

UN CTCN-UNITAR CIFAL Jeju-Korea Institute of Energy Research 2026 Energy Storage System Workshop and Learning Visit

Summary Note

Date & Venue: 1-4 September 2026, Jeju, South Korea

Hosting country: Republic of Korea

Partnered organization: United Nations Institute for Training and Research (UNITAR) CIFAL Jeju and Korea Institute of Energy Research (KIER) Jeju Global Research Center

Background and purpose: The global RD&D demand survey conducted in 2024-2025 identified 41 NDEs interested in participating in an Energy Storage System (ESS) learning visit programme, including 17 from Asia, 15 from Africa, 6 from Latin America and the Caribbean, and 3 from Oceania. Based on the survey results, CTCN organized cRD&D Bridge-building Workshops on ESS in conjunction with the 2025 World Climate Industry Expo (WCE) in Busan, where 23 invited NDEs exchanged country circumstances and explored emerging technologies relevant to their national ESS research and development landscapes.

Building on it, the 2026 Energy Storage System Workshop and Learning Visit was jointly organized with the UNITAR CIFAL Jeju and KIER Jeju Global Research Center as an advanced and on-site capacity-development programme. Jeju provided a practical learning environment where renewable-energy expansion, energy storage, grid-management technologies and related policy approaches have been continuously developed. The programme aimed to strengthen the endogenous technical, institutional and human capacities necessary for ESS RD&D and dissemination and enable North-South, South-South and triangular collaboration.

Participants: 23 NDEs and energy-related NDE-nominated experts from 12 developing countries participated in the programme, representing Africa, Asia and the Pacific, and Latin America and the Caribbean. Participating countries were Chad, Côte d'Ivoire, Lesotho, Liberia, Somalia, Tanzania, The Gambia, Fiji, Kyrgyzstan, Papua New Guinea, Haiti, and Sanit Kitts and Nevis. The programme also engaged experts and representatives from CTCN, UNITAR CIFAL Jeju, KIER Jeju Global Research Center, the Division of Strategy at Green Climate Fund (GCF), Jeju Special Self-Governing Province, Division of Global Innovation Strategy Research at Science & Technology Policy Institute (STEPI), Pionelectronics working with grid forming, Korea University, and Blissvine Ventures. See Annex I for full participants list.

Activities: The four-day programme focuses on panel discussions on clean energy transition in developing countries, climate technology and climate finance lectures, country policy status sharing, ESS laboratory and field visits, peer-to-peer learning, and development of CTCN Technical Assistance (TA) ideas with expert consultations. The activities were designed to progressively connect national energy-system challenges with appropriate technologies, enabling policies, collaborative RD&D opportunities and potential financing pathways. Group photos available Annex II.

Materials: All downloadable here: <https://www.ctc-n.org/whats-happening/events/2026-learning-visit-programme-energy-storage-systems>

Methodology: 5-stage learning-to-action process

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

Process	Methods applied	Program Activities	Main outputs
1. Sensitizing	Roundtable and policy expert lectures	Energy-transition discussion; National Systems of Innovation (NSI); Jeju renewable-energy transition	Understanding of institutional, policy and innovation conditions required for technology deployment
2. Exchanging	Peer-to-peer country presentations	Country status on NSI, energy policy, renewable energy, ESS and ongoing projects	Identification of different national starting points, priorities and implementation barriers
3. Deep-diving	Technical lectures, laboratory tour and field visits	ESS technologies microgrids, grid-forming systems, BESS power plant and Jeju CFI experience	Improved technical understanding and identification of context-specific ESS functions and options
4. Connecting	Policy and finance sessions	ESS policy, CTCN cRD&D, GCF public finance, private investment and climate-tech commercialization	Understanding of enabling policy and sequencing of public, concessional and private finance
5. Co-creating	Idea-note exercises, peer review and expert consultation	TA concept development, buddy-country review, technical consultation and final presentation	12 country-specific preliminary TA concepts with expected outputs and potential partners

Key observations and preliminary outcomes

Across the four-day programme, five cross-cutting findings emerged:

- ESS deployment should begin with the energy-system problem rather than the technology itself. Storage duration, required system services, grid conditions, resource availability and lifecycle economics determine which technology is appropriate.
- Technology deployment depends on an enabling innovation system. R&D capacity, human resources, regulation, market structures, institutional coordination and community acceptance need to evolve together with the technology.
- Renewable-energy expansion increasingly creates a flexibility challenge. Jeju demonstrated how storage, sector coupling, distributed-energy systems, grid modernization and new market arrangements can complement renewable-energy generation.
- Financing should be sequenced according to technology and market maturity. Public and concessional finance can absorb early risks, build enabling conditions and support demonstrations, while private finance becomes increasingly relevant once technical performance, revenue models and institutional arrangements become credible.
- CTCN TA serves as a bridge between identified country needs and subsequent implementation. The Idea Note process helped participating NDEs and experts move from broad interest in ESS toward more specific technical gaps, measurable outputs and potential pathways to pilot projects, financing and scale-up.

Preliminary TA ideas with expected climate impacts and potential financial partners (Table 2 below).

Country	Proposed TA ideas	Expected climate impacts	Potential financial partners
Liberia	National clean-energy planning	Clean Energy Master Plan, baseline assessment, implementation roadmap and M&E framework	World Bank, including possible engagement as a GCF Accredited
The Gambia	Bankable renewable-energy portfolio	RE project portfolio, bankable projects and financing/implementation roadmap	World Bank
Chad	Blue Battery feasibility	Locally adapted storage design, technical/economic feasibility and minigrid integration	Papua New Guinea, UNEP, UNDP
Haiti	Decentralized RE + ESS	Technical assessment, system design, demonstration and scalable resilient-energy model	UNEP, UNDP
Côte d'Ivoire	Agricultural-waste energy integration	Feedstock and feasibility assessment and integrated waste-to-energy system concept	ADB, KIER
Tanzania	Solar PV microgrid for water supply	Technical assessment, microgrid/BESS design, pilot and capacity building	WaterAid International, relevant Tanzanian national departments, local communities
Lesotho	ESS-hydro-solar integration	Integration design and pilot for grid stability and improved renewable utilization	UNDP, World Bank, GCF-related institutions / Accredited Entities
Papua New Guinea	ESS for solar and minigrids	Appropriate ESS assessment and solar-plus-storage system design	KIER, ADB
Saint Kitts and Nevis	RE integration, storage and clean mobility	Improved grid resilience, renewable integration and clean-mobility implementation	KIER, ESS-specialized organizations, smart-grid organizations, renewable-energy and electric-mobility partners, financial institutions including possible GCF Accredited Entities
Kyrgyzstan	National ESS integration assessment	Technology assessment, technical/economic feasibility, roadmap and potential pilot	ADB, EBRD, KIER
Fiji	Renewable-integration/grid-stability study	Grid-stability assessment, policy recommendations and donor-facing implementation roadmap	UNEP, GGGI
Somalia	Solar + BESS for underserved communities	Technical/economic feasibility, system concept and identification of pilot applications	Chad, GEF

Step 1. Sensitizing: Enabling environment and system transformation

ESS technology was introduced within the wider economic, institutional and energy-system transformation required for renewable-energy deployment. The opening roundtable (see Figure 1, left top) highlighted that barriers to the clean energy transition are not necessarily technological alone. Economic viability, market formation, community acceptance, policy support and long-term

supply stability influence whether emerging technologies can move from research and demonstration toward commercial deployment.

