

Introduction to the Climate Technology Centre and Network of the UNFCCC

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To promote the accelerated development and transfer of climate <u>technologies</u> at the request of developing countries for energyefficient, low-carbon and climate-resilient development



The CTCN, Anchored in the UNFCCC







CTCN core sectors



WITIGATION

Agriculture Energy Supply Forestry Industry Transport Waste Management

∂ ADAPTATION

Agriculture & Forestry Coastal Zones Early Warning & Environmental Assesment Human Health Infrastructure, Transport & Urban Design Marine & Fisheries Water CTCN Services: matching developing country needs for climate technologies with global expertise



1. Technical Assistance

- TA is the primary service offering of the CTCN
- Respond to requests from NDEs country driven approach

2. Capacity building & Knowledge Management

- Strengthen enabling environments
- Access vetted climate technology information

3. Network & Collaboration

- 450 Network members
- Competitive bidding for targeted implementation



The Climate Technology Centre and Network: Countrydriven technical assistance for climate technologies



"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, SENEGAL (CTCN NDE)



- The CTCN identify the right expert organizations in its network, depending on the needs and technology barrier identified
- Support span the technology cycle (research, identification, piloting, feasibility or financing of technology)
- Any organization from developing countries can express need (ministry, city, private company, research organization, etc.)
- Request must be in line with national priorities and signed by official focal point of the CTCN the National Designated Entity
- Design of assistance together with the applicant organization, can be done in a few months
- CTCN assistance can be implemented through GCF readiness programme
- Fast technical assistance from one expert also available



CTCN Technical Assistance: 4-step Process





Stakeholders from developing countries contact their NDE to request climate technology assistance. NDE confirms alignment of the request with national climate priorities and sends to CTCN. CTCN-led stakeholder collaboration on development of a TA Response Plan.

CTC selects Consortium or Network member to implement the technology solution.



CTCN Technical Assistance: over time



211 TA requests received

- Of 138 eligible & prioritized:
- 52 complete
- 39 under implementation
- 24 response design
- 23 under review

Focus:

- Regional, high-impact, transformational
- Fast TA (small) + GCF potential (large)





- Establishment of a laboratory for accreditation and quality control of photovoltaic modules in Algeria
- Technical assistance on the design and construction of a ground-based photovoltaic plant of 1MW rated capacity
- Accreditation of Energy Efficiency Lighting Laboratory in Jordan
- Strengthening capacity to access international financing for Jordan's climate technology priorities





- Technology Road Map for Palestine's Implementation of Climate Action Plans (INCR, NAP and NDC)
- Capacity building to gain expertise in efficient lighting systems in Tunisia
- The development of a standard for the utilization of digestate in agriculture (FTA)
- Development and enforcement of an efficient appliance strategy in Lebanon



CTCN Technical Assistance: Impact



 CTCN analysed its first 40 completed TA requests for review by AB task force in July

(12 more completed since May)

- Initial results encouraging
- Tighter TA M&E focus + lessons learned will lead to better communication of impact

Selection of key indicative findings on anticipated quantitative impacts from analysis of 40 completed technical assistance

- 130 workshops building the capacity of 2400 people across 160 institutions.
- Approximately \$700 million in anticipated investment brought about as a result of technical assistance activities.
- 51 projects implemented deploying 100 technology types as a result of 40 CTCN TA interventions completed.
- Estimated GHG emissions likely to be reduced or sequestered as a result of projects supported by technical assistance: 110 million tons of GHG emissions (CO₂e)
- Estimated number of people with improved livelihoods as a co-benefit resulting from technical assistance interventions: 85 million
- Approximately \$40 million in avoided costs.



UNFCCC Technology/Financial Mechanism Linkages discussion ongoing since 2015; strong decisions from COP21&22, resuming at COP24

GEF + recipient countries urged to explore with CTCN

- Ways to support technology through GEF6
- And new ways to support technical assistance

Country-level guidance (Marrakesh)

- Importance of strong collaboration between national GCF, GEF and technology focal points
- Developing countries invited to submit projects based on TNA + CTCN Technical Assistance to GCF
- NDA invited to use GCF Readiness funds to undertake technology needs assessments and implement technology action plans





• GCF B.14

- Decision 2.(c): Encourages NDA and focal points to access readiness support directly, or to collaborate with readiness delivery partners and accredited entities to submit readiness requests, concept notes, funding proposals and Project Preparation Facility proposals that will facilitate access to environmentally sound technologies...
- GCF B.18
 - Proposes a delivery partner work programme for the CTCN under the Readiness and Preparatory Support Programme
 - Letter of Agreement signed at COP23 outlines key areas for collaboration
 - Decision 3: Outlines support for collaborative RD&D
 - Terms of Reference outlining support for incubators and accelerators to be considered at next Board meeting in July 2018



