

## ArmCTCN: Concept Note

### Background and context

Under the United Nations Framework Convention on Climate Change (UN FCCC), core documents developed at the national level of the Republic of Armenia highlighted importance for the establishment of the Armenia Climate Technology Center and Network (ArmCTCN).

- a. The need and expediency of the establishment of the Armenian Climate Technology Center (ArmCTCN) is set out in the Third National Communication on Climate Change developed and submitted to UNFCCC Secretariat in 2015.
- b. Armenia submitted its Intended Nationally Determined Contribution (INDC) in September 2015, where technology transfer is outlined as a contribution to the INDC, and the establishment of climate technology knowledge platform (working title “ArmCTCN”) is listed as a mechanism to ensure an “open and transparent system of technology introduction and transfer”.
- c. A proposal to establish a “Centre for Climate Technologies” was also included in Armenia’s Technology Needs Assessment developed in 2017, and priority sectors and technologies for adaptation and mitigation have been identified in the Technology Action Plan.

### ArmCTCN: overall mission and mandate:

The overall *mission* of ArmCTCN is to promote environmentally sound technologies for climate change mitigation and adaptation, which could be accelerated, diversified and scaled up.

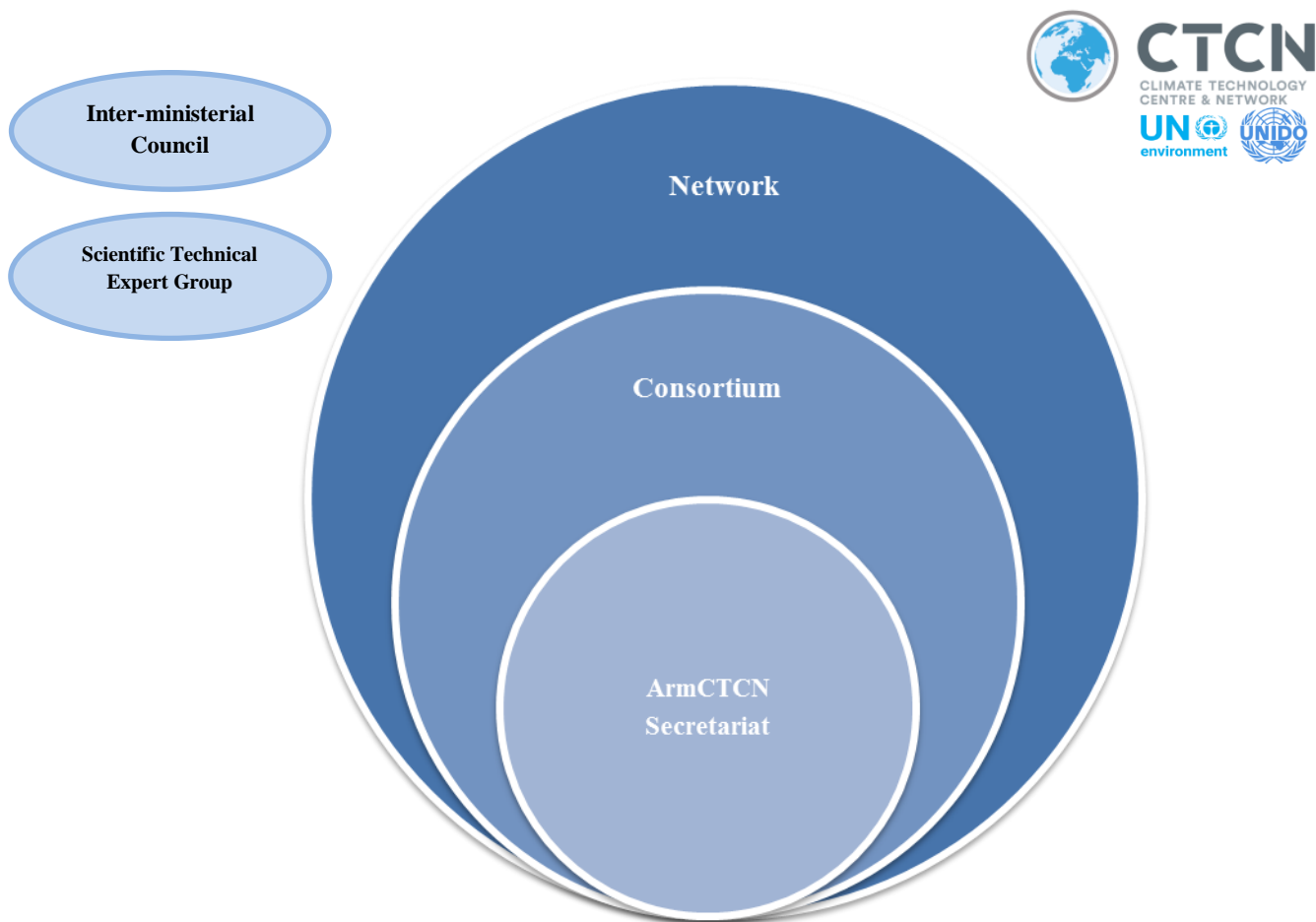
It will serve as a climate technology platform that facilitates the accelerated transfer of environmentally sound technologies developed in Armenia for low carbon and climate resilient development and introducing it worldwide, as well as transfer of innovative technologies to Armenia.