The discussion on the National System of Innovation (NSI) with the lecture by Hwanil Park, Chief Director at Division of Global Innovation Strategy Research, Science & technology Policy Institute (STEPI) emphasized that innovation depends on more than R&D alone. It requires interaction among knowledge creation and sharing, technology absorption, human capital, government policy, and private-sector development. Korea's development case was introduced that indicates a gradual shift from technology acquisition and absorption toward domestic R&D and innovation supported by long-term investment in human capital and research. The government's role was also highlighted as that of an orchestrator, coordinating actors and policies across the national science, technology and innovation system.

During the lecture by Hyeongseok Yoon, former Director-General of the Future Strategy/Future Industry Bureau of Jeju Special Self-Governing Province, the Jeju's carbon case was also introduced to share how renewable energy expansion itself creates new system challenges. As wind and solar generation increased, renewable energy curtailment became an increasingly important issue, shifting the policy question from simply expanding renewable generation toward identifying how surplus renewable energy can be stored, converted and used more flexibly. Jeju's response has included ESS, green hydrogen, Power-to-Heat (P2H), heat pumps, Vehicle-to-Grid (V2G), distribution- and transmission-level ESS, and distributed-energy systems. This demonstrated that renewable energy deployment requires simultaneous development of technologies, infrastructure, electricity markets and supporting institutional frameworks.





Figure 1 Roundtable and policy expert lectures

Step 2. **Exchanging:** Country status and peer-to-peer learning

Participating NDEs presented their respective national energy systems, recent policies, renewable energy priorities and ongoing projects. The exchange showed that the countries are approaching ESS from substantially different starting points (see Figure 2).

Several countries, including Chad, Liberia, Somalia and Papua New Guinea, continue to face low electricity access, fragmented grids or decentralized energy-system needs. Fiji, The Gambia, Haiti and Saint Kitts and Nevis highlighted significant dependence on imported fossil fuels and the need to improve energy security. Kyrgyzstan, Lesotho and Tanzania discussed systems strongly influenced by hydropower, seasonal resource conditions or rapidly growing electricity demand. Côte d'Ivoire and other participating countries increasingly face the challenge of integrating larger shares of renewable energy while maintaining reliable and financially sustainable power systems. Country cards, consisting of web-searchable information, are available Annex III.

Participants introduced several ongoing or planned programmes that were more recent than publicly available policy and project information, while World Bank, UNDP and other development-partner projects featured prominently in current national energy activities. All country presentation slides are available here: <https://www.ctc-n.org/whats-happening/events/2026-learning-visit-programme-energy-storage-systems>

Across countries, the peer exchange reinforced that ESS needs cannot be defined independently from national energy-system conditions. Grid configuration, renewable resources, existing generation assets, energy-access needs, institutional capacity, financial conditions and local geography all affect the appropriate storage or system solutions.

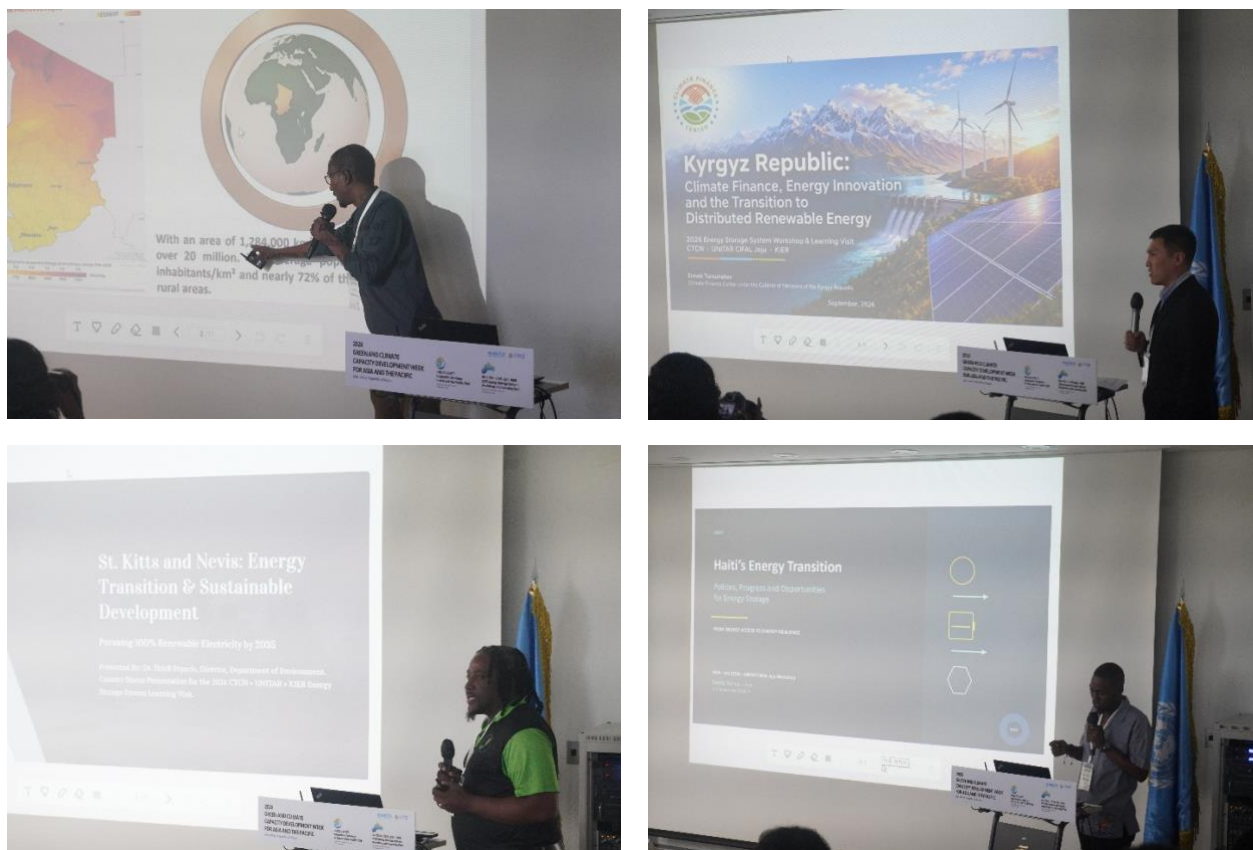


Figure 2 Peer-to-peer country presentations on NSI and Energy System (Cote d'Ivoire, Kyrgyz Republic, Saint Kitts and Nevis, and Haiti)

Step 3 Deep-diving: ESS technologies and field visit

On the second day, the session moved from country circumstances toward the technical characteristics and applications of ESS. The lectures by experts from KIER Jeju Global Research Center informed renewable energy and energy storage system with on-going project cases, and its related microgrid technology.

The lectures emphasized that there are no universal ESS solution and lithium-ion batteries are suitable for short-duration and fast-response applications, while longer-duration storage needs may require different technologies such as pumped hydropower, flow batteries, thermal storage or hydrogen. Technology selection should therefore take account of required power capacity, energy volume, discharge duration, capital and lifecycle costs, available storage materials, geographic conditions and environmental impacts. The Blue Battery concept was introduced as one potential storage approach for island and decentralized systems, while also demonstrating the need for site-specific technical and economic feasibility assessment before deployment.

