United Nations Environment Programme

Final

Joint UNEP-UNIDO Programme to host and manage the Climate Technology Centre and Network (CTCN)

CASE STUDY

contributing to Terminal Evaluation of

"Project 12/3-P1 – Support for Integrated Analysis and Development of Framework Policies for Greenhouse Gas Mitigation"

And

"Project 12/3-P2 – Support for the Deployment of Renewable Energy and Energy-efficient Technologies in Developing Countries"

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Evaluation Office of UNEP **February 2016**

Table 1: Project Identification Table for Joint UNEP-UNIDO Programme to host and manage the Climate Technology Centre and Network (CTCN)

UNEP PIMS ID:	609 or 619	**IMIS number:**	3873 or 3874
Sub-programme:	Climate Change	**Expected Accomplishment(s):**	EA (B)
UNEP approval date:	24 June 2013	**PoW Output(s):**	2010/11: 121, 122, 123, 123, 125, 126 2012/13: 121, 122, 123 2014/15: 123, 126
Expected Start Date:	27/06/2013	**Actual start date:**	December 2013
Planned completion date:	24 June 2018[1]	**Actual completion date:**	TBD
Planned project budget at approval:	US$ 50,000,000	**Total expenditures 2013-2015:**	US$ 18,397,953 As of 31/10/2015 (joint UNEP/UNIDO including Programme Support Cost)
Planned Regular Budget allocation:	US$ 1,9 mio (UNEP) US$ 1,25 mio (UNIDO)	**Actual Regular Budget Expenditure as of [date]:**	US$ 895,706 (UNEP)[2] US$ 413,373.13 (UNIDO)
Planned Extra-budgetary financing (XBF):	US$ 44,025,000	**Actual XBF expenditures reported as of [date]:**	US$ 17,955,814 As of 31/10/2015*(UNEP and UNIDO XBF including Programme Support Cost)*
XBF secured:	US$ 30,169,235[3]	**Leveraged financing:**	US$ 5,850,000[4]
First Disbursement:	22/11/2013	**Date of financial closure:**	31/12/2017[5]
No. of revisions:	None	**Date of last revision:**	None
Date of last Steering Committee meeting:	Advisory Board Meeting held in Copenhagen from 14-16 September 2015.		
Mid-term review/ evaluation (planned date):	2016	**Mid-term review/ evaluation (actual date):**	TBD

[1] Five years from the UNEP approval date.

[2] Expenditures on regular budget includes staff salaries as well as contracts with implementing partners

[3] Amount includes extra-budgetary contributions received through UNEP, UNIDO as well as the Consortium Partner, NREL.

[4] Leveraging finance as in-kind and cash contributions from host-organizations

[5] Trust fund to be extended based on project duration

Table of contents

EXECUTIVE SUMMARY **6**

1 INTRODUCTION **9**

1.1 Background and purpose of the Climate Technology Centre and Network 9
1.2 This case study 9

2 THE CLIMATE TECHNOLOGY CENTRE AND NETWORK **10**

2.1 Context 10
2.2 Target geography, target groups 11
2.3 Objectives and components 11
2.4 Planned implementation arrangements and planned milestones/key dates in project design and implementation 12
2.5 Project financing 13

3 CHANGES IN DESIGN DURING IMPLEMENTATION **18**

4 RECONSTRUCTED THEORY OF CHANGE **18**

5 FINDINGS **21**

5.1 ENRTP Strategic relevance 21
5.2 Achievement of outputs 22
5.2.1 Establishment and sustaining of an effective, efficient and responsive CTC *23*
5.2.2 Technical Assistance *24*
5.2.3 Outreach, networking and stakeholder engagement *26*
5.2.4 Knowledge management, peer learning and capacity building *29*
5.3 Effectiveness: Attainment of project objectives and results 33
5.4 Sustainability and replication 36
5.5 Efficiency 36
5.6 Factors affecting performance 37
5.6.1 Design *37*
5.6.2 Implementation *37*

6 CONCLUSIONS AND RECOMMENDATIONS **39**

6.1 Conclusions 39
6.2 Lessons Learned 43
6.3 Recommendations 44
6.4 List of individuals consulted for the case study 48
6.5 List of documents consulted for the case study 48
6.6 Survey Questionnaire 50
6.7 Results of the NDE Survey 58
Project design assessment 60

List of tables, figures & diagrams

Table 1: Project Identification Table for Joint UNEP-UNIDO Programme to host and manage the Climate Technology Centre and Network (CTCN) 2
Table 2: List of respondents to survey and interviews 10
Table 3: Indicative financing according to the initial Programme of Work 2013-2017 13
Table 4: Project Costs (Project Document) 14
Table 5: Project Expenditures by year and component 16
Table 6: Selected Examples of CTCN projects 19
Table 7: Target outputs of Technical Assistance in response to country requests 25
Table 8: Achieved outputs of Technical Assistance in response to country requests 25
Table 9: Target outputs of outreach, networking and private sector engagement 28
Table 10: Comparison of targets with achieved outputs of outreach, networking and private sector engagement 29
Table 11: Targets for knowledge management, peer learning and capacity building 31
Table 12: Comparison of targets with achieved outputs of knowledge management, peer learning and capacity building 32
Table 13: Evaluation Ratings 40

Figure 1: Functioning of the CTCN (ProDoc) 12
Figure 2: Reconstructed Theory of Change 20
Figure 3: Thematic/sectors of requests submitted by January 2015 (CTCN publication) 22
Figure 4: Demand driven CTC services and their interrelationships 23
Figure 5: Sections of KMS 31

List of acronyms & abbreviations

COP	Conference of the Parties
CP	Consortium Partner
CTC	Climate Technology Centre
CTCN	Climate Technology Centre and Network (CTCN)
CTN	Climate Technology Network
DTIE	Division of Technology, Industry and Economics
DTU	Technical University of Denmark
DG DEVCO	Directorate General of Development and Cooperation
DNV GL	Det Norske Veritas Germanischer Lloyd
EA	Expected Accomplishment
EC	European Commission
ENRTP	Environment and Sustainable Management of Natural Resources including Energy Thematic Programme
EST	Environmentally Sound Technologies
GCF	Green Climate Fund
GEF	Global Environment Facility
GEI	Green Economy Initiative
GHG(s)	Greenhouse gas(es)
KM	Knowledge Management
KMS	Knowledge Management System
M&E	Monitoring and Evaluation
LDC	Least developed countries
MoU	Memorandum of Understanding
NDE	National Designated Entity
NGO	Non-governmental Organization
PCA	Project Cooperation Agreement
PIMS	Project Information and Management System
PoW	Programme of Work
ProDoc	Programme Document
SCA	Strategic Cooperation Agreement
SME	Small and medium-sized enterprises
TA	Technical Assistance
TAP	Technology Action Plan
TEC	Technology Executive Committee (of the UNFCCC)
TNA	Technology Needs Assessment
ToC	Theory of Change
TT	Technology Transfer
UNEP	United Nations Environment Programme
UNFCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organisation

