UN CTCN Partnership and Liaison Office
2026 Capacity Building Program: SIDS

Summary Note

AI for Adaptative Management in the Energy Sector

Date & Venue: 15-17 September 2026, Songdo and Busan, Republic of Korea
Partnered organization: Global Green Growth Institute (GGGI)

Background and purpose: The year 2026 marks the fourth year of CTCN's 3rd Programme of Work (PoW), which places increased emphasis on moving from discrete technology support toward integrated, system-level transformation pathways. This direction takes into consideration COP/CMA decisions, including the AI4ClimateAction (9/CP.28, para 6-7) and the Belém Technology Implementation Programme (BTIP, 18/CMA.7, para 19), which emphasizes demand-driven implementation, capacity building, and a more complete technology cycle to support deployment and diffusion.

CTCN's 2026 Capacity Building Programme focuses on system transformation, understood as coordinated change across technologies, institutions, and decision-making processes to deliver lasting climate impact. Feedback from the 2025 thematic programmes on Climate Finance and Co-creation reinforces the need to move beyond the status quo, to improve livelihoods, and to measure progress. Together, these perspectives underscore that impact is understood by NDEs as a system-level outcome, achieved when capacity building enables coordinated change across interconnected layers.

In SIDS, technology priorities emphasize water and coastal resilience, including climate-resilient crop varieties, flood-hazard mapping, and mangrove rehabilitation, alongside energy solutions such as off-grid electrification and battery electric vehicles. These priorities point to readiness for transformational adaptation, where system change is required to manage compounding climate risks rather than incremental improvements alone. While one country (i.e. Papua New Guinea) explicitly references Artificial Intelligence (AI)-related technologies in its NDC, this highlights both nascent demand and a clear capacity building opportunity to support responsible integration of digital and AI tools into highly exposed national energy systems.

The 2026 programme builds on this evolution by focusing on updating NDEs' knowledge on AI[1] application for adaptative management skillset enhancement in the energy sector. The curated sessions will showcase technological innovation led by private and public sectors and provide a space for discussing how AI may increase viabilities of energy solutions and elevate adaptive management required to handle climate crisis.

Participants: 7 NDEs from the Pacific and the Caribbean participated. The program engaged 14 CTC prospective and current Network Members (NMs), 8 private sector and 22 international and public sector stakeholders leading AI evolution, application, and policy. This meeting included the participation of 15 women, and 43 men. The full list for 58 participants available in Annex I and a group photo in Annex II.

Approaches and activities: Centring system-thinking and multi-stakeholder engagement, three key activities were planned to achieve the following objectives:

[1] 2024 capacity building was on #AI4ClimateAction

1. **Enhance knowledge and practical understanding of AI applications** for adaptive management and skillset development in the energy sector;
2. **Build capacity to position technical assistance (TA) requests**, in a large climate project

A five-step co-creation process was applied using three sequential methods: information distribution, field visit, and participatory.

Methodology: 5-step co-creation process

Table 1 illustrates all sub-activities and expected outputs of the process undertaken.

Process	Methods Applied		Program Activities	Output(s)
1. Planning	Co-creating scalable climate technology TA projects	Segmentation	NDC, TNA, TAP analyses	Identification of potential groups with similar sectoral/technological needs and emerging technologies from the region
2. Sensitizing		Information distribution	Plenary session	Understanding system transformation vision and recommendations
3. Facilitating			Panel discussions	Understanding international, private, public sector's AI and energy system integration status and related perspectives
4. Engaging		Participatory sessions	Technology discussion - Energy	Review TEC-approved emerging energy technologies and exchange bottlenecks and innovation points
			Technology discussion - AI	Learn and explore possible ways to adopt/adapt AI in future climate projects
			Climate narrative	Incorporate climate narrative concept into new climate project design
5. Analyzing		Evaluation	Post-program engagement	Analyses of insights gathered from NDEs and follow-up on the bilateral results

Step 1. Planning: In this step, CTCN reviewed, analysed and synthesised participating countries' NDC, Technology Needs Assessments (TNA) and Technology Action Plans (TAP) and searched digital, AI, energy-related national policy and projects under developing/implementation. Also, CTCN conducted review on NMs from the region to understand the level of readiness for scalable TA implementation. For the participatory sessions, slides, a Workbook[2], coloured papers, pens, sticky notes, workshop boards, and stickers were prepared.

Segmenting NDEs by climate priorities

7 country cards (Annex III) were populated to inform potential grouping as below.

Table 2 Groups for participatory sessions

Group	Countries	Common ambition and vision
A	Cuba, Kiribati, Naoero	Reliable energy for essential public services
B	Fiji, Vanuatu	Financing and operating resilient renewable energy
C	Palau, Papua New Guinea	Selecting and integrating new energy options

With this possible grouping in mind, five sequential sessions were developed within the program to ensure the relevance and alignment of the identified needs with current national priorities, challenges, and evolving sectoral contexts.

[2] https://www.ctc-n.org/sites/default/files/2026-09/2026%20SIDS_Workbook%20PDF_final.pdf

Identifying matchable regional NMs The invitation was extended four selected prospective and current network members to ensure thematic relevance and broader participation. An initial targeted outreach was undertaken to NMs with expertise in collaborative research, development, and demonstration, accompanied by an Expression of Interest (EOI) form requesting information on NM's motivation and previous engagement with the CTCN. The invitation and EOI form were subsequently shared with the wider CTC Network, resulting in six EOI submissions overall.

***Step 2. Sensitizing*: Potential partners and understanding adaptive systems in SIDS**

Different to previous capacity-building programmes, we began with introduction to potential partners, allowing NDEs to see the first-hand innovative technologies that may uptake collaborative research, development, and demonstration approaches.

The opening session, therefore, comprised four pitch presentations by Moses Sung, CEO of Huject on energy block generating electricity with a small movement; Prof Woo-Kyun Lee, OJEong Resilience-E3 on high-resolution real-time diagnostic platform for forest fire and landslide early warning; Jae-hong Park, CEO of Code of Nature on moss-based soil restoration; Kim Jin-tae, Researcher of Korea Grid Forming on electricity stabilizer (i.e., Battery Energy Storage System and Microgrid) (see Figure 1 for presenters).



Figure 1 Introduction to potential partners - cRD&D

Following this pitch presentations, Mr Sanjaya Bhatia, Head of Office Incheon, UN Office for Disaster Risk Reduction (UNDRR) - Office for Northeast Asia (ONEA) & Global Education and Training Institute (GETI), delivered a keynote on 'What does an energy transformation really mean in SIDS'.

Three key messages emerging from his presentation as follows:

1) Energy transformation is about resilience, affordability, security and sovereignty. Dependence on imported fossil fuels and exposed coastal infrastructure leaves SIDS facing disaster risks, supply disruptions and price shocks.

2) Decentralization can reduce systemic risk. Microgrids, community energy systems and distributed storage reduce dependence on single power stations, protect critical services and enable faster recovery.

3) Measure success beyond installed megawatts: avoided losses, fewer outages, faster recovery and continued service during disasters.

Step 3 Facilitating: **Panel discussions on AI, policy, energy innovation, and transition with sustainability**

Panel 1: Sustainable AI era: Scaling clean energy to power the semiconductor supply chain
The panel explored how to secure reliable clean energy, reduce emissions and support semiconductor industry growth as AI demand expands. It highlighted AI's physical requirements - including electricity, infrastructure, semiconductors, critical materials and water - and the need to account for these demands when planning digital and energy transitions.

The discussion was moderated by Kim Seungwan, Professor at the Korea Institute of Energy Technology. Panellists included Malle Fofana, Deputy Executive Director of GGGI; Seong-bong Cho, Vice President of ESG at SK Hynix; Lokwon Kim, CEO of DEEPX; and Jens Bøgsted Orfelt, President for Asia Pacific and Director of Offshore Development at RWE.



