United Nations
Climate Change

CAPACITY-BUILDING RESOURCES FOR
CLIMATE TECHNOLOGY DEVELOPMENT, DEPLOYMENT & TRANSFER

Informal Coordination Group for capacity-building under the Convention and the Paris Agreement [ICG]

ABOUT THE ICG

The informal coordination group for capacity-building under the Convention and the Paris Agreement (ICG) provides a space for representatives of constituted bodies, operating entities and relevant processes under the Convention and the Paris Agreement to coordinate climate change related capacity-building plans and activities, and allow for better sharing of information, coherence, and identification of opportunities.

The ICG is facilitated by the Paris Committee on Capacity-building (PCCB) and consists of nominated representatives of the following bodies, entities and processes:

- Action for Climate Empowerment
- Adaptation Committee
- Adaptation Fund Board secretariat
- Climate Technology Centre and Network
- Consultative Group of Experts
- Enhanced Lima Work Programme on Gender
- Executive Committee of the Warsaw International Mechanism for Loss and Damage
- Global Environment Facility secretariat
- Green Climate Fund secretariat

- Katowice Committee of Experts on the Impacts of the Implementation of Response Measures
- Least Developed Countries Expert Group
- Local Communities and Indigenous Peoples Platform Facilitative Working Group
- Nairobi Work Programme on impacts, vulnerability and adaptation to climate change
- Paris Committee on Capacity-building
- Standing Committee on Finance
- Technology Executive Committee.

ABOUT THE BOOKLET

This booklet is part of a series of six showcasing and facilitating access to capacity-building-related products and activities of UNFCCC bodies, entities and processes.

Resources are categorized according to their nature:
1. Tools and methodologies; handbooks, manuals and guides; case studies and technical reports/publications
2. Technical assistance/support
3. E-courses/training
4. Other relevant online resources

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CLIMATE TECHNOLOGY DEVELOPMENT, DEPLOYMENT & TRANSFER

Tools and methodologies

Technology Executive Committee (TEC) policy briefs and technical publications addressing global technology issues

This resource contains all documents that the TEC has prepared or published. It includes publications ranging from national system of innovations, agriculture, water, distributed renewable energy generation, technologies for coastal zones, incubators and accelerators and collaborative research development and demonstrations (RD&D).

Target audience: Policymakers in developing countries

Developing and Enhancing Endogenous Capacities and Technologies: Technology Stakeholders' Perspectives (2021)

This publication serves to improve the understanding of endogenous capacities and technologies.

Target audience: Developing and Developed countries

Building Capacities in Climate Technologies: Understanding Gaps, Needs, Challenges and Enabling Measures to Promote Endogenous Capacities and Technologies (2021)

This publication focuses on gaps, needs, challenges and enabling measures to develop and enhance countries endogenous capacities and technologies.

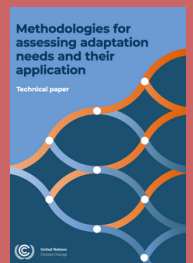Target audience: Developing and Developed countries

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Tools and methodologies

Methodologies for assessing adaptation needs and their application. Technical paper by the Adaptation Committee (2022)

This technical paper provides information on methodologies for assessing adaptation needs and their application, drawing on the inventory available on the adaptation knowledge portal, of methodologies for assessing adaptation needs including technological support.

Target audience: Stakeholders at all levels involved in adaptation needs assessment
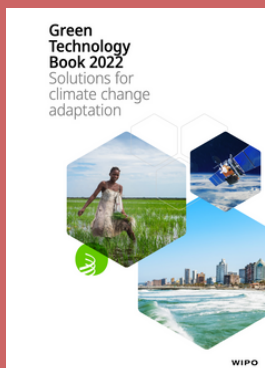
Green Technology Book *Solutions for climate change adaptation* (2022)

The Green Technology Book puts innovation, technology and intellectual property at the forefront in the fight against climate change. This first edition focuses on climate-change adaptation and showcases 200 technologies readily available or in the making.