EXECUTIVE SUMMARY

i. Technology Transfer and the building of the necessary in-country capacities are a cornerstone and explicit mandate of the United Nations Framework Convention on Climate Change (UNFCCC). The Climate Technology Centre and Network (CTCN) is the implementation arm of the Technology Mechanism of the Convention. This evaluative case study of this joint UNEP/UNIDO project was requested by the European Commission, one of the co-financiers of the CTCN, but is also a part of the broader evaluation effort by the UNEP Evaluation Office of two umbrella projects (12/3-P1 and 12/3-P2) of UNEP´s Division of Technology, Industry and Economics (DTIE) Energy Branch. 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).

ii. The CTCN objective is to accelerate the "transfer and scaled-up deployment of adaptation and mitigation technologies in developing countries." CTCN provides support upon request to all Developing Country Parties to the UNFCCC. Its activities cover all regions and take into account the different national levels of economic development and technical and industrial capacity. The Climate Technology Centre (CTC) is managed by UNEP in partnership with UNIDO. The Network - a world-wide consortium of fourteen well-known research and technical assistance institutions supports the CTC in its operationalization.

iii. CTCN´s objective to accelerate the transfer and deployment of adaptation and mitigation technologies in developing countries relates to Environment and Natural Resources Thematic Programme (ENRTP) Priority 1 and is consistent with the expected result 1 of the Strategic Cooperation Agreements (SCA) 34. Its key services and procedures are in line with SCA-specific governance arrangements and quality assurance processes.

iv. Since its start in December 2013, an effective, efficient and responsive Climate Technology Centre has been established. CTCN delivers Technical Assistance (TA) on climate technologies through technical assessments and support for policy and planning documents at all stages of the technology cycle. The Centre receives its requests for Technical Assistance by the National Designated Entities (NDE). If the request is deemed eligible, the CTC responds by so called "response plans", either in the form of a smaller "quick response" or of a larger activity, a so-called "response project". The "response plan" is the plan of action developed by CTCN experts in response to a country request for technical assistance. To implement the project, the NDE have to find a financier though in some cases the CTCN can help to play a matchmaking role with funding sources. The first requests were submitted by NDE in 2014. As the number of requests from developing countries and especially from the least developed countries (LDCs) were below the outlined, CTC launched a Request Incubator Programme to accelerate LDCs' access to CTCN during COP20 in Lima in December 2014. This has considerably helped to overcome the inhibitions of less developed countries to request the services of CTCN.

v. The Technical Assistance (TA) delivered by the CTCN is complemented by the service of outreach, networking and stakeholder engagement. To expand the CTCN outreach, for instance, until today a series of international technology events took place. CTCN has contacted and invited over 200 relevant institutions to join the CTCN and the Network has grown to over 100 knowledge partners. The Secretariat has established a Knowledge Management System (KMS) that comprises knowledge management and information components on Technology Transfer of Environmentally Sound Technologies (EST) to Consortium and Network members and the general public.

vi. The number of TA requests and response plans produced until today is below the planned outcome, but shows a steady increase. As a consequence of the Request Incubator Programme the number of LDC requests is constantly rising. In the service lines of Outreach and KMS CTCN has delivered more than planned. The financial expenditures are in line with the planned, except for the Technical Assistance where they are commensurate with the development of the project pipeline and remain below the intended.

vii. For a number of reasons, it is too early to assess in depth the impact of the CTCN. CTCN has just completed two years of operations, and so far only few response plans are under implementation. Technology transfer is a multi-year process, with a potentially large and diverse scope of possible activities. Future evaluations will be focusing on the TT impact and its sustainability and how it can be improved.

viii. Stakeholder interviews were held with internal and external participants to the CTCN, and an online survey among the National Designated Entities (NDE), i.e. the country focal points for the CTCN. All interviewees expressed considerable satisfaction with the work of the CTCN Secretariat so far. Highlighting the efficiency in the response-request process, particular commendations were accorded to the CTC's accessibility and useful advice prior to the submission of the technical responses and the dedication of its staff to high quality service provision. Almost all interviewees acknowledge that CTCN has a twofold funding problem: the first affects the institutional funding of CTCN and the second applies to the issue of project finance. There are also administrative complications in particular with respect to donor reporting requirements, and solutions that are and should be further worked out.

ix. The effectiveness and impact of the CTCN depends heavily on the NDE which makes them a critical factor affecting performance. Setting up an NDE proves to be for the CTCN a time consuming and sometimes lengthy political process, in which many government institutions in developing countries are involved. All NDE, in developed and developing countries, have to deal with limited personnel and resource constraints. In contrast to the role of NDE in developing countries as facilitators of new projects, the role of the NDE in developed countries is not yet clearly defined. Their role as well as the profile of CTCN in general, may also need sharpening. The project cycle on the national implementation level might not be covered sufficiently to ensure the success of all TT projects and in specific of larger mitigation projects. There is a concern, that small and medium-sized companies might not be fully integrated into the processes of CTCN yet.

x. The overall project rating given was "satisfactory". The lessons learned refer to the challenges posed by a consistent expansion of the Network, the complicated contractual arrangement and the constant challenge of CTC to maintain lean operations. The requests submitted can be helpful to identify gaps in the existing support structure for climate action in developing countries.

xi. A number of important recommendations have been formulated. The lean staffing structure is good for financial efficiency but poses significant risks for the effectiveness of the mechanism as each individual is crucial for the mechanism. The TA components should be developed further and the ubiquitous "request length creep" that plagues all UNFCCC mechanisms requires active counter-strategies. A clarification of the role of developed countries and their NDEs is necessary and can contribute to more active collaboration, better functioning of the Mechanism and higher sustainability of the Mechanism itself and its products. In order to clarify the expectations of the private sector a differentiated Private Sector Strategy should be developed that can be the basis for designing targeted and appropriate means for engaging the private sector in Technology Transfer. The multi-donor structure and administrative challenges are a risk to the

efficiency of the network and should be simplified. The CTCN and UNFCCC should strive to make funding of CTCN more secure, e.g. by moving towards more institutionalized forms of contributions.

