

UNEP Evaluation Highlights

An evaluation case study of the Climate Technology Centre and Network (CTCN) was on one hand requested by the European Commission, one the of the co-financiers of the CTCN. On the other hand, it is part of a larger evaluation effort by the UNEP Evaluation Office. The purpose of the assessment of the CTCN is to measure results to date (accountability), and to generate lessons and recommendations to improve the performance of the Centre and Network (learning). The case study was carried out from September to February 2016.

The conclusions, lessons learned, and recommendations of the evaluation are presented here.

1.1 Conclusions

94. Because the official launch of the CTCN was delayed from July 2013 to December 2013, it is fair to say that the CTCN is just approaching the end of its second year of operations. In this period of time, the Centre has managed to set up a number of regional offices, established several networks of stakeholders and cooperation partners and leverage and approve a significant flow of Technical Assistance requests.
95. This case study has been completed in January 2016. It includes the results of the NDE electronic survey, and some more information from key informant interviews. A more detailed assessment will follow with the Joint mid-term evaluation, but some preliminary lessons and recommendations can be formulated at this point.
96. CTCN plays an important role in developing and managing relationships with the actors involved in the Climate Technology cycle. So far, CTCN is successful in incorporating them on global level in the network and on national level in the implementation of the response projects.
97. In spite of the satisfaction with the work of the CTCN Secretariat so far, the following results from the e-survey and the key informant interviews indicate that a few topics merit further investigation:
 - a) with regards to the role of NDE in developed countries and the flow of information:
 - How can NDE in developed countries be -engaged more deeply?
 - How can NDE in developed countries be kept in the loop between Secretariat and NDE in developing countries?
 - How can the NDE in developed countries support the NDE in developing countries?
 - b) concerning the increased **integration of small and medium-sized enterprises in outreach**
 - How can the needs of the small and medium-sized companies be addressed?
 - How can reliable private sector involvement be fostered especially in workshops that take place in developed countries?
 - c) in terms of the **reception of the technology library**:
 - How is the technology library taken up and looked upon?
 - How can it be enlarged to achieve optimal results?
 - d) **donor perspective on CTCN**
 - Why did the CTCN donor basis not expand over the last years?
 - Why do donors only contribute marginally or not at all?
 - How can budgetary procedures be made more transparent?
 - How can GEF support CTCN as a lasting financier?

e) **financing of Technology Transfer projects:**

- What is the role of CTCN in terms of identifying and securing finance for TT projects
- When does the Global Climate Fund come in?
- Is CTCN able to potentially support the cap of support for large-scale bankable projects?

f) with regard to the **impact of both host organizations?**

- What value are UNEP and UNIDO adding?
- How do their regional offices support the Network and CTCN activities?

98. Before we look at the forthcoming recommendations that aim at enhancing the quality of services provided, Table 1: Evaluation Ratings gives an overview of performance at this early stage.

Table 1: Evaluation Ratings

Criterion	Summary Assessment	Rating
A. Strategic relevance	The implementation arm of the Technology Mechanism fulfills the mandate of the UNFCCC to provide capacity building and Technical Assistance services in the crucial area of Technology Transfer. Its current scope of activities already goes significantly beyond the scope formulated in the project documentation and provides a valuable contribution to the stated outcome of the umbrella project. CTCN's key services are in line with ENRTP SCA's overarching communication objectives of showcasing and promoting successful results and SCA-specific governance arrangements and quality assurance processes.	Satisfactory
B. Achievement of outputs	Since the actual start of the CTCN in December 2013, the project has reached many of its targets. It managed to establish and sustain a lean and smoothly running core centre. The Technical Assistance request and response plan process is meanwhile for the most part operating as drawn up. With the number of requests from LDCs being less than planned, CTC launched an LDC Response Incubator Programme to accelerate responses. In terms of outreach, networking and stakeholder engagement, the planned milestones were achieved, some activities even surpassing the projections, e.g. the number of Network partners has grown to almost twice the target. The activities in knowledge management, peer learning and capacity building are also developing as predicted. CTCN successfully refines and re-forecasts activities through a five year Programme of Work that is reviewed by the CTCN Advisory Board on an annual basis.	Satisfactory
C. Effectiveness: Attainment of project objectives and results		Satisfactory
1. Achievement of direct outcomes	The immediate outcomes were attained.	Satisfactory
2. Likelihood of impact	There is the risk that Technology Transfer will only take place through investments in projects subsequent to the response plans given by CTCN. NDE capacity is critical for that. CTCN attempts to minimize the risk through the project implementation finance of response projects up to a maximum of US\$ 250.000 and partly through collaboration with development banks and donors in the regional fora that took place in 2015 as well as capacity building to the NDEs. The likelihood of the impact is difficult to assess, as the implementation of the larger projects just started and Technology Transfer is a long-term effort. It will be higher for smaller and better defined projects and lower for longer, lumpier or otherwise riskier projects.	Not yet assessable