The microgrid session demonstrated how renewable generation, batteries, loads and an Energy Management System (EMS) can be integrated into a single controllable system. Batteries within a microgrid may simultaneously provide energy shifting, smoothing, frequency and voltage support, virtual inertia, islanding and system restart functions. The discussion also introduced the Microgrid Building Block (MBB) approach, which seeks to standardize power, control and communication functions so that microgrid solutions can be more easily replicated and expanded.

A further technical session addressed Grid-Forming (GFM) technology. Unlike Grid-Following systems that rely on an existing grid reference, GFM inverters can establish their own voltage and frequency reference and provide system-strength services such as synthetic inertia, frequency response, voltage control, black start and islanded operation. When combined with BESS, grid-forming capability can therefore provide both energy-storage and grid-stability services (see Figure 3).



Figure 3 ESS technologies Lecture

The field visit to the ESS laboratory at KIER and Bukchon Battery Energy Storage System (BESS) Power Plant provided a practical illustration of ESS operation in Jeju. The facility stores electricity when renewable generation is abundant and discharges it according to wider grid needs, supporting both energy balancing and frequency regulation. Guided by experts, the participants learned that BESS should be understood as part of broader electricity-system operation rather than as an isolated battery installation.

Together, the technical sessions reinforced that a country should first identify the energy-system service required, and only then determine the most appropriate storage technology, duration, size and control system.



Figure 4 ESS technologies Field Visit

Step 4 Connecting: Policy, collaborative RD&D and climate finance

The programme then shifted from technical discussions toward the policy and financing mechanisms needed to support implementation. Suil Kang, Coordination Officer at CTCN, introduced CTCN's collaborative Research, Development and Demonstration (cRD&D) approach and related support through Technical Assistance, capacity building and knowledge sharing. The session illustrated how capacity-development activities and learning visits can identify country needs and provide a basis for more targeted technical assistance and follow-up collaboration.

Regarding the public financial support, Julien Taris, Senior Expert in the Strategy and Innovation Department of the Green Climate Fund (GCF), presented a framework for using public finance to incubate climate-technology markets and introduced GCF's approach to incubation and acceleration

for mitigation. The lecture highlighted the role of grants, concessional loans, equity, guarantees and other financial instruments in addressing technology, market and financing barriers. Public and concessional finance can help absorb risks that commercial investors may not yet be willing to take, while creating conditions for greater private-sector participation as technologies and business models mature.



Figure 5 climate finance Lecture & TA Idea Development through peer-to-peer exchange

Following the GCF session, Jeawon Kim, Capacity Building Specialist at CTCN, facilitated the Introduction to Idea Note Creation. Pairing with other countries that share similar circumstances (see Table 2 for grouping), NDEs and nominated experts translated priority national energy-system challenges into initial climate-led Technical Assistance concepts. Participants identified climate and

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development problems, technical and institutional barriers, policy and capacity gaps, and financing constraints, and then developed preliminary objectives, activities, outputs and expected outcomes. The exercise drew insights from the earlier country exchanges, technical lectures, and laboratory and ESS facilities visits.

Table 2 Grouped countries for idea note creation sessions

Countries	Shared basis (market structure x climate causality x grid and ESS maturity)
Fiji + Saint Kitts and Nevis	Island utilities; imported fuels; Small-island grids and relatively mature renewable plans; cyclone exposure
Haiti + Somalia	Converting fragmented private diesel systems into regulated, climate-resilient solar-BESS networks that protect essential services and can be aggregated for financing. Different hazards.
Lesotho + Kyrgyz Republic	Public-led, hydro-dependent systems; seasonal deficits; storage emerging; Mountainous
Liberia + The Gambia	Public utilities; solar-BESS projects; multiple mini-grids moving toward greater coordination; coastal flooding, sea-level rise
Chad + Papua New Guinea	Climate-adapted, modular solar-storage systems for publicly managed isolated grids, reducing diesel dependence and maintaining supply when climate events disrupt infrastructure and fuel delivery; heat & floods.
Côte d'Ivoire + Tanzania	Larger interconnected grids; growing solar; hydropower and thermal balancing; IPP participation, grid-scale flexibility needs

On Day 4, the focus moved to private-sector and market-based support. KyungJin Hyung, CEO of Blissvine Ventures, provided a presentation on promoting domestic and international climate-technology markets through private investment and strengthening the private-sector acceleration ecosystem. The session demonstrated how public policy and financing mechanisms can reduce information and investment barriers and help connect climate technologies with commercial markets through rigorous grading system that encourages healthy competition among emerging market leaders.

This was followed by a lecture on Climate Start-ups - Human Resource and Capacity Development Programmes by Prof. Jaehong Park, Department of Future Science and Technology Business at Korea University (Figure 6, right top). The session emphasized the importance of human resources, entrepreneurship and capacity development in moving technologies between research and the market. Technology commercialization was presented as a two-way process in which research can generate solutions for society while market needs and practical experience can also inform further R&D.





Figure 6 Policy, collaborative RD&D and climate finance Lecture

The policy and finance discussions fed directly into the Idea Note Enhancement session (continued) with peer-to-peer knowledge sharing and expert consultation. NDE-expert pairs refined their proposed ESS or low-carbon energy applications by clarifying feasibility-study and capacity-building needs, identifying technical and data requirements, mapping institutional responsibilities and examining potential implementation barriers. Expert feedback then supported participants strengthen the technical and implementation components of their initial concepts.

Table 3 Initial ideas by TA type and possible activities

TA type: Policy development	
Liberia: We request CTCN TA to develop a national clean energy master plan so that reduce pressure on the forest. Partnership with WB as the AE of the GCF.	Possible activities: stakeholder coordination, scoping, dataset assessment, index design, assessment, protocol, roadmap, M&E planning
TA type: Pre-feasibility study	
Haiti: We request CTCN TA to assess and demonstrate the design of resilient decentralized RE integrating appropriate ESS so that it increases climate resilience. Partner with UNEP and UNDP.	Possible activities: Training package, pilot design, gender assessment, vulnerability assessment, evaluate alternatives, risk assessment
Kyrgyzstan: We request CTCN TA to assess the potential of ESS integration in the Kyrgyz power system so that reduce emissions and optimize water use for agricultural lands. Partner with ADB/EBRD/KIER.	
Fiji: We request CTCN TA to conduct a feasibility study on grid stability on RE penetration, improving energy security and dependency on fossil fuel, which will in return reduce temperature and intensity of cyclones. UNEP and GGGI.	
Chad: We request CTCN to run a feasibility study on a blue battery so that heatwaves are reduced. We consider teaming up with PNG and UNEP/UNDP.	
TA type: Finance roadmap development	
The Gambia: We request CTCN TA to support the development of the country's bankable RE portfolio and climate resilient solution so that address high temperature of a climate. Partner with WB.	Potential activities: Resource mapping, partnership framework design, SWOT &/ market analysis
Somalia: We request CTCN to assess the technical and economic feasibility of integrated solar energy with BESS for underserved communities to reduce heat and air pollution. Partner with Chad and GEF.	

