



CTCN

CLIMATE TECHNOLOGY CENTRE & NETWORK
UNFCCC Technology Mechanism

Building Capacity for Cities to Lower GHG Emissions

Federico Villatico, Climate Technology Manager LAC-West Africa

Global Platform for Sustainable Cities (GPSC) Expert meeting
23 – 24 April 2018, Washington D.C., USA



CTCN Mission



To promote the accelerated development and transfer of climate technologies at the request of developing countries for energy-efficient, low-carbon and climate-resilient development



Technical Assistance

Meeting technology demand

CTCN service areas and core sectors



↓ MITIGATION

- Agriculture
- Energy Supply
- Forestry
- Industry
- Transport
- Waste Management

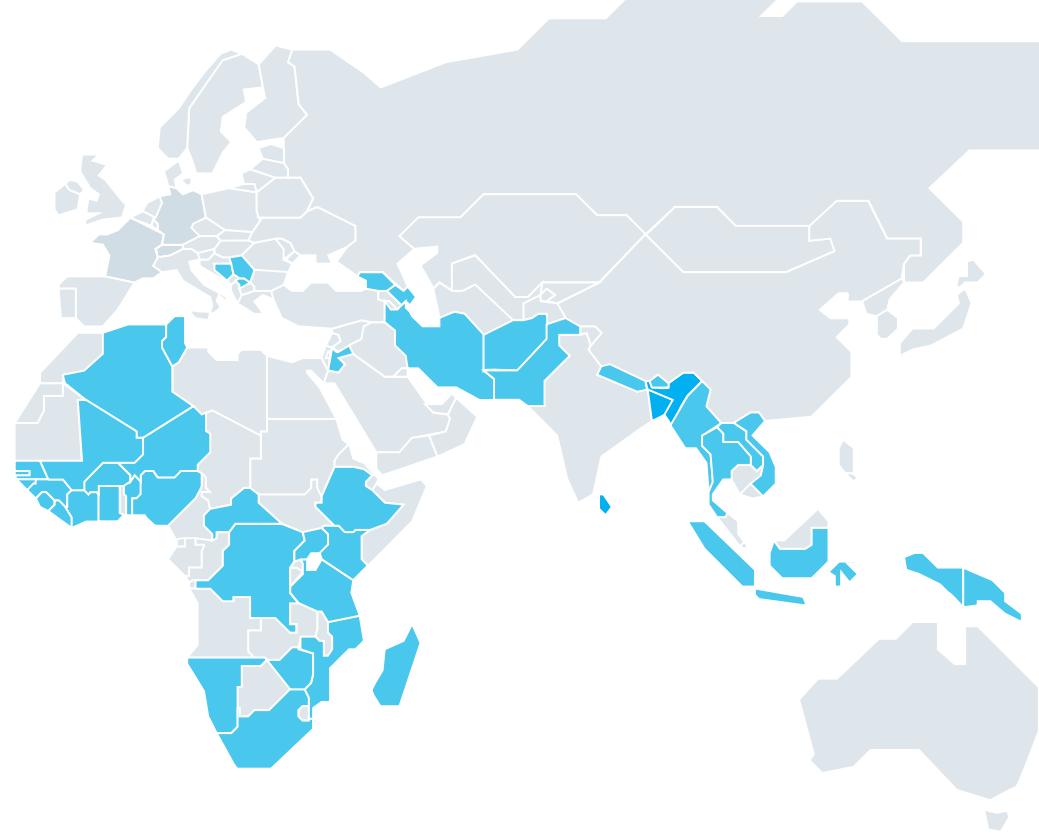
⟳ ADAPTATION

- Agriculture & Forestry
- Coastal Zones
- Early Warning & Environmental Assessment
- Human Health
- Infrastructure, Transport & Urban Design
- Marine & Fisheries
- Water