1 INTRODUCTION

1.1 Background and purpose of the Climate Technology Centre and Network

1. Mitigation of greenhouse gases and adaptation to the adverse effects of climate change are only possible with new technologies that support sound and green economic development and growth in developing countries and countries with economies in transition. Technology Transfer and the building of the necessary capacities are therefore a cornerstone and explicit mandate of the United Nations Framework Convention on Climate Change (UNFCCC). The transfer of environmentally sound technologies to developing countries is critical to achieve the objectives of the convention.

2. Parties at the 16th session of the Conference of Parties (COP) in Cancún in December 2010 agreed on setting up the Technology Mechanism as a step towards fostering public-private partnerships, promoting innovation, catalysing the use of technology road maps or action plans; responding to developing country Parties´ requests on matters related to Technology Transfer; and facilitating joint R&D activities [6].The Technology Mechanism consists of the Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN).

1.2 This case study

3. The 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 of two umbrella projects (12/3-P1 and 12/3-P2) of the UNEP´ Division of Technology, Industry and Economics (DTIE) Energy Branch. 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 is limited by the short time in which it has to be completed and by the limited availability of stakeholders during their preparations for the Paris COP in December 2015. Therefore, the evaluation focuses on some key questions that contribute to the UNEP Evaluation Office's evaluation of the umbrella programmes. The case study was carried out from September to February 2016 with a draft report submitted by November 2015. Further evaluations are planned in the context of a joint evaluation of UNIDO/UNEP as well as by the UNFCCC. While these evaluations will benefit from the further progress in the implementation of the CTCN, and thus be able to answer more in-depth questions with respect to effectiveness, impact and sustainability of the CTCN, the current case study is also providing insights and open questions for these evaluations.

4. This case study determines project achievements against expected outputs, outcomes and impacts. Data sources include desk reviews of documents, reports, websites, reviews and evaluations, sub-project outputs etc., as well as interviews with CTCN staff. A major component of this case study are an electronic survey of the National Designated Entities and telephone interviews with key informants to gauge the type of services, the responsiveness and the quality of services provided by the CTCN. For the survey, all NDE (137 at that point in time) were invited to participate in an electronic survey. 10 emails were rejected, e.g. because the mailbox was full. Of the remaining population of 127, 32 NDE submitted a reply, resulting in a comparatively high response rate of 25%. The survey was conducted in complete anonymity. Therefore, it is impossible to relate the survey results to the sender, unless the NDE deliberately choose to add remarks to the evaluation team that are related to their country of origin. The e-survey questionnaire is attached in annex 7.2. The

[6] UNFCCC, http://unfccc.int/focus/technology/items/7000.php online available, Nov. 9, 2015

following table gives an overview of the profile of the respondents of the anonymous electronic survey, the key informant interviews and the internal interviews held in Copenhagen and Paris.

Table 2: List of respondents to survey and interviews

	Number administered	Number of responses	Response rate
Anonymous Electronic Survey	127 NDEs	32 NDEs	25%
Key Informant Telephone Interviews	6	4: 1 x UNFCCC Secretariat; 2 x NDE of developed countries and donors; 1 x NDE of developing country	67%
Internal Interviews	11	11	100%

5. A major limitation to the overall assessment, however, is the relative youth of the Mechanism. While it was possible to formulate first findings, the evaluation team expects the mid-term evaluation of UNEP and UNIDO to be able to provide a much more in-depth assessment of the utility of the CTCN's products and outputs.

2 THE CLIMATE TECHNOLOGY CENTRE AND NETWORK

6. The CTCN supports developing countries to make informed choices about mitigation and adaptation technologies along all stages of the technology cycle, by providing Technical Assistance, capacity building, and knowledge services. The objective is to facilitate the uptake of technology through the reduction of risks and costs of Technology Transfer and widespread deployment supported by these services. CTCN is currently run as a joint UNEP/UNIDO Programme which formally started in June 2013. The official announcement of the opening took place in December 2013[7]. The first Programme of Work stretches over 5 years with an indicative budget of US$ 50 Mio. at project approval[8]. Following recommendations from the CTCN Advisory Board – that met for the first time after the project was formally approved by UNEP and UNIDO – the CTCN Budget was increased to US$ 100 Mio.

2.1 Context

7. The CTCN is the implementation body of the Technology Mechanism of the UNFCCC. The Technology Mechanism was established in 2010, with the aim to accelerate, diversify, intensify and scale-up collaboration and transfer of climate technologies to reduce both, the carbon intensity and the climate vulnerability of development and growth in developing countries to contribute to a low-emission, climate change resilient world. UNEP and UNIDO with their global Consortium of 11 research and Technical Assistance institutions were selected in December 2012 through a competitive process to host the centre tasked to respond to requests for Technical Assistance submitted by developing countries.

[7] PM of UNEP

[8] POW, p. 26

2.2 Target geography, target groups

8. CTCN is a global network and provides services to all developing countries. 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. They ensure that requests are coordinated with relevant ministries, focal points for other UNFCCC mechanisms, private sector, civil society and academia.

9. As of November 2015, 137 NDE of developed and developing countries serve as focal points on CTCN activities in the country. NDE have the following responsibilities[9]:

- they serve as national CTCN focal points;
- they manage national submissions[10];
- they support in-country activities with the CTCN;
- they facilitate engagement in the network;
- they coordinate regional and global peer learning and collaboration, reporting and feedback.

2.3 Objectives and components

10. The CTCN objective is to accelerate "transfer and scaled-up deployment of adaptation and mitigation technologies in developing countries." CTCN provides support upon request to all developing countries to the UNFCCC for formulating and fulfilling their national Technology Transfer needs[11]. Its activities cover all regions and take into account the different national levels of economic development and technical and industrial capacity.

11. The expected outcome of CTCN according to the project document is formulated as[12]: "The capacity and capability of developing countries to identify technology needs; prepare and implement technology projects and strategies to support action on mitigation and adaptation; and to enhance low emission and climate-resilient development is increased". On the Output level, CTCN envisions to achieve the following:

- Output 1: Developing countries Parties' needs for Technical Assistance (i.e. requests) on climate technology are fulfilled / responded to
- Output2: The development and transfer of existing and emerging environmentally sound technologies, as well as opportunities for North-South, South-South and triangular technology cooperation is stimulated and encouraged, through collaboration with the private sector, public institutions, academia and research institutions
- Output 3: A network of national, regional, sectoral and international technology centres, networks, organizations and initiatives is facilitated to support responses to country requests and capacity building

12. These outputs are achieved through 4 arrays of activities[13] (POW, p. 9), with the first activity dealing with the establishment and operationalization of the Secretariat. In terms of content, it does

[9] ProDoc, p. 21

[10] This refers only to developing countries' NDEs as the CTCN does not provide Technical Assistance to developed countries