Figure 2 Panel discussion 2 and NDE of Fiji

Panel 2: How policy can accelerate clean energy deployment to support AI growth
The panel addressed regulatory barriers, investment incentives and infrastructure requirements for meeting AI's growing electricity demand with clean energy. A key reflection was the difficulty of adapting policy to rapidly changing technologies and markets. For SIDS, policy responses must balance investment predictability with safeguards, energy affordability, access and security.

The discussion was moderated by Ferruccio Santetti, Chief of Staff and Director of Strategy, Sustainable Finance and Global Initiatives at GGGI. Panellists included Dr Tae Eui Lee, Senior Research Fellow at the Korea Energy Economics Institute; Dr PilSeok Kwon, Director of the Green Energy Strategy Institute; Danny Nekitel, Manager of Mitigation and Low Carbon Growth at Papua New Guinea's Climate Change and Development Authority; Justin Wu, Head of Sustainability and Climate Change for Asia and the Middle East at HSBC; and Isao Hasegawa, Chief Consultant and Group Leader of the Demand-Side Innovation Group within the Electric Power and Energy Division at Mitsubishi Research Institute.



Figure 3 Panel discussions 3 and 4

Panel 3: Aligning climate policy with energy innovation and technology
The panel examined governance frameworks, accountability standards and partnership models that can align energy innovation with climate objectives. For SIDS, the implications include strengthening institutional adaptive management capacity, clarifying responsibilities and selecting technologies and infrastructure appropriate to national circumstances. These considerations also raised questions about data security, sovereignty and equitable access.

The discussion was moderated by Andreas Galatoulas, Data and AI Lead at GGGI. Panellists included Moanibou Muller, Senior Assistant Secretary for Administration in Kiribati's Corporate Services Department; Damien Pereira, Chief Representative of the Québec Government Office in Seoul; Charles Pacini, Manager of Transforming Industrial Ecosystems at the World Economic Forum; and H.E. Emmy Jerono Kipsoi, Ambassador of Kenya to the Republic of Korea.

Panel 4: The Economist discussion on Artificial intelligence, energy transition and sustainability
The discussion brought together policy, technology, energy and finance perspectives on AI's implications for electricity demand, technology deployment and sustainability. It considered growing energy needs alongside decarbonisation objectives and AI's potential to improve energy efficiency and grid operations. For SIDS, the central considerations are how energy is produced and used, who benefits, and whether infrastructure investments support national development priorities and resilience.

The session was moderated by the journalist Rodrigo González, from The Economist. The panellists were Sang-hyup Kim, Executive Director of GGGI; Oh Il-young, Director General of the Climate and Energy Policy Bureau at the Ministry of Climate, Energy and Environment; Spencer Low, Head of Regional Sustainability for Asia Pacific at Google; Tomoko Furusawa, Head of the Partnership and Liaison Office at UNEP CTCN; Justin Wu, Head of Sustainability and Climate Change for Asia and the Middle East at HSBC; and Dongwook Chun, Vice President of Global Government Relations and ESG Strategy at LG Energy Solution.

Step 4 Engaging: Technology Discussions and Climate Narrative

AI law, policy and governance

NDEs were invited to the presentation on AI law, policy and governance for responsible AI application in climate programmes. Building on CTCN's #AI4ClimateAction capacity-building activities, the presentation emphasized that AI application should be justified by its contribution to climate outcomes, with safeguards and institutional capacity proportionate to the consequences of its use.

The presentation covered the following six points:

1) **Policymaking under uncertainty:** Rapidly evolving capabilities and uncertain impacts require an adaptive approach. Programmes should test bounded pilots against current practice, establish criteria for continuation, invest in data and staff capacity, and retain fallback services and an exit route.
2) **Institutions and governance instruments:** Governments, regulators, courts, businesses, researchers and communities shape AI priorities and oversight. Laws establish binding obligations; contracts and standards specify performance, data rights and audit access; and ethical principles require clear operational responsibilities.
3) **Responsibilities of deploying institutions:** Procuring an AI system does not remove institutional accountability. Deployers need competent human oversight, monitoring and records, incident-response procedures, and mechanisms for reviewing harmful decisions.
4) **Different regulatory approaches:** The presentation compared the European Union's emphasis on risk and rights, China's focus on development and security, the United Kingdom's sector-based approach, and the Republic of Korea's emphasis on promotion and trust. These approaches illustrated different considerations for safety, data controls, transparency and oversight in climate programmes.
5) **Understanding AI capabilities and limitations:** Generative, foundation and frontier AI have distinct characteristics and governance implications. Advanced capabilities do not establish reliability for a particular climate decision; outputs require validation in their intended context.
6) **Responsible use in project preparation:** AI can support the drafting of NDC-aligned concept notes using approved sources and verified programme data. Drafts should distinguish evidence from assumptions, flag missing information and provide traceable references, with responsible officers checking figures and citations before approval.

Technology Discussion I - Selecting an emerging energy technology

Designed to support NDEs in moving from broad energy-system challenges to the practical requirements for deploying a specific emerging energy technology, drawing on the Technology Executive Committee brief[3], NDEs reviewed energy supply, storage, transmission and distribution technologies presented in the workbook, including their advantages, costs and limitations.

[3] Technologies for Climate Change Mitigation in Developing countries: Renewable Energy: https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/energysupplysector/2e9fbc9d6ea144aabfb089c7728d9dcc/a5171ba2bceb448085cd72b6c849bfb3.pdf

The presentation by the UNIDO on the brief, emphasized three priorities:

- **Select technologies appropriate to national circumstances.** Solar and wind can be complemented by hydropower, biomass and geothermal where resources and conditions permit, with technology choices accounting for climate hazards and reliable electricity supply.
- **Plan generation, storage and grids together**. Storage and smart-grid technologies can improve flexibility, integrate variable renewables, strengthen outage response and enhance energy security.
- **Support an inclusive transition.** Workforce development, community participation, equitable energy access and safeguards concerning land use, labour rights and gender should accompany technology deployment.

Sub-activity 1. Reflecting on energy technology needs and selecting one emerging energy technology

For 20 minutes, NDEs considered what support would be required to overcome these barriers and what types of CTCN technical assistance could promote renewable energy research, development, demonstration, and deployment. During this time, they also selected one emerging energy technology for further consideration and recorded it in the workbook. NDEs were encouraged to consider its relevance to national priorities, maturity, potential contribution to the energy transition and the policy, regulatory, financial, institutional and infrastructure conditions required for all stages of technology readiness. The selected technologies then provided a practical basis for the subsequent peer-to-peer exchange.





Figure 4 Selecting one emerging energy technology

Sub-activity 2. Listening to other NDEs' chosen technologies

For 40 minutes, NDEs were invited to share their selected technologies to the room (see Table 3 for a summary). This enabled them to compare how other NDEs are choosing which technology among many, to address what challenges and to identify areas in which their roles were complementary. This sharing also highlighted different pathways for remote communities and urban grids, with technology selection shaped by local resources, climate exposure, operating capacity and cost.

Table 3 Country preference on Energy technologies (selected from TEC brief)

Country	Technologies and priorities shared
Kiribati	Solar photovoltaic (PV), wind and battery storage were listed under existing technologies. Marine energy, particularly ocean thermal energy conversion (OTEC), was identified for further consideration.
Cuba	Solar, wind, biomass and hydropower formed the technology baseline. Further priorities included hurricane-resilient energy infrastructure, marine energy and storage.