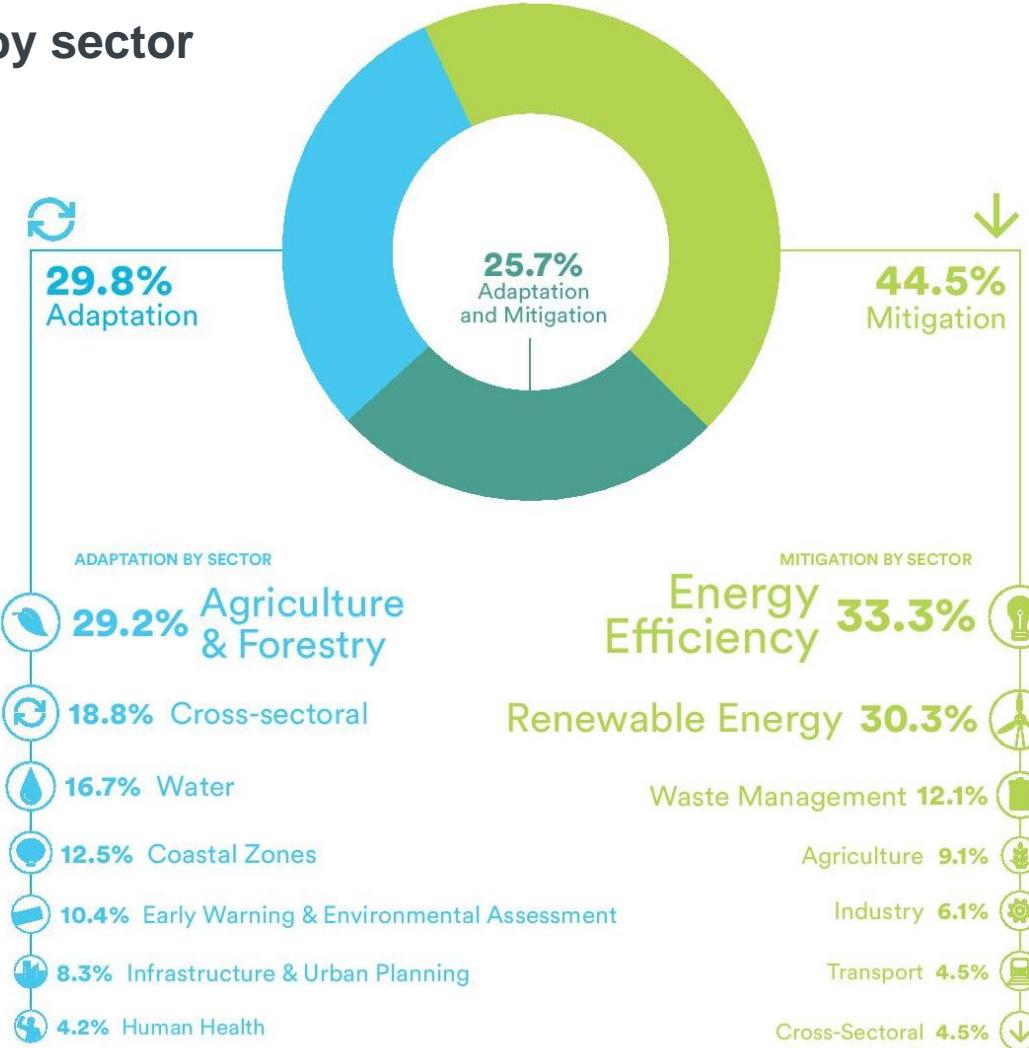
200 TECHNICAL
ASSISTANCE
REQUESTS
FROM OVER

73

COUNTRIES

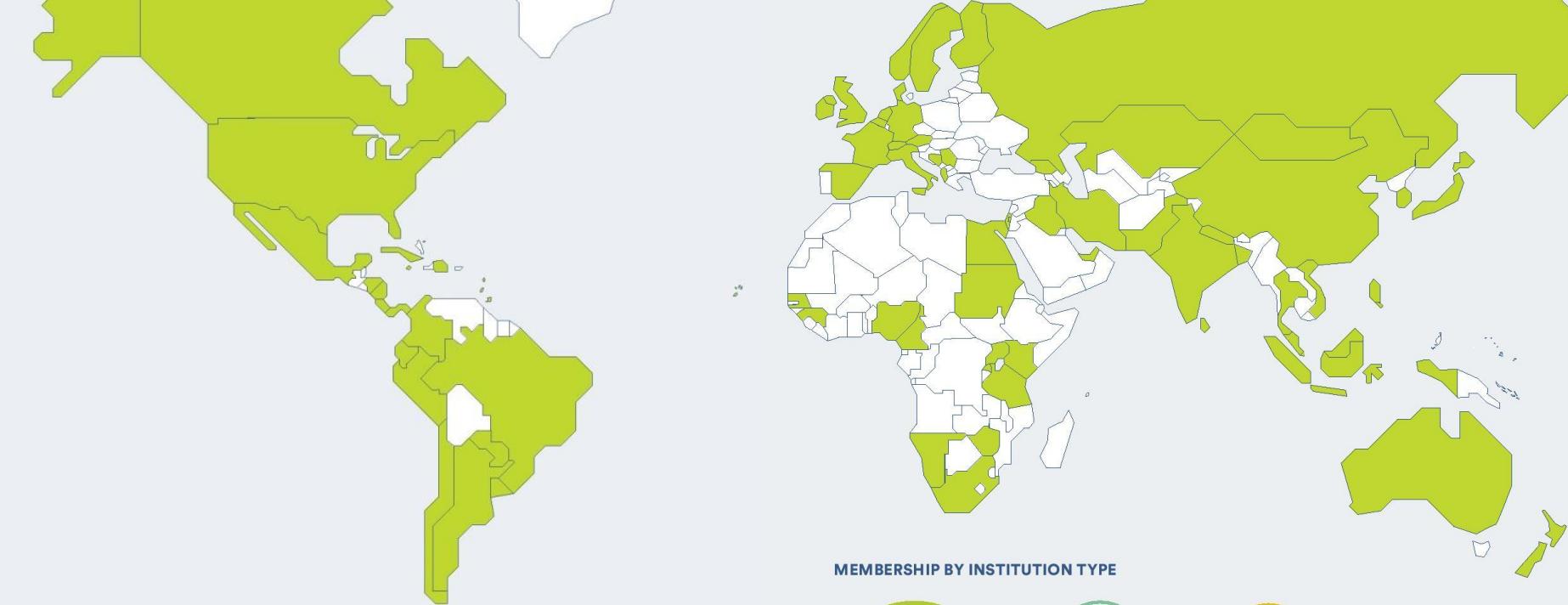


Requests by sector



Network

Mobilizing global expertise



OUR NETWORK HAS
400 MEMBERS IN **75** COUNTRIES

MEMBERSHIP BY INSTITUTION TYPE



41.4%
Private Sector Organization

3%
Intergovernmental/
Regional Organization

2.2%
Partnership/Initiative

0.5%
Financial Institution

Network Expertise by Sector

324
MITIGATION



221
ADAPTATION



Themes

Technology findings and success stories

Summary

- CTCN role within COP and main functions
- Technical assistance experiences in cities
- Synergies with GPSC

Thailand: Fostering Green Buildings Towards Low Carbon Society



Challenge/Request:

- Thailand's Energy Efficiency Plan (2015-2036) aims to reduce energy intensity by 30% in 2036.
- Key implementing agencies in the country face challenges related to technology assessment and capacity development.
- The cost and limited availability of some energy efficient products or solutions are also a prohibitive factor.