Particularly, ArmCTCN will:

- a. Serve as an *institutional platform* for providing *technical and expert assistance* on identification and transfer of climate technologies and their application in different sectors including an analysis of their economic viability;
- b. Serve as a platform for *transfer of new knowledge* on the environment and climate change, information exchange and educational/training activities involving universities, R&D and qualified experts;

- c. Serve as an *institutional mechanism* to overcome barriers for the introduction of innovative technologies for climate change mitigation and adaptation, including strengthening the system of legal protection of intellectual property right.
- d. Initiate the organization of a *Consortium* involving partners in Armenia (universities, Technology Transfer Association, NGOs, R&Ds);
- e. Initiate the organization of a *Web-portal* as a permanent virtual playground for sharing new knowledge, R&Ds on climate changes and best available climate technologies;
- f. Develop a *Climate Technology "Roadmap"*. It will promote continuous selection and implementation of modern and accessible technologies in Armenia, on the examples of several selected mitigation and adaptation projects, including those identified under TNA programme.
- g. Serve as a *national technological mechanism (ArmCTCN)* for cooperation and experience exchange with the international Climate Technology Centre and Network (CTCN) ensuring an open and transparent system of technology transfer of the Republic of Armenia.

❖ **ArmCTCN structure:**



The ArmCTCN is established through a memorandum between relevant scientific, academic, and other institutions. The Armenian Technology Transfer Association (TTA) will initially host the platform and act as ARMCTCN Secretariat, while development of a web portal will ensure a timely exchange of information on technologies between its members and access to it for all interested parties within Armenia, and globally. It will move forward the technologies that have been prioritized during the TNA process in Armenia, including 6 adaptation and 14 mitigation technologies. (<https://drive.google.com/open?id=1lkn3ri7nK2mTYWStMhjgdeXnEGn3HNNF>)

In addition to these (6+14) technologies, ArmCTCN will act as a search engine for and identification of the best new available climate technologies.

ArmCTCN will support to clarify, assess and set priorities in respect of available tools for adaptation and mitigation of climate change using novel information-communication technologies in the field of environmental monitoring.

#### **Inter-ministerial Council:**

The Inter-ministerial Coordination Council has been established under the Prime Minister's Decree to comply with the requirements and provisions of the United Nations Framework Convention on Climate Change (UNFCCC).

The Inter-ministerial Council, through its Working Group, supports ArmCTCN as a national capacity building for technology development and transfer.

#### **Inter-ministerial Council Working Group:**

The main goal of the Working Group is to provide thematic counselling and support to the Inter-ministerial Council on the implementation of the requirements and provisions of the United Nations Framework Convention on Climate Change.

The Republic of Armenia has Inter-ministerial Climate Change working group. This working body consists of Scientific and Technical Experts, which should simultaneously work and establish a link between ArmCTCN and Inter-ministerial Council.

The main tasks are to provide professional and expert support to the development and implementation processes of the implementation of the commitments undertaken by the Republic of Armenia from the Convention and the protocols adopted in its framework and in the following areas:

- Climate Change Mitigation and Adaptation strategic documentation, project development and professional opinion formation
- development of national capabilities in technology development and transfer
- financing and financial mechanisms
- Armenia's effective participation in the bodies acting and forming under the Convention
- information security, the inventory of the greenhouse gas cadastre, the climatic system observations and the intergovernmental panel on Climate Change Experts
- coordination of issues that arise with other environmental conventions
- awareness, education and training

## **Scientific and Technical Expert Group (STEG):**

The STEG will provide:

- objective, strategic scientific and technical advice,
- operational strategies and programs on projects approaches.
- interact with other relevant scientific and technical bodies, particularly with the subsidiary bodies of the UNFCCC

## **Financial mechanisms of ArmCTCN**

- ArmCTCN received initial support from CTCN in the form of the Technical Assistance aimed at establishing ArmCTCN platform and promoting Climate Change Mitigation and Adaptation Technologies.
- ArmCTCN funding will be based on multilateral and private sources, organizations as well as partial public funding that will encourage private investor involvement.
- ArmCTCN will be supported by financial resources received as charges for technical and expert services rendered to business entities.
- Financial management of ArmCTCN will be done by ArmCTCN Secretariat.
- ArmCTCN will make the preliminary technical assessment of the pilot projects, and provide the brokering services by linking it to financial schemes.

