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EC-funded Innovative Climate Solutions Programme

Funded by the European Union

27th CTCN Advisory Board Meeting
CTCN Secretariat
Agenda Item 19.3
21 April 2026

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1 Portfolio of TAs

Background

Objective: Connecting innovative climate solutions to countries' needs for transformative and inclusive climate action.

3 Continents

Africa = 5
Asia = 1
LAC = 2

Coverage

2 Million

€2M EC-Funded Grant to CTCN.

Amount

3 Years

January 2024 – December 2026.

Timeline

8 Projects

8 TA Projects in 10 countries.

Portfolio

Adaptation Projects = 3; Mitigation Projects = 4; Adaptation/Mitigation = 1

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Procurement/Implementation Timelines

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Africa TAs

1. Kenya

Development of SF6 Phase-out Roadmap and Pilot Project for Kenya

Goal: Establish the enabling environment for SF6-free technology uptake and the phase-out of SF6 in Kenya.

Contracted: 25 June 2024.

Status: Completed on 24 December 2025.

- ❑ The final deliverables include the national SF6 inventory, safe management guidelines, a technology landscape review, the draft national SF6 phase-out roadmap and a potential pilot project.

Scaling-up Prospects: The CTCN, in collaboration with the Finance Unit of the UNEP Climate Change Division, and Kenya Government, has submitted a MAF Proposal for scale-up.

Value: USD 245,470

2. Togo, Senegal, DRC, Guinea

Diagnosing the feasibility of a pilot Agrivoltaic technology project in W&C Africa across 4 countries.

Goal: Carry out a feasibility study for the deployment of agrivoltaic technology in Togo, DRC, Guinea, and Senegal, and establish the technical, economic, and commercial viability of the technology in the 4 countries.

Contracted: 26 March 2025.

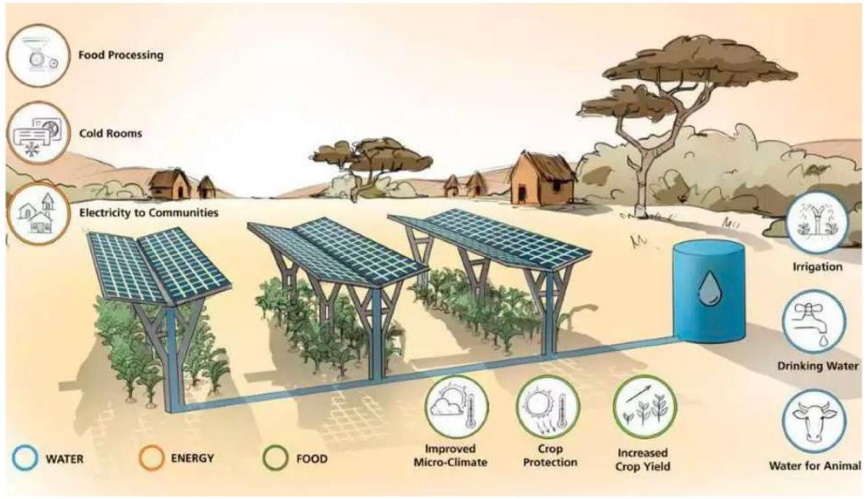
Status: Ongoing, almost completed.

- Pilot Project Models:
  a) Solar-powered Irrigation for Market Gardening – small farms (1-5ha) in Coastal Togo, Niayes in Senegal and Upper Guinea crops (tomatoes, onions, chillies, lettuce).

  b) Solar-powered Irrigation & Power Generation in Agriculture Development Zones (*agropoles & ZAAPs*) – large farms (10-30ha) with crop, livestock production, agro-processing & renewable energy production – Sokode, Kara regions (Togo); groundnut basin (Senegal); Kankan, Boke (Guinea).

  c) Solar-powered Irrigation of Shade-grown Cash Crops – large farms for coffee and cocoa in western Togo & forest Guinea. Ideal with raised agrivoltaics.

  d) Solar-powered Irrigation of Degraded Land for Restoration - former mining areas of Boké and Koundara (Guinea).