CTCN Response:

- Assess various technology options to assure the adoption of energy standards within the Building Energy Code (BEC) for new buildings;
- BEC defines performance indicators in four main areas (Building envelope; Lighting systems; Air conditioning systems; Whole building performance)



Bosnia and Herzegovina: Rehabilitation and Modernization of the district heating (DH) system in the City of Banja Luka

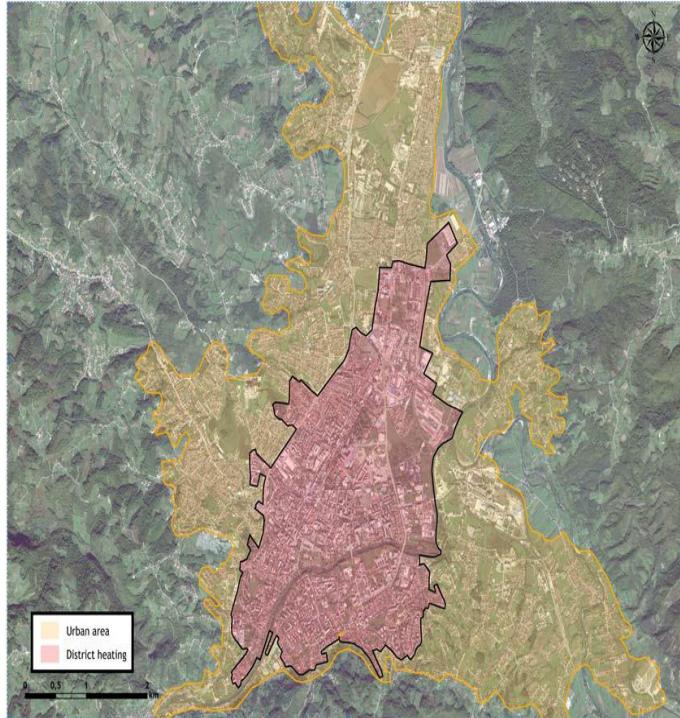


Challenge/Request:

- Significant air pollution & energy losses from individual heating
- Financial pressure on city and District Heating company

CTCN Response:

- Construction of new biomass boilers to reduce heavy fuel oil consumption and generate heat with sustainable biomass (cheaper, renewable and locally available)
- Rehabilitation and replacement of key components in the distribution network to cut heat and water losses and reduce electricity consumption; and
- Switching to consumption based metering and billing for improved quality of services and customer confidence.



Panama - Accelerating the transition to sustainable mobility and low carbon emissions in Panama



Challenge/request

- Panama is working on the transformation from a traditional scheme of public transportation to a more integrated sustainable system. The recent arrival of natural gas in Panama brings the opportunity to use this fuel in transportation, whilst the advances within the electric mobility field offer a very attractive and more environmentally friendly alternative.

CTCN response

- Analysis of the introduction of low or zero emission buses in the city
- Analysis of two alternatives that the city is considering: electrical and natural gas buses
- Indication of other transport alternatives that can be helpful to strengthen the public transport system
- Capacity building (workshop with all relevant stakeholders; training on the transport model for specialised personnel)



Indonesia: Flood modelling and resilient coastal infrastructures in Jakarta

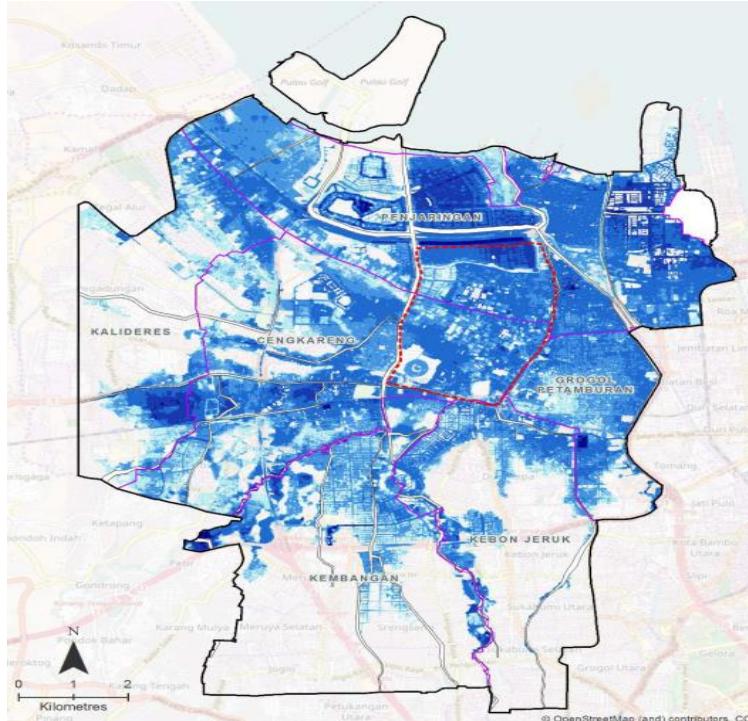


Challenge/Request:

- Increasing exposure of Jakarta due to sea level rise rainfalls
- Government identified a hardware solution for coastal management: giant sea wall
- Desire for additional assessment and identification of other possible options/ alternatives

CTCN Response:

- Flood risk assessment using hydrological modelling
- Social and cultural risk assessment
- Sharing approaches with other flood-prone cities in the region
- Policy recommendations and financing routes



Senegal: Green technology deployment in industrial zones

Challenge/Request:

- Insufficient installed generation capacities
- High level energy cost due to the important use of fossil fuel for electricity production
- Not efficient use of energy in some sectors coming from not efficient appliances processes and technologies

CTCN Response:

- Development of an additional study and monitoring/evaluation tools
- Capacity building for the project management
- Technical advices on policies for the technology adoption
- Adaptation to the local context



Dominican Republic: A Community based Early Warning System in every pocket from Santo Domingo.



Challenge/Request:

- Increased frequency and intensity of extreme storms.
- Mechanisms exist to gain early warning information.
- But the system for communicating it to the public needs improvement.

CTCN Response:

- Strengthen communications protocols
- Identify new technologies (include mobile phone app)
- Help broker private financing for development and scale up of communication.



Ecuador: Gasifiers and biodigesters of residual biomass to minimize greenhouse gas emissions from MSW



Challenge/Request:

- Ecuador produces about 11,114 Ton/day of municipal solid wastes (MSW) at national scale
- Most municipalities are unable to improve their MSW disposal systems due to high costs of implementing adequate solutions, lack of technological alternatives and limited technical advisory for implementing specific technology alternatives

CTCN Response:

- Identification and analysis of technical and administrative aspects
- Development of enabling mechanisms
- Dissemination and scaling-up strategy



Webinars

Bringing awareness to GPSC

CTCN Knowledge Portal: Webinars

Recorded webinars



CTCN/Practical Action webinar: Energy access financing



CTCN/INER webinar: Implementation of Energy Efficiency in Ecuador and its impacts



CTCN/GHGMI Webinar: Growing internationally-recognized greenhouse gas professionals in your country



CTCN/AEC webinar: AEC Systems Change Methodology



CTCN/GAN webinar: Sustainable Regional Development Model - A community based model for climate change mitigation and adaptation



Webinar: Energy Efficiency Actions in Georgia

- Opportunity to present GPSC's projects
- Vast target audience with newsletter advertisement (NDEs, Network members and consortium partners)
- Open to the public and accessible anytime

Conclusions

- ❖ CTCN is willing to provide technical assistances to support planning for resilient cities and strengthen vulnerability by identifying response options: plans, policies, tools both for mitigation and adaptation to climate change;
- ❖ Definition of emergency rehabilitation approaches to climate-induced disasters (i.e. Antigua and Barbuda)
- ❖ CTCN can complement GPSC interventions in targeted cities
- ❖ Possibilities for big size interventions (up to 250k\$) in Asia Pacific. Involvement of NDEs needed



CTCN

CLIMATE TECHNOLOGY CENTRE & NETWORK
UNFCCC Technology Mechanism



UDENRIGSMINISTERIET
DANIDA



METI
Ministry of Economy, Trade and Industry



 Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Economic Affairs SECO

Canada 

Supported by:



