focal Point
- Ministry of Energy/Energy Division

Q No 5.
- Create an Enabling environment - institutional framework/clear policy-involvement/participation of private sectors

Q No 6.
- English & French Language
- Local language when programs are tailor made

Q No 7.
- 5 member staffs to commence the work at the Centre.
- In terms of Staffing if region do not meet the capabilities/qualifications then consideration for people outside the region.

Q No 8.
- Contribution from member countries (membership fees)
- Fee for service
- Project proposal for the securing of funds from donor agencies.
- Good Awareness Strategy
- Promote Best Practice

Q No 9.
Institutional Framework
- Gap Analysis per member countries
• Implementation some of “Low Hanging Fruit” projects - short term and planning for long term targets
• Coordinate and tailor made training for technician managing SHS in rural areas.
• Produce Awareness materials for RE and EE
• Secure additional funding from Donors

*****************************************************************************THE END*****************************************************************************
Annex 6: CROP agencies discussion group