Nauru	Options discussed included marine energy/OTEC and pumped-hydro storage. Power control, voltage optimisation and possible AI applications were also mentioned.
Papua New Guinea	Discussions covered solar PV with battery energy storage, publicly owned mini-grids, remote hydropower and OTEC. Additional options included community-scale pico-hydro and energy storage to strengthen urban grid stability.
Palau	Battery storage, voltage management and the centralized electricity system were identified as areas for development. Solar, wave generation, OTEC and green hydrogen also appeared in the discussion, alongside resource and human-capacity considerations.
Fiji	Remote solar mini-grids combined with batteries were identified as a priority, alongside the country's existing hydropower base.
Vanuatu	Priorities included expanding remote solar and battery systems, with affordability noted as a consideration. Pico-hydro combined with solar and batteries, and urban solar-plus-storage systems, were also discussed.








Figure 5 Exchange with other NDEs on their chosen technologies and the presentation from Palantir

Technology Discussion II – Applying AI

NDEs understood versatility and elasticity of AI, as a digital tool, in its potential to improve overall health of a climate project if applied appropriately. Further to this understanding, two cases from a private and international organization emphasised below points:

Palantir: AI-assisted disaster response and adaptive systems

Deeba Yavrom, Deployment Strategist, Palantir Technologies

- **Connect data to operational decisions.** A shared representation of assets, people and infrastructure - an "ontology" - can link fragmented information with forecasting, decision rules and action. Energy applications included predictive maintenance, battery dispatch and preparation ahead of cyclones.
- **Build around local needs and working conditions**. Start with one consequential decision, develop solutions alongside users and refine them through practical use. AI can support disaster-information synthesis, flood forecasting and risk prioritisation, including where data and connectivity are limited.
- **Preserve national ownership and control**. Partnerships should clearly establish data location, ownership, access, permitted use and portability. AI should be adopted where it materially improves outcomes, with responsibilities and authority clearly assigned.

World Bank - Small AI for Big Impact
Jieun Choi, Senior Economist, World Bank

- **Prioritise adoption and adaptation to local needs.** Developing countries can benefit from compact, task-specific AI models that require less computing capacity and can operate on local devices. Applications included agriculture, education and local-language services.
- **Invest in the conditions for effective adoption**. Benefits depend on digital skills, relevant and reliable data, connectivity, suitable devices and responsible governance. Targeted financing, public-sector pilots and partnerships can support uptake while addressing unequal access and differing employment impacts.
- **Apply AI to practical energy-sector challenges**. The presentation outlined AI-enabled geographic information systems for detecting electricity losses, prioritising inspections and supporting outage management, predictive maintenance and renewable integration. The World Bank's Global AI and Digital Knowledge Center connects Korean expertise with country programmes and financing.

For the World Bank Group Academy, check: https://academy.worldbank.org/en/home#dig

NDEs reflected presentations from private and public sectors were highlighted as valuable opportunities to engage with actors whom participants do not regularly encounter.

Sub-activity 3. Climate Narrative and Theory of Change (ToC)



Figure 6 Discussion among NDEs on climate narrative

To strengthen the capacity of NDEs in developing scalable climate project, grouped NDEs brainstormed on the elements of a climate narrative. For 20 minutes, NDEs identified a single climate problem to focus on and ideated around its drivers, gaps, barriers, and potential actions to address it (see Figure 6). The coloured papers were used to facilitate the brainstorming of each climate narrative element.

For the next 15 minutes, the grouped NDEs arranged identified elements into the order of a problem tree, focusing on 'scoping'. In this phase, each group collectively discarded the elements that are outside the scope of CTCN TA (i.e., theme, budget) and reassured that the alignment of elements remained. Each group was invited to share their problem tree considering the elements within the categories of a ToC (i.e., controllable and non-controllable which are measurable and not-measurable elements) (see Figure 7). Due to lack of time, last activity of the grouped NDEs rearranging elements into the structure of a solution tree, with an emphasis on adding a 'positive tone' was skipped. However, this phase was explained to ensure that the alignment of elements supported the ideation of a TA with strong climate narrative.



Figure 7 Introduction to climate narrative and ToC

Annex IX captures all boards 3 groups worked on. Below table summarizes each group's boards. Overall, across groups, energy transition depends on changes in institutions, incentives and community capabilities: supply agreements and producer participation for Fiji and Vanuatu; livelihood opportunities and socially acceptable adaptation for Nauru, Kiribati, Cuba; and coordinated planning, preparedness and maintenance for PNG and Palau. The technologies discussed provide potential implementation options, but their contribution to resilience depends on these wider conditions.

The group exercises identified three complementary pathways: reducing imported-fuel dependence; sustaining communities and livelihoods through climate adaptation; and strengthening preparedness for coastal inundation. The Table 4 combines the photographed trees with the country technologies and priorities previously compiled.

The theories of change below are analytical reconstructions of the workshop outputs. They may clarify causal links that were not fully articulated in the trees; they should not be read as agreed project designs.

Table 4 Analysis of Group Outputs

Country group	Problem-solution tree analysis	Links to country technologies and priorities	Climate narrative	Synthesised ToC
Fiji and Vanuatu	**Problem:** Continued dependence on imported diesel, alongside barriers to developing a dependable domestic coconut-oil fuel supply. The notes identify coconut-oil price fluctuations and gaps in legislation, policies, agreements and funding. **Solutions explored:** Coconut replanting/restocking, pest eradication and provisions to retain a proportion of coconut oil for domestic use. Although cyclones were initially noted, the group's final emphasis shifted towards diesel substitution and its economic and climate implications.	**Fiji:** Remote solar mini-grids and batteries; rural electrification, agro-photovoltaics and resilient infrastructure. **Vanuatu:** Remote solar–battery systems, pico-hydro combined with solar and storage, and urban solar-plus-storage. Coconut/copra-oil electricity generation also aligns directly with the priorities recorded in Vanuatu's country card. The coconut-oil discussion therefore represents one pathway within a broader renewable-energy portfolio.	Strengthening energy security through locally available renewable resources. Reducing imported-diesel dependence can connect emissions reduction with domestic production, rural livelihoods and more secure energy supply. The adaptation dimension depends on making both energy infrastructure and agricultural feedstock supply resilient to climate hazards.	If governments, producers and electricity providers establish workable supply arrangements and financing, restore coconut productivity, and validate technically suitable fuel substitution alongside solar, storage and other local renewables, then domestic energy supply can become more dependable and displace diesel, contributing to lower import exposure, livelihood opportunities and reduced emissions. Key conditions: Sustainable feedstock availability, competitive costs, equipment compatibility and verified lifecycle emissions benefits.
Nauru, Kiribati and Cuba	**Problem:** Sea-level rise, coastal erosion, declining usable land and water-quality concerns place pressure on settlements and raise questions about community relocation. The tree connects these pressures to identity, lifestyle changes, limited transferable skills and financing constraints. **Solutions explored:** Job-skills training, clearer opportunities in receiving locations and support for livelihood and lifestyle transitions. The central issue is the social and economic feasibility of adaptation.	**Nauru:** Marine energy, including ocean thermal energy conversion (OTEC); pumped-hydro storage; power control, voltage optimisation and AI applications. **Kiribati:** Solar PV, wind, batteries and marine energy/OTEC, alongside reliable electricity for water services and outer-island needs. **Cuba:** Solar, wind, biomass, hydropower, marine energy/storage and hurricane-resilient infrastructure, with an emphasis on electricity and critical-service resilience. These options could support existing or relocated communities, subject to local feasibility.	Maintaining viable communities as coastal living conditions change. Adaptation needs to preserve access to water, electricity, livelihoods and social identity. Energy technologies become part of the enabling infrastructure for continuity of services and economic opportunities, including where relocation is necessary and locally agreed.	If adaptation planning combines community participation, suitable land and service provision, livelihood opportunities, skills development and financing, and if appropriate resilient energy systems support water, health and productive activities, then communities can maintain essential services and rebuild or diversify livelihoods as exposure changes, contributing to safer living conditions and sustained wellbeing. Key conditions: Community consent, culturally appropriate processes, viable livelihoods, land availability and affordable long-term operation of infrastructure.