## **Typical sources of initial capital investment**

- Private Grants
- Corporate Social Responsibility
- Government Subsidies
- Multilateral Programs
- Non-Governmental Organizations Financing Mechanism
- In-kind Financing

## **Development perspectives and future of ArmCTCN**

- Integrate financial and technological tools (mechanisms) aimed at climate change mitigation and adaptation to climate changes defined by the Paris Agreement and the INDC of the Republic of Armenia;
- Consistently develop and strengthen the technological and financial capacities of members of the Consortium,
- Support enhancing transparency through the establishment of national Measuring Reporting and Verification (MRV) system.

- Creating partnerships with national and international partners for climate technology transfer. Promoting Armenia's position in the field of technology transfer in the region.
- Support developing different projects, based on PPP models, including eco-industrial parks, technological engineering clusters, etc.

### **Consortium**

Consortium is embracing the Armenian stakeholders providing them an opportunity to incubate /accelerate climate technologies by accessing the international and local funds/stakeholders, and carrying out their transfer through the Climate Technology Centre and Network (CTCN).

Consortium member may have his own roster of experts, which provides the implementation of his functions.

- Consortium will act with the participation and technical assistance of UNIDO given its global experience addressing climate change technologies, accumulated technical expertise.
- Coordinator of the Consortium is the Technology Transfer Association (TTA), Armenia. UNIDO will facilitate TTA in providing technical assessments, including transfer and deployment of technologies, industrial and private sector and civil society organizations engagement, etc.
- Secretariat of the Consortium will ensure the documents flows within the Consortium and with external entities.
- Thematic Working Groups will ensure the activity of Consortium in various fields, such as, projects/technologies reviewing, market potential assessment, training/education of Portfolio companies entrepreneurs, etc.
- The Consortium Members Conference could be held in case of necessity of discussion issue concerning the consortium development.

Consortium core activities:

- Serving as a platform for providing technical assistance on identification and transfer of climate technologies and their implementation in different sectors of economy.
- Serving as a platform for information sharing, knowledge transfer, educational/training activities, establishing the links to universities and R&Ds with the industry.
- Finding ways/options to co-finance and facilitate access to international donor organizations.

## **Membership to Consortium**

Consortium members are selected through a consensus process.

Procedure for adding a new member of the Consortium:

- Organization submits completed Membership Application to the Secretariat of the Consortium.
- The Secretariat of the Consortium sends over the Membership Application to Consortium Members for their review, and assigned a Consortium Members' meeting for making decision on the application.
- If in the result of the Consortium Members' meeting, with possible invitation of representative(s) of applicant, none of the Members will have any objection, then a standard Membership Agreement will be signed with the applicant.
  - Membership can be legal entities, such as companies, academic research institutions, educational institutions, NGOs, organizations.
  - Consortium Member should participate, at least, in one of the activities mentioned in ArmCTCN services.
  - The projects / technologies presented by the Members of the Consortium should be considered for incubation / acceleration as a matter of priority.
  - Members should participate at the preparation of internal regulatory documents, such as, Procedure of reviewing the submitted projects/technologies, Assignment of the Consortium's share in Portfolio companies, IP protection, Consortium Structure including the Thematic Working Groups, etc.
  - Members of the network must be open for cooperation. The services and cooperation proposals they offer should not be contrary to the goals and objectives of ArmCTCN.
  - Network members commit themselves to respect each other's copyright.
  - Membership can be withdrawn arbitrarily by Member's will.

## **Membership to Network**

Members of the Network are expected to include a broad variety of different types of institutions ranging from regional climate technology centres and networks to intergovernmental, international, regional and sectoral organisations, partnerships and initiatives that could contribute to technology deployment and transfer. Also included could be research, academic, financial, non-governmental, private-sector and public-sector organisations, and partnerships.

Feasibility criteria of network membership:

- Capacity building and knowledge management capabilities
- Experience with relevant phases of technology development and transfer in developing countries
- Ability to provide objective and neutral support to developing countries and to be responsive to country needs,

- Ability to provide high quality technical assistance and capacity building services.

