

# CTCN Mandate, Lessons and Opportunities for Collaboration

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## I. CTCN mandate, structure and services

## II. Lessons from CTCN of relevance to Technical & Scientific Cooperation under CBD and BioBridge Initiative

## III. Opportunities for collaboration



**Negotiated since:** 2001 (COP7)  
**Established:** 2010 (COP16)  
**Operational:** 2014

## UNFCCC Technology Mechanism:

- I. Climate Technology Centre and Network  
(implementation) 
- II. Technology Executive Committee  
(policy guidance)

## Financing by:

- Bilateral voluntary
- UNFCCC Finance Mechanism (evolving)

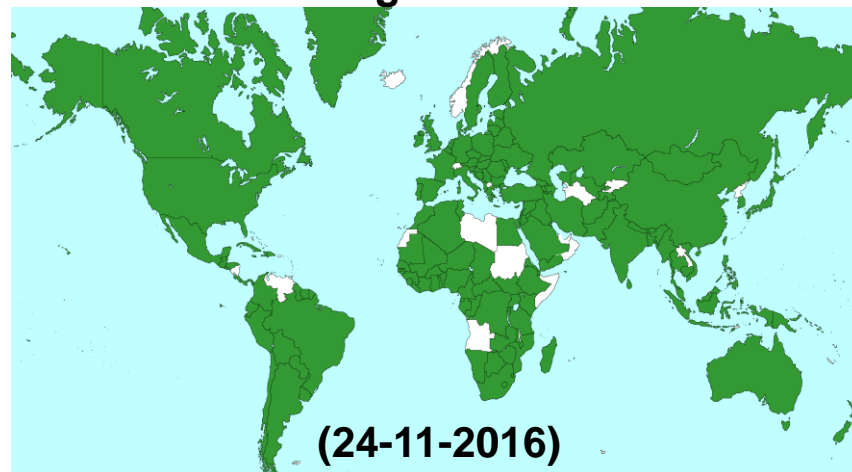
## Scale:

- USD 23 M/Year budget foreseen
- USD 23 M new \$ announced at COP22

## Mandate:

“Stimulate technology cooperation and enhance the **development and transfer of technologies** to developing country Parties **at their request**”

## 155 National Designated Entities to CTCN



# CTCN Structure

**Governed by UNFCCC COP and CTCN Advisory Board**

**Hosted by UNEP with UNIDO and a 12 member Consortium**



**Supported by a growing Network of 200+ climate technology providers**



# What is “Climate Technology”?

## IPCC definitions:

Any skill, knowledge or equipment used to address climate change

Hardware, software and orgware

Traditional, modern, high-tech

### Cross-cutting enablers:

- Governance and planning
- Financial decision making
- Awareness and education

### Adaptation sectors:

- Water
- Agriculture and Forestry
- Marine and Fisheries
- Coastal Zones
- Human Health
- Early warning and assessment
- Infrastructure, Transport & Urban Design

### Mitigation sectors:

- Energy supply
- Energy use
- Industry
- Transport
- Agriculture
- Forestry
- Waste management

### Cross-cutting Approaches:

- Ecosystem-based
- Gender-oriented
- Community-based

# What is "Climate Technology"?

## and relevance to CBD Aichi Targets...

### Cross-cutting enablers:

- Governance and planning
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### Adaptation sectors:

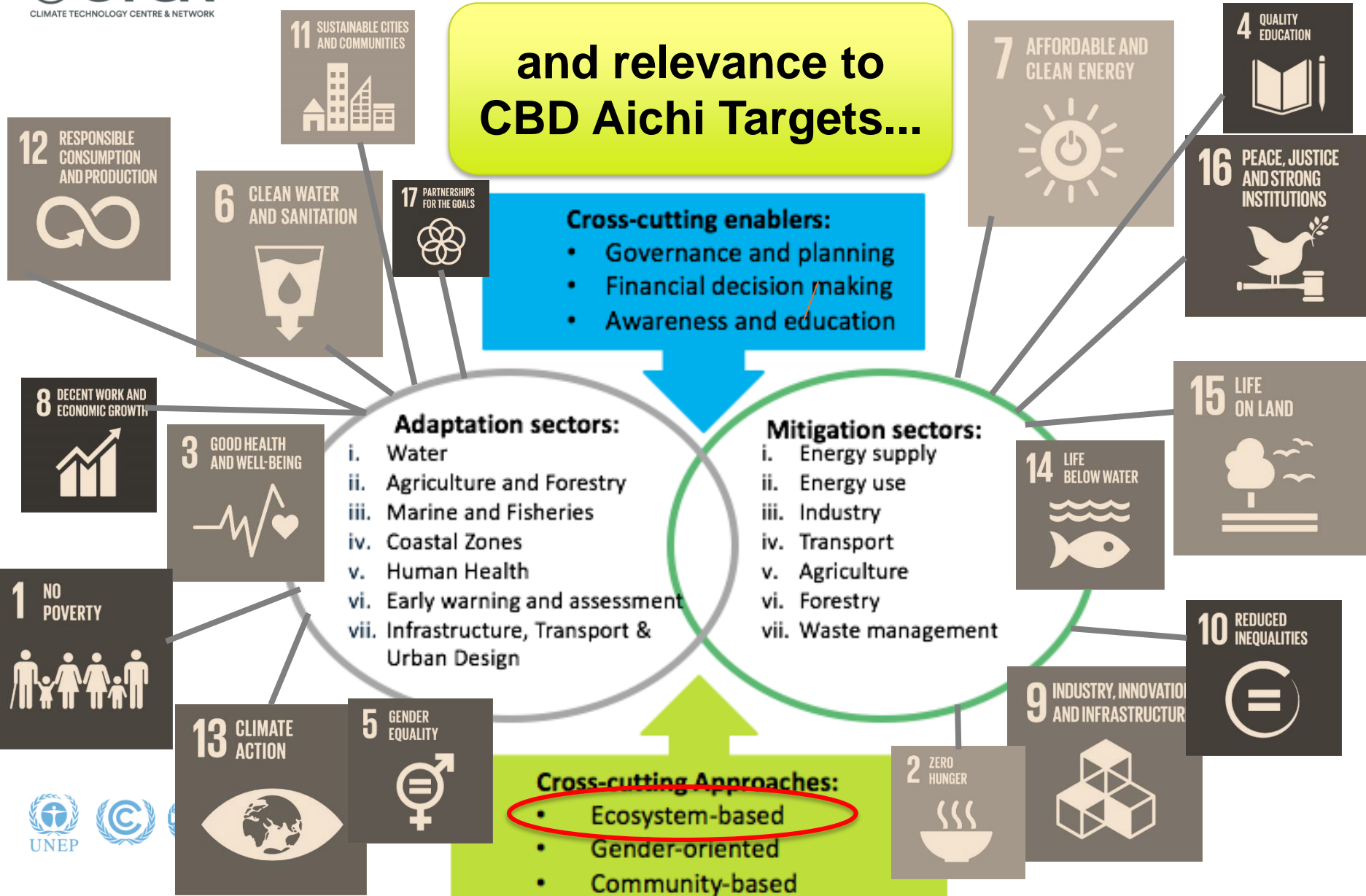
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- Agriculture and Forestry
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### Mitigation sectors:

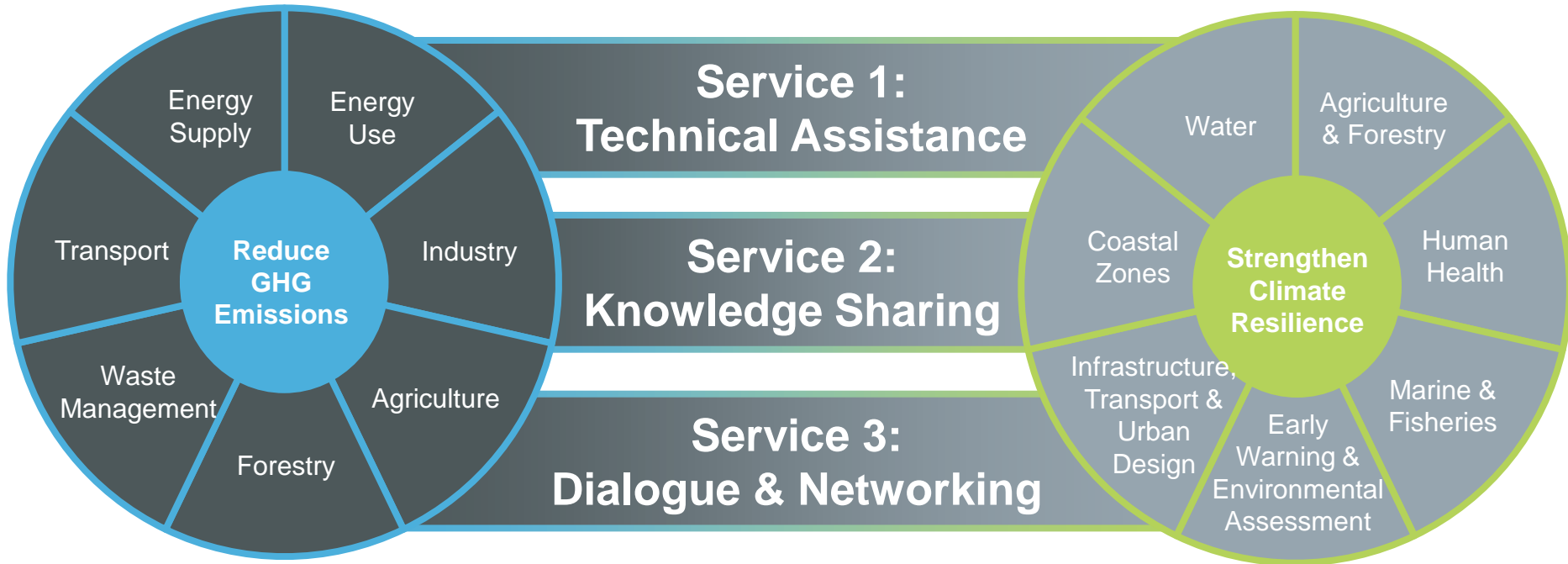
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- Ecosystem-based
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- Community-based



# CTCN Services and Sectors



# CTCN Service #1: Technical Assistance

Country	Examples
<b>Dominican Republic</b>	<p>A community based early warning system in Santo Domingo</p> <p>Efficient lighting (NAMA design)</p>
<b>Colombia</b>	<p>National adaptation monitoring system</p> <p>Development of a mechanical-biological (MBT) pilot project for waste treatment</p>
<b>Ecuador</b>	<p>Sustainable management of livestock waste for climate adaptation and energy production</p>
<b>Chile</b>	<p>Design of biodiversity monitoring network in the context of climate change</p> <p>Introducing refrigerants with low GWP in the food sector</p>
<b>Indonesia</b>	<p>Climate resilient watershed management to prevent flooding in Jakarta</p>
<b>Mali</b>	<p>Sustainable agriculture practices with local communities</p>
<b>Uruguay</b>	<p>Replacement project of fluorinated refrigerants for end users of refrigeration equipment in the dairy sector in Uruguay</p>