Papua New Guinea and Palau	**Problem:** Wave inundation associated with sea-level rise, compounded by storm activity, heavy rainfall, mangrove loss and settlement exposure. The notes identify gaps in baseline data, awareness, early warning, drainage and planning, together with financial constraints and strong connections to traditional land and livelihoods. **Solutions explored:** Awareness and education, appropriate technology, improved evacuation systems and migration planning where needed.	**PNG:** Solar PV and batteries, publicly owned mini-grids, remote hydropower, pico-hydro/storage and OTEC; priorities include rural access and resilient energy–water systems. **Palau:** Batteries, voltage management, centralised-system integration, solar, wave energy, OTEC and green hydrogen; priorities include grid flexibility and resilient electricity services. These energy options complement the tree's emphasis on coastal risk management; they require hazard-informed siting and design.	Protecting coastal communities while sustaining essential services during disruption. Coastal adaptation must combine preparedness, ecosystem protection and land-use decisions with electricity systems capable of supporting water services, communications and livelihoods during and after extreme events.	If authorities and communities use coastal-risk and asset data to guide planning, strengthen early warning and evacuation, address drainage and mangrove protection, and deploy appropriately sited resilient energy systems, then exposure and service interruptions can be reduced and response capacity strengthened, contributing to fewer losses and faster recovery. Key conditions: Usable risk information, trusted warnings, maintained infrastructure, clear institutional responsibilities and community participation in land-use or relocation decisions.

ANNEX I - Participant List

No.	Country/organization	First name	Last Name	Representation	Role	Gender
1	Naoero	Reagan	Moses	UNEP CTCN	Nationally Designated Entity (NDE)	M
2	Palau	David	Idip	UNEP CTCN	Nationally Designated Entity (NDE)	M
3	Papua New Guinea	Danny	Nekitel	UNEP CTCN	Nationally Designated Entity (NDE)	M
4	Cuba	Maria Luisa	Zamora Rodriguez	UNEP CTCN	Nationally Designated Entity (NDE)	F
5	Fiji	Sanjeshni	Devi	UNEP CTCN	Nationally Designated Entity (NDE)	F
6	Kiribati	Moanibou	Muller	UNEP CTCN	Nationally Designated Entity (NDE)	F
7	Vanuatu	Matthew	Tasale	UNEP CTCN	Nationally Designated Entity (NDE)	M
8	UNEP CTCN	Tomoko	Furusawa	UNEP CTCN	Head of CTCN Partnership and Liaison Officer	F
9	UNEP CTCN	Suil	Kang	UNEP CTCN	Coordination Officer	M
10	UNEP CTCN	Jeawon	Kim	UNEP CTCN	Capacity Building and Network Engagement Specialist	F
11	UNEP CTCN	Hoyoung	Jo	UNEP CTCN	Climate Technology Specialist	M
12	UNEP CTCN	Sebin	Lee	UNEP CTCN	Administrative Assistant	M
13	UNEP CTCN	Taeyeong	Kim	UNEP CTCN	IMC Volunteer	F
14	UNEP CTCN	Nadege	Trocellier	UNEP CTCN	Global Adaptation Lead	F
15	GGGI	Sang-hyup	Kim	GGGI	Executive Director	M
16	GGGI	Malle	Fofana	GGGI	Deputy Executive Director	M
17	GGGI	Nathan	Blanc	GGGI	Director of communication	M
18	GGGI	Ferruccio	Santetti	GGGI	Chief of Staff and Director, Strategy, Sustainable Finance and Global Initiatives	M
19	GGGI	Andreas	Galatoulas	GGGI	Data and AI Lead	M
20	GGGI	Soyoung	Kim	GGGI	Partnership consultant	F
21	Google	Spencer	Low	Google	Head of Regional Sustainability, Asia Pacific	M
22	Google	Xuefei	Bai	Google	APAC Sustainability Program Manage	F
23	HSBC	Justin	Wu	HSBC	Head of Sustainability and Climate Change, Asia and Middle East	M

No.	Country/organization	First name	Last Name	Representation	Role	Gender
24	UNDRR GETI	Sanjaya	Bhatia	UNDRR GETI	Head	M
25	Palantir Technologies	Deeba	Yavrom	Palantir Technologies	Deployment Strategist	M
26	World Bank	Ji Eun	Choi	World Bank	Senior Economist	F
27	CTC Network member	Tae-Hyun	Sung	Huject	CTO	M
28	CTC Network member	Moses	Sung	Huject	CEO	M
29	CTC Network member	Woo-Kyun	Lee	E3	CEO	M
30	CTC Network member	Woo-Kyun	Lee	Ojeong Resilience Institute-Ethree	Professor	M
31	CTC Network member	Heunwoo	Cho	Ojeong Resilience Institute-Ethree	CEO	M
32	CTC Network member	Junsik	Kim	Korea Grid Forming	Senior Researcher	M
33	CTC Network member	Songjae	Lee	Korea Grid Forming	Vice President	M
34	CTC Network member	Jintae	Kim	Korea Grid Forming	Team Leader	M
35	Republic of Korea	Jae-Hong	Park	Code of Nature	CEO	M
36	Republic of Korea	Doyeon	Kim	Code of Nature	CTO	M
37	CTC Network member	Yisol	Ko	Korea Meteorological Institute		F
38	CTC Network member	Seoyoung	Kang	Weatherpia	Managing Director	F
39	CTC Network member	Dayun	Jung	Weatherpia	Deputy Manager	M
40	CTC Network member	Sangwook	Lim	Weatherpia	CEO	M
41	CTC Network member	Woosol	Kang	Weatherpia	Deputy Manager	M

No.	Country/organization	First name	Last Name	Representation	Role	Gender
42	CTC Network member	Hyunjun	Nam	Weatherpia	Researcher	F
43	Republic of Korea	Il-young	Oh	Ministry of Climate, Energy and Environment, Republic of Korea	Director General	M
44	Kenya	H.E. Emmy Jerono	Kipsoi	Kenya Embassy Seoul	Ambassador	F
45	Canada	Damien	Pereira	Québec	Chief Representative of Québec Government Office in Seoul	M
46	Republic of Korea	Seungwan	Kim	Korea Institute of Energy Technology	Professor	M
47	Republic of Korea	Dasoree	Jo	Korea university	Research professor	F
48	Republic of Korea	Jae-Hong	Park	Korea university	Professor	M
49	Republic of Korea	Tae Eui	Lee	Korea Energy Economics Institute (KEEI)	Senior Research Fellow	M
50	Republic of Korea	PilSeok	Kwon	GESI (Green Energy Strategy Institute)	Director	M
51	Japan	Isao	Hasegawa	Mitsubishi Research Institute, Inc	Chief Consultant, Group Leader, Demand-Side Innovation Group, Electric Power and Energy Division	M
52	N/A	Chris	Coulter	GlobeScan	CEO	M
53	Germany	Charles	Pacini	World Economic Forum	Manager, Transforming Industrial Ecosystems	M
54	Republic of Korea	Seong-bong	Cho	SK Hynix	Vice President of ESG	M
55	Republic of Korea	Dongwook	Chun	LG Energy Solution	Vice President of Global Government Relations & ESG Strategy	M
56	Republic of Korea	Lokwon	Kim	DEEPX	CEO	M
57	Germany	Jens Bøgsted Orfelt	Gibbs	RWE	President - Asia Pacific (Director Offshore Development)	M
58	N/A	Rodrigo	González	The economist	Journalist	M

