# **Session 4.** **Thursday 1 May 2019, 8.40am**

# **Japan-Pacific ICT Centre**

# *Low Carbon Development – navigating a low-carbon future*

**Introduction/Background**

COP24 focused predominantly on delivering the Paris rulebook and raising political ambition. While the rulebook emerged from Katowice, efforts to raise ambition had very limited success. 2018 saw another year of weather extremes, with previous climate records surpassed. The need for climate change mitigation is, therefore, more critical than ever. Each year of political indifference is another year we can’t afford.

This is why Nationally Determined Contributions (NDCs) are crucial. The Paris Agreement requires member countries to make voluntary contributions in the form of NDCs in order to reduce greenhouse gases so the warming of the Earth stays well below 2 degrees Celsius, and all efforts are made to limit warming to 1.5 degrees. A scaling up of commitment from government and industry in terms of climate change mitigation requires meaningful actions towards implementing the existing NDCs, and to strengthen these as highlighted by the Talanoa Dialogue process. And by being ambitious and innovative, the Pacific will lead by example and deliver a powerful political statement to the international community.

Our theme here today is ambition. We know the Pacific region contributes less than 0.03 per cent of the world’s total greenhouse gas (GHG) emissions compared to other regions of the World, but the reality is that we are amongst the most vulnerable to the effects of climate change. We also know that as small island nations we have the opportunity to make lasting transformational change over a relatively small period of time - an opportunity that other countries do not have. A transition to a low carbon economy not only puts us at the forefront of the fight against climate change but can bring a wide range of societal benefits including energy security, upskilling of the workforce, employment opportunities (and associated economic benefits) and reduced pollution. It can help to connect our islands, bring the benefits of renewable energy to the remotest places and protect our unique ecosystems.

Through the NDC and other programs such as the Pacific NDC Hub we have been allocated financial and technical assistance to support our efforts in designing and implementing our vision for a low-carbon future - alternative energy generation sources, energy efficient products, increasing the carbon sink through reforestation, conservation and rehabilitation of marine-based carbon sinks such as coral reefs, and using more ecosystem-based solutions to adapt to the impacts of climate change.

This session highlights innovation and collaboration as the way forward. We cannot bring about a transformational change by working in silos; we need to engage governments, the private sector, academics, regional partners and local Pacific communities, including young people if we want our solutions to be sustainable.

Our young people are inevitably likely to experience more severe impacts of climate change in the future although the evidence suggests they are contributing less to the problem. Currently, they are also less able to influence the decision-making that is needed to make the vital cuts in emissions required between now and 2030 as identified in the IPCC 1.5˚C Special Report. We all know what the future will look like if action is not taken immediately. A vital question in the Pacific is how to come up with innovative and collaborative approaches to shape a low carbon future? As a Region how can we better engage our young people in crucial decision making to ensure that low- carbon future?

The investments made in a low-carbon future means our young people will be more resilient to the effects of climate change. Importantly, the low-carbon investments we make now will give our young people future employment opportunities; they will provide our young people with the skills and capacities to compete in a low-carbon market. And don’t forget, the person drawing the most attention in the world right now to the climate change challenge is a young person. Teen activist Greta Thunberg is leading an international youth movement against climate change, holding governments to account, and governments are engaging.

This session will consider some of the ways countries can raise their ambition to meet their NDC objectives in the context of low carbon development. We are specifically focused on energy security and on the innovative technologies and the collaborative approaches that will be necessary to find low-carbon solutions and thereby strengthen Pacific resilience. We understand the diversity that exists in the capacity and needs of the Pacific – the low-carbon energy solutions for PNG and Fiji, are not necessarily going to be useful solutions for Tuvalu and Tokelau, for example. That is why today we will highlight solutions from Melanesia, Polynesia and Micronesia. This session will: 1. Provide examples of real-world solutions in low-carbon transformation from the Pacific; 2. Showcase examples of emerging technologies 3. Highlight the approaches needed to achieve energy security and, thereby, a low-carbon future. This approach emphasises the need for collaboration and a coordination of efforts at all levels (i.e. local, national, regional, and international) and across all relevant sectors. Innovation and transformation can come about through the strengthening of collaboration between governments, civil societies including youth and the private sector, academic institutions and regional partners. 4. We want you to leave here today with the ambition and motivation to act, and with ideas for a solid plan moving forward. The workshop of this session will focus on opening up discussion and collaboration to give you the means to address energy security and a low-carbon future.