[11] POW, p. 18

[12] ProDoc, , A-2

[13] POW, p. 9

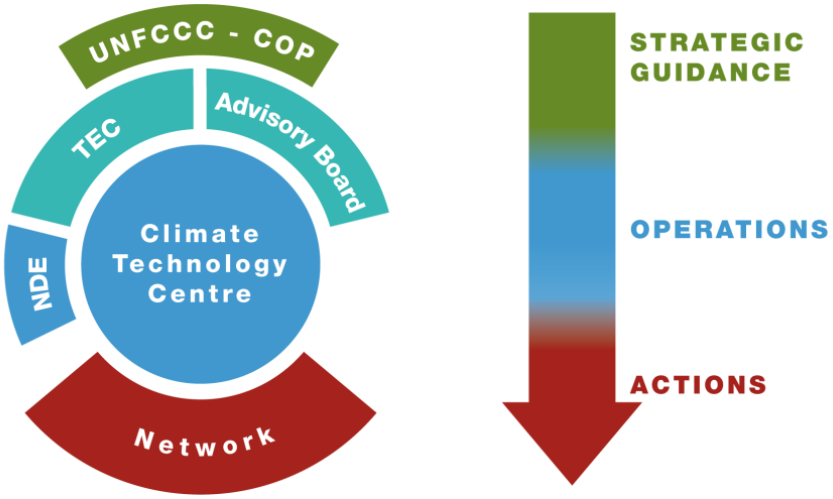
not contribute to the outputs of the project and is neither part of the ProDoc logframe nor a key-service, but incorporated in the budget[14].

a. Establishing and maintaining an effective, efficient and responsive CTC
b. Establishing transparent procedures for assessing proposals, monitoring implementation and measuring results
c. Building and managing a Network that covers a broad scope of areas
d. Developing and utilising a comprehensive Knowledge Management System (KMS)

2.4 Planned implementation arrangements and planned milestones/key dates in project design and implementation

13. The CTCN is the implementing arm of the UNFCCC's Technology Mechanism. The governance and management of CTCN is based on various UNFCCC Conference of the Parties (COP) Decisions and is detailed in a Memorandum of Understanding between COP and UNEP as Consortium leader. CTCN is accountable to and operates under the guidance of the COP through the Advisory Board. The Advisory Board gives guidance, approves reports and work programmes, endorses key financial matters and monitors and evaluates the response of CTCN given to requests. Consistent with UNEP regulations, rules and procedures UNEP hosts the CTC as a dedicated entity within UNEP. The COP17 decision, which includes the Terms of Reference of the CTCN, presents a timeline covering the first five years of operation with the possibility of extension to two four-year renewal periods.

Figure 1: Functioning of the CTCN (ProDoc[15])



14. The Climate Technology Centre (CTC) is managed through a relatively lean Core Centre in Copenhagen that acts like a technical team. The staffing table comprises a director, two climate technology managers, a network and capacity building manager, a knowledge and communications manager, two administrative and financial assistants and one administrative officer. UNEP staff in the Energy, Climate and Technology Branch of DTIE and UNIDO staff in Vienna provide additional support to the Centre in Copenhagen. The coordination between these locations takes place through weekly conference calls among other things.

15. A Consortium of fourteen partners supports the CTC in its operationalization:

[14] POW, p. 35

[15] Programme Document, p.8

- United Nations Environment Programme (UNEP)
- United Nations Industrial Development Organisation (UNIDO)
- Asian Institute of Technology (AIT) – Thailand
- Bariloche Foundation (BF) – Argentina
- Council for Scientific and Industrial Research (CSIR) – South Africa
- The Energy and Resources Institute (TERI) – India
- Environment and Development Action in the Third World (ENDA-TM) – Senegal
- Tropical Agricultural Research and Higher Education Centre (CATIE) – Costa Rica
- World Agroforestry Centre (ICRAF) – Kenya
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) – Germany
- Energy Research Centre of the Netherlands (ECN) – The Netherlands
- National Renewable Energy Laboratory (NREL) – United States of America
- UNEP-DTU Partnership – Denmark
- UNEP-DHI Partnership - Denmark

16. These are well-known research and Technical Assistance institutions covering a wide variety of relevant technologies and all regions of developing countries. They have been part of the original proposal of UNEP and UNIDO to the convention. The Consortium Partners constitute a Technical Resource Pool that can be tapped when specific needs arise. The Consortium consists of a geographically spread set of leading institutions in Africa, Asia, Europe, Latin America and North America. Through their regional perspective and understanding they are able to quickly and in-depth respond to requests from countries´ NDE in their region. In addition to the 14 Consortium Partners, the CTC is building up a global Network of institutions through an open call. The Network Members are expected to be involved in the programme by developing and implementing a large number of Technology Transfer and deployment projects. Lastly, a strategic partnership was concluded with Det Nortske Veritas Germanischer Lloyd (DNV GL) in response to the recommendation received from Parties to the UNFCCC to work with the other top-ranking proponents. DNV GL works on knowledge management, private sector engagement and monitoring and evaluation.

2.5 Project financing

17. As the implementation arm of the Technology Mechanism of the Convention, the Programme of Work was structured around expected financing of US$ 100 Mio. for the first 5 years of operations (see Table 2):

Table 3: Indicative financing according to the initial Programme of Work 2013-2017

Component/sub-component/output	*Estimated cost at design*
Technical Assistance in response to country requests	75.500.000
Outreach, networking and private sector engagement	7.000.000
Knowledge Management, peer learning and capacity building	7.250.000
CTCN establishment and operation costs	10.250.000
Total	100.000.000

18. The more detailed cost structure from the Project Document (Table 4) includes a collapsing of the four components of the Programme of Work into three outputs covering the same activities and a distribution of the financial responsibilities between the two Lead Partners UNIDO and UNEP.