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TA type: Pilot and implementation	
Tanzania: We request CTCN TA to pilot the use of solar PV microgrid to provide sustainable, clean water supply to both wildlife and Massie community within Tarangire so that it addresses the impact of drought and conflict between humans and wildlife environment. Partner with Water Aid International, Tanzania National Park and their community. Lesotho: We request CTCN TA to run a pilot on integration of ESS within hydro and solar PV to enhance stability so that frequency and intensity of flash floods and droughts. Partner with UNDP, WB (as an institution and AE to the GCF). Papua New Guinea: We request CTCN TA to implement an EES for new solar projects so that temperature is reduced and air quality is improved, in partnership with KIER and ADB. Cote d'Ivoire: We request CTCN TA to integrate agricultural waste systems to build national capacity in climate technology. Partner with ADB and KIER. St Kitts and Nevis: We request CTCN TA to strengthen resilience, renewable energy integration and clean mobility implementation to reduce GHG emissions and improve energy security and enhance climate resilience on hurricanes, droughts, heatwaves. Partner with KIER, ESS specialised orgs, smart grids, RE, electric mobility. CBD as AE of the GCF.	Potential activities: impact monitoring indicators, select pilot site, users, customers, or business units (aka segmentation), user acceptance testing (UAT), configurations, and resolve critical defects, decommission or replace legacy processes/systems

Taken together, the sessions connected technical demands, enabling policy, public finance, private investment and capacity development with the preparation of country-led Technical Assistance concepts. They demonstrated that moving climate technologies toward implementation requires not only appropriate technologies, but also coordinated institutional support, project preparation, risk reduction and financing mechanisms. The initial ideas shared by the NDE and the expert for each country can be found in Table 3 above.

Step 5 Co-creating: From national challenges to CTCN TA concepts

The programme concluded with participatory Idea Note Creation and Enhancement sessions. Participants were encouraged to begin with a clearly defined climate and development problem rather than with predetermined technology.

A strong CTCN TA concept should distinguish activities, outputs, outcomes and climate impacts; establish an appropriate baseline and Theory of Change; demonstrate prior stakeholder engagement; strengthen domestic technical and institutional capacity; and establish a clear pathway from the TA toward a subsequent decision, pilot, investment or replication opportunity.

Country teams developed preliminary ideas, exchanged feedback with buddy countries facing comparable challenges and received targeted consultation from KIER and other experts.

The final revision process increasingly moved the proposals toward a sustainable TA project structure: Existing problem / baseline → specific technical gap → CTCN TA intervention → measurable outputs → climate outcome → pathway to pilot, financing or scale-up.



Figure 7 Final adjustments and certificate ceremony

ANNEX I - Participant List

Country / Organization	First Name	Last Name	Title	Affiliation	Position
Chad	Choua	Abderamane	Mr	Centre et Réseau des Technologies Climatiques pour le compte du Tchad	Direction des Ressources en Eau et de la Météorologie
Chad	Hassane Idriss	Mahamat	Mr	Ministry of Energy	Ministry of Energy
Côte d'Ivoire	Jean Joel Innocent	Guel	Mr	National Project Development Biochar	Consultant
Côte d'Ivoire	Kumassi Philippe	Kouadio	Mr	Ministry of Environment and Sustainable Development (Ministère de l'Environnement et du Développement Durable)	Deputy Director for Climate Technology Development and Transfer (Sous-Directeur chargé du Développement et du transfert de technologies climatiques)
Fiji	Rosarine Vukinayatu Suka	Lagi	Mr	Ministry of Environment and Climate	Principal Climate Change Officer - Carbon Markets
Fiji	Deepak Chanil	Chand	Ms	Department of Energy in Fiji	Director for the Department of Energy in Fiji
Haiti	Yves Bernard	Remarais	Mr	Direction Changements Climatiques du Ministère de l'Environnement	Director of Communication
Haiti	Gardy	Darius	Mr	Énergies Renouvelables/Directeur Technique, GAVA ÉNERGIE	Responsable Technique
Kyrgyzstan	Ermek	Tursunalyev	Mr	Climate Finance Center under the Cabinet of Ministers of Kyrgyzstan	Communication Specialist
Kyrgyzstan	Nurpeiil	Kalmurzaeva	Ms	Climate Finance Center under the Cabinet of Ministers of Kyrgyzstan	Project Preparation Fund, Expert of the Project Preparation Fund
Lesotho	Maqhanolle David	Tsekoa	Mr	Ministry of Environment and Forestry, Meteorological Services Department	Meteorologist
Lesotho	Moruti Clement	Kao	Mr	The National University of Lesotho - Energy Research Center	Lecturer
Liberia	Christopher Bangalie	Kabah	Mr	Environmental Protection Agency of Liberia	Environmental Protection Agency of Liberia
Liberia	Mentor Zahn	Kotee	Mr	Ministry of Mines and Energy	Electrical Engineer
Papua New Guinea	Emily Mulina	Pomoh	Ms	Climate Change & Development Authority	Acting Senior Mitigation officer
Somalia	Zakarie Ismael	Sheikh	Mr	Ministry of Communication and Technology	Digital and E-Government Specialist
Somalia	ABDIWELI MOHAMUD	KALIF	Mr	Ministry of Environment and Climate Change	ICT director
St Kitts and Nevis	Elrick Lorenzo Romere	Francis	Dr	Department of Environment	Director
St Kitts and Nevis	Haniff Lesroy	Woods	Mr	St. Kitts Electricity Company Ltd. (SKELEC)	Energy Transition Specialist
Tanzania	Gerald Majella	Kafuku	Dr	Tanzania Commission for Science & Technology	Principal Research Officer

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				Science	
Tanzania	Sisty Basil	Massawe	Mr	ELICO Foundation	Executive Director
The Gambia	Sambou	Kinteh	Mr	Ministry of Environment Climate Change and Natural Resources	Senior Climate Change Officer
The Gambia	Edward	Jatta	Mr	EBU Generation, National Water & Electricity Company Ltd	Senior Generation Manager
France	Julien	Taris	Mr	Green Climate Fund	Division of Strategy, Specialist
South Korea	Hwanil	Park	Mr	Division of Global Innovation Strategy Research, Science & Technology Policy Institute (STEPI)	Chief Director
South Korea	Changheum	Lee	Mr	Jeju Special Self-Governing Province	Vice Governor for Climate and Economy
South Korea	Hyeongseok	Yoon	Mr	Jeju Special Self-Governing Province	Former Director-General of the Future Strategy/Future Industry Bureau
South Korea	Jisung	Kang	Mr	Gridforming	CEO
South Korea	Jaehong	Park	Mr	Korea University	Professor
South Korea	Kyungjin	Hyung	Mr	Blissvine Ventures	CEO
South Korea	Suil	Kang	Dr	UN CTCN PALO	Coordination Officer
South Korea	Jeawon	Kim	Dr	UN CTCN PALO	Capacity Building and Network Engagement Specialist
South Korea	Jihu	Yun	Mr	UN CTCN PALO	Volunteer
South Korea	Taeyeong	Kim	Ms	UN CTCN PALO	Volunteer
South Korea	Sungchul	Shin	Mr	UNITAR CIFAL Jeju	Director
South Korea	Sunhee	Cho	Ms	UNITAR CIFAL Jeju	Team Leader
South Korea	Hyunju (Grace)	Lee	Ms	UNITAR CIFAL Jeju	Senior Programme Officer
South Korea	Chaeyeon	Kim	Ms	UNITAR CIFAL Jeju	Junior Programme Officer
South Korea	Wonyoung	Sohn	Mr	UNITAR CIFAL Jeju	Administrative Officer
South Korea	Hajeong Emma	Lee	Ms	UNITAR CIFAL Jeju	Senior Programme Officer
South Korea	Juwon	Lee	Mr	UNITAR CIFAL Jeju	Intern
South Korea	Minyoung	Kwon	Ms	UNITAR CIFAL Jeju	Intern
South Korea	Hanki	Kim	Dr	Korea Institute of Energy Research	Chief, Distributed Energy Team
South Korea	Jinhyeon	Baek	Dr	Korea Institute of Energy Research	Researcher, Distributed Energy Team