Ministry of Science and ICT



MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE



FORSMIN FINLAND
MINISTRY FOR FOREIGN
AFFAIRS OF FINLAND



Comisiones Obreras Rietas Äitiöllä
Environment, Community and Local Government



 Government Offices of Sweden
Ministry of the Environment and Energy

on the basis of a decision
by the German Bundestag

Thank you



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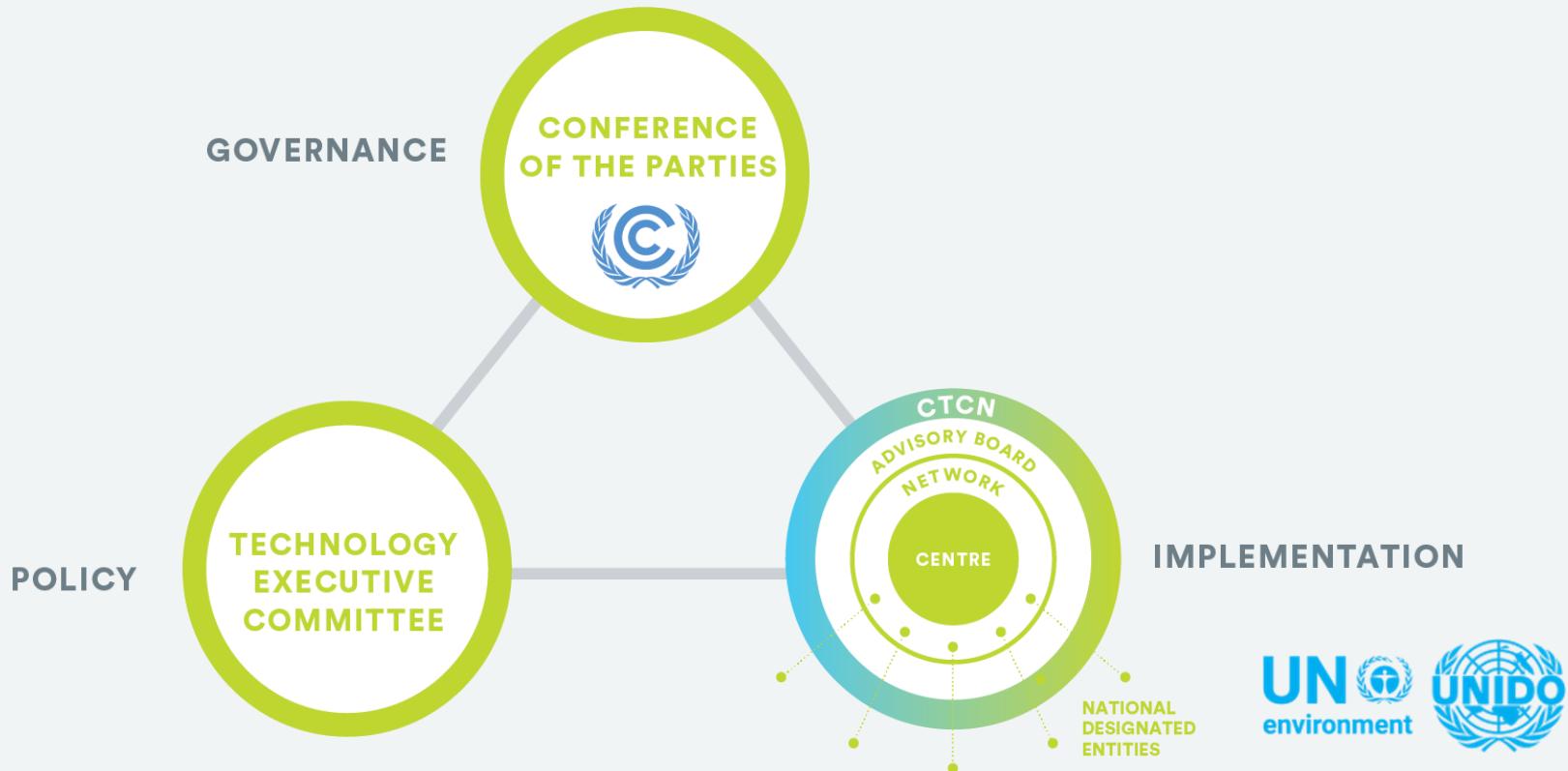