The executive summary is available here

News for ongoing projects is available here

Target audience: NDEs, climate-tech and innovation community

Good practices and lessons learned on the setup and implementation of National Systems of Innovation (2023)

This summary assists policymakers in developing countries who are seeking to strengthen their National Systems of Innovation (NSI) in the context of climate action.

Target audience: Policymakers in developing countries

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CLIMATE TECHNOLOGY DEVELOPMENT, DEPLOYMENT & TRANSFER

Tools and methodologies

Good practices and lessons learned on international collaborative research, development and demonstration (RD&D) initiatives of climate technology (2021)

This compilation aims to facilitate the sharing of information on international technology RD&D partnerships and initiatives as well as the effective participation of developing countries in collaborative RD&D initiatives on climate technologies.

Target audience: Domestic policy makers, academic and research institutions, International organizations, private sector actors

Technology and Nationally Determined Contributions (NDCs): Stimulating the Uptake of Technologies in Support of NDC Implementation (2023)

This publication highlights the role of technology in NDCs with a focus on technology needs, challenges, linkages between policy and implementation and with national adaptation plans. It offers a set of specific recommendations on uptake.
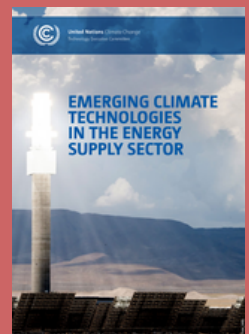
Target audience: Developed and developing countries, financial institutions, multilateral and bilateral development organizations, civil society, academia, businesses, and philanthropists

Emerging climate technologies in the energy supply sector (2021)

This technical paper reviews a group of emerging low greenhouse gas primary energy supply and transformation and storage technologies, and answers the following three questions for each technology:

1. What is this technology, and where and how could it be useful?
2. What is this technology's potential contribution to mitigating climate change?
3. What are the initial and ongoing social, institutional, economic and business conditions for successful uptake?

Target audience: NDEs, policymakers, climate-tech and innovation community

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CLIMATE TECHNOLOGY DEVELOPMENT, DEPLOYMENT & TRANSFER

Tools and methodologies

Africa Innovates II - Climate Champions: 50 African Homegrown Innovations Tackling Climate Change

The 2nd edition of the *Africa Innovates* magazine, showcases the power of innovation from across the African continent to fight climate change. It tells the stories of 50 African climate warriors who have developed unique homegrown climate solutions based on local needs and priorities. An accompanying lauch video is available here.

Target audience: NDEs, climate-tech and innovation community

Knowledge Brief: *Harnessing Technology in the Circular Economy for Climate Action in Africa (2023)*

This brief takes a snapshot of how Africa *is* pioneering new solutions along the material value chain, from product conception and production to distribution and consumption to end-of-life. Solutions are both low-tech – such as composting and using local building materials – and high-tech, such as anaerobic digestion, material science and digital material marketplaces. An accompanying webinar is also available here.

Target audience: NDEs, climate-tech and innovation community

Green Hydrogen Technologies for Systems Transformation: 10 examples of national strategies, plans and projects (2023)

This document offers ten national strategies, plans and projects, from developing and developed countries, of green hydrogen as part of their national net-zero ambitions and commitments. It offers a snapshot of the current implementation and future developments of green hydrogen projects, providing examples of green hydrogen technology research, development, and deployment efforts.

Target audience: NDEs

CLIMATE TECHNOLOGY DEVELOPMENT, DEPLOYMENT & TRANSFER

Tools and methodologies

Knowledge Brief: Nature-based Solutions to Emerging Water Management Challenges in the Asia-Pacific Region (2022)

The Brief highlights the potential of Nature-based Solutions (NbS) in the Asia-Pacific region by presenting a collection of 16 case studies representing rural, urban, and coastal environments. NbS offers one of the most effective and cost-efficient ways to address the complex challenges of clean water provision, climate change adaptation and livelihood resilience in an integrated way. An accompanying webinar is also available here.