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ANNEX II - Group Photo



Link to social media:

<https://www.linkedin.com/feed/update/urn:li:activity:7501275108129402881>

<https://www.facebook.com/UNFCCC.CTCN/posts/pfbid02JrGTs5Uud4SuXdZfH3u64X5yQTk4vhQkiKe5cwvLkq8MPqLMZ2CqSGnrhGhinduul>

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Annex III - Country status cards

Country Status CARD – Kyrgyzstan⁴²

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia⁴³

NDC Goal

By 2030, goals in the energy sector will include:⁴⁴

- 1) Increase the renewable energy share to 2% in 2026 and 14.3% in 2030⁴⁵
- 2) Add over 4,314.7 MW, four small hydropower plants, which will add over 80 MW of clean energy capacity, as well as eight solar power stations with 2,650 MW installed capacity and two wind farms with 400 MW installed capacity; and to increase the share of non-traditional renewables to 14.3%⁴⁶

National Policy on Energy⁴⁷

Green Economy Development Programme from 2025 to 2029 (GEDP): aims to stimulate sustainable economic growth, introduce innovative solutions, and raise environmental standards through efforts by various national and international partners.⁴⁸

By 2029:⁴⁹

- Reduce GDP energy intensity by 20% compared to the 2022 level⁵⁰
- Increase agricultural productivity by 25% compared to the 2022 baseline⁵¹
- Restore 30% of degraded land and territories⁵²
- Achieve a 30% share of “green” public procurement, in line with the approved indicator matrix⁵³
- Ensure widespread introduction of renewable energy sources and energy-efficient technologies in both production and social sectors⁵⁴

Project Pipeline and Ongoing Activities⁴²

Energy⁴²

- **Global Environment Facility (1.97m): Promoting transition to electric mobility for low carbon development in the Kyrgyz Republic: Enhancing charging infrastructure and catalysing active private sector participation**⁴²
 - Objective: Accelerate the uptake of electric mobility
 - Output: National framework for electric mobility, enhanced readiness & corridor readiness, policy & financial tools, technical capacity for sustainable electrification, gender-lens M&E⁵⁵
- **Global Environment Facility (0.9m): Improving Energy Efficiency in Buildings**⁴²
 - Objective: Reduce energy consumption & GHG emissions in new buildings by 30-40%⁵⁶
 - Output: ⁵⁷
- **Green Climate Fund (454m): FP225: E-Mobility Program**⁴²
 - Objective: Transition to sustainable urban mobility and enhanced infrastructure resilience⁵⁸
 - Outputs: Scale e-bus fleets & integrate non-motorized/active transport, mitigate 11.4M tCO2eq over 25 years, benefit around 3.7 million people⁵⁹

Country Status CARD – Papua New Guinea⁴²

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia⁴³

NDC Goal

By 2030, ⁴⁴

- 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 sector⁴⁵
- 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 Limited⁴⁶
- 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:⁴⁷
- Reducing electricity demand through energy efficiency⁴⁸
- 4) Fossil fuel off-setting from the energy industries sub-sector through nature-based solutions⁴⁹
- 5) Enhanced data collection⁵⁰

National Policy on Energy⁵¹

Papua New Guinea National Energy Policy 2017-2027: ⁵²

Aims to improve quality of life and provide a platform for strong economic growth through sustainable development of the energy sector.⁵³

By 2030:⁵⁴

- Renewable energy transition aiming for 70% to 78% of total electricity generation from renewable sources (solar, hydro, geothermal, wind)⁵⁵
- Scaling household and business access up from under 20% toward a 70% electrification rate⁵⁶

Project Pipeline and Ongoing Activities⁴²

Energy⁴²

- **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**⁴²
 - Objective: Strengthen climate-adaptive capacity of rural communities & key value chains⁵⁷
 - Outputs: Gender & youth-inclusive national framework, proven viability & mechanism of climate-resilient RE mini-grid & water systems⁵⁸
- **Global Environment Facility (2.84m): Facilitating Renewable Energy & Energy Efficiency Applications for Greenhouse Gas Emission Reduction (FREAGER)**⁴²
 - Objective: Enable the application of feasible renewable energy & energy efficiency technologies⁵⁹
 - 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 uptake⁶⁰
- **Global Environment Facility (0.90m): PAS: PNG Energy Sector Development Project**⁴²
 - Objective: Strengthen policy development & strategic framework for renewable energy and rural electrification / Attract investors for sustainable development of new hydropower generation⁶¹
 - Outputs: Policy & strategy via broad stakeholder consensus, GIS-based renewable resource mapping for mini-grids, minimum 2 RE mini-grid concessions awarded for strategy rollout⁶²
- **Green Environment Fund (29.2m): FP036: Pacific Islands Renewable Energy Investment Program**⁴²
 - Objective: Support in shifting from diesel to renewable energy⁶³
 - Outputs: Diesel-to-RE transition in 7 SIDS via feasibility studies/utility reforms/private investment, lower emissions & fuel imports, catalyze paradigm shifts⁶⁴

Country Status CARD – Fiji⁴²

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia⁴³

NDC Goal

1) Expand 2035 energy sector emissions reduction target: Enhancement of Fiji's 2020 NDC objective to reduce energy sector emissions by 30% relative to the Business-as-Usual scenario (BAU) by 2030⁴⁴

2) Renewable energy electricity production: Reaffirmation of Fiji's objective to achieve close to 100% of electricity (grid-connected) production from renewable sources by 2030 and expansion of our ambition to fully achieve 100% by 2035 ⁴⁵

3) Energy security and access: Prioritising inclusion of additional mitigation measures that contribute towards improving energy security, access, and equip⁴⁶

4) M2 Energy Sector: reduce 36% (with 12% of “unconditionally” using available resources) of the BAU CO2e emissions from the energy sector by 2035, as an absolute value target⁴⁷

National Policy on Energy⁴⁸

Republic of Fiji National Energy Policy 2023-2030: ⁴⁹

Aims to enable a resilient resource-efficient, cost-effective, accessible, reliable, and environmentally sustainable energy sector for all Fijians⁵⁰

By 2030:⁵¹

- Energy security and resilience: improve energy security through the active management and strategic reduction of national dependency on imported fuels⁵²
- Energy access and equity: enable all Fijians to have access to reliable affordable electricity services, ensuring gender equality and increased access to clean cooking fuels⁵³
- Energy sustainability: move as close to 100% of electricity services from renewable energy sources as possible by 2030⁵⁴
- Energy efficiency: improve the transparency, verifiability, and understanding of efficiency improvement activities and opportunities⁵⁵
- Energy governance: ensure national energy services effectively support Fiji's socio-economic development priorities⁵⁶