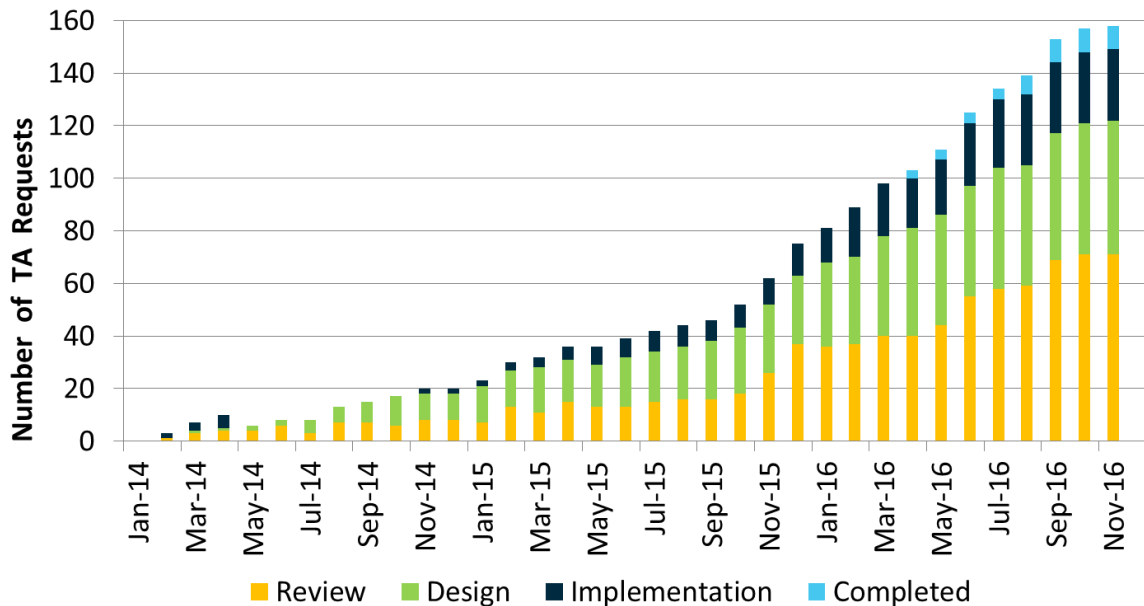
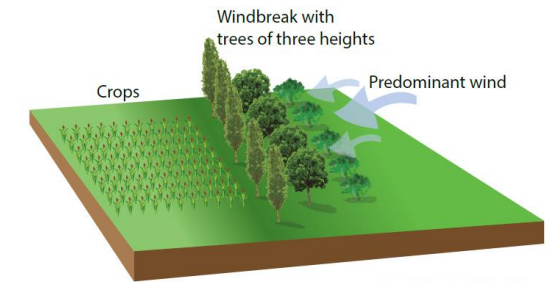
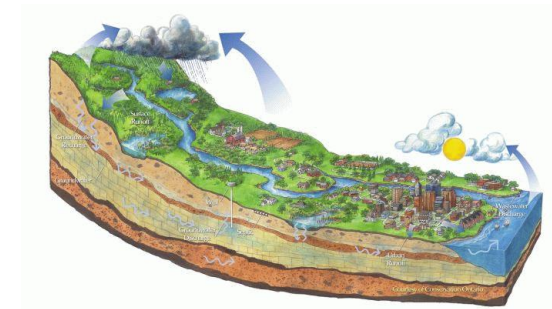
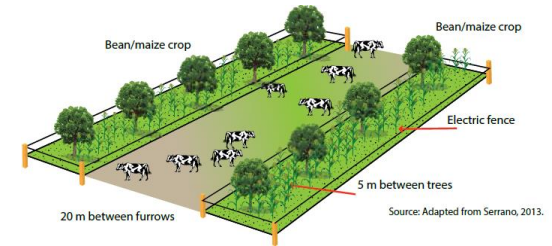


**Aim:** Fast and accessible

**Demand:** Increasing to 100 to 200/year (158 now)

**Provided:**

- 70% of CTCN budget
- USD 50k to 250k each
- Implemented by Network (250+ members)
- State of the art and locally relevant
- +/- 25% ecosystem-based solutions
- Aim to catalyse project financing



# CTCN Service #1: Technical Assistance



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# Examples of technical assistance



## Thailand: Strengthening Bangkok's flood warning system

### Challenge:

-Increasing risk of heavy rainfall and flooding threatening lives and livelihoods in the coastal city

### Action:

- Mapping existing drainage and monitoring system
- Building hydraulic drainage models for scenario analysis
- Technology identification, prioritisation, planning and identification of financing (including ecosystem-based approaches)

### Intended impact:

- Increased resilience and safety for 500,000 inhabitants
- Improved routing for transportation and reduced loss of economic productivity and property due to flooding

**CONNECTING COUNTRIES TO CLIMATE TECHNOLOGY SOLUTIONS**

The Climate Technology Centre and Network promotes the transfer of climate technology at the request of developing countries for energy efficient, low carbon and climate resilient development.