Table 4: Project Costs (Project Document)

Outcome/Outputs	Indicative Core Programme Activities	Resource Allocation and Indicative Timing (in USD)					
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
Outcome: The transfer of ESTs for climate change mitigation and adaptation is accelerated, diversified and scaled-up, including through increased investment, consistent with national socio economic and sustainable development priorities.							
Output 1: Developing country Parties' needs for technical assistance on climate technology are fulfilled	Activities: 1.1. Providing advice and support related to the identification of technology needs and the implementation of environmentally sound technologies, practices and processes; 1.2. Facilitating the provision of information, training and support for programmes to build or strengthen capacity of developing countries to identify technology options, make technology choices and operate, maintain and adapt technology; 1.3. Facilitating prompt action on the deployment of existing technology in developing country Parties based on identified needs.	***1.040.000***	***4.584.540***	***7.640.900***	***9.169.080***	***9.169.080***	***31.603.600***
Output 2: The development and transfer of existing and emerging environmentally sound technologies, as well as opportunities for North–South, South–South and triangular technology cooperation, is stimulated and encouraged, through collaboration with the private sector, public institutions, academia and research institutions	Activities: 2.1. Establishing a Knowledge Management System 2.2. Establishing a CTCN Information Portal	***2.578.793***	***2.493.000***	***1.600.000***	***1.600.000***	***1.600.000***	***9.871.793***
Output 3: A network of national, regional, sectoral and international technology centres, networks, organization and initiatives is facilitated	Activities: 3.1. Enhancing cooperation with national, regional and international technology centres and relevant national institutions; 3.2. Facilitating international partnerships among public and private stakeholders to accelerate the innovation and diffusion of environmentally sound technologies to developing country Parties; 3.3. Providing, at the request of a developing country Party, in-country technical assistance and training to	***2.524.607***	***1.500.000***	***1.500.000***	***1.500.000***	***1.500.000***	***8.524.607***
		6.143.400	**8.577.540**	**10.740.900**	**12.269.080**	**12.269.080**	**50.000.000**

19. The need for adequate funding to operate efficiently and effectively and to urge donors to make a binding commitment is mentioned in the ProDoc (p. 19) as a critical success factor. The POW assesses already in 2013 (p. 36) that bilateral donors dominate so far and that it is “crucial [for CTCN success] to get GEF and multilaterals on board”. In the course of the last two years the COP urged GEF for funding and in 2015 GEF transferred grants of roughly US$ 1,8 Mio to CTCN.

20. Table 5 contains the current budget and expenditures up to the end of October 2015. It illustrates that the expenditures for components 2 and 3 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.

Table 5: Project Expenditures by year and component

Component/sub-component/output	Estimated cost at design						Estimated Total	Actual Cost (net Programme Support Costs)					Estimated Total	Expenditure ratio **
	Year 1	*Year 2*	*Year 3 (original)*	*Year 3 (revised)*	*Year 4*	*Year 5*		*Year 1 (2014)*	*Year 2 (2015) (up to 30/10/2015)*	*Year 3 (2016)*	*Year 4 (2017)*	*Year 5 (2018)*		
Technical assistance in response to country requests														
Request coordination, refienement, support	350.000	1.100.000	2.000.000	1.500.000	2.700.000	2.900.000	8.550.000	282.829	1.064.739				1.347.568	16%
Request Implementation	2.000.000	8.300.000	15.000.000	11.250.000	20.300.000	21.000.000	62.850.000	244.317	3.474.507	105.000			3.823.824	6%
Subtotal 1	2.350.000	9.400.000	17.000.000	12.750.000	23.000.000	23.900.000	71.400.000	527.145	4.539.246	105.000		-	5.171.392	7%
Outreach, networking and private sector engagement													-	
Outreach and communication	50.000	300.000	500.000	500.000	500.000	500.000	1.850.000	116.191	223.480				339.671	18%
Networking	600.000	800.000	1.000.000	850.000	1.000.000	1.000.000	4.250.000	392.263	637.021				1.029.283	24%
Stakeholder Engagement	200.000	500.000	500.000	680.000	500.000	500.000	2.380.000	168.335	564.414	682.257	725.550		2.140.556	90%
Subtotal 2	850.000	1.600.000	2.000.000	2.030.000	2.000.000	2.000.000	8.480.000	676.789	1.424.914	682.257	725.550	-	3.509.510	41%
Knowledge Management, peer learning and capacity building													-	
KMS Technical Development	800.000	900.000	300.000	820.000	300.000	300.000	3.120.000	341.858	817.307	753.449	544.635		2.457.249	79%
KMS Content Development	400.000	400.000	500.000	500.000	500.000	500.000	2.300.000	241.730	423.060	345.911	233.415		1.244.115	54%
Capacity Buidling activities and materials	250.000	400.000	600.000	500.000	700.000	700.000	2.550.000	225.710	372.214				597.924	23%
Monitoring and Evaluation*	50.000	100.000	100.000	100.000	100.000	100.000	450.000	166.852	80.061	67.754	115.500		430.167	96%
Subtotal 3	1.500.000	1.800.000	1.500.000	1.920.000	1.600.000	1.600.000	8.420.000	976.150	1.692.643	1.167.113	893.550	-	4.729.455	56%

Component/sub-component/output	Estimated cost at design						Estimated Total	Actual Cost (net Programme Support Costs)					Estimated Total	Expenditure ratio **
	Year 1	*Year 2*	*Year 3 (original)*	*Year 3 (revised)*	*Year 4*	*Year 5*		*Year 1 (2014)*	*Year 2 (2015) (up to 30/10/2015)*	*Year 3 (2016)*	*Year 4 (2017)*	*Year 5 (2018)*		
CTCN establishment and operation costs													-	
CTCN operations	1.200.000	1.600.000	2.300.000	2.100.000	2.300.000	2.300.000	9.500.000	930.477	1.975.334				2.905.811	31%
AB meeting and other UN meetings	100.000	100.000	200.000	180.000	200.000	200.000	780.000	107.091	82.175				189.266	24%
Subtotal 4	1.300.000	1.700.000	2.500.000	2.280.000	2.500.000	2.500.000	10.280.000	1.037.569	2.057.509	-	-	-	3.095.078	30%
Total	6.000.000	14.500.000	23.000.000	18.980.000	29.100.000	30.000.000	**98.580.000**	3.217.652	9.714.312	1.954.370	1.619.100	-	**16.505.435**	17%

Notes:

In the intial five-year budget the Monitor and Evaluation line was included under CTCN Establishment and operation costs

Year 3 Budget was revised at the 6th Advisory Board Meeting - budget was provisinally approved for USD 18,980 million

Amounts listed as "actuals" in year 1 (2014) include only expenditures; main UNEP unliquidated obligations as 31 December 2014 have been reflected in year (2015)

In 2014 staff costs where reflected under the respective service area - in 2015 all staff costs are under CTCN operation costs, while consultancies have been reflected under the different service areas

*In the intial five-year budget the Monitor and Evaluation line was included under CTCN Establishment and operation costs

**Expenditure ratio (actual/planned)

3 CHANGES IN DESIGN DURING IMPLEMENTATION

21. CTCN was announced to be open for business in December 2013. The UNEP-UNIDO joint Project Document (ProDoc) includes a first year start-up indicative timeline[16] with the targeted results that was very ambitious and that the management at no point in time could fully achieve. Therefore a number of activities are delayed, but most milestones were put into practice until 2015. By the end of 2015, thus all core activities have been established, are functional and show a very high level of professionalism. All processes, like the Technical Assistance process and M&E system, are in the process of being further structured and improved.