Cooperation between the <u>Financial</u> (GCF) and <u>Technology</u> (CTCN) Mechanisms of the UNFCCC

CTCN CLIMATE TECHNOLOGY CENTRE & NETWORK





CTCN/GCF collaboration: Joint Letter signed at COP23 😒

- Continued collaboration on CTCN TA via GCF Readiness Programme
 - 5 proposals approved + pending
- COP23 Exchange of Letters between UN Environment – GCF:
- Collaboration through development of standardized modules for capacitybuilding, project formulation training, and technical assistance
 - 2. Demand-driven **GCF CTC coordination mechanism**
 - 3. Enhanced NDE NDA collaboration





- Article 10 of Paris Agreement (2015) calls for a Technology Framework supported by the Technology Mechanism
- Considered at upcoming UNFCCC Negotiation (May '18); decision at COP24 (December '18)
- Early identification of roles for CTCN:
 - Collaborative RD&D
 - Use of Network + NDE to engage private sector
 - Capacity Building
 - Support to NDE
 - Adoption of transformational approaches
 - Reporting on provision of support





COP Decision 1/CP21:

requests the Technology Executive Committee and the Climate Technology Centre and Network, in supporting the implementation of the [Paris] Agreement, to undertake further work relating to, inter alia:

(a) Technology research, development and demonstration;

(b) The development and enhancement of endogenous capacities and technologies;





Green Climate Fund Board decision B18/03:

requests the Secretariat to continue collaborating with the Technology Executive Committee of the UNFCCC and the Climate Technology Centre and Network, including in the implementation of this decision, to enable support for technology development and transfer for facilitating access to environmentally sound technologies and for collaborative research and development for developing countries;





Possible reactive activities (in response to country requests):

- Strengthening enabling frameworks (e.g. develop sector-specific innovation roadmaps; policies that incentivize investments in innovation; standards and certifications for emerging technologies; procurement guidelines)
- Strengthening capacity of "coordinating institutions"
- Developing innovation elements of funding proposals
- Engaging stakeholders (e.g. stimulate the linkages between government, academia, the private sector and research organization/institutions)
- Facilitating twinning arrangements between countries' research institutions on climate technology innovation



CTCN should not engage in the establishment, promotion, or operation of an incubator – accelerator programme.

CTCN could:

- Use its convening power to establish a network of incubators
- Draw and share lessons learnt from technical assistance
- Distil knowledge and information from the network: what is working what is not
- Provide support strengthen capacities of existing institutions
- Focus strongly on adaptation as it is more dependent on best practices, promotion of local solutions, and endogenous technologies



Other key strategic priorities



- 2018-2021 Programme of Work, w/ focus on:
 - Transformational impact
 - Regional requests
 - Maximizing use of resources
- Reorganization of CTCN
 - Regional basis
 - Single point of entry
- Implications for NDE
- Fast Technical Assistance
- GCF Vision to Concept
- Technology Clinics- Small and Medium Scale Enterprises





Some key priority technologies



Adaptation priorities

- Agro-meteorological forecasting systems for farmers and local decision-makers
- Small scale water delivery technologies for irrigation and domestic use
- Urban adaptation planning tools
- Hydro-dynamic modelling merging user need projections
- Data systems development in support of integrated coastal zone management for adaptation measures
- Monitoring systems and indicators for adaptation planning (local and national)
- GIS-based tools for water management

Mitigation priorities

- Minimum energy performance standards (MEPS) & energy labelling (in light of market creation)
- Industrial energy efficiency (EE)
- Electric grid stability and renewable energy (RE) penetration
- Policies, master plans and market assessments for RE and EE
- Building codes
- Planning for sustainable cities
- Waste-to-energy solutions in both agriculture and municipalities
- Low-carbon mobility
- Gender mainstreaming in energy access
- Circular economy: waste and industrial symbiosis (this topic may combine number 7 and 2)



- Secure our role in the Paris Agreement + raise profile outside the Convention
- Empower National Designated Entities among key climate focal points
- Optimize Consortium Partner services, build Network, leverage pro-bono \$
- Deepen engagement with existing and potential bilateral donors
- Formalize linkages with GCF, build on relationship with GEF
- Engage Regional Development Bank and technology centres
- Reinvigorate Private Sector Engagement Strategy
- Focus on key sectors + regional transformative interventions