UNFCCC.CTCN

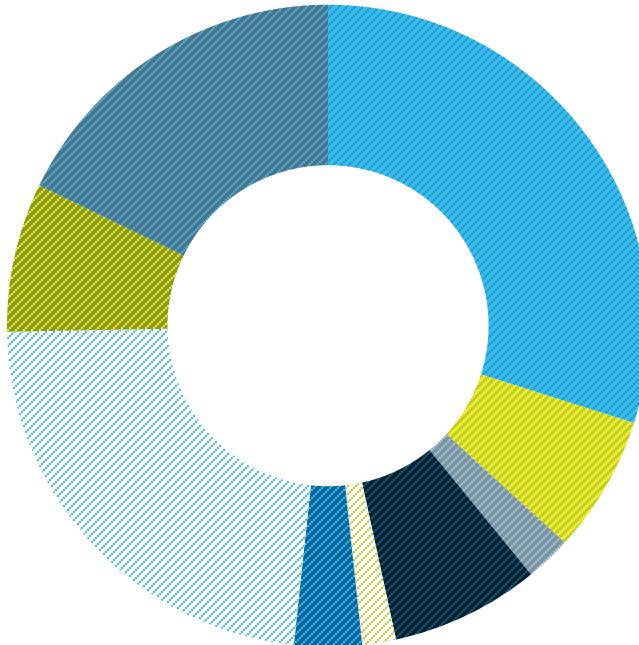
www.ctc-n.org



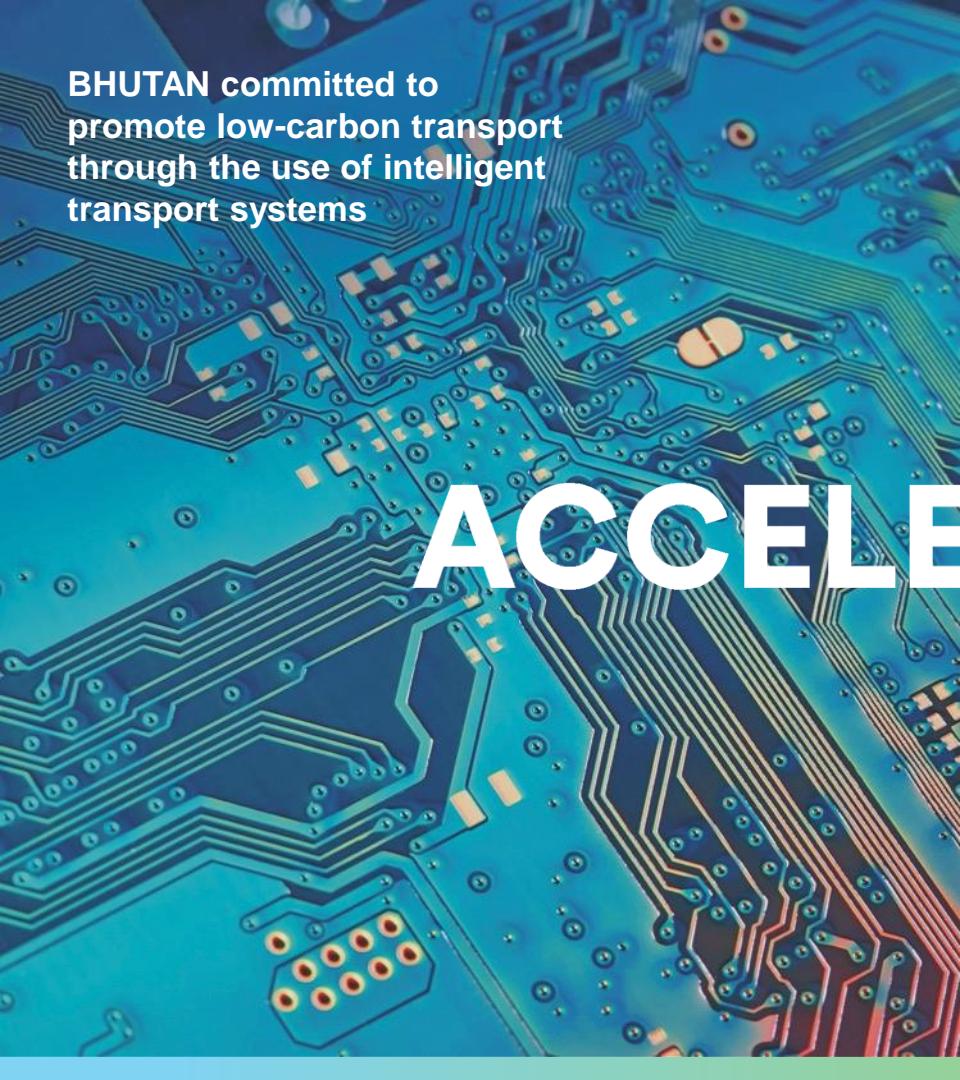
CTCN: Anchored in the UNFCCC



Types of Technical Assistance Requests



- Decision-making tools and/or information provision
- Sectoral roadmaps and strategies
- Recommendations for law, policy and regulations
- Financing facilitation
- Private sector engagement and market creation
- Research and development of technologies
- Feasibility of technology
- Piloting and deployment of technologies in local conditions
- Technology identification and prioritisation



BHUTAN committed to
promote low-carbon transport
through the use of intelligent
transport systems



The CTCN facilitated capacity
building so that Bhutan could
learn from the experience of
Thailand's low-carbon
mobility planning and
intelligent transport system.

ACCELERATING.

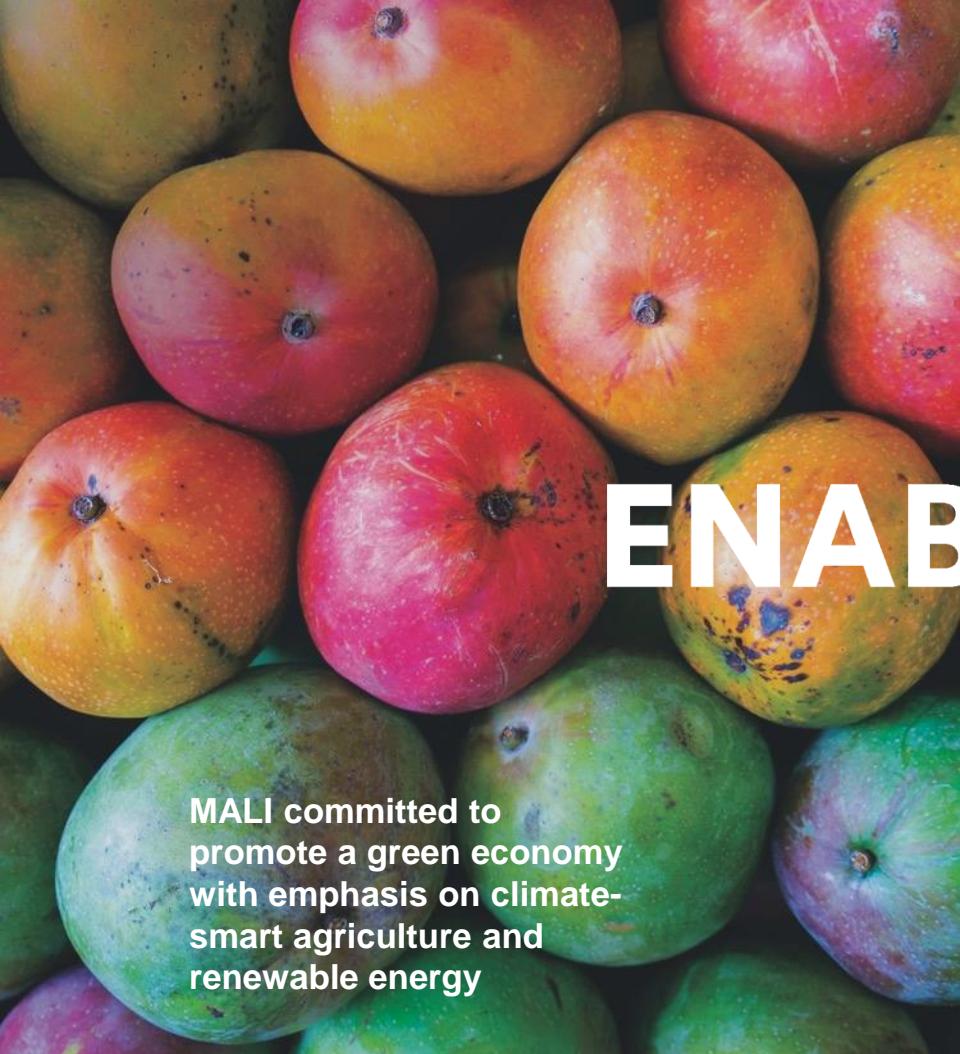


BUILDING.