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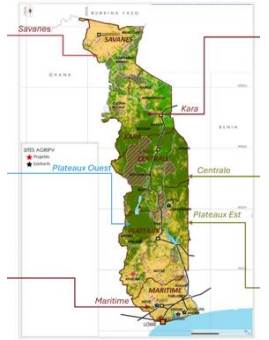
Goal: Carry out a feasibility study for the deployment of agrivoltaic technology in Togo, DRC, Guinea, and Senegal, and establish the technical, economic, and commercial viability of the technology in the 4 countries.

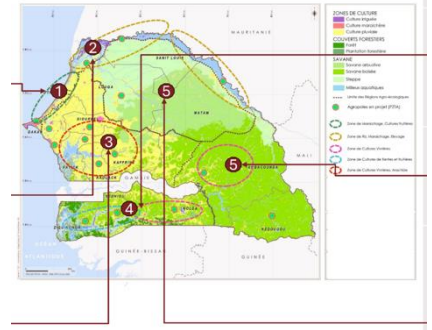
- Next steps:
  - Finalize and validate the economic and financial analysis.
  - Development of Roadmaps, identification of pilot projects,
  - Final workshop held on 27 and 28 March 2026 in Hammamet, Tunisia.

Scaling-up Prospects: TBD after completion and determination of feasibility of pilot projects.

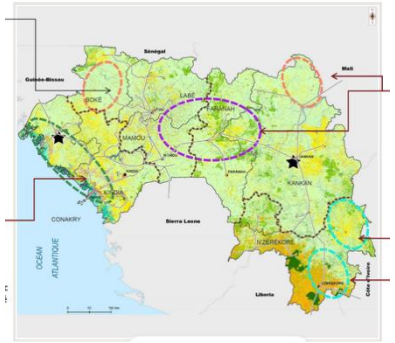
Value: USD 236,712.



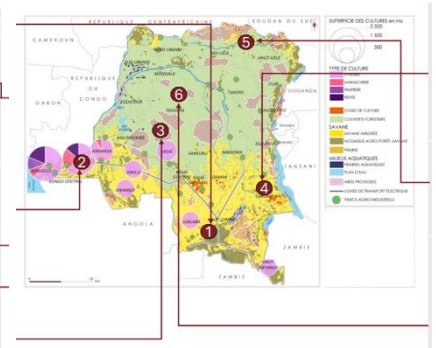
Togo



Senegal



Guinea



DRC

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Asia TA

6. Maldives

Feasibility study on green hydrogen potential in Maldives and development of a national roadmap for sustainable energy transition

Goal: Conduct a feasibility study on green hydrogen potential in the Maldives and develop a national road map for sustainable energy transition.

Contracted: 18 September 2025.

Status: Under Implementation. IP will provide a more detailed presentation.

- ❑ Preparing the Feasibility Study Report related to the potential utilization of green hydrogen, including the:
- ❑ Identification of appropriate technological options for hydrogen production and transportation.
- ❑ Drafting of a National Roadmap aimed at diversifying the energy mix through the integration of green hydrogen production technologies.
- ❑ Delivering capacity-building activities targeting policymakers.
- ❑ Virtual kick-off meeting among CTCN, NDE and IP on 14 October 2025.
- ❑ An inception workshop was held in Male, Maldives.
- ❑ Stakeholder mapping and creation of the Project Working Group are completed.
- ❑ Baseline Assessment Report was delivered.

Scaling-up Prospects: To be determined upon completion.

Valued: at USD 119,178

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LAC TAs

7. Peru

Feasibility Study to Develop an Aquaponics Facility in Peru

Goal: Conduct a feasibility assessment of an aquaponics facility based in a semi-enclosed/protected environment in Peru to design technical manuals for aquaponics facilities, as an activity aimed at strengthening the development of aquaculture/aquaponics that is more resilient.
Contracted: 23 July 2025
Status: Under implementation

- ❑ Carry out a feasibility study of an aquaponic installation based on a semi-enclosed/protected environment in Peru.
- ❑ Design technical manuals for aquaponic installation.
- ❑ Strengthen the development of a more resilient aquaculture/aquaponics to the expected risks of climate change.
- ❑ Kick-off meeting conducted.
- ❑ Stakeholder mapping and creation of the Project Working Group are completed.
- ❑ Baseline diagnosis on aquaponics in Peru is completed.
- ❑ Field visits, consultations, workshops, and surveys are also completed.
- ❑ Market analysis and determination of species according to potential demand are also completed.