Thank you



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Algeria: Technical assistance for the establishment of a laboratory for accreditation and quality control of photovoltaic modules



- Challenge / Request:
- As part of the national effort to deploy on large scale renewable energy by 2030. The Renewable Energies
 Development Centre (CDER) aims to implement certification, and control & monitoring of photovoltaic (PV)
 power modules and plants.
- Despite regulations, Algeria is lacking a domestic certification body that is capable of ensuring the control of PV modules sold or used in the plants. CTCN Response:





- One year technical response :
 - Assessment of the status of the CDER laboratory
 - Testing and certification laboratory set up and assistance
 - Development of solar PV module testing procedures
 - A Practically oriented training of PV testing procedures and visit to a specialized testing laboratory
 - A pilot run of the proposed Algerian PV module testing

Algeria: Technical assistance on the design and construction of a ground-based photovoltaic plant of 1MW rated capacity

- Challenge / Request:
- Technical assistance in the implementation process for photovoltaic technology, as to build up required expertise for the national program for the installation of 13GW of solar PV energy by 2030.
- To support the local team with experts for the design and construction of a pilot PV plant of 1 MW, with a particular focus on the following themes:
 - Full Technical Design
 - Procurement Phase

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- Identification of other issues
 CTCN Response:
- Initial concept design for the 1MW system
- Full Assistance plan that will support the project completion







Tunisia: Capacity building to gain expertise in efficient lighting systems



- Challenge / Request:
- The National Energy Management Agency is seeking capacity-building assistance for national experts, covering innovative, low –GHG-emissions lighting system technologies and design techniques
- To create a local pool of high level experts, thus, to create a favourable environment for other energy efficient lighting projects.





CTCN Response:

- Training materials for various programmes
- Training materials for trainers
- Delivery of training to at least 50 experts, who will then have the skills to train other experts in the sector



Tunisia: Fast Technical Assistance

Elaboration of a standard for the agricultural valorization of the digestate



- Challenge / Request:
- Even though the country has a legal framework for the renewable energies sector, the spread and usage of digestate is still missing regulation. This actively holds back the development of the anaerobic digestion technology.
- Technical Assistance is requested to elaborate a legal norm for the usage of digestate.
 CTCN Response:



 Provision of documentation and learning material concerning the implications of usage of biosolids in agricultural practices in order to develop guidelines on the basis of national consultative process.





Jordan: Capacity Building support to Prepare Project Proposal to access Funding



Challenge: Wide number of project ideas and concepts but no capacities to translate them into fully fledge proposals that can trigger funding

CTCN response:

- Feedback on project ideas
- Intensive 5 day theory- and practice-based training for 26 government and NGO participants to develop understanding of finance mechanisms and climate change project proposals development.
- Presentations of participants' work to Green Climate Fund (GCF) Accredited Entities, enabling valuable feedback and potential collaboration for official submission to the GCF.
- After the course, the course experts provided iterative feedback over a period of 5 months on the concept notes prepared by the groups.





Jordan: Accreditation of Energy Efficiency Lighting Laboratory



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Challenge:

- The national lighting laboratory tests the performance requirements and energy efficiency ٠ for different types of lamps to ensure the quality of lighting products entering into the Jordanian market
- The laboratory needs international accreditation to ensure results are reliable and trusted ٠

Requested CTCN Response

- Assistance in the participation of Proficiency Tests
- Professional Guidance and training on measurement uncertainty ٠ verification of test methods
- Training test methods, lighting standards and regulations





Palestine: Technology Road Map for Palestine's CTCN Implementation of Climate Action Plans (GCF Readiness)

Challenge / Request:

- Palestine has identified a number of technology needs to implement its climate efforts
- In order to support the efforts, there is a need for a Technology Road Map for the Implementation of Climate Action Plans.

CTCN Response:

Gender responsive Technology Road Map for the implementation of Climate Action Plans (INCR, NAP and NDC) by the State of Palestine





Lebanon: Development and enforcement of an efficient appliance strategy in Lebanon





Challenge / Request:

- The electricity sector's inability to respond to the increasing demand causes environmental and economic problems
- Lebanese end-users are forced to rely on diesel generators to overcome electricity shortages

CTCN Assistance:



- Support the development of a strategy for standards and labels
- Support implementation and enforcement of MEPs
- Assist in developing a financial mechanism for the deployment of high energy efficient equipment
- Awareness raising for end-users