COLOMBIA committed to develop a national system of indicators to monitor and evaluate adaptation efforts across the country.



The CTCN supported creation of an indicator framework that contributes to the National Adaptation Plan and is the basis for an online planning tool for municipal adaptation investments.

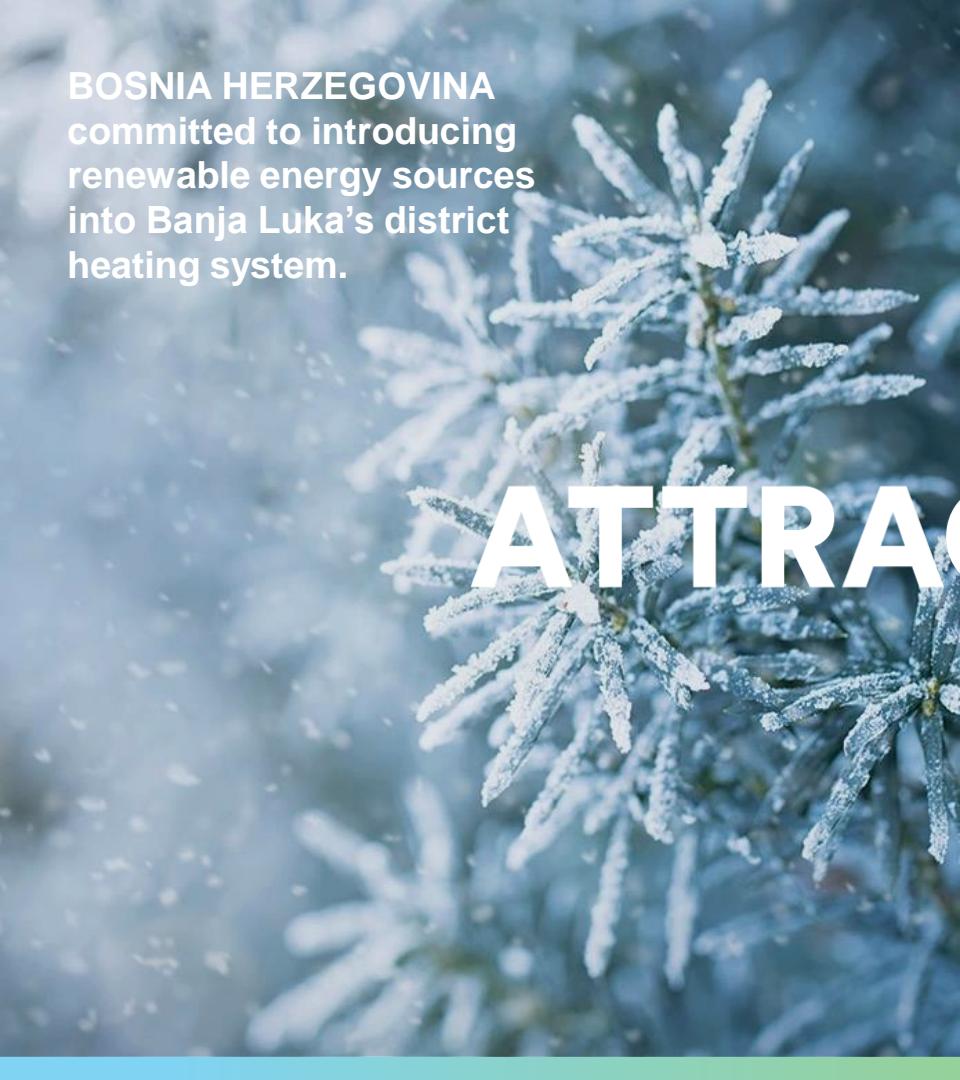


ENABLING.

MALI committed to promote a green economy with emphasis on climate-smart agriculture and renewable energy



The CTCN is identifying technologies and private investment opportunities for solar-powered fruit and vegetable drying and storage facilities



BOSNIA HERZEGOVINA
committed to introducing
renewable energy sources
into Banja Luka's district
heating system.

ATTRACTING.



The CTCN's energy strategy attracted interest from the European Bank for Reconstruction and Development in providing a multi-million dollar investment package for new biomass boilers and other efficiency measures.

Network facts

- 159 National Designated Entities:
 - Facilitate requests for assistance to CTCN from communities, NGOs, academic/research centres, & national government
 - Coordinate technology networking in-country
- Annual CTCN regional meetings bring together government, finance, & private sector stakeholders
- Network members bid to implement technology solutions

“The CTCN can accurately find the right experts, help to develop technology options, remove the barriers and also identify financial partners to implement technologies in countries.”