22. Apart from the issue of timeliness, the CTCN Programme management made changes to the project design in order to facilitate its administration and make the general public understand that CTCN is a provider of services. While the Project Document underpins the 3 project outputs (see paragraph 12) with a number of activities, the Programme of Work links outputs and activities in a more coherent manner. The three outputs of the logframe (ProDoc, Annex A2) were renamed and are later on called the “three key services” (POW, p. 18 ff.). Additionally, activities were regrouped which made them easier to communicate to the wider public.

4 RECONSTRUCTED THEORY OF CHANGE

23. The logframe’s components are discussed in section 2.3. Figure 11 presents the reconstructed programme theory in a diagram. A number of observations can be made.

24. The immediate outcome is pitched at the level of enhancement of capacities and capabilities of developing countries. These should accelerate, in the longer term, the transfer and scale-up of adaptation and mitigation technologies, ultimately leading to impacts of reduced GHG emissions and enhanced resilience to climate change.

25. CTCN contributes with its outcomes and outputs to the outcome of the UNEP DTIE umbrella project by enabling countries to make sound policy choices on clean and renewable energy sources, energy efficiency and energy conservation. The following overview shows that the CTCN support countries in underpinning national and sectoral policy planning as well as national technology-specific policy planning. CTCN however, does not only limit itself to policy planning, but also pushes the implementation of projects. Unlike most umbrella sub-projects it encompasses both mitigation and adaptation, as the following table shows:

[16] ProDoc,p.17

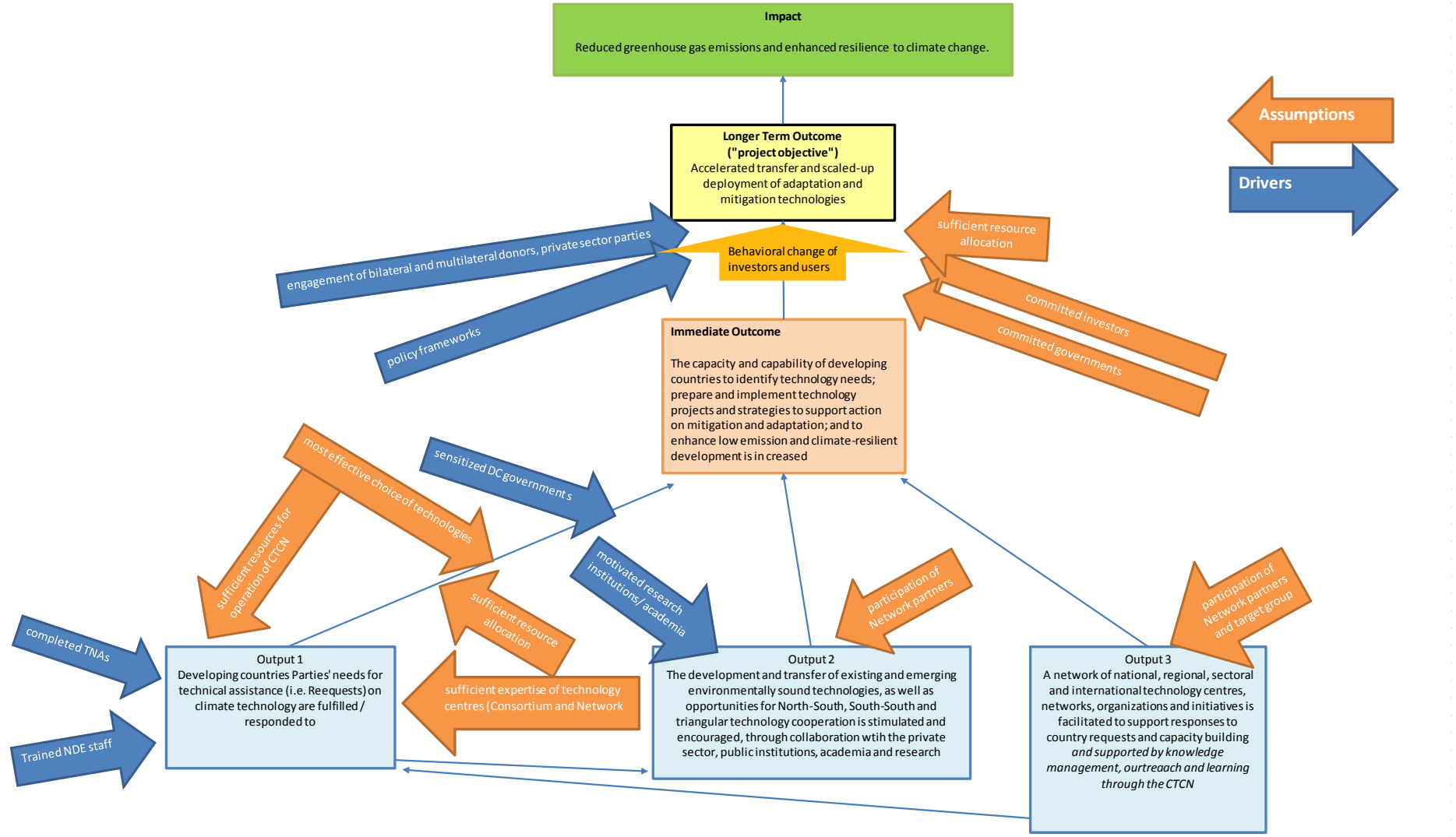
Table 6: Selected Examples of CTCN projects

Country	Selected Examples
Chile	Design of a biodiversity monitoring network in the context of climate change
	Introducing refrigerants with low GWP in the food sector
Colombia	National adaptation monitoring system
	Monitoring and Evaluation of national promotion policies for energy efficiency (EE) and renewable energy (RE) against national targets
Ecuador	Sustainable management of livestock waste for climate adaptation and energy production
Dominican Republic	A community based early warning system in Santo Domingo
	Efficient lighting (NAMA design)
Indonesia	Climate resilient watershed management to prevent flooding in Jakarta
Mali	Sustainable agriculture practices with local communities
Uruguay	Replacement project of fluorinated refrigerants for end users of refrigeration equipment in the dairy sector in Uruguay

26. Looking at the assumptions underlying the reconstructed Theory of Change on the output –to –outcome level, it becomes obvious that in particular the effectiveness of the Technical Assistance (output 1) is highly dependent on a number of assumptions, including the choice of technology, expertise of the Consortium and Network partners, and allocation of resources. All these aspects should be investigated further in the more in-depth evaluation when more operational experiences have been collected and carried out to their conclusion to allow for meaningful assessments on the effectiveness of the CTCN Technical Assistance.