### **Providing professional support to enterprises for partnership and business opportunities**

During several discussions it was agreed that green ITPO model could serve as a framework for the activities of ArmCTCN. By this time, ArmCTCN will attract a number of potential native investors and possess the information on ready to implementation priority climate technologies.

Within the respective expert community, ArmCTCN will select 2 – 3 experts specializing in the investment cycles relating to the promotion of climate technologies from the project identification to the assessment of its efficiency and effectiveness. In doing so, climate ITPO will offer a full package of up-to-date information on screened and validated investment opportunities, including manufacturing facilities, and technology supply sources. ITPO also provide first-hand knowledge (expert`s support) on how to do business relating to the implementation of climate technologies in local environments, including legal and economic aspects.

### **ArmCTCN role in operating the ITPO Delegate program for investment and climate technology promotion**

Within this special program, ArmCTCN as a **climate ITPO** provide reimbursable assistance (consulting) services to potential experts from transboundary countries and Asian countries to give them hands-on training in target climate investment promotion techniques so that delegates are able to promote portfolios of screened investment and technology opportunities from their own countries. Thereafter, a number of ArmCTCN-trained experts act as focal points between their countries and potential foreign partners (in the field: climate technology transfer, investment support, business-to-business according to main UNIDO trends – ISID, GI, RECP, Circular Economy, incl. Green Economy, etc.).

### **ITPO functions and scope of activities at ArmCTCN**

There are no established frameworks and structural standards in countries where ITPOs are established. Furthermore, no special climate ITPOs are currently developed within the frames of UNIDO. Taking into consideration the importance of climate change mitigation and adaptation objectives, ArmCTCN can become the first ITPO oriented towards the promotion of climate technologies. ArmCTCN as a climate ITPO chooses the most convenient form of work, not necessarily acting as a legal entity.

The main criteria are:

- the professional staff related to UNIDO;
- trained activities dealt with by ITPO,
- the presence of Governmental support;
- at least one or two stable source (donors) targeting investment promotion in the field of climate technologies.

### **What benefits can get ArmCTCN from ITPOs experience**

Since its inception, ArmCTCN as a climate ITPO could be guided by the principles and rules of the ITPOs. First of all, ArmCTCN through the common mechanism of ITPOs small projects becomes an attractive framework for other organizations. These concerns newly created Consortium members, as they are attached to work in UNIDO area and representatives of the Consortium within the framework of the project become UNIDO experts.

- Such an approach may be of interest to all participants in the Consortium without exception. Especially it can be interesting for universities as members of the Consortium.
- Firstly, young scientists and specialists can find a useful and prestigious job in the country and thus they may be encouraged not to look for a work abroad. This is a real measure to prevent the outflow of valuable human resources from Armenia, and the Government may support these efforts on the part of ArmCTCN.
- Secondly, this project could facilitate the return mechanism back into Armenia earlier departed from country scientists and specialists. Bringing Armenian scholars and professionals from abroad will be associated with the transfer of appropriate climate technologies for mitigation and adaptation of the developing of Armenian industry to climate changes. From abroad attracted by the Armenian specialists and scientists will receive high status of UNIDO international experts, worldwide prestigious field of activity relating to climate, quality work in their native country.

### **Streams of the work of ArmCTCN**

- Department for training experts and consultants through collaboration with universities, in which short-and medium-term will be organized refresher courses in the field of eco-dynamics (changes in the “nature-society” system) and climate technologies for climate change adaptation/mitigation;



- R & D sector, including cooperation with the Committee on Science of the Republic of Armenia for the coordination in the execution of development work in the field of advanced climate technologies;
- Technical panel on information storage for advanced climate technologies transfer;
- Virtual playground in conjunction with the web-site for awareness raising and to help Government to develop a policy according to the main UNIDO trends;
- Financial advising sector for investment promotion and cooperation with donors;
- Sector of monitoring and assessment of the effectiveness of those or other proposed climate technologies for mitigation and adaptation.

**Expected end-of-project situation:**

Sustainable Centre capable of providing the services to the region with the onset of sustainability after 3 years:

- Bring the earnings through implementation of joint project activities with potential clients to a level, which will cover the running costs of the Centre;
- Take a stake in other profit making organizations in the area of the waste management utilizing donor`s fund;
- Acquire production facilities for profit making activities in the areas of waste management and channel the revenues from commercial activities to support the Centre;
- Foster intellectual property (know-how and new technologies) and use it to promote new projects;
- Respond to local needs using TNA-methodology and technology support through its partner organizations (consortium and network).
- Create an innovation venture foundation from the attracted investments and project contributions;
- Ensure state contracts on a permanent basis.