Regional priorities and opportunities for national development of climate technologies

Green Technology Investments and Access to Sustainable Financing in the Arab Region
4-6 March 2019, Beirut, Lebanon
Regional mitigation priorities from NDCs
Regional adaptation priorities from NDCs

- Agriculture and forestry
- Water
- Infrastructure and Urban Planning
- Early Warning and Environmental Assessment
- Human Health
- Coastal zones
- Marine and Fisheries
- Others

Legend:
- Only mentioned
- Prioritized with Technology
Regional mitigation priorities from NDCs

Renewable energy technologies

- Solar Power
- Wind Energy
- Biomass energy
- Hydropower
- Natural Gas
- Biogas
- Solar Water Heating
- Thermal Energy
- Off-Grid Solar PV
- Biofuel

Energy efficiency technologies

- Energy Efficiency in the Energy Sector
- Industrial Energy Efficiency
- Energy Efficient Appliances
- Energy Efficient Lighting
- Energy Efficient Air Conditioning
- Energy Efficient Cooking
- Education on Energy Efficiency
- Improvement of Electricity Grid
- Energy Efficiency in Buildings
Regional mitigation priorities from NDCs

Technologies for waste

Technologies in industry
Regional adaptation priorities from NDCs

Technologies for water management

- Sustainable and Integrated Water Management
- Water Resource Management
- Rainwater and Groundwater Harvesting and Storage Technologies
- Wastewater Treatment
- Water Supply Infrastructure
- Irrigation Systems
- Construction of Dams and Wells
- Artificial Groundwater Recharge
- Rural Water Supply
- Water and Water Catch...Man...
Regional adaptation priorities from NDCs

Technologies for agriculture

Conservation, Sustainable and Climate Smart Agriculture Practices

Crop Management Practices

Agro-Forestry

Improved and Resilient Lifestock Production and Management

Food and Feed Processing and Conservation Technologies for Food Security

Forestry Practices

Restoration, Rehabilitation and Reclamation of Degraded Land

Afforestation and Reforestation

Soil Management Practices

Agricultural Research

Livestock Feeding Programmes

Past Management

Crop and Livestock Insurance

Indigenous and Native Vegetation
Regional adaptation priorities from NDCs

Technologies for early warning and disaster management

- Climate Monitoring and Early Warning Systems
- Vulnerability and Risk Assessments
- Disaster Risk Reduction
- Early Warning Systems in Agriculture
- Fire Management
Technology support to achieve mitigation targets

**Solar technologies**
- Deployment of solar energy technology in Togo’s rural areas
- Sustainable domestic water pumping using solar photovoltaic in Tanzania

**Wind technologies**
- Feasibility study and development of action plan to promote manufacture of components of small power turbines and implementation of pilot project in Benin

**Waste technologies**
- Waste heat recovery combined with mineral carbon capture and utilization in cement industry of South Africa
- Bio-waste minimization and valorisation for low carbon production in rice sector in Vietnam
- Development of anaerobic digester technology for palm oil EFB waste in Indonesia
- Feasibility study to use waste as fuel for cement factories in Mozambique

**Industry technologies**
- Support the replacement of F-refrigerants used in refrigeration system in food processing production and exports (fruits and vegetables) in Chile
- Pilot demonstration of ECSO model for GHG emission reduction in the cement sector in Vietnam
- Benchmarking energy and GHG intensity in metal industry in Thailand
Technology support to achieve adaptation targets

Water technologies:
- Transformative water harvesting plan in Namibia
- Research and business approaches for low cost technologies for sustainable water service delivery in Kenya
- Determination and evaluation of river basin management and environmental flow of the Tebicuary river priority basin in Paraguay

Coastal zones
- Identification, characterization and exploitation of potential offshore sand deposits in Mauritius
- Integrated river and coastal management in Jakarta, Indonesia

Agriculture technologies
- Development of a climate-smart agriculture manual for education in Zimbabwe
- Piloting agro-meteorological information system for producers to adapt to climate change effects in Benin
- Formulation of a national agroforestry policy in Nepal
- Capacity building for technology for efficient use of resources in agricultural sector of Thailand

Early warning and disaster management
- Early drought warning and forecasting for climate variability in agriculture in Ghana
- Assessment of flood mitigation measures in Tbilisi based on review flow analysis and climate projections in Georgia
- Community based early warning system through phones in Santo Domingo, Dominican Republic

Nexus approach water / energy
- Piloting industrial energy efficiency and efficient water utilisation in selected sectors of Zimbabwe
- Water-energy efficiency and self generation plant in Solomon Island
In the region, the CTCN has been supporting the following countries:

- **Iraq** Technical guidance and support for conducting Technology Needs Assessment
- **Jordan** Capacity building in prepare project proposal to access funding + Support the accreditation of JSMO Energy Efficiency Lighting Laboratory
- **Lebanon** Development and enforcement of an efficient appliance strategy
- **Palestine** Technology road map for the implementation of climate action plans (INCR, NAP and NDC)
- **Tunisia** Capacity building to gain expertise in efficient lighting systems
Opportunities for support to technology deployment

The CTCN is available to countries to support scale up of the technologies identifies in climate objectives:

- **Fast Technical Assistance**: international expert advice (remotely or through short mission in country)
- **Technical Assistance**: 6 months to a year, from Consortium and network members, assistance worth max USD 250,000
- **Technical Assistance through GCF Readiness**: Support to the country to access GCF readiness funds (Max $1M/country/year.)
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.

Possibility of multi-country request for common needs or transboundary issues.
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 prepares TORs to select the international expert in collaboration with the NDE and with the requesting organization.

CTC selects independent expert who will implement the assistance.
CTCN Regular Technical Assistance Process

1. Developing countries contact their NDE to request climate technology assistance.

2. NDE confirms alignment of the request with national climate priorities and sends to CTCN.

3. CTCN-led stakeholder collaboration on development of a TA Response Plan.

4. CTC selects Consortium or Network member to implement the technology solution.
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 that forms the basis for the GCF Readiness proposal.

GCF Secretariat approves Readiness proposal.

CTC selects Consortium or Network member to implement the GCF Readiness proposal.

GCF disbursement of funds prior to CTCN engagement with winner of bid process.
Opportunities in the region

• 7 network members based in the region, from Egypt, Iraq, Palestine, Sudan, Tunisia, UAE
• Private companies, public sector, non-governmental and academic institutions
• Expertise in renewable energy, energy efficiency, waste management, industry, agriculture, forestry, water, infrastructure and urban planning, early warning and environmental assessment, coastal zones
Experience from the Region

- **Palestine** Technology road map for the implementation of climate action plans (INCR, NAP and NDC)

- **Tunisia** Capacity building to gain expertise in efficient lighting systems
Guiding questions

- How do you coordinate and prioritize at country level to seek financial and technical assistance and to agree on pipeline of climate projects?
- What has prevented your countries from seeking support from the CTCN to reach your climate targets?
- What are the priority needs related to climate technologies that you would need support on?