Project Pipeline and Ongoing Activities⁴²

Energy⁴²

- **Global Environment Facility (24.05m): Enhancing Electric Vehicle Mobility and Integration in Fiji's Land Transport Sector**⁴²
 - Objective: Accelerate the introduction of electric mobility⁵⁷
 - 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 operators⁵⁸
- **Global Environment Facility (0.98m): PAS: Fiji Renewable Energy Power Project (PREPP)**⁴²
 - Objective: Remove barriers to widespread, cost-effective, and commercially viable grid-connected renewable energy⁵⁹
 - Outputs: Enforce Fiji Energy Act & IRRs, operationalize central database, deploy RE pilot projects, roll out integrated energy planning (IEP) training⁶⁰
- **Global Environment Facility (0.74m): Renewable Energy Hybrid Power Systems**⁴²
 - Objective: Establish a commercial sustainable Rural Energy Service Company (ESCO) for renewable energy operation⁶¹
 - Outputs: Establish a sustainable Rural ESCO for RE system, enact rural ESCO charter & frameworks, streamline land & investment pathways⁶²
- **Green Climate Fund (9m): SAP016: Fiji Agrophotovoltaic Project in Ovalau**⁴²
 - Objective: Overcome land, finance, and technical barriers by innovative technology (photovoltaic power, agricultural production)⁶³
 - Outputs: low-carbon solar generation - 5MW Battery Energy Storage System (BESS), Specialized climate financing facility, enhance community resilience⁶⁴
- **Green Climate Fund (28m): FP151: Global Subnational Climate Fund (SnCF Global) - Technical Assistance (TA) Facility**⁴²
 - Objective: Identify and monitor renewable energy sources for potential future investments⁶⁵
 - Outputs: Commercially viable & high-impact projects, capacity building for bankable projects, SnCF Fund NRV system, institutional & regulatory strengthening, energy intensity reduction⁶⁶

Country Status CARD – St Kitts and Nevis⁴²

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia⁴³

NDC Goal

1) General description of the target: St. Kitts and Nevis' economy-wide target will reduce CO2 emissions by 61% by 2030 relative to 2010, mostly conditional upon adequate international financial and capacity building support through the following interventions: ⁴⁴

- Transition to 100% renewable energy in power generation⁴⁵
- Improve efficiency in transmission and distribution of electricity⁴⁶
- Electrification of 2% of the total vehicle⁴⁷
- Development of EV infrastructure ⁴⁸

2) 35 MW of renewable energy will be sourced from a solar farm that will be constructed through private capital, beyond which, all other interventions are conditional⁴⁹

National Policy on Energy⁵⁰

St. Kitts and Nevis lays groundwork for transition to 100% renewable energy: ⁵¹

Aims to achieve 100% renewable electricity generation, marking another important step in the Federation's transition to a sustainable and low-carbon energy future.⁵²

By 2030,⁵³

- Increase the use of renewable energy sources, strengthen energy security, reduce dependence on imported fossil fuels and support the country's target of reducing carbon dioxide emissions by 61%⁵⁴

Project Pipeline and Ongoing Activities⁴²

Energy⁴²

- **Global Environment Facility (0.95m): Global program on climate-resilient renewable energy systems in SIDS - national project in Saint Kitts and Nevis**⁴²
 - Objective: Accelerate the integration of climate-resilient distributed solar energy (DSE) and energy efficiency (EE)⁵⁷
 - Outputs: Demand-side readiness assessment to establish a baseline, A joint assessment framework for scaling, A national energy efficiency and DSE investment strategy developed, An innovative utility-scale renewable energy financing framework developed⁵⁸
- **Global Environment Facility (3.32m): Achieving a rapid decarbonization of the energy sector in Saint Kitts and Nevis**⁴²
 - Objective: Accelerate the transition towards 100% renewable electricity generation and 100% high energy efficiency public buildings⁵⁹
 - Outputs: Policy & institutional arrangements for decarbonization and energy efficiency (revised National Energy Policy (NEP)), demonstration of feasibility (EE Buildings & resilient grid-integrated RE, financing and delivering the transition towards a 100% renewable grid⁶⁰

Country Status CARD – Haiti

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia¹

NDC Goal	Project Pipeline and Ongoing Activities ²
1) Energy: Install an additional 37.5 MW of hydroelectricity by 2020. Control and regulate the importation of used vehicles by 2035³	Energy² Global Environment Facility (0.98m): Small Scale Hydro Power Development in Haiti² - Objective: Create an enabling environment for private and public investment in small hydro plants² Global Environment Facility (0.1m): Emergency program for solar power generation and lighting for Haiti, as a consequence of the Earthquake in Port au Prince² - Objective: Support the country's emergency responses to the Port au Prince Earthquake by providing autonomous energy and lighting using solar applications² - Outputs: Solar application for power generation, Solar and hand-crank portable lanterns (managed and procured by WB)² Green Climate Fund (45.7m): SAP013: Scaling Smart, Solar, Energy Access Microgrids in Haiti² - Objective: Develop 22 community-scale solar plus battery storage micro-grids in southern Haiti in communities where currently no grid power exists² - Outputs: 24/7 access to modern energy services, technical assistance to build capacity for microgrid deployment and operation, battery storage solutions (24-hour services, 100% renewable energy-based viable economic alternative)² Green Climate Fund (28m): FP151: Global Subnational Climate Fund (SnCF Global) - Technical Assistance (TA) Facility² Green Climate Fund (750m): FP152: Global Subnational Climate Fund (SnCF Global) - Equity² - Objective: Catalyze long-term climate investment at the sub-national level for mitigation and adaptation solution through a transformative financing model² - Outputs: Mobilize 80% private, 20% public institutional investment to finance subnational projects, Structure, de-risk, and co-finance medium-scale subnational climate and infrastructure projects, Deliver certified climate, SDG, and Nature-based Solutions impacts²
National Policy on Energy ²	
Plan Stratégique de Développement d'Haiti: Haiti pays émergent en 2030² By 2030² - Programme 1.6: Increasing Electrification across the Country² - Expanding electricity generation capacity² - Expanding transmission and distribution networks² - Improving access to electricity services² - Strengthening electricity supply at the regional and local levels² - Programme 2.7: Developing Mineral and Energy Resources² - Developing domestic mineral resources² - Promoting the sustainable exploitation of quarry resources² - Exploring and developing lignite resources² - Assessing the country's hydrocarbon potential²	

Country Status CARD – Lesotho

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia¹

NDC Goal	Project Pipeline and Ongoing Activities ²
increase the renewable energy share to 2% in 2026 and 14.3% in 2030² add over 4,314.7 MW, four small hydropower plants, which will add over 80 MW of clean energy capacity, as well as eight solar power station with 2,650 MW installed capacity and two wind farms with 400 MW installed capacity, and to increase the share of non-traditional renewables to 14.3% by 2030²	Energy² Global Environment Facility (3.5m): Development of Cornerstone Public Policies and Institutional Capacities to Accelerate Sustainable Energy for All (SE4A) Progress² - Objective: Catalyze investments in renewable energy-based mini-grids and Energy Centre² - Outputs: SE4AII cornerstone policies and strategies facilitating (increased) investment in RET deployment, Improved capacity of energy stakeholders and government officials, Successful establishment of a village-based energy service delivery model² Global Environment Facility (2.5m): Renewable Energy-based Rural Electrification² - Objective: Reduce Lesotho's energy-related CO2 emissions by introducing renewable energy technologies as a substitute for fossil fuel in rural areas remote and improving people's livelihoods² - Outputs: Delivery of renewable energy-based technology packages, Awareness raising, Private and public sector strengthening and training, Policy support & framework, Financial mechanisms, Learning & replication²
National Policy on Energy ²	
Lesotho Energy Policy 2015-2025: Aims to ensure that energy is universally accessible and affordable in a sustainable manner, with minimal negative environmental impacts² Key policy goals include² - Improve livelihoods and support economic growth and investment² - Ensure security of energy supply and protect the environment² - Strengthen institutional and regulatory frameworks and energy information management² - Promote sustainable bioenergy and improve access to renewable energy technologies² - Increase energy efficiency and expand reliable, affordable electricity access² - Strengthen power generation, transmission, distribution, electricity markets, investment, financing, and energy pricing frameworks²	