MR. ISSAKHA YOUM
CENTRE D'ETUDES ET DE RECHERCHES SUR LES ENERGIES RENOUVELABLES, SENEKAL (CTCN NDE)



Supporting technology innovation

1. Technology innovation is only part of the successful technology transfer process - links to policy, finance and markets are required
2. Strong need for local adaptation of technologies and First-to-Market approaches
3. Targeted technology partnerships
4. Support for endogenous technologies and capacities



Promoting Gender-Responsive Technology Transfer



Knowledge Sharing:

- 500 information resources (publications, tools, webinars) on gender and technology on ctc-n.org

Collaboration:

- CTCN partners with the UNFCCC Women and Gender Constituency to host an award and workshop on up-scaling gender-just climate solutions.
- CTCN will be highlighted at SB48 as a model for the Gender Action Plan in terms of its work on gender

CTCN Gender Mainstreaming in Technical Assistance



Gender incorporated throughout the technology assistance process

Mainstreaming gender for a climate resilient energy system in West Africa



This technical assistance advances the following Sustainable Development Goals:

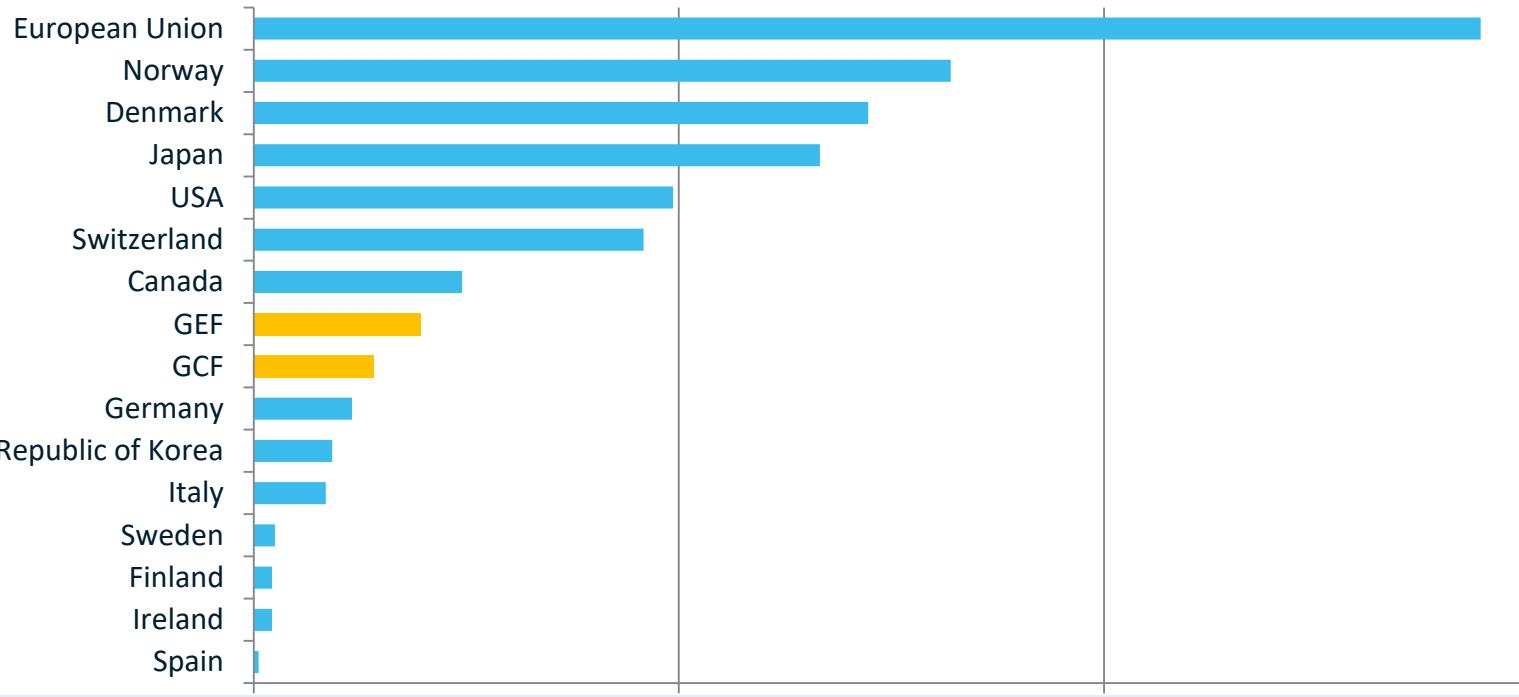


Example: The CTCN is providing technical assistance on gender mainstreaming for a climate-resilient energy system in 15 West African countries by:

- Assisting countries in undertaking gender audits and provide capacity building
- Providing support and business coaching to women-led sustainable energy enterprises
- Enabling gender-disaggregated data collection

Resource Overview

CTCN has secured a total of \$55.5 million from bilateral and multilateral sources to date.



Strengthening Bangkok's Early Warning System to respond to climate induced flooding



Challenge/Request:

- Bangkok is experiencing an increased frequency and severity of flooding in key sectors of the city.
- Future projections indicate extreme rainfall events are likely to increase, threatening both lives and livelihoods in this coastal megacity.

CTCN Response:

- Mapping existing drainage and charting network data and work flow
- Building hydraulic drainage models for flood scenario analysis
- Validation of monitoring system design including configuration of web-based information system