**Key Issues**

Substantial progress has been made in the Pacific region towards low carbon development. A number of Pacific countries and territories have progressed initiatives in creating enabling environment to facilitate the implementation of low carbon development such as capacity building activities, policy and regulatory frameworks, institutional strengthening programmes and piloting of small to medium size renewable energy projects in electricity and transport sectors. Projects range from piloting the use of biogas, bioenergy, biomass, hydro, wind and solar in the energy sector to advocacy on the use of more energy efficient modes of transportation in the transport sector.

Through the Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE) established under the Framework for Action on Energy Security in the Pacific, initiatives are underway to support Pacific Island Countries and Territories (PICTs) in addressing existing barriers to the creation of sustainable energy markets and promote innovation across the industry and local private sector. Initiatives include working with PICTS to building local capacities in sustainable energy systems, policies and standards, awareness raising and knowledge management and establishing partnerships to leverage more investment and to support technology and knowledge transfer. The PCREEE launched in 2018, its Sustainable Energy Entrepreneurship Facility which aims at supporting PICTs in increasing investment in renewable energy and energy efficient business ventures. Other current activities include facilitation and support for national and sector-based dialogues and capacity building programmes.

Some countries have completed the review of their National Building Codes and building design standards such as Samoa, Niue and Cook Islands which have incorporated future climate change projections and impact scenarios to guide design and construction of structurally sound, environmental friendly and energy efficient buildings and infrastructure. Others are developing standards, policies and laws for goods/products for example electrical appliances that are energy efficient; and put in place power purchase agreements with private companies that are operating solar-powered grids.

Work is also progressing in establishing industry associations such as national sustainable energy associations and empowering the local private sector to be the driver of the transition to renewable energy and energy efficiency.

In addition, countries are also progressing on a number of forestry-based and marine conservation and rehabilitation to increase carbon sink and natural defense against climate change and disaster impacts, strengthen food security and ecosystem-based services.

On the opportunities through climate financing, SPREP as a regional direct access accredited entity developed a pipeline of low carbon development projects at the request of member countries and partners to be financed by the Green Climate Fund (GCF) and the Adaptation Fund (AF – adaptation projects with mitigation co-benefits). These includes energy financing, energy and water security, energy efficiency – appliance labelling and standards, building indigenous community resilience with low emission sea transportation in the Micronesian region, and low carbon development in the tourism sector.

The key issues and challenges that are creating barriers in pursuing low carbon development are:

* Not all Pacific Island Countries and Territories have the enabling mechanisms to pursue low carbon development strategies. Private sector still needs a lot of assistance to fully understand this and how they could contribute to the reduction of GHGs;
* Limited understanding of low carbon development and viable solutions that could work at the scale of countries in the region and can be sustained in and by the region;
* Access to cost-effective and sustainable low carbon development technologies that could help enable mass production and utilization at all levels of Pacific communities;
* Limited Renewable Energy sources and options in some countries, particularly low-lying atoll and raised limestone islands;
* Lack of a centralized systems and processes that enables Pacific island countries to monitor and evaluate their emission to inform better planning and implementation of relevant measures;
* Lack of data on untapped Renewable Energy resources such as Geothermal, biomass, PHES, and ocean energies such as OTEC, tide and wave.
* Coordination and collaboration at all levels is still an issue that is yet to be fully addressed. Coordination within communities, countries, amongst CROP agencies and donors and development partners who does work in this space.

***Recommended actions as a way forward:***

It is anticipated that at the end of the session, some key recommendations and way forward will be discussed and agreed. These recommendation might include the following:

* To address capacity gaps in low carbon development, a programme be developed through the Pacific NDC Hub and the PCREEE targeting increased youth participation and involvement with planning and implementation of low carbon development strategies;
* South-south cooperation for youth and relevant partners on low carbon development programmes to increase understanding and learning and opportunities to establish formal and informal youth networks and partnerships;
* Promote private sector funding facility or through concessional/soft loans to encourage private sector access and use of more clean energy through their industrial/commercial/manufacturing processes;
* Establish low carbon development ‘community of practice’ in the Pacific for information sharing, spearheading interest, employment, and create linkages to Renewable Energy institutions at both regional and international levels including private sector;
* Strengthen institutional, policy and legislative frameworks on low carbon development;
* Countries to invest in low carbon development strategies and mainstreaming across all sectors

**Partnerships**

The implementation of the FRDP will require ownership by all stakeholders including governments, local communities, civil societies, private sector, regional organizations, academia, donors and development partners to work together in a concerted manner including sharing of expertise and resources, enabling mechanisms such as institutional arrangements and policy and legislative frameworks, financial and technical resources and partnerships.

Existing partnerships that supports renewable energy and energy efficiency such as the partnerships established to support implementation of the S.A.M.O.A Pathway, the relevant Sustainable Development Goals (7 and 9), NDCs, the Maritime Technology Corporation Centre (MTCC) and the PCREEE are viewed as some of the key partnerships that are supporting the achievement of low carbon development objectives and milestones in the region.