Country Status CARD – Côte d'Ivoire

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia¹

NDC Goal	Project Pipeline and Ongoing Activities ²
1) The main mitigation levers are energy efficiency, the transition to LED lighting, the electrification of transport, and the development of renewable energy² 2) By 2035, aims renewables accounting for 46.3% of the energy mix² 3) By 2030, aims to achieve universal electricity access and accelerate the clean energy transition by² - Increasing electricity access from 64% in 2023 to 100%, providing access to an additional 17 million people² - Increasing access to clean cooking solutions from approximately 20% to 50%, reaching an additional 2.4 million households² - Increasing renewable energy to 45% of the electricity generation mix² - Expanding electricity generation capacity by 1.7 times² - Mobilizing USD 2 billion in private investment in the energy sector² - Expanding generation, transmission, distribution, rural electrification, off-grid infrastructure, decentralized renewable energy, and regional interconnections² - Implementing renewable energy and energy-efficiency plans and establishing regulatory, financing, tax-incentive, and guarantee mechanisms to support private-sector participation² - Establishing an implementation, monitoring, and evaluation framework to track progress in electricity access, clean cooking, and renewable energy²	Energy² Global Environment Facility (1.61m): Integration of electric mobility with renewable energy in peri-urban and rural areas around cities in Côte d'Ivoire² - Objective: Accelerate the adoption of an integrated renewable energy-based electric transport system / Reduce greenhouse gas emissions and support economic and productive use activities nationally² - Outputs: Strengthen legislation & financial mechanisms, operationalize e-mobility & charging demos, enhance national adoption capacity, track & monitor project indicators² Global Environment Facility (0.86m): Sustainable Industrial Production in the Cassava and other Agro-food Sectors through the Use of Renewable Energy Applications and Low-carbon Technologies² - Objective: Promote sustainable industrial production in the agro-food sector through the use of renewable energy applications and low-carbon technologies² - Outputs: Regulatory reinforcement, low-carbon agro-processing, sub-sector replication, M&E² Global Environment Facility (0.88m): SPWA-CC: Promotion of Energy Efficiency Lighting in Public, Commercial and Residential Buildings² - Objective: Reduce greenhouse gas emissions through Energy Efficient lighting market transformation & progressive phasing out of incandescent bulbs² - Outputs: Strengthened national policy framework, establish & operationalize Project management unit (PMU) & Minimum Energy Performance Standards (MEPS), Drive EE lighting sales & recycling schemes, expand consumer awareness²
National Policy on Energy ²	
Pacte National Énergie Pour La République de Côte d'Ivoire² Commits to transforming the national energy landscape and accelerating access to reliable, affordable, inclusive, sustainable, and clean energy² To achieve this commitment² - Rehabilitate and expand energy infrastructure at competitive costs² - Leverage the benefits of increased regional integration² - Adopt Decentralized Renewable Energy and clean cooking solutions for affordable last-mile access² - Incentivize private sector participation to mobilize additional resources² - Ensure the financial viability and improve the operational efficiency of the electricity sector²	

Country Status CARD – Liberia

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia¹

NDC Goal	Project Pipeline and Ongoing Activities ²
Aims to reduce GHG emissions from the energy sector (excluding the transport sector) by 48.5% below sectoral BAU levels by 2035 for mitigation² Increase the share of on-grid renewable energy to at least 75% from the current share of 67% by installing 150 MW of RE plants: install grid-connected medium Hydro Power Plant with 20 MW capacity for rural electrification, develop 100 MW capacity of solar photovoltaic (PV) with battery energy storage system (BESS) with an output of 2 GWh/year² Develop 50 MW of Distributed Renewable Energy (DRE) projects under private sector ownership or operation and maintenance² 20% improvement in energy efficiency across public sector institutions by 2035 through systematic demand-side energy management² Provide clean cooking solutions to 200,000 households²	Energy² Global Environment Facility (2.64m): Increasing Energy Access through the Promotion of Energy Efficient Appliances in Liberia² - Objective: Increase access to electricity in rural Liberia while promoting and mainstreaming the use of energy efficiency measures² - Outputs: Stakeholder capacity building, data collection, feasibility & planning, incentives & mainstreaming, incandescent phase-out, technical & subsidy schemes, pilot preparation & LEAP alignment, standards & tenders, awareness & demos, LED bulb distribution, recycling, quality & M&R, scaling strategy, needs assessment, M&E execution, dissemination, LEAP knowledge coordination, ² Global Environment Facility (1.76m): SPWA-CC: Installation of multi purpose mini-hydro infrastructure (for energy & irrigation)² - Objective: Develop the market environment for improving the access to mini-hydro, based modern energy services along with irrigation facilities in rural areas² - Outputs: Strengthened institutional capacity at national & local levels, MHP system, renewable & rural energy agency & local energy enterprises, enabling policy & regulation & incentive structure facilitating faster growth of MHP²
National Policy on Energy ²	
Rural Energy Strategy and Master Plan for Liberia Until 2030: ² Aims to expand equitable, affordable, and sustainable rural electricity access through least-cost development, renewable and indigenous energy resources, private-sector participation, transparent regulation, and targeted support for poor and vulnerable households² - Increase the electrification rate outside Monrovia to 35%² - Electrify at least 2,000 settlements through national grid, decentralized grid, or mini-grid infrastructure, connecting at least 50% of each settlement's population² - Electrify the 10 largest settlements in every county and ensure that no county has an electrification rate below 15%² - Prioritize electricity access for community services, health facilities, and schools² - Promote renewable energy, private-sector investment, regional cooperation, and targeted credit/subsidy mechanisms for poor and women-led households² Liberia National Energy Compact 2030: ² - Increase access to electricity (%): By 2030, around 75% of the population is expected to have access to electricity at a cumulative average rate of 17% (about two times the current rate)² - Increase share of renewable energy: US\$80 million for mini- and off-grid solutions and US\$70 million for utility-scale solar photovoltaic (PV) plants² National Energy Policy An Agenda for Action and Economic and Social Development (2009): ² - Keep promises by undertaking all actions required to ensure viability and maximum participation of Liberian stakeholders in the implementation of the NEP² - Adopt an implementation timeline to serve as a reference for performance measurement in the implementation of the NEP²	

Country Status CARD – Somalia^{1/2/}

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia^{1/2/}

NDC Goal

Aims to mitigation in energy sector - 3.2MtCO₂eq with 50% of GHG reduction relative to BAU^{1/2/}
Energy initiatives include^{1/2/}
• Development of solar and wind energy systems^{1/2/}
• Promotion of improved cookstoves and energy-efficient appliances^{1/2/}
• Sustainable charcoal production with improved kiln technology^{1/2/}
• Promoting clean cooking including use of LPG to replace biomass in domestic energy^{1/2/}
• Small scale solar lighting solutions^{1/2/}
• Solar powered irrigation systems^{1/2/}
• Increasing access to modern energy systems and enhancing energy efficiency^{1/2/}