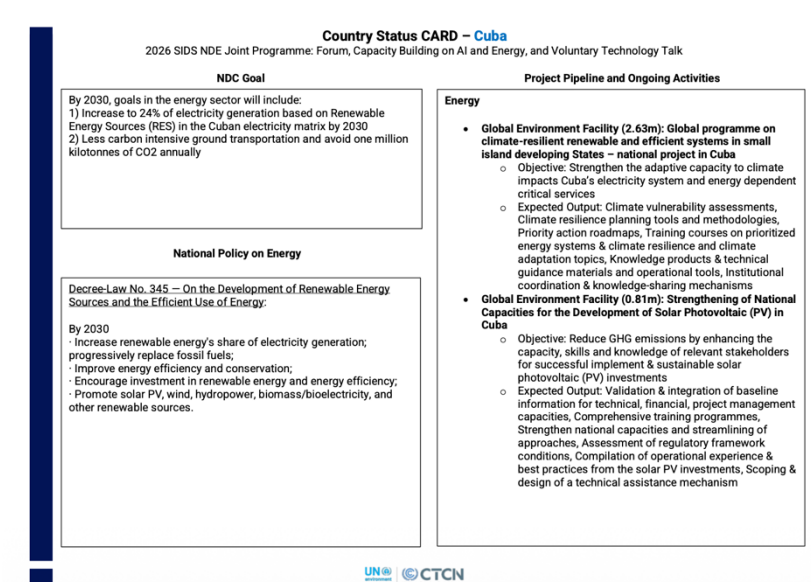
ANNEX II - Group Photos





Link to social media: https://www.linkedin.com/posts/gggi-aienergynexus-cleanenergy-ugcPost-7505792959812943872-C6eD/?utm_source=share&utm_medium=member_desktop&rcm=ACoAABfv_G8BnnjFFqMOFekl4X-NjPof3A_83cY

Annex III - Step 1 Planning: Country status cards



Country Status CARD – Cuba

2026 SIDS NDE Joint Programme: Forum, Capacity Building on AI and Energy, and Voluntary Technology Talk

NDC Goal

By 2030, goals in the energy sector will include:
1) Increase to 24% of electricity generation based on Renewable Energy Sources (RES) in the Cuban electricity matrix by 2030
2) Less carbon intensive ground transportation and avoid one million kilotonnes of CO2 annually

National Policy on Energy

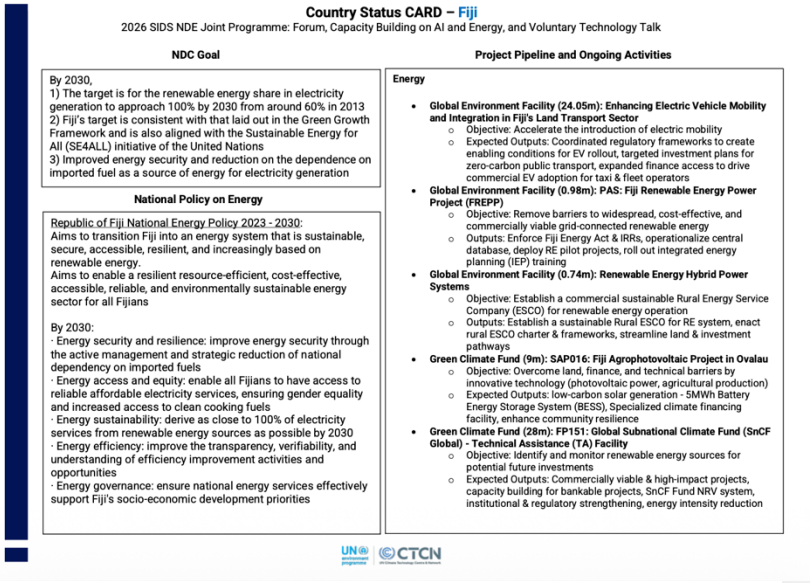
Decree-Law No. 345 – On the Development of Renewable Energy Sources and the Efficient Use of Energy:

By 2030
· Increase renewable energy's share of electricity generation; progressively replace fossil fuels;
· Improve energy efficiency and conservation;
· Encourage investment in renewable energy and energy efficiency;
· Promote solar PV, wind, hydropower, biomass/bioelectricity, and other renewable sources.

Project Pipeline and Ongoing Activities

Energy

- **Global Environment Facility (2.63m): Global programme on climate-resilient renewable and efficient systems in small island developing States – national project in Cuba**
  - Objective: Strengthen the adaptive capacity to climate impacts Cuba's electricity system and energy dependent critical services
  - Expected Output: Climate vulnerability assessments, Climate resilience planning tools and methodologies, Priority action roadmaps, Training courses on prioritized energy systems & climate resilience and climate adaptation topics, Knowledge products & technical guidance materials and operational tools, Institutional coordination & knowledge-sharing mechanisms
- **Global Environment Facility (0.81m): Strengthening of National Capacities for the Development of Solar Photovoltaic (PV) in Cuba**
  - Objective: Reduce GHG emissions by enhancing the capacity, skills and knowledge of relevant stakeholders for successful implement & sustainable solar photovoltaic (PV) investments
  - Expected Output: Validation & integration of baseline information for technical, financial, project management capacities, Comprehensive training programmes, Strengthen national capacities and streamlining of approaches, Assessment of regulatory framework conditions, Compilation of operational experience & best practices from the solar PV investments, Scoping & design of a technical assistance mechanism



Country Status CARD – Fiji

2026 SIDS NDE Joint Programme: Forum, Capacity Building on AI and Energy, and Voluntary Technology Talk

NDC Goal

By 2030,
1) The target is for the renewable energy share in electricity generation to approach 100% by 2030 from around 60% in 2013
2) Fiji's target is consistent with that laid out in the Green Growth Framework and is also aligned with the Sustainable Energy for All (SE4ALL) initiative of the United Nations
3) Improved energy security and reduction on the dependence on imported fuel as a source of energy for electricity generation

National Policy on Energy

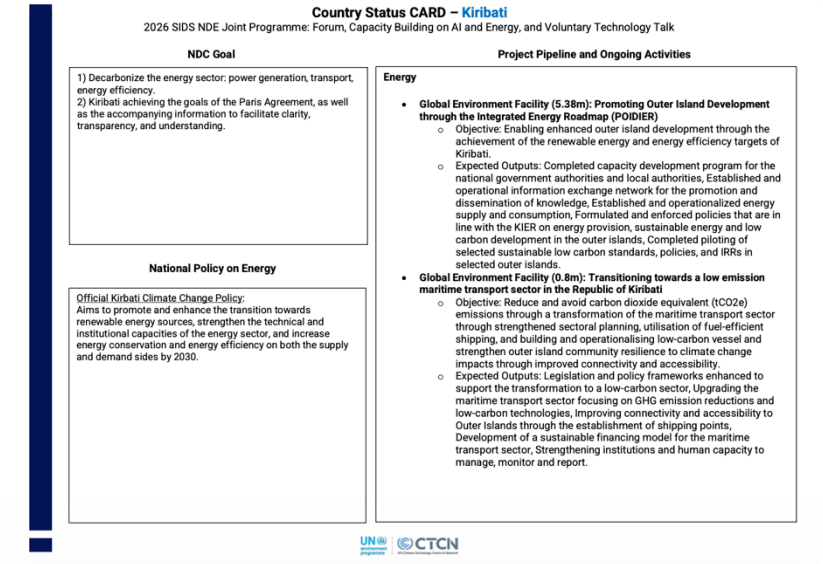
Republic of Fiji National Energy Policy 2023 - 2030:
Aims to transition Fiji into an energy system that is sustainable, secure, accessible, resilient, and increasingly based on renewable energy.
Aims to enable a resilient resource-efficient, cost-effective, accessible, reliable, and environmentally sustainable energy sector for all Fijians