Scaling-up Prospects: To be determined upon completion.

Valued: USD 161,000

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2 Communication

Communication Assets

Multicountry Agrivoltaics Project

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Technical Assistance: Pre-feasability study to analyze agrivoltaic solutions
Location: Togo, Democratic Republic of Congo, Guinea, Senegal
Solution: Agrivoltaic systems combining solar power with agriculture
UNEP CTCN grant: USD 250,000

UNEP-CTCN

The global rise in electricity demand intensifies competition for agricultural land and leads to deforestation. Agrivoltaic systems, which combine photovoltaic energy production with agricultural activities, offer a promising solution. These systems can be integrated into existing PV installations or designed for co-production of crops and energy, enhancing land-use efficiency and providing additional income for farmers.

Objectives

- Pre-feasability study to analyze deployment of systems that optimize land use for both energy generation and food production
- The study evaluates environmental, technical, and socio-economic viability, crop types, business models, and policy frameworks for solar-powered agriculture solutions

Climate Impact

- Improved land-use efficiency under climate stress
- Enhanced resilience of crops through shading and moisture retention
- Reduced greenhouse gas emissions via clean energy
- Strengthened irrigation and post-harvest storage systems

Social Impact

- Livelihood diversification: Farmers can earn from both agriculture and electricity
- Food security: Shaded crops benefit from improved microclimates
- Gender inclusion: Women and vulnerable groups actively involved
- Rural development: Electrification of communities and agro-processing facilities

Beneficiaries

- Targeted stakeholders include rural farmers, women, youth, and off-grid communities.
- The project aims to empower these groups through access to dual-income systems, training, and enhanced food and energy security.

Cement and Concrete:

- Collaboration with Global Cement and Concrete Association (GCCA) and UNIDO on "Cement Decarbonization Roadmap Guide" to be jointly published in 2026, integrating insights from the technical assistance projects in Zimbabwe and Senegal.

SF6:

- Discussion ongoing with IEA Regulatory Energy Transition Accelerator (RETA) for joint knowledge report on "Regulatory best practices for SF6 management and phase-out in developing countries", integrating insights from the technical assistance project in Kenya.

Other assets:

- Technology and project fact sheets.
- Dashboard to present project data (Power BI)
- Launch of Transition Community and Knowledge Hub platforms.
- Explore possibility of project video

Progress

- Initial version of the webpage for the Knowledge Hub on the CTCN website has been prepared.

- Concept note for "SF6 Transition Community" has been developed which aims to connect pioneers and interested stakeholders in the field of SF_6 management and phase-out to share challenges, best practices and lessons learned.

- The concept note was shared with potential partners:
  - IEA's Regulatory Energy Transition Accelerator (RETA) - *confirmed*
  - IRENA's Utilities for Net Zero Alliance (UNEZA)
  - Switching Gears to Net Zero Alliance - *confirmed*
  - European Commission

- A global programme on SF6 is under preparation by GIZ and World Bank, with which coordination is currently ongoing in order to align activities.

Home > SF6 Knowledge Hub

SF_6 Knowledge Hub

Through this SF_6 Knowledge Hub, the CTCN brings together its technical assistance, projects, guidance materials, and partnerships supporting developing countries in addressing SF_6 emissions. The hub also provides entry points for stakeholders to learn, engage, and access CTCN support.

Context

Sulfur hexafluoride (SF_6) is the most potent greenhouse gas with a global warming potential of more than 24,000 times that of CO_2 and an exceptionally long atmospheric lifetime. It is mostly used in electrical transmission and distribution infrastructure as an isolating gas.

Managing existing SF_6-containing equipment, and planning a transition to available alternatives present significant technical and institutional challenges, particularly for developing countries. These challenges require practical solutions, capacity building, and access to relevant experience and technologies.