National Policy on Energy^{1/2/}

Consultancy Services for FRS: Electricity Supply Industry Institutional Structure Study^{1/2/}
Medium-term 2025-2030^{1/2/}
Policy and strategy, legal, regulatory, planning, and delivery functions^{1/2/}
• Conduct a Gaps Analysis to evaluate progress and guide future sector strategy^{1/2/}
• Update and empower the Regulatory Authority to enforce sector-wide compliance^{1/2/}
• Establish a public GenCo to deliver large-scale electricity for FRS demand^{1/2/}
• Establish a public TransCo to develop the national power grid^{1/2/}
• Establish public DisCos to provide affordable urban electricity^{1/2/}
• Execute the Rural Electrification Strategy to expand power access^{1/2/}
Somalia National Energy Policy (2018) Summary^{1/2/}
In its Energy Policy Letter, the Government of Chad has set the ambition of making energy "accessible and available" and "increasing the efficiency of the sector"^{1/2/}
By 2030^{1/2/}
• A nationwide electricity access rate of 53%^{1/2/}
• A rural electricity access rate of 20%^{1/2/}
• A 20% share of renewable energy in national electricity generation^{1/2/}

Project Pipeline and Ongoing Activities^{1/2/}

Energy^{1/2/}
• **Global Environment Facility (1.78m): Promoting low-carbon energy access through integrated renewable electricity, e-cooking, and productive use solutions in Somalia**^{1/2/}
• Objective: Increase access to affordable, reliable renewable energy services in Somalia through the deployment of standalone solar PV systems^{1/2/}
• Outputs: Reduced greenhouse gas emissions from cooking & productive energy use, adopt modern electric cooking & energy-efficient productive-use technologies, knowledge & coordination & market linkages strengthened to support scale-up of integrated renewable energy solutions^{1/2/}

Country Status CARD – Tanzania^{1/2/}

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia^{1/2/}

NDC Goal

1) Invest approximately USD 160 billion in mitigation activities toward achieving 100% renewable energy for electricity, buildings, and industry by 2050.^{1/2/}
2) Promote climate-resilient and diversified energy systems, including greater use of renewable energy and natural gas.^{1/2/}
3) Expand clean power interconnections with neighbouring countries.^{1/2/}
4) Promote clean technologies for power generation and diverse renewable sources such as geothermal, wind, hydro, solar and bioenergy.^{1/2/}
5) Expand the use of natural gas for power generation, cooking, transport, and thermal services.^{1/2/}
6) Promote climate-smart rural electrification, including renewable-energy micro- and mini-grids.^{1/2/}
7) Reduce charcoal consumption by promoting affordable alternative energy sources and regulating charcoal production and use.^{1/2/}
8) Use market- and non-market mechanisms, including REDD+ and CDM, particularly for renewable energy and energy efficiency.^{1/2/}

National Policy on Energy^{1/2/}

Final Report Electricity Supply Industry Consultancy Services for FRS Electricity Supply Industry Institutional Structure Study^{1/2/}
Aims to expand universal, reliable and sustainable energy access while strengthening private-sector participation in the energy sector^{1/2/}
By 2030^{1/2/}
• Increase national electricity connectivity from 46% in 2022 to 75%, connecting an additional 8.3 million households through grid and off-grid solutions, particularly in rural and underserved areas^{1/2/}
• Increase access to clean cooking from 6.9% in 2021 to 75%^{1/2/}
• Increase the share of renewable energy in the generation mix from 61.8% to 75%, driven by solar, wind, geothermal and hydropower investments^{1/2/}
• Create an enabling environment for private-sector participation and mobilize US\$4.039 billion in private investment in the energy sector^{1/2/}

Project Pipeline and Ongoing Activities^{1/2/}

Energy^{1/2/}
• **Global Environment Facility (5.5m): Tanzania Energy Development and Access Project (TEDAP)**^{1/2/}
• Objective: Finance capacity building in the new rural electrification & ICT institutions^{1/2/}
• Outputs: Quality of life improvement, generate income & job, 50,000 new connections annually (30m/y)^{1/2/}
• **Global Environment Facility (2.25m): Transformation of the Rural Photovoltaics (PV) Market**^{1/2/}
• Objective: Promote solar home systems in the rural market through policy support, awareness raising, private sector development, and microcredit^{1/2/}
• Outputs: Framework for off-grid PV, awareness & demonstration programs, private sector & technical capacity, consumer & supply-chain financing, impact evaluation & knowledge sharing^{1/2/}
• **Global Environment Facility (2.5m): Electricity, Fuel and Fertilizer from Municipal and Industrial Waste in Tanzania: A Biogas Plant for Africa**^{1/2/}
• Objective: Establish Africa's first large-scale biogas plant, converting methane produced by municipal waste into energy^{1/2/}
• Outputs: Construct & operationalize a 60 ton/day organic waste plant, verify operating budget via off-take/supply contracts, deploy & demonstrate biogas-powered vehicles, strengthen the Applied Microbiology Unit (AMU), capacity of CAMARTE & Ministry of Energy^{1/2/}

Country Status CARD – Chad^{1/2/}

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia^{1/2/}

NDC Goal

Aims to promote energy efficiency and renewable energy, particularly solar, wind, biomass and biogas, across sectors to support climate change mitigation through 2030.^{1/2/}
Energy initiatives include^{1/2/}
• Development of large-scale solar PV, wind, biomass and solar-diesel hybrid power plants^{1/2/}
• Construction of a 210 MW gas-fired power plant and expansion of renewable electricity generation capacity^{1/2/}
• Chad-Cameroon electricity-grid interconnection enabling access to 40 MW of hydropower^{1/2/}
• Distribution of energy-efficient LED lamps for households and offices^{1/2/}
• Promotion of improved wood- and charcoal-burning cookstoves and improved fish-drying technologies to reduce wood consumption^{1/2/}
• More efficient charcoal production to reduce wood consumption and methane emissions^{1/2/}
• Installation of farm biogasifiers to avoid methane emissions and reduce fossil-fuel consumption^{1/2/}

National Policy on Energy^{1/2/}

PACTE NATIONAL DE L'ÉNERGIE POUR LA RÉPUBLIQUE DU TCHAD (2024)^{1/2/}
In its Energy Policy Letter, the Government of Chad has set the ambition of making energy "accessible and available" and "increasing the efficiency of the sector,"^{1/2/}
By 2030^{1/2/}
• A nationwide electricity access rate of 53%^{1/2/}
• A rural electricity access rate of 20%^{1/2/}
• A 20% share of renewable energy in national electricity generation^{1/2/}

Country Status CARD – The Gambia^{1/2/}

2026 Joint Programme: NDE Forum, Capacity Building on Integrating Energy Technologies, and NDE-NDA coordination in Asia^{1/2/}

NDC Goal

1) Develop climate-resilient integrated waste management systems, including potential waste-to-energy facilities^{1/2/}
2) Strengthen climate-resilient energy infrastructure through solar and wind mini-grids, solar-powered street lights, and energy efficiency measures under the NEEAP, including promotion of LED lighting^{1/2/}

National Policy on Energy^{1/2/}

NATIONAL ENERGY COMPACT FOR THE REPUBLIC OF THE GAMBIA (2025)^{1/2/}
Aims to provide reliable, accessible, affordable and clean electricity to all Gambians by 2030 while strengthening energy security and private-sector participation.^{1/2/}
By 2030^{1/2/}
• Increase electricity access from 73.7% to 100%, providing access to an additional 633,000 people^{1/2/}
• Increase clean cooking access from 25% to 50% through a gender-responsive, private-sector-driven strategy^{1/2/}
• Increase the share of renewable energy in the generation mix from 13% to 30% and expand domestic generation^{1/2/}
• Mobilize US\$247 million in private-sector investment in the energy sector^{1/2/}