By 2030:
· Energy security and resilience: improve energy security through the active management and strategic reduction of national dependency on imported fuels
· Energy access and equity: enable all Fijians to have access to reliable affordable electricity services, ensuring gender equality and increased access to clean cooking fuels
· Energy sustainability: derive as close to 100% of electricity services from renewable energy sources as possible by 2030
· Energy efficiency: improve the transparency, verifiability, and understanding of efficiency improvement activities and opportunities
· Energy governance: ensure national energy services effectively support Fiji's socio-economic development priorities

Project Pipeline and Ongoing Activities

Energy

- **Global Environment Facility (24.05m): Enhancing Electric Vehicle Mobility and Integration in Fiji's Land Transport Sector**
  - Objective: Accelerate the introduction of electric mobility
  - Expected Outputs: Coordinated regulatory frameworks to create enabling conditions for EV rollout, targeted investment plans for zero-carbon public transport, expanded finance access to drive commercial EV adoption for taxi & fleet operators
- **Global Environment Facility (0.98m): PAS: Fiji Renewable Energy Power Project (FREPP)**
  - Objective: Remove barriers to widespread, cost-effective, and commercially viable grid-connected renewable energy
  - Outputs: Enforce Fiji Energy Act & IRRs, operationalize central database, deploy RE pilot projects, roll out integrated energy planning (IEP) training
- **Global Environment Facility (0.74m): Renewable Energy Hybrid Power Systems**
  - Objective: Establish a commercial sustainable Rural Energy Service Company (ESCO) for renewable energy operation
  - Outputs: Establish a sustainable Rural ESCO for RE system, enact rural ESCO charter & frameworks, streamline land & investment pathways
- **Green Climate Fund (9m): SAP016: Fiji Agrophotovoltaic Project in Ovalau**
  - Objective: Overcome land, finance, and technical barriers by innovative technology (photovoltaic power, agricultural production)
  - Expected Outputs: low-carbon solar generation - 5MWh Battery Energy Storage System (BESS), Specialized climate financing facility, enhance community resilience
- **Green Climate Fund (28m): FP151: Global Subnational Climate Fund (SnCF Global) - Technical Assistance (TA) Facility**
  - Objective: Identify and monitor renewable energy sources for potential future investments
  - Expected Outputs: Commercially viable & high-impact projects, capacity building for bankable projects, SnCF Fund NRV system, institutional & regulatory strengthening, energy intensity reduction



Country Status CARD – Kiribati

2026 SIDS NDE Joint Programme: Forum, Capacity Building on AI and Energy, and Voluntary Technology Talk

NDC Goal

1) Decarbonize the energy sector: power generation, transport, energy efficiency.
2) Kiribati achieving the goals of the Paris Agreement, as well as the accompanying information to facilitate clarity, transparency, and understanding.

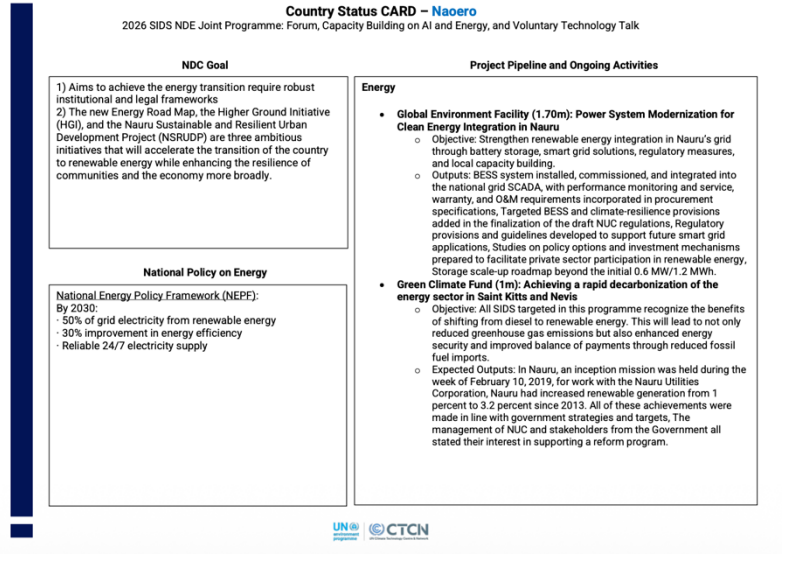
National Policy on Energy

Official Kirbati Climate Change Policy:
Aims to promote and enhance the transition towards renewable energy sources, strengthen the technical and institutional capacities of the energy sector, and increase energy conservation and energy efficiency on both the supply and demand sides by 2030.

Project Pipeline and Ongoing Activities

Energy

- **Global Environment Facility (5.38m): Promoting Outer Island Development through the Integrated Energy Roadmap (POIDIER)**
  - Objective: Enabling enhanced outer island development through the achievement of the renewable energy and energy efficiency targets of Kiribati.
  - Expected Outputs: Completed capacity development program for the national government authorities and local authorities, Established and operational information exchange network for the promotion and dissemination of knowledge, Established and operationalized energy supply and consumption, Formulated and enforced policies that are in line with the KIER on energy provision, sustainable energy and low carbon development in the outer islands, Completed piloting of selected sustainable low carbon standards, policies, and IRRs in selected outer islands.
- **Global Environment Facility (0.8m): Transitioning towards a low emission maritime transport sector in the Republic of Kiribati**
  - Objective: Reduce and avoid carbon dioxide equivalent (tCO2e) emissions through a transformation of the maritime transport sector through strengthened sectoral planning, utilisation of fuel-efficient shipping, and building and operationalising low-carbon vessel and strengthen outer island community resilience to climate change impacts through improved connectivity and accessibility.
  - Expected Outputs: Legislation and policy frameworks enhanced to support the transformation to a low-carbon sector, Upgrading the maritime transport sector focusing on GHG emission reductions and low-carbon technologies, Improving connectivity and accessibility to Outer Islands through the establishment of shipping points, Development of a sustainable financing model for the maritime transport sector, Strengthening institutions and human capacity to manage, monitor and report.



Country Status CARD – Naoero

2026 SIDS NDE Joint Programme: Forum, Capacity Building on AI and Energy, and Voluntary Technology Talk

NDC Goal

1) Aims to achieve the energy transition require robust institutional and legal frameworks
2) The new Energy Road Map, the Higher Ground Initiative (HGI), and the Nauru Sustainable and Resilient Urban Development Project (NSRUDP) are three ambitious initiatives that will accelerate the transition of the country to renewable energy while enhancing the resilience of communities and the economy more broadly.

National Policy on Energy

National Energy Policy Framework (NEPF):
By 2030:
· 50% of grid electricity from renewable energy
· 30% improvement in energy efficiency
· Reliable 24/7 electricity supply

Project Pipeline and Ongoing Activities

Energy

- **Global Environment Facility (1.70m): Power System Modernization for Clean Energy Integration in Nauru**
  - Objective: Strengthen renewable energy integration in Nauru's grid through battery storage, smart grid solutions, regulatory measures, and local capacity building.
  - Outputs: BESS system installed, commissioned, and integrated into the national grid SCADA, with performance monitoring and service, warranty, and O&M requirements incorporated in procurement specifications, Targeted BESS and climate-resilience provisions added in the finalization of the draft NUC regulations, Regulatory provisions and guidelines developed to support future smart grid applications, Studies on policy options and investment mechanisms prepared to facilitate private sector participation in renewable energy, Storage scale-up roadmap beyond the initial 0.6 MW/1.2 MWh.
- **Green Climate Fund (1m): Achieving a rapid decarbonization of the energy sector in Saint Kitts and Nevis**
  - Objective: All SIDS targeted in this programme recognize the benefits of shifting from diesel to renewable energy. This will lead to not only reduced greenhouse gas emissions but also enhanced energy security and improved balance of payments through reduced fossil fuel imports.
  - Expected Outputs: In Nauru, an inception mission was held during the week of February 10, 2019, for work with the Nauru Utilities Corporation, Nauru had increased renewable generation from 1 percent to 3.2 percent since 2013. All of these achievements were made in line with government strategies and targets, The management of NUC and stakeholders from the Government all stated their interest in supporting a reform program.