Criterion	Summary Assessment	Rating
3. Achievement of project goal and planned objectives	The project has started all its planned activities and is under way to achieve its predicted outputs and outcomes, though some activities need more time than foreseen. However, the milestones of all 3 key CTCN services were achieved. In the case of Technical Assistance, only later than planned.	Satisfactory
D. Sustainability and replication	The following entries are observations that do not have the character of a final assessment, as none of the components is implemented sufficiently that sustainability and replication could be meaningfully assessed.	Satisfactory
1. Financial	Replicating Technology Transfer generally is expected to enlarge the market for certain low-carbon technologies, lead to growth opportunities for technology and service providers and accelerate the learning curve effects in terms of costs and technological maturity with the aim of deploying EST in countries faster and at lower cost through replication. CTCN has a twofold funding problem: 1) the funding of the CTCN itself is based on voluntary Party contributions, which leads to a situation in which the CTCN Secretariat is in a constant mode of fundraising, compounding the demands on staff' time and worsening existing limitations; and 2) not all response projects that are approved by CTCN can be funded in the phase of implementation, because CTCN is not a Financial mechanism. Requests that target higher financial investments than 250.000 US\$ cannot be processed by the CTCN.	Moderately Unsatisfactory
2. Socio-political	Generally spoken, the deployment of new technologies in mitigation and adaptation has the additional benefits of employment generation and the additional beneficial potential of alleviating poverty and promoting gender. Stakeholder priorities and needs are assessed through stakeholder analysis in the Workshops incorporated into the response plans. However, there is no indication that gender analysis were carried out and that gender implications matter. Although taking into consideration the later aspects within the regional workshops, proofs of the beneficial impacts cannot be given as the implementation of projects has just started.	Moderately Unsatisfactory
3. Institutional framework	The knowledge management system is established and offers to Consortium and Network Members and the general public an organized, primarily web-based structure for collecting, analysing and disseminating information, products and services on Technology Transfer.	Satisfactory
4. Environmental	CTCN does not limit itself to environmental policy planning, but pushes the implementation of projects, encompassing both mitigation and adaptation.	Satisfactory
5. Catalytic role and replication	The active knowledge management of CTC is operating and supports the replication across countries. KMS and M&E rely on electronic data and information exchanges. This can leverage efficiency and effectiveness in data management, archiving as well as data retrieval if managed properly and with the appropriate resource input from the side of the NDE.	Satisfactory
E. Efficiency	The financial expenditures are mostly in line with the planned expenditures except for the Technical Assistance areas that are CTCN proves to be very efficient on the Technical Assistance and especially the response-request process and in particular the useful advice prior to the submission of the technical responses.	Satisfactory
F. Factors affecting project performance		Satisfactory