27. The drivers identified (and highlighted in Figure 2: Reconstructed Theory of Change as blue arrows) are those external factors that could (and should) be reinforced by the project and/or have synergies with other UNEP projects. For example, a TA request is definitely eligible, if the request has been identified as a national priority and prepared by a Technology Needs Assessment. On the immediate outcome – to –longer-term outcome level, as well, supportive policy frameworks and engagement of other climate finance institutions can be promoted by UNEP and are important drivers towards impact.

Figure 2: Reconstructed Theory of Change



5 FINDINGS[17]

5.1 ENRTP Strategic relevance

28. The implementation arm of the Technology Mechanism fulfils the mandate of the UNFCCC to provide capacity building and Technical Assistance services in the crucial area of Technology Transfer. The results of the survey indicate that the country partners appreciate this service. However, the mandate is much larger than the current scope of activities. While the current scope of activities already goes significantly beyond the scope formulated in the project documentation, it will still have to be complemented by further activities.

The placement of CTC at two UN agencies with a focus on Technical Assistance and a worldwide Network of competent partners seems highly strategic and provides a number of advantages that would be hard to match by another setup. They include access to a high degree of technical competence in the Consortium and Network, a commitment to impartiality and the UNFCCC mandate, and committed and capable staff.

29. On the other hand, the project has high strategic relevance for the two leading host organizations. From UNEP's perspective (which is the perspective of this case study), the project provides relevance to UNEP's work in the UNFCCC and can enhance the coherence of its climate change portfolio. Working through networks is a major aspect in many of UNEP's other climate change projects, and in fact, many of the Consortium Partners have been collaborating over the last 12 years in UNEP's own Global Network on Energy for Sustainable Development. Two of the three technical experts in the Core function are from UNEP Network Projects and have a strong background in capacity building and working with governments from the perspective of these networks. While the CTCN benefits from this experience, UNEP in turn can also feedback the experiences gained in the CTCN into its own operations.

The overall objectives of the Strategic Cooperation Agreements (SCAs) between the United Nations Environment Programme (UNEP) and the European Commission under the Environment and Natural Resources Thematic Programme (ENRTP) are for instance, to integrate climate change action into the Community's development and other external policies. The specific objective of the SCA between the Directorate General of Development and Cooperation (DG DEVCO) and UNEP under ENRTP "is to support developing countries to better integrate environmental sustainability into their pursuit of development goals"[18].

30. CTCN´s objective to accelerate the transfer and deployment of adaptation and mitigation technologies in developing countries relates to ENRTP Priority 1 and is consistent with the expected result 1 of the SCA " Strengthened abilities of countries – in particular developing countries – to integrate climate change responses into national and regional sustainable development process"[19].

31. ENRTP communication objectives aim to contribute to the long-term goals to raise awareness of the EC-UNEP partnership to promote the environmental aspects of development; and to demonstrate and showcase the successful outputs of the partnership, and their contribution to sustainable development and poverty alleviation[20].

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[17] As indicated, these preliminary findings will be completed and possibly revised in light of the NDE survey results and a series of additional interviews in the course of November-December 2015.

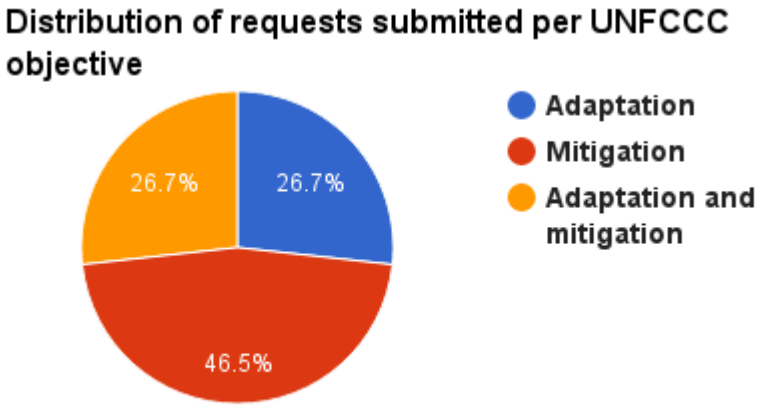
[18] ENTRP Strategic SCA between European Commission/DG DEVCO&UNEP, Annex 1a,p.5

[19] ENTRP Strategic SCA between European Commission/DG DEVCO&UNEP, Annex 1a,p.6

[20] ENTRP Framework Communication and Visibility Plan, p. 1

32. CTCN´s key services of networking and stakeholder engagement as well as knowledge management, peer learning and capacity building are in line with ENRTP SCA' overarching communication objectives of showcasing and promoting successful results. CTCN operates through the NDE that act as an intermediary between the CTCN and the relevant national stakeholders. Secondary target groups to ENRTP SCA' are in particular Environment and Development Ministers in beneficiary countries. As many NDE are established as national focal points under the guidance of the Environment Ministers, CTCN is consistent with the SCA also in this respect.

Figure 3: Thematic/sectors of requests submitted by January 2015 (CTCN publication[21])



33. The Thematic/sectors of requests submitted by October 2015 (CTCN publication) show that over half of the requests relate to mitigation and thus contribute on a large scale to the ENRTP SCA result of climate change mitigation and the reduction of greenhouse gas emissions.

34. The CTCN key services and procedures are in line with SCA-specific governance arrangements and quality assurance processes. The overall governance and organisational structure of the CTCN, however, did not change as a result of the EU contribution. CTCN provides a quarterly report to the UNEP-EC joint Project Management Unit which monitors the outcomes of the cooperation through its Programme Steering Committee. CTCN is demand driven and operates on a global level with developing countries. Given the above mentioned characteristics of the CTCN, the SCA arrangements do not seem to particularly affect the CTCN's relevance to beneficiary needs nor do they appear to make beneficiary and geographical targeting of the interventions more relevant to EC and UNEP priorities.

5.2 Achievement of outputs

35. The actual start of the CTCN was scheduled for January 2013, but it was not until COP 19 on December 13, 2013 that the UNEP Executive Director announced that the CTCN "was open for business". Hence, in line with the guidance by the CTCN Advisory Board, 2013 is considered to be Year 0 of the CTCN, with 2014 being Year 1 and 2015 being Year 2. Therefore, at the time of this case study (end of 2015), the appropriate reference year for the output targets is project year Y2 i.e. 2015. Measured against this yardstick, the project has reached many of its targets.