Climate Technology Centre and Network, Partnership and Liaison Office
32rd Floor, G-Tower, 175, Art center-daero, Yeonsu-gu, Incheon
http://ww.ctc-n.org, Email: ctcn@un.org
Inquiries related to this document, email: Jeawon.kim@un.org

Country Status CARD – Palau

2026 SIDS NDE Joint Programme: Forum, Capacity Building on AI and Energy, and Voluntary Technology Talk

NDC Goal

1) Reach 100% renewable energy by 2050
2) Add another 16.7 MWp with additional international support for solar power development
3) Upgrade grid communications, controls and infrastructure to accommodate more renewable energy

National Policy on Energy

Republic of Palau: Renewable Energy Roadmap 2022–2050:
By 2030,
· The RoP has set an ambitious target of achieving 100% renewable electricity by 2050, as laid out in the Renewable Energy Roadmap 2022–2050.
· Comprehensive mitigation efforts across various sectors, including increasing renewable energy generation, starting integration of electric vehicles in the transport sector, and improving energy efficiency nationwide.
· Reduce emissions in the waste sector by upgrading existing systems, expanding wastewater management capacity, and optimizing our solid waste management processes.
· Maintain steady growth of our carbon sinks through reforestation initiatives, which we anticipate will deliver important co-benefits.

Project Pipeline and Ongoing Activities

Energy

- **Global Environment Facility (2.64m): Global Program on Climate-Resilient Renewable Energy Systems in SIDS – National Project in the Republic of Palau**
  - Objective: The overall project objective is to strengthen the adaptive capacity of Palau's electricity system and dependent economic value chains by integrating climate-resilient renewable energy, grid, and storage solutions.
  - Expected Outputs: Data collection and software modelling scenarios & impacts for climate change vulnerability and operations availably of the Babeldaob and Koror electricity grid, Gender-and youth-responsive PPUC Climate Change Resilience Strategy and Implementation Plan, including energy resilience guidelines for MSMEs, Energy resilience training or PPUC and MSMEs in key value chains, Enhanced availability and resilience of existing renewable energy mini-grid on Peleliu, Effective and adaptive implementation and evidence-based learning
- **Global Environment Facility (1.42m): Enabling the transition to a Zero Emission Transport Sector in Palau**
  - Objective: Facilitate the uptake of electric mobility in Palau to reduce transport emissions and move towards sustainable development of the land transport sector.
  - Expected Outputs: A low-emission national Land Transport Coordination Committee is established for enhancing the coordination of national decision-makers, A 2050 land transport sector decarbonization roadmap, A comprehensive policy and regulatory package, including fiscal incentives, to incentivize the uptake of EVs is shared with the respective ministries for adoption, The viability of electric vehicles for the national government, private sector, academia and civil society in Palau by developing financing product and technical solutions, Trained public and private stakeholders on technical, financial and waste management aspects of electric mobility

Country Status CARD – Papua New Guinea

2026 SIDS NDE Joint Programme: Forum, Capacity Building on AI and Energy, and Voluntary Technology Talk

NDC Goal

By 2030,
1) Make efforts towards the energy industries and transport sub-sectors that will build on existing policy directives of the implementing agencies as the mitigation contributions in the energy sector
2) Non-GHG Quantitative Targets: Target a transition in its energy mix in the energy industries for the share of installed capacity of renewables from 30% in 2015 to 78% in 2030 for on-grid connection managed by PNG Power Limited
3) Non-GHG Action Based Targets: To provide sufficient, accessible, reliable and affordable energy that is competitive, sustainable and environmentally friendly, the efforts below are targeted: Reducing electricity demand through energy efficiency
4) Fossil fuel off-setting from the energy industries sub-sector through nature-based solutions
5) Enhanced data collection

National Policy on Energy

Papua New Guinea National Energy Policy 2017-2027:
Aims to improve quality of life and provide a platform for strong economic growth through sustainable development of the energy sector.
By 2030:
· Renewable energy transition aiming for 70% to 78% of total electricity generation from renewable sources (solar, hydro, geothermal, wind)
· Scaling household and business access up from under 20% toward a 70% electrification rate

Project Pipeline and Ongoing Activities

Energy

- **Global Environment Facility (2.64m): Global Program on Climate-Resilient Renewable Energy Systems in SIDS - National Project in the Independent State of Papua New Guinea**
  - Objective: Strengthen climate-adaptive capacity of rural communities & key value chains
  - Expected Outputs: Gender & youth-inclusive national framework, proven viability & mechanism of climate-resilient RE mini-grid & water systems
- **Global Environment Facility (2.84m): Facilitating Renewable Energy & Energy Efficiency Applications for Greenhouse Gas Emission Reduction (FREAGER)**
  - Objective: Enable the application of feasible renewable energy & energy efficiency technologies
  - Outputs: Implement & enforce national/provincial RE & EE standards/regulations, demonstrate viability & scale installed RE power and EE capacity, Unlock & expand access to financing, improve attitudes & data sharing for sector wide RE/EE uptake
- **Global Environment Facility (0.90m): PAS: PNG Energy Sector Development Project**
  - Objective: Strengthen policy development & strategic framework for renewable energy and rural electrification / Attract investors for sustainable development of new hydropower generation
  - Outputs: Policy & strategy via broad stakeholder consensus, GIS-based renewable resource mapping for mini-grids, minimum 2 RE mini-grid concessions awarded for strategy rollout
- **Green Climate Fund (29.2m): FP036: Pacific Islands Renewable Energy Investment Program**
  - Objective: Support in shifting from diesel to renewable energy
  - Expected Outputs: Diesel-to-RE transition in 7 SIDS via feasibility studies/utility reforms/private investment, lower emissions & fuel imports, catalyze paradigm shifts

Country Status CARD – Vanuatu

2026 SIDS NDE Joint Programme: Forum, Capacity Building on AI and Energy, and Voluntary Technology Talk

NDC Goal

1) Vanuatu commits to more than doubling renewable energy capacity and to substituting fossil fuels with Coconut (copra) oil based Electricity Generation: transitioning to close to 100% renewable energy in the electricity generation sector, thereby reducing emissions by 615.7 kt CO_2 eq overall.
2) Vanuatu commits to increase the proportion of electricity generated from biodiesel (including coconut biofuel) blending and the share of biomass to more than 14% of total electricity (grid) generation mix by 2035, thereby reducing emissions by 73.2 kt CO_2 eq overall.
3) Vanuatu commits to installing a solar PV and battery system for Ambae and Vanua Lava mini grids, thereby reducing emissions by 17.1 kt CO_2 eq overall.

National Policy on Energy

Updated Vanuatu National Energy Road Map (NERM) 2016–2030:
Aims to ensure that energy is universally accessible and affordable in a sustainable manner, with minimal negative environmental impacts
Key policy goals include:
· 100% of electricity generated from renewable energy sources
· 100% household electricity access in concession areas
· 100% household electricity access in off-grid areas
· 100% electricity access for public institutions
· 20% improvement in diesel-generation efficiency
· 14% improvement in electricity-sector end-use efficiency
· 14% improvement in biomass end-use efficiency

Project Pipeline and Ongoing Activities

Energy

- **Global Environment Facility (1.76m): Enabling Next Generation Energy Finance for Vanuatu's National Green Energy Fund (eNGEF)**
  - Objective: To increase National Green Energy Fund's (NGEF) ability to upscale financing of renewable energy and energy efficient installations so it effectively and efficiently supports the National Energy Roadmap and Nationally Determined Contribution
  - Outputs: Completed NGEF diagnostic review to improve operating processes, policies, systems, gender inclusiveness, credit risk and identifying pathways, Updated NGEF operations manual and operating policies to streamline decision making and accommodate a wider range of RE/EE applications, Adoption of digital tools to improve NGEF's transaction efficiency and gender inclusion, Support in engaging with financial intermediaries to improve NGEF's reach and efficiency
- **Global Environment Facility (2.63m): Sustainable Climate-Resilient Electric Power Systems in Vanuatu (SCREPS)**
  - Objective: Reliable, sustainable, and climate-resilient low carbon electric power generation and distribution systems
  - Expected Outputs: Electric power system infrastructures (including support and ancillaries) designed, constructed and operated to climate-resilient standards, Installed and operational adequate storage and hybridization capacity (BESS, microgrid islanding), Installed and operational modern grid management systems (SCADA, forecasting, demand-side management).