By connecting stakeholders with technology experts from around the world, the CTCN delivers customized capacity building and technical assistance aligned with national climate objectives.

**CHALLENGE**  
Future climate projections indicate an increased risk of extreme rainfall and flooding in Bangkok. A significant increase in flood-prone areas threaten both lives and livelihoods in this coastal megacity.

**ACTION**

- Mapping existing drainage and monitoring system
- Building hydraulic drainage models for scenario analysis
- Clarifying network data and work flow
- Technology validation including configuration of web-based information system
- Dissemination of technical assistance results to other flood-prone cities in Thailand
- Identification of possible financial sources for updating

**IMPACT: Resilience of life and livelihoods**

- Increased safety for the 500,000 Bangkok residents living in targeted flood areas
- Improved routing of transportation
- Reduced loss of economic productivity and property due to flooding

UNEP, CTCN, UNFCCC logos

**THIS PROJECT ADVANCES:**

**Thailand's Nationally Determined Contribution**

- Promote and strengthen integrated Water Resources Management (IWRM) practices
- Strengthen disaster risk reduction and reduce population's vulnerability to climate risk and extreme weather events
- Strengthen climate modelling capacity while promoting collaboration among relevant agencies
- Establish effective early warning system and enhance the adaptive capacity of national agencies

**SUSTAINABLE DEVELOPMENT GOALS**

3, 11, 13 icons

**What is climate technology?**

Any equipment, technology, practical knowledge or skills needed to reduce greenhouse gas emissions and/or adapt to climate change. This includes modern and traditional technologies.

**Learn more about CTCN**

Technology Transfer Hub: [www.ctcn.org](http://www.ctcn.org)

Learn more about CTCN: [www.unep.org/ctcn](https://www.unep.org/ctcn)

**THE STORY**

When a World Bank report on Climate Risk and Adaptation in Asian Coastal Megacities indicated that Bangkok must undertake proactive measures to address increased flooding risks as an integral part of urban planning, the Bangkok Metropolitan Administration asked the CTCN for assistance.

The CTCN drew on the technical expertise of the UNEP-DHI Centre on Water and the Environment and the guidance of Thailand's National Designated Entity to design an urban flood early warning system for a high risk catchment within the Bangkok Metro area. The initiative includes technology transfer, a demonstration programme and capacity building.

The warning system will provide:

- information on flood risk zones by means of web and mobile platforms
- empowerment of BMA staff with warning management skills and competences
- proposed methods to expand the system to a citywide warning platform
- dissemination of findings to other relevant cities and organizations in the region.

The CTCN gratefully acknowledges the support of:

Logos of funding partners: DANIDA, CHINA, USAID, UNFCCC, UNEP, UNIDO, UN Women, UN Women Australia, UN Women Canada, UN Women Denmark, UN Women France, UN Women Germany, UN Women India, UN Women Italy, UN Women Japan, UN Women Korea, UN Women Mexico, UN Women Netherlands, UN Women Norway, UN Women Poland, UN Women Sweden, UN Women Switzerland, UN Women Thailand, UN Women United Kingdom, UN Women United States of America, UN Women Viet Nam, UN Women Zambia, UN Women Zimbabwe.