Criterion	Summary Assessment	Rating
1. Preparation and readiness	The project document sometimes lacks specificity and remains rather vague in many respects. For example, stakeholder analysis and gender analysis remain generic by necessity and are neither broken down to regional or country level nor to different stakeholder groups. Strong aspects of the project design are its very strong focus on government capacity building.	Moderately unsatisfactory
2. Project implementation and management	The functioning of CTCN relies heavily on the NDE. The inability of NDE to carry out their functions is a critical factor of success, which was already identified in the Prodoc. Therefore, CTCN offers since its first year of existence in-person regional trainings and networking events to support the NDE and other key stakeholders. To overcome this bottleneck the Project Management additionally installed an Incubator Programme apart from the on-going activities of capacity building and knowledge management. There has been some evidence that this further assistance has worked. For instance, requests from LDCs have been mainly generated following the establishment of the incubator programme.	Moderately Satisfactory
3. Stakeholders participation and public awareness	CTCN constantly cooperates with its stakeholders while seeking new opportunities of partnership. Therefore, the National Renewable Energy Laboratory (NREL) led the initial design and development of the CTCN knowledge management system (KMS) with input from other CTCN Consortium partners. To facilitate exchange of information, for instance, KMS use an open source platform that enables the exchange of web-based resources between climate technology organizations, including e.g. the World Bank's Climate Smart Planning Platform CTCN also partnered with REEP to develop a climate tagger to help organizations to streamline and catalogue their data and information resources.	Satisfactory
4. Country ownership and driven-ness	CTCN is acting upon local and national ownership and country driven needs that are expressed to it by a National Designated Entity (NDE). The establishment of an NDE by a Party to the UNFCCC is a necessary step for participation in the CTCN process. NDE act as intermediaries between relevant national stakeholders and CTCN. The functioning of CTCN relies heavily on the NDE.	Satisfactory
5. Financial planning and management	The current budget and expenditures up to the end of October 2015 illustrates that the expenditures for most components as well as CTCN operations are comparatively well in line with the planned expenditures. Expenditures for Technical Assistance are commensurate with the development of the project pipeline and remain significantly below planned figures even as the total number of requests approaches the planned figures.	Satisfactory
6. UNEP supervision and backstopping	CTCN works closely together with its host organizations, UNEP and UNIDO in terms of strategic alignment as well as daily operations.	Satisfactory
7. Monitoring and evaluation		Satisfactory
a. M&E Design	Monitoring and Evaluation procedures were designed to be installed by CTC and reviewed by the Advisory Board. Apart from that, no further information is provided in the Project Document, nor is a budget outlined for M&E positions or activities	Unsatisfactory
b. Budgeting and funding for M&E activities	In the initial five-year budget of the Project Document the costs for M&E were included under CTCN establishment and operation costs. The project management adjusted that and M&E became an own budgeted component of Activity C, Knowledge management, Peer Learning and Capacity Building.	Satisfactory

Criterion	Summary Assessment	Rating
c. M&E Plan Implementation	The Project Management reacted to deficiencies in the project design and defined and worked out M&E for its 3 key services, as well as reporting procedures for the donors. The different reporting to different donors is time consuming and might even create confusion or misunderstanding.	Satisfactory
Overall project rating		Satisfactory

1.2 Lessons Learned

Lesson 1. Solving the challenge of thematically and geographically diverse capacity building and knowledge transfer requires a large network of diverse and competent partners.

99. Compared to its competitors for the implementation arm of the Technology Mechanism, the Joint UNEP/UNIDO project probably provided the most comprehensive network in terms of technical competencies and geographic balance. While these two agencies are already specialized in Technical Assistance and global knowledge transfer, they are supported by two networks – the Consortium and the Network – with broad and in-depth technical competence. They are also working towards consistent expansion of the Network. This is necessary to address the challenge posed by Technology Transfer in the Convention, and while the system might have weaknesses in the area of linking with private sector technology providers and financiers, its breadth of coverage is difficult to match.

Lesson 2. Do not underestimate the time it takes from MOUs to operationalization of a mechanism.

100. Due to the network structure, the contractual arrangements are complicated and still not fully completed – the PCA with at least one Consortium partner is still not completed. Staff recruitment processes take on average a year, even if staff is mainly recruited from within the organization. The time it takes to set up and operationalize such a mechanism should not be underestimated. The process from setting up the mechanism to its mature state in which it will receive a steady flow of requests will take several years longer.

Lesson 3. Lean operations are the ideal and facilitated by ICT but it is a constant challenge to maintain the leanness.

101. The CTCN is working in a globally distributed manner, and this is effectively supported by the consistent use of information and communication technology (ICT). This could potentially enable very efficient project management. However, the promise of a “lean and mean” request process is not easy to fulfil. An illustration of this is the request form. Originally meant to be extremely lean and short, 1-2 pages, it has already undergone changes to become much longer and more complicated. The CTCN is experiencing a similar need for more information for their decision making as other mechanisms (most notably the GEF) have in the past. This is a natural process, and it is necessary to maintain an open mind and keep working actively against “request length creep”.

Lesson 4. The demand-driven and request-based process might be helpful to identify gaps in the existing support structure for climate action in developing countries.

102. Many requests relate to thematic areas that are not eligible for funding from other multilateral mechanisms, such as requests for support with joint adaptation/mitigation technologies. Requests also vary a lot in terms of specificity, from very broad to very specific, indicating a certain variety in how far countries have progressed in defining their technology needs. This might indicate that the request-based process helps bring new ideas to the attention of the existing support mechanisms. The mid-term evaluation planned might shed more light on this.