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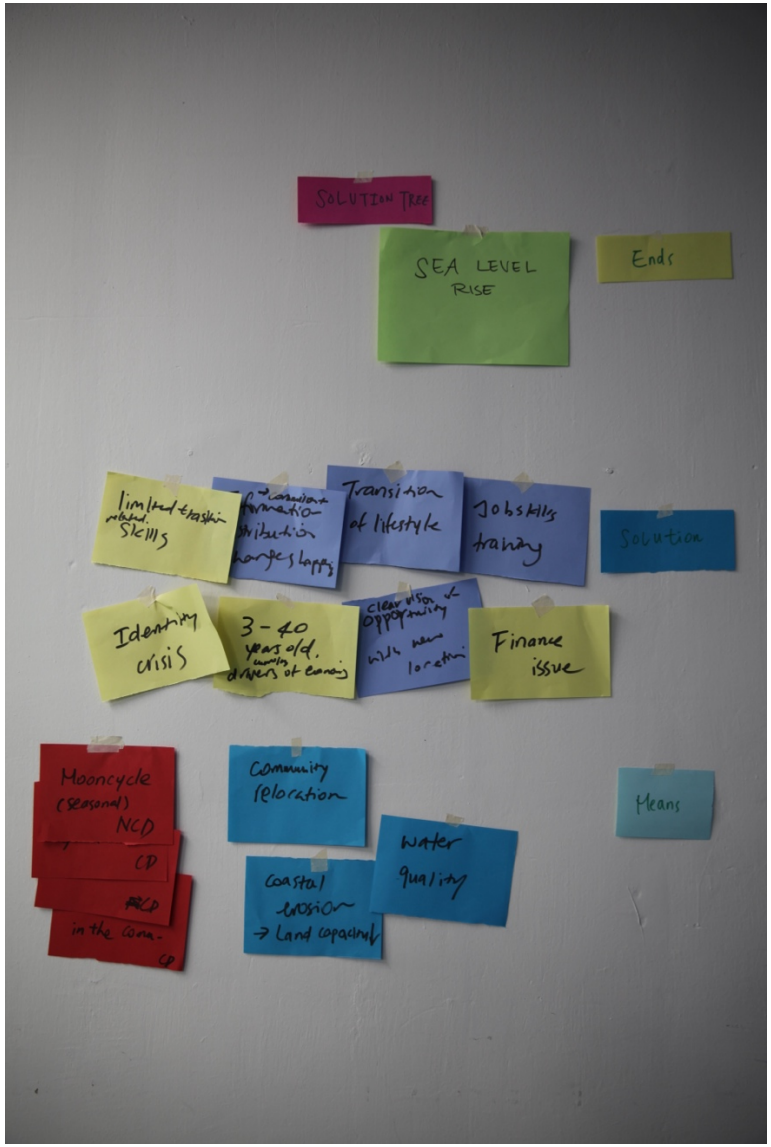
ANNEX IX – Problem and solution trees

Group A - Fiji and Vanuatu



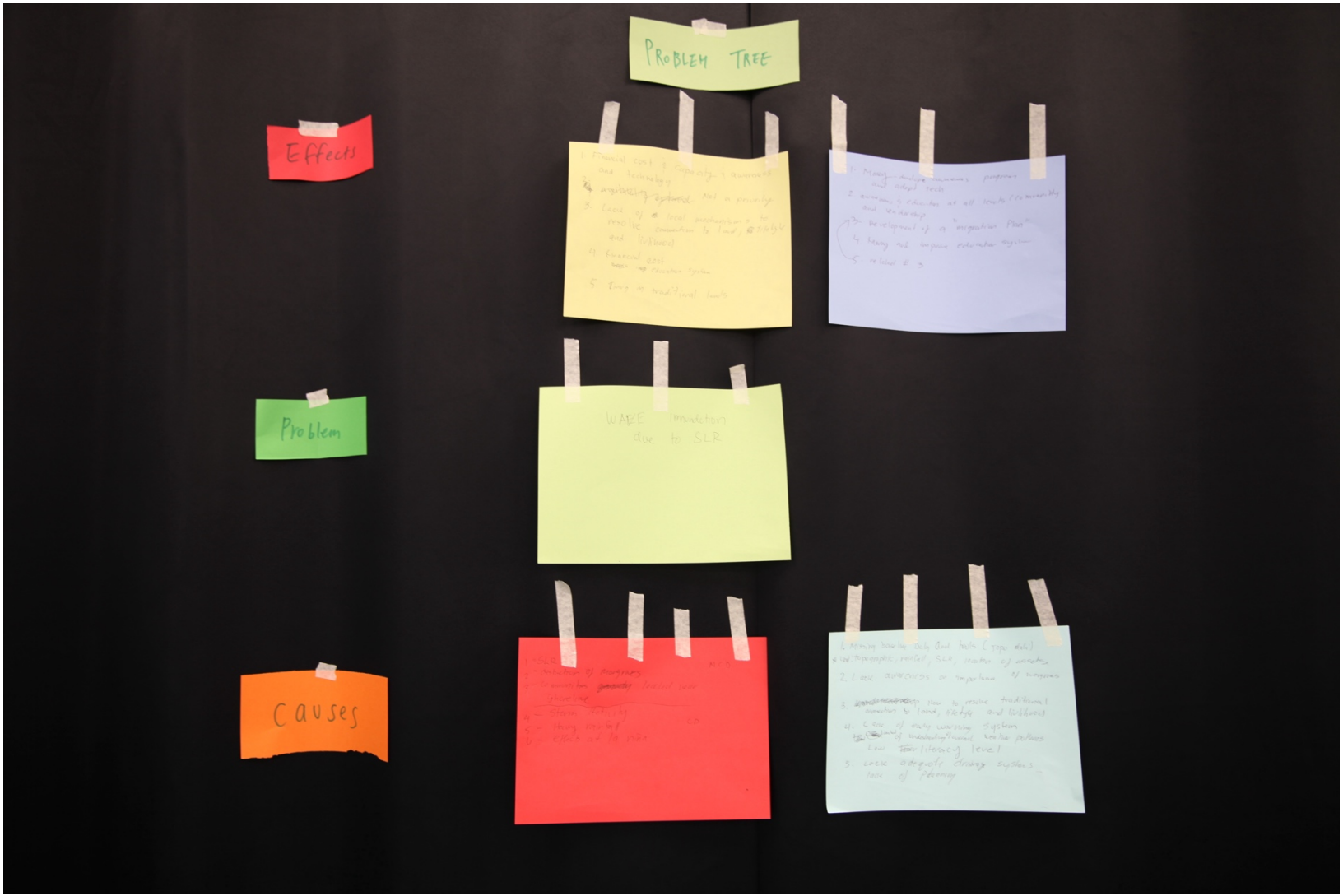
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Inquiries related to this document, email: Jeawon.kim@un.org

Group B - Nauru, Kiribati and Cuba



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Group C - Papua New Guinea and Palau



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