It is anticipated that following this inaugural Pacific Resilience Meeting, potential partnerships could be formulated to progress this Goal further including possible partnerships with Youth Councils as part of the regional activities under the PCREEE and the Pacific Youth Development Framework 2014 – 2023, private sector and communities.

**Objectives of the session**

The Strategic Objective of Goal 2 is “More efficient end-use consumption, reduced carbon intensity of development processes, increased conservation of terrestrial and marine ecosystems and increased resilience of energy infrastructure in PICTs”.

The objectives of the Session are:

* Explore how to better engage the private sector, civil societies including the young people of the Pacific in low carbon development;
* Promote greater awareness of all stakeholders including government, civil societies, private sector in low carbon development strategies and establish a collective understanding of progress to date and challenges;
* Promote and encourage youth entrepreneurship/interest in low carbon development businesses enterprises and build their capacity in low carbon development;
* Consider the skills that young people will need to drive, and benefit from, low carbon development

**Intended Outcomes**

The Goal 2 Outcome is “Improved energy security, decreased net emissions of greenhouse gases and enhanced resilience of energy infrastructure”.

It is anticipated that at the end of the Session,

* Greater understanding of low carbon development goal and how Pacific as a collective could collaborate to realise this goal;
* Concrete recommendations on way forward
* Increased interest from countries and donors and development partners to collaborate on low carbon development action;
* Ideas to inform a youth engagement plan on low carbon development

These objectives will be met through three main components of the session:

1. Progress in the region in low carbon development:

* Renewable energy
* Transportation
* Waste sector (reduced methane emissions, waste to energy, biomass)
* Building codes and energy efficient standards
* Standards/policies/laws for products (e.g. electrical appliances that are energy efficient)
* Institutional arrangements, low intensity carbon development processes, etc.
* Encouraging youth entrepreneurship on low carbon development
* Youth network to be established with linkages to established renewable energy and energy efficient projects and programmes including the PCREEE, Pacific NDC Hub, and others
* Renewable Energy companies should also be involved right from the start as they will be providing most of the opportunities for employment, training, and entrepreneurship for youth

1. Understanding the key issues and challenges that are creating barriers in pursuing low carbon development and identifying solutions that are practical, cost effective, and sustainable in light of the cultural, social and economic challenges of Pacific SIDS.
2. Young people and low carbon development: Challenges and opportunities

* Why engaging young people is essential
* Skills for a low carbon future
* Engagement – how do we involve youth in a real and meaningful way?

**Discussions/Lead Questions**

The discussion will be around the leading question assigned to each of the presenters (to be selected) and the three components of the session. These key questions are as follows:

Leading Questions for country presenters:

What are the key instruments that your country have put in place to facilitate low carbon development? What are the challenges, lessons learnt and best practice from this experience? How youth, private sector and civil societies were/have been engaged in the development of these instruments? What are some of the key aspects of these policy and legal instruments that you think will help youth, private sector and civil societies in pursuing a low carbon development path?

Leading Questions for Development Partner presenters:

What funding and technical resources are available to low carbon development in the Pacific? There are numerous challenges in securing financial and technical resources in low carbon development, how can your organisation better support and facilitate access to and use of these resources? Pacific Islands face distinct challenges such as size, scale and geographic remoteness. How does your approach to development account for these challenges?

Leading Questions for Civil Society and Private Sector presenters:

Why should the private sector get involved in low carbon development - who can benefit and how? What current activities and programmes in low carbon development you are involved in and undertaking? What are some of the challenges/issues, lessons learnt and best practices? What support do you need in order for your organisations to pursue low carbon development pathway?

Leading Questions for Youth presenters:

Why does low carbon development matter to young people? Do you feel you have a meaningful voice in developing low carbon solutions? If not, why not? What current activities and programmes in low carbon development you are involved in and undertaking? What support do you need in order for youth to better engage and involve in low carbon development?

**Session Format & Speakers:**

Session 4 on Low Carbon Development is a four hours long session opened to all participants.