1.3 Recommendations

Recommendation 1. *Clear risk assessment with respect to staffing structure is highly recommended.*

103. As discussed above, it is necessary to assess the risks to the functioning of the mechanism associated with the lean staffing structure. The organizations have demonstrated significant flexibility in light of the long times it takes to hire staff (about 1 year).

Recommendation 2. *Over the next year, the Technical Assistance components should be developed further to enhance the likelihood of effective implementation of the resulting Technology Transfer plans. This can include: the development of a typology of requests and of final products of the TA, a standardized risk assessment that helps understand and mitigate the risks of non-implementation, and an open and constructive dialogue with other technical and financial assistance mechanisms. Response proposals should be prepared with the full participation of the requesting country and include a joint problem analysis, a theory of change of the TA initiative and stronger stakeholder analysis to make sure that the TA is as relevant, effective and sustainable as possible.*

104. The implementation of the Technology Mechanism will not be able to function on a self-sustaining basis without funding potentially from the Financial Mechanism of the Convention. The purpose of the Technology Mechanism is to provide for a pipeline of bankable Technology Transfer projects, which can then be brought to the Financial Mechanism directly, but require some Technical Assistance first. It seems plausible to have a funding relationship for that pipeline building exercise.

105. In addition, as more experience is gained with the types of products that result from the Technical Assistance that the CTCN can provide, it might be possible to classify the types of requests and channel them into different types of answers. Some implementations might require policy action, others more technical training, yet others the implementation of monitoring systems, or simply investments into infrastructure facilities. Which ones of these “solutions”, might be required for effective Technology Transfer can be clear at an early stage and the CTCN should tailor its portfolio of services accordingly.

106. Corresponding to this diversified portfolio, closer collaboration with implementing agencies (beyond UNEP and UNIDO) of the Operating Entities of the Financial Mechanism of the UNFCCC might be useful for addressing the Technology Transfer tasks.

Recommendation 3. *“Request length creep” requires active counter-strategies.*

107. Over the two years of operation of the CTCN, the Technical Assistance response plan template has already grown from two pages to close to a dozen pages. This is natural – some background on the request is required, the priority setting in the country needs to be clarified, a stakeholder analysis needs to be provided. However, increasing the length of the requests can provide additional barriers for NDE to submit requests, limiting the usefulness of the CTCN.

108. It is recommended to explore some of the following options on a more general level concerning the request response process and as detailed as possible for project implementation: standardization of the template, e.g. in online forms, central databases that draw on standardized documents like NCs, INDCs, NAMAs, NAPs, TNAs and technology requests, potentially in collaboration with the UNFCCC, extension of the hotline function of the CTCN, more regionally distributed Technology Managers. In addition, all other ideas for combating red tape and administrative burden should be explored, keeping in mind fiduciary responsibilities but on the other hand allowing that the CTCN remains a risk-friendly mechanism.

Recommendation 4. *Clarifying the role of developed countries can reduce the risk of missed opportunities for collaboration, better functioning of the Mechanism and higher sustainability.*

109. A discussion on the role of the NDE of developed countries is recommended, because in contrast to the role of developing countries’ NDE as facilitators of new projects, the **role of the NDE in developed countries is not yet clearly defined**. A number of them are participating as Advisory Board members but it is unclear how they can help by leveraging their countries resources. They could most likely be

contributing more and better inputs – of thinking, creativity, networks, and other types of assistance including financial and technical, - if the ways for more active engagement on the actual Technology Transfer activities would be clearer and CTCN would facilitate that engagement more actively. The lack of a clear description of their role might thus constitute a missed opportunity to make CTCN and the Technology Mechanism stronger. There are NDE in developed countries that could envisage a more pro-active role and contribution. In the current situation, where they are not reached by requests for TA or TT, they find that this might limit also their contributions to Advisory Board decision making. If CTCN succeeds in defining more concretely how Annex I NDE can be engaged and how the Mechanism can improve their “utilisation”, it can eventually lead to increased awareness for the opportunities in Technology Transfer and potentially mobilise more funds towards CTCN and the Technology Mechanism.