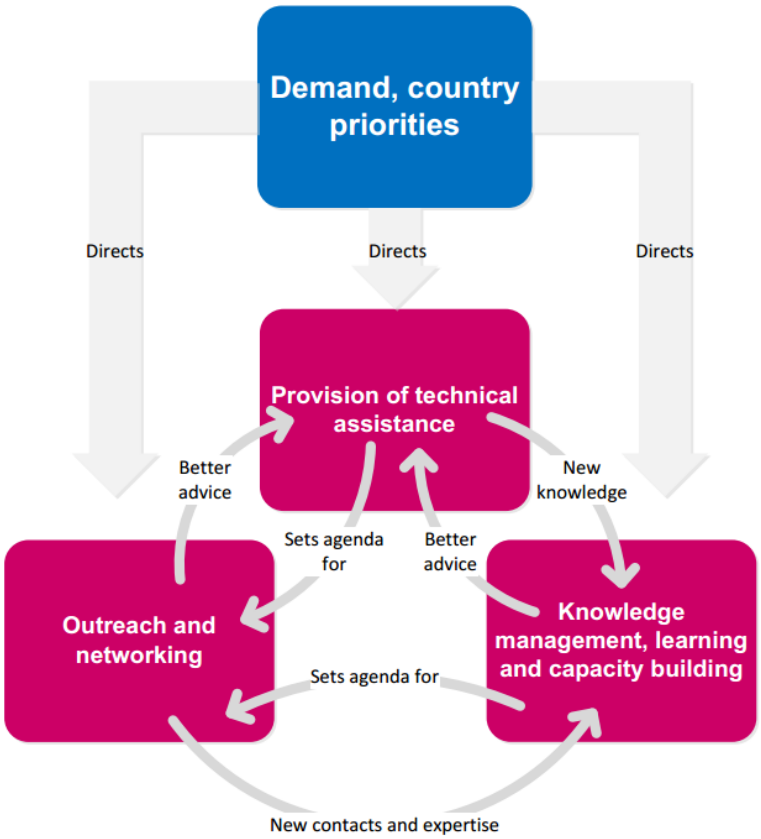
[21] CTCN presentation to EU, January 2016, p.4

5.2.1 Establishment and sustaining of an effective, efficient and responsive CTC

36. Although the first agreements were signed in June 2013, the Centre started its work officially in December 2013 with the announcement of the Implementing Agencies. According to the POW, that would have been the month, where staff recruitment should have been completed. At that point in time only the Finance and Administration officer had been recruited. The Director, Jukka Uosukainen, took office in February 2014. Subsequently, all other managers, including the two Climate Technology Mangers and Administrative and Financial officers were employed. Recruitment of technical staff was completed in June 2015, when the Network and Capacity Building Manager joined the team. His recruitment process, for instance, took about a year from the job advertisement to start of work In October 2015; at the time of the Copenhagen visit of the evaluation team, one of the two Climate Technology Managers had left and the post was vacant.

37. Due to the Consortium structure, the contractual arrangements are complicated and take their time. For example, at the 18th session of the COP in Doha in November/December 2012, the UNEP-led Consortium was selected to host the CTCN, but the Memorandum of Understanding (MoU) between the COP and UNEP was only signed in 2013 and the MoU between UNEP/UNIDO and each single Consortium Partner was signed between May and October 2013. At the same time the trust fund was established and the Project Cooperation Agreements (PCAs) were drafted, negotiated, signed and put into practice, but until today are not all are fully completed. The PCA with at least one Consortium Partner is delayed.

Figure 4: Demand driven CTC services and their interrelationships



38. Figure 4 gives an overview of the Demand driven CTC services and their interrelationships. Apart from these activities, a number of responsibilities rest with the core team in Copenhagen, Vienna and Paris. These include representational duties, mainly fulfilled by the Director. Fundraising, financial management and accounting, office management and back-office organizing are taking

place mainly in Copenhagen, but include resources from both, Paris (UNEP DTIE) and Vienna (UNIDO). The roles and responsibilities between UNIDO and UNEP are adjusted to some degree on the basis of operational experiences. For example, procurement activities and tendering processes are now taken over by UNIDO as its procurement facilities seem more appropriate.

5.2.2 Technical Assistance

TA Request and Response Plan Process

39. In the years 2014 and 2015 CTC built up the organizational infrastructure to facilitate and manage the request handling process. The Centre receives a request for Technical Assistance, transmitted and signed by the NDE (the requesting organization is not necessarily the NDE, and very often, it is not, as the NDE has more of a focal point role) and checks its consistency with the criteria approved by the Advisory Board. If the request is deemed eligible according to CTCN criteria, the CTC has developed Terms of reference for the assistance to be conducted, called 'Response Plan'. If needed, the CTC can work with one or several Consortium Partners assigned by the Director. Depending on the scope of the response plan (number and scale of activities, estimated budget, etc.) the assistance will be treated either in the form of a "quick response" or of a larger activity, a so-called "response project".

40. The processes of appraising and "quick-responding" of responses include checking costs associated with the response plans against the project design in order to generate a project proposal on mitigation, adaptation or both. The result of a response plan can contain one or several bankable and fundable project proposals to accelerate the diffusion of environmentally sound technologies in the country, fit to be submitted to donors.

41. CTC has set up a financial scheme for requesting responses, that sorts out in detail the financial allocation that Consortium Partners (CP) receive for their assistance. Consortium Partners receive up to US$ 6.000 for the development of a response plan, and up to US$ 50.000 for the implementation of a response plan. It is up to the CTC to decide on the Consortium Partner, to verify the costs, to authorize and carry out the financial transaction. The choice is made on the criteria of cost-effectiveness and expertise. Response plans up to a value of US$ 250,000 can be funded, but the implementation is then tendered out to the whole Network. The tender is carried out by UNIDO.

Achievements during implementation

42. In 2014, the first requests were submitted. The milestones were achieved, only later than planned. The first Technical Assistance request was received from a developing country NDE on February 21, 2014. The output targets (Table 7) of POW indicate that by 2014, 6-10 quick response interventions and by the end of 2015, CTCN's second year, additionally between 50-80 quick response interventions should have been carried out. The quick response target for the 2nd year was revised at the 4th Advisory Board Meeting of October 14 from "50-80" to "30-40". In actual figures, in the first year no quick responses were delivered and in the second year only 7. The number of requests received by NDE reached a total of 21 in 2014 out of which 2 were under implementation, 14 were eligible and prioritized but not yet at implementation stage, 2 were inactive (due to lack of responsiveness by the requesting NDE), and 2 were not eligible. The cumulative total number of TA requests received as of 31 January 2016 is 81, out of which 23 are under implementation or close to being implemented and the remaining in various stages, with 10 being postponed or not categorized as eligible.

43. Looking at the themes of the requests,[22] it is noteworthy that a significant number of the requests relate to thematic areas that are not receiving funding