Target audience: NDEs, climate-tech and innovation community

Technologies for adaptation: innovation, priorities and needs in agriculture, water resources and coastal zones. Technical paper (2022)

This paper provides an overview of planning and implementation of adaptation technologies in the areas of agriculture, water resources, and coastal zones. It discusses adaptation technologies in the agriculture, water resources, and coastal zones sectors in general terms and describes the critical role of technology transfer in facilitating access to these technologies. It further elucidates some of the priorities and needs for adaptation technologies, examines the implementation of adaptation technologies in these sectors.

Target audience: Stakeholders at all levels involved in adaptation technology solutions

Report on the in-session workshop on gender-responsive climate policy with a focus on mitigation action and technology development and transfer. Note by the secretariat (2015)

This summarizes the in-session workshop on gender-responsive climate policy and includes issues related to the gender aspects of UNFCCC processes and mechanisms, mitigation action and technology development and transfer.

Target audience: Stakeholders at all levels involved in adaptation technology solutions

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CLIMATE TECHNOLOGY DEVELOPMENT, DEPLOYMENT & TRANSFER

Tools and methodologies

Enhancing Inclusivity and Accessibility to Climate Technologies for All: Program Book & Conversation With Multi-Stakeholders (2023)

This booklet provides an overview of the Enhancing Inclusivity and Accessibility to Climate Technologies for All workshop. The workshop aimed to amplify the facilitation and inclusivity of the climate technology ecosystem, its dissemination and implementation with a spotlight on developing countries in the Asia-Pacific region. Participants delved into the Climate Technology Framework of the UNFCCC and the Paris Agreement Mechanism, gaining comprehensive insights into their components. Beyond theoretical knowledge-sharing, the participants received practical guidance and strategies to further apply these concepts to their work.

Target audience: Stakeholders at all levels involved in adaptation technology solutions

Technical support

Climate Technology Centre & Network (CTCN) Technical Assistance

The CTCN provides technical assistance in response to requests submitted by developing countries via their nationally-selected focal points, or National Designated Entities (NDEs). The CTCN delivers five main types of technical support on climate technologies: Technical assessments, technical support for policy and planning documents, trainings, tools and methodologies and implementation plans.

National certification system for energy auditor (2020)

For the successful implementation of the energy auditors and managers certification scheme, it is necessary to have a pool of trained trainers, who in turn can provide capacity-building training to future energy auditors and managers. To develop this pool of trainers, a Training of Trainer Programme was conducted in December 2020.

Presentations from the training can be downloaded here.

Training materials (video recordings) can be found here.

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CLIMATE TECHNOLOGY DEVELOPMENT, DEPLOYMENT & TRANSFER

Technical support

Youth Climate Innovation Labs

The Youth Climate Innovation Labs is a fast paced three-day online event that brings together selected youth participants as well as climate technology experts within the selected sectors and technology fields in the region to explore innovative design thinking tools, flexing their entrepreneurial muscles and creating solutions for enhanced climate action. At the end of the Climate Innovation Labs, the selected participants are provided follow-on support to implement and scale selected solutions through a 6-8 week Climate Innovation Academy Programme delivered by the CTCN partner Seedstars.

YOUTH CLIMATE INNOVATIONS LAB
DEMO DAY
Meet the most promising startups creating technology solutions for enhanced climate action across Africa and Asia-Pacific

E-courses and trainings

Collaborative Research, Development and Demonstration (RD&D) for Water-Food-Energy Nexus Webinar Series

ACTION IS NEEDED TO

Increase awareness about interconnected nature of water, energy and food sectors.

Increase engagements between the ministries of water, energy and agriculture to develop policies aligned with the specific WEF tradeoffs and synergies in each context.

Identify, implement and scale up WEF nexus interventions that maximize synergies and minimize tradeoffs

This webinar series offers an introduction of collaborative RD&D efforts in five system transformation areas by region or nation.