Recommendation 5. *A differentiated Private Sector Strategy could clarify the expectations of the private sector, which part of the private sector can be engaged in what aspect of Technology Transfer, and can be the basis for designing targeted and appropriate means for engaging the private sector in Technology Transfer.*

110. The “private sector” is the most important carrier of technology knowledge and can still play a more active role in providing technologies to developing countries, creating jobs in those countries, and supporting economic growth. It is generally acknowledged in the UNFCCC that it has to play an important role in combating climate change and its consequences. However, the “private sector” is not one block. Small technology and service providers, large multinationals, financial corporations and technology concerns all have different roles to play in the process of Technology Transfer. It is recommended that CTCN looks in more detail into the very large and heterogenous group of stakeholders that is called “private sector”, and give some thought to identifying these roles. It should come up with subcategories of the “private sector” that can help clarify, which segment of the private sector can support which phase, stage and type of Technology Transfer. Building on this, appropriate tools and modalities can be designed and implemented to include the private sector in delivering Technology Transfer. Advisory Board members have highlighted to the evaluation team that in this process, particular attention should be given to SMEs and their inclusion in the process.

Recommendation 6. *The CTCN and UNFCCC should strive to make funding of CTCN / the Technology Mechanism more secure, e.g. by moving towards more institutionalized forms of contributions. This will lend credibility to the mechanism and make the mechanism more efficient by relieving the Secretariat from fundraising pressures, and by securing the implementation of TT projects through CTCN financing.*

111. CTCN has a twofold funding problem: 1) its funding is on the basis of voluntary Party contributions, which leads to the fact that the Secretariat is in a constant mode of fundraising, compounding the demands on staff time and worsening existing limitations; and 2) not all response projects that are approved by CTCN can be funded in the phase of implementation, because CTCN is not a financial mechanism. Requests that target higher financial investments than 250.000 US\$ cannot be processed under CTCN. Therefore it is recommended that CTCN receives stable funding on an institutionalized basis, for instance through agreements with GEF. This can on the one hand reduce the work load of the Secretariat and secondly lead to stabilize the replication of response projects. Thirdly, TT might not be limited only to smaller projects and the existing lack of funding in the operational chain to implement larger mitigation projects might even be overcome.
112. Within UNEP, and in particular with respect to the EU funding contribution, it is highly recommended to streamline procedures and make funding for CTCN more independent of other projects. UNEP has received the EC contribution in April 2013, but the first instalment of 50% was not transferred to CTCN until November 2013, and the pooling of EC funds under a Special Cooperation Agreement provides other problems as well for the CTCN.

Recommendation 7. *Issues to consider in upcoming evaluations*

113. A Mid-Term Evaluation of the CTCN by UNEP and UNIDO is scheduled and another routinely scheduled evaluation by the UNFCCC Secretariat might be upcoming soon. In order to keep CTC effective, efficient and responsive it is essential that its staff is able to continue to concentrate on its core services of Technology Transfer and not obliged to spend too much time on institutional demands. On the other side evaluations are important to provide an in-depth assessment of the utility of the CTCN's products and outputs. In view of the upcoming two evaluations, it is therefore important that the contracting agencies communicate with each other, agree on a joint schedule and set priorities in good time to allow the CTC to coordinate accordingly.
114. A number of issues could not be evaluated now due to the limitedness of the mandate as well as the short implementation experience. It is recommended that the upcoming evaluations include these in its scope.
115. An ongoing concern is the complementarity between the different mechanisms of the UNFCCC. Although there is common understanding that CTCN as the operational arm of the UNFCCC Technology Mechanism should concentrate on Technology Transfer as its unique role and value proposition in the concert of UNFCCC Mechanisms, some concerns have arisen that the profile might not be as sharp as it could be. This might go back to a fundamental question what exactly constitutes a "Technology Transfer Project" – what is its scope, scale, objective, duration, volume, etc. This challenge will always accompany the Technology Mechanism and requires a continued constructive discussion, within the CTCN.
116. In addition, the complementarity with the Financial Mechanism of the UNFCCC might also require constant dialogue. In fact, there can be quite productive complementarity between the Mechanisms, based on a conceptual and practical joint understanding. Both issues should be investigated in more detail in the Mid-Term Evaluation.
117. Lastly, the current funding practice of the CTCN is well suited to accommodate a number of challenges that come with funding Technology Transfer. In particular, Technology Transfer projects can be quite diverse in scope and scale. However, most Technology Transfer initiatives are long-term processes, and consequently require a longer term engagement, a planned exit of the CTCN, and a break-point-free logical chain of operations and support from identifying the technology need to satisfying it. The evaluators therefore recommend for the Mid-Term Evaluation to understand current practices and implementation experience for how CTCN can deal with the larger projects and longer-term engagements required by some TT initiatives and finally, to define and redefine the complementarity of the Mechanisms of the UNFCCC and their financial linkages.