**The format of the session will be as follows:**

1. **Ignite phase**

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| Time allocation |  | Outcome |
| 20 mins | **Key Note Speaker: “Why Low Carbon Development Matters”** |  |
|  | **Moderator: Tofiga Fepulea’i** |  |

1. **Engagement phase**

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| --- | --- | --- |
| Summary of Session Plan: Low Carbon Development | | |
| Time allocation | Presenter & Leading Questions | **Outcome** |
| 5 mins | **Moderator: Tofiga Fepulea’i** | Introduce the Engagement phase |
| 65 minutes  [6 x 10 mins per speaker + 5 mins for Chair]  20 mins | **Chair: Tagaloa Cooper, Director Climate Change Resilience Programme, SPREP**  **Policy and Legislative Frameworks:**   * **The Societal and Economic Benefits of Low Carbon Development,** Espen Ronneberg, Climate Change Adviser, SPREP * **Using the NDC to make change: The case of Fiji,** Ms. Jeanette Samantha Mani, Third National Communication Project Coordinator, Ministry of Economy, Republic of Fiji * **Making Policy to Work for You:**   + **Resilient Energy Infrastructure on Atolls,** Ms. Pepetua Latasi, Director, Department of Climate Change and Disaster, Ministry of the Prime Minister, Tuvalu   + **Appliance Labelling and Standards,** Makereta Lomaloma, Team Leader – PALS Project, SPC   **Island Solutions:**   * **Atoll Island Approach: RMI Successes and Challenges of going 100% renewable,** Ms. Angeline Heine, Director, National Energy Office, Republic of Marshall Islands * **What it Takes to Power Up an Island with Solar: Tau Island of American Samoa,** Mr. Ryan Tuato’o, American Samoa Power Authority, American Samoa   **Questions and Answers** | Open the session introducing the key objectives and outcomes required from the session. |
| 30 minutes | Break and Cultural Intermission |  |
| 65 minutes (6 x 10 minutes each +5 mins for Chair)  20 mins | **Chair: Akuila Tawake, Deputy Director, Geo-resources and Energy, GEM, SPC**  **Private Sector and Community Based Approaches:**   * **Achieving multiple benefits for communities through biogas in the Solomon Islands –** Mr. Bobby Siarani, Youth Entrepreneur, Solomon Islands * **Community-based Solar powered refrigeration – challenges and successes,** Mr. Epironi Ravasua, Chief Wainika, Wainika, Vanualevu, Republic of Fji * **Leveraging the traditional and market influence of our ancient voyaging culture to promote low carbon sea transport through community partnerships with the business sector –** Dwain Qalovaki, Uto ni Yalo Trust Secretary, Republic of Fiji   **Future Initiatives:**   * **Youth Participation and Entrepreneurship,** Solomone Fifita, Manager, SPC-Pacific Centre for Renewable Energy and Energy Efficiency * **NDC Hub – Supporting the Pacific to Achieve Ambition,** Vanda Faasoa-Chan Ting**,** Assistant CEO – Renewable Energy, Ministry of Natural Resources & Environment, Samoa * **Quick-response support for Pacific Island Governments – clean energy policy and finance mechanisms,** Mr. Mathew Keighley, Clean Energy Solutions Centre – Asia Pacific Coordinator   **Questions and Answers** | Open the session introducing the key objectives and outcomes required from the session. |
| 40 minutes | **Discussion** |  |

Composition of the Session Preparatory Working Group

The below are members of preparatory working group for this session:

**Co-Leads:**

* CROP Agencies: Tagaloa Cooper, Director Climate Change Resilience Programme, SPREP, [tagaloac@sprep.org](mailto:tagaloac@sprep.org)
* PIPSO: Alisi Tuqa, Acting CEO, PIPSO, [alisit@pipso.org.fj](mailto:alisit@pipso.org.fj)

**Other members (2-3 max):**

* CROPs:
  + Filomena Nelson, CCAA, SPREP, Email: [filomenan@sprep.org](mailto:filomenan@sprep.org)
  + Nanette Woonton, Media and Communications Officer, SPREP, Email: [nanettew@sprep.org](mailto:nanettew@sprep.org)
  + Espen Ronneberg, Climate Change Adviser, SPREP, Email: [espenr@sprep.org](mailto:espenr@sprep.org)
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  + DR Sascha Fuller, Pacific Node Coordinator, University of Newcastle/SPREP, Email: [sascha.fuller@newcastle.eud.au](mailto:sascha.fuller@newcastle.eud.au).
  + Azarel Maiai, CosPac Capacity Building Officer, SPREP, Email: [azarelm@sprep.org](mailto:azarelm@sprep.org)
  + Makereta Lomaloma, Team Leader – PALS project, SPC; Email: [makeretal@spc.int](mailto:makeretal@spc.int)

**Key Documents & Hyperlinks**

1. Pacific Youth Development Framework 2014 – 2023 (https://www.spc.int/sites/default/files/resources/2018-05/Pacific\_Youth\_Development\_Framework.pdf)
2. A Framework for Action on Energy Security in the Pacific 2010 - 2020 (http://prdrse4all.spc.int/node/4/content/framework-action-energy-security-pacific