Target audience: Network members, NDEs, and junior government officers

Type of learning: Free, webinar   Duration: Ongoing series, 1 per month

CTCN webinar series: Blockchain technologies for climate policy implementation

This webinar series offers six recordings from leading Blockchain and Climate Institute (BCI) experts together with guest speakers from the public and private sector. They introduce blockchain concepts and use-cases across areas such as governance, renewable energy, climate mitigation and adaptation, carbon markets and value chains.

Target audience: NDEs, climate-tech and innovation community

Type of learning: Free, webinar

BLOCKCHAIN TECHNOLOGY FOR CLIMATE POLICY IMPLEMENTATION
LIVE WEBINARS ● NOV 2021 – JAN 2022
WEBINAR 2
TRANSITIONING TO RENEWABLE ENERGY THROUGH BLOCKCHAIN
CTCN bci

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E-courses and trainings

Korea International Cooperation Agency - Incheon National University (KOICA-INU) Climate Technology Program

CTCN is supporting Incheon National University (INU, South Korea), who recently joined as a CTCN Network member, to foster the capacity building of trainee officers in developing countries through the Korea International Cooperation Agency (KOICA)-INU Master's

Degree Program in Capacity Building for Response to Climate Change.

Target audience: Junior government officers or trainees in developing countries

Type of learning: free, in-person   Duration: 6 months - 1 year
(Scholarships covered by KOICA and INU)

Using Integrated Information Management Systems for Multilateral Environmental Agreements (MEA) Reporting – The Case of Antigua and Barbuda

Multi-lateral environmental Agreement (MEA) is an essential aspect of reaching global climate change targets, conserving biodiversity, and combatting desertification and land degradation. Working with the

government of Antigua and Barbuda CTCN and its partners have developed the National Environmental Data and Information System (NEIS) to help improve national capacity for reporting to the UNFCCC, UNCCD, and UNCBD. This recorded webinar from April of 2022 provides an overview of the process for implementing national environmental data and information systems.

Target audience: SIDS NDEs, climate-tech and innovation community
Type of learning: Free, online

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Other relevant online resources

Online repository: Policies and Technologies for Mitigation

The UNFCCC offers an online repository of "Policies and Technologies for Mitigation" that aims to share information on decarbonization technologies, including emerging technologies, and policy enablers to promote decarbonization of energy systems, in particular energy supply and storage, sustainable mobility and zero emission buildings.

Target audience: Policy makers

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INTO ACTION.

Gender and climate change technology

This webpage curates relevant information on gender and climate change technology.

Target audience: UNFCCC Party and non-Party stakeholders

The Technology Mechanism

The Technology Mechanism was created by UNFCCC Parties in 2010. It aims to support countries, in particular developing countries, in deploying climate technologies to reduce greenhouse gas emissions and increase resilience. It comprises two arms, a policy arm and an implementation arm.

The Technology Executive Committee (TEC), hosted by UNFCCC, is the policy arm. It focuses on identifying policies that can accelerate the development and transfer of low-emission and climate resilient technologies.

The Climate Technology Centre and Network (CTCN), hosted by the United Nations Environment Programme (UNEP), is the implementation arm. It promotes the accelerated transfer of environmentally sound technologies for low carbon and climate resilient development at the request of developing countries.

CONSULT OUR OTHER BOOKLETS WITH CAPACITY-BUILDING RESOURCES FOR:

- Accessing, Mobilizing and Scaling up Climate Finance

- Adaptation and Resilience

- Capacity-building Resources for Climate Action Effective Capacity-building and Mainstreaming Human Rights, Gender, Indigenous Peoples' Knowledge, Education and Youth

- Mitigation

- Transparency

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CONTACT DETAILS

🌐 unfccc.int/PCCB-ICG

✉️ The ICG is facilitated by the Paris Committee on Capacity-building (PCCB). To contact the ICG, please write at pccb@unfccc.int

in UN Climate Change Capacity-building LinkedIn group

🛠️ For access to a wide range of additional climate-related capacity-building resources, please also visit the UNFCCC capacity-building portal