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# CTCN Learning 1: Doing Technical and Scientific Cooperation for a Rio Convention requires vision and investment

## 1. Realistic Scale:

- CTCN 2017 budget is USD 23 million/year and a 10 person team is barely enough
- Operations at arms length of Secretariat helps be quick and technical
- Independent operative implementation partners are key
- USD 23M in new financing announced in UNFCCC COP22 in Nov 2016

## 2. No one can do it all:

- Breadth of expertise needed necessitates Consortium/Network of external scientific and technical providers
- Climate technology: 14 sectors, 3 cross cutting design considerations
- Biodiversity technologies: 20 Aichi targets?; X# of sectors?
- Therefore, engage CBD Scientific Consortium and others

## CTCN Experience 2: COP Mandate and institutionally is fundamental

- Active Advisory Board is essential to ensure ownership of the Parties, diversity and longevity of donor support, and strategic long term vision.
- Being the permanent UNFCCC Technology Mechanism is crucial for success (equivalent to CBD Article 8 on Technical and Scientific Cooperation – TSC).
- CBD should strengthen a Technical and Scientific Cooperation (TSC) Mechanism/Programme and not just an initiative for a limited time and funds.

# CTCN Learning 3: Align technical assistance with financing in service of Parties' priorities

## 1. Technical Assistance for project pipeline development:

- What: Feasibility studies; policy reform, cost benefit analysis, technology options, etc.
- Who: Development Banks, GCF, Adaptation Fund, Bilaterals



## 2. Technical Assistance for commercial readiness

- Business planning
- Financing forums with private investors
- Microfinance institutions



GREEN CLIMATE FUND

### 3) Align technical assistance with financing in service of Parties' priorities

Example: 5 of out 8 of the first approved GCF projects have a focus on Ecosystems, with a value of over USD100 Million

#### GCF Investment Priorities:

*Mitigation*

*Adaptation*

*Reduced emissions from*

*Increased resilience of*

5 ENERGY generation and access

2 AGRICULTURE

4 RESILIENCE OF SIDS

Buildings, cities, industries and appliances  
Transport

Livelihoods of people and communities

1 CITIES

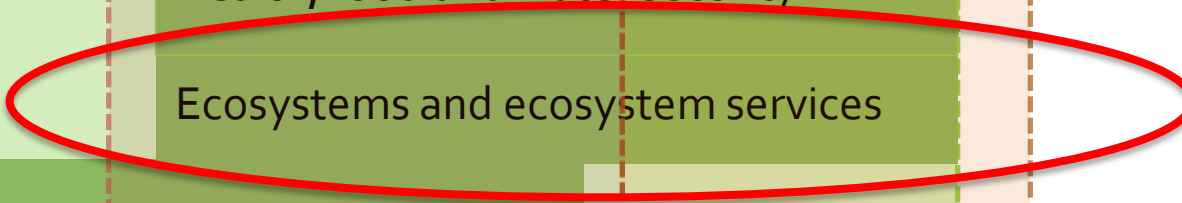
Infrastructure + built environment

3 FORESTRY

Health, food and water security

Ecosystems and ecosystem services

Forests and land use





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# Specific ideas for collaboration

1. Recognising ecosystem-oriented service delivery by both UNFCCC-CTCN and CBD-TSC
2. Co-convene workshop series on ecosystem based climate and biodiversity technology synergies
3. CBD-TSC engage in CTCN Annual Regional Forums
4. Sharing ecosystem-oriented Consortium/Network members
5. Align operative templates of UNFCCC-CTCN and CBD-TSC (TA Request, TA Response Plan, Network membership application, etc.)
6. SCBD-TSC participate together with UNFCCC-CTCN in UN Technology Working Group within Global Technology Facilitation Mechanism and consider creating sub-working group on ecosystems

# Thank you



CLIMATE TECHNOLOGY CENTRE & NETWORK



Norwegian Ministry  
of Foreign Affairs



European  
Commission

UDENRIGSMINISTERIET  
**DANIDA**

Canada



Ministry of the Environment



MINISTRY FOR FOREIGN  
AFFAIRS OF FINLAND



Comhshaol, Pobal agus Rialtas Áitiúil  
Environment, Community and Local Government



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

Government  
of Germany