SF_6 Transition Community

The SF_6 Transition Community, an initiative of the Knowledge Hub, is a global knowledge exchange platform to support the safe management and phase-out of sulfur hexafluoride (SF_6) in the power sector.

The Community brings together stakeholders from government, industry, finance, international organizations, civil society, and academia to share challenges, best practices and lessons learned, and accelerate the transition to SF_6-free alternatives through peer learning and collaboration with the aim of advancing:

- Technologies to monitor SF_6 related GHG emissions
- Lessons learned from pioneering countries and technologies
- Robust policy and regulatory frameworks
- Safe and effective SF_6 management practices across the lifecycle
- The transition towards modern, reliable, and low-carbon SF_6-free power grids

If you are interested in joining this Community, please contact CTCN at ctcn@un.org

Partners

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NDE GERMANY

News and Resources

Embracing SF6-Free Technologies:...

2 August 2023 - The UN CTCN and the NDE of Germany, hosted a three-day learning exchange on Technologies for Decarbonization of Electrical Transmission and Distribution Grids through F-gas Regulations and Policies, together with the German Ministry of Economic Affairs and Climate Action.

Read more

Global Collaboration at COP28-...

3 December 2023 - Participants convened at a side-event during COP28, delving into detailed discussions on the regulatory, technological, and developmental aspects of phasing out SF6 in developing countries, hosted by UN CTCN in collaboration with NDE of Germany.

Read more

Kenya Pioneers SF6 Phase-out

5 Sept 2024 - Kenya leads the way as the first African and developing country globally to phase out sulfur hexafluoride (SF6), the most potent greenhouse gas with a Global Warming Potential (GWP) of 24,300, mostly used in electricity grids.

Read more

Germany provides €1 million to the...

30 January 2025 - Germany provides a €1 million voluntary contribution to the multi-donor trust fund of the CTCN, to support its third Programme of Work (2023-2027).

Read more

Projects

Study on Safe Management Practices and Alternatives to SF6 in Senelec's Power...

A study conducted by Senelec with the financial support of AFD, whose main objective is to map alternative technological solutions to SF_6 for medium and high voltage

Development of a SF6 Phase-out Roadmap and Pilot Projects in Kenya

This technical assistance aims to set the enabling environment for the transition to SF6-free technologies and phase-out of SF6 in Kenya.

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3 Next Steps

Lessons Learned

Scaling-up Potential

Initial design of projects with scale-up in mind is key. Partnerships within UN are also valuable for scaling potential.

Government Buy-in

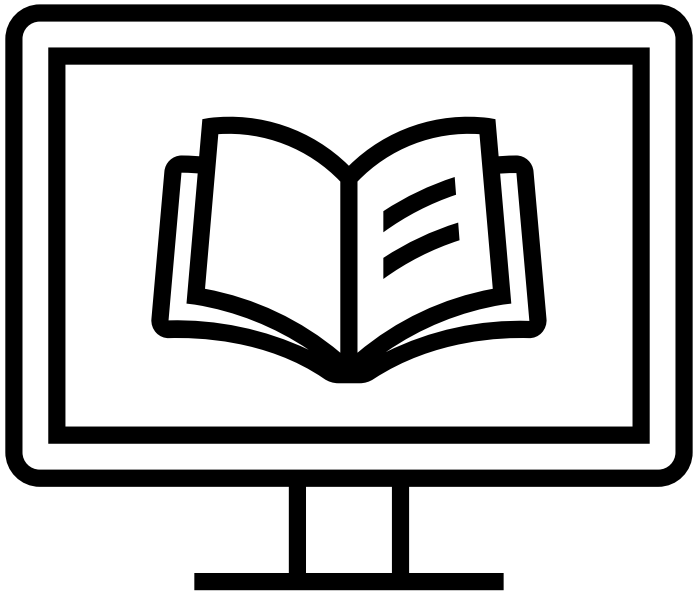
Government buy-in and active participation during design and implementation are key for success as well as scale-up efforts.

Advocate for Policy & Regulatory Changes

Engagement at policy level will also tilt the balance towards a conducive environment for faster uptake.

Engagement of other Financing Partners

Continued scoping for potential financing partners through out implementation can also spur early uptake and sustainability.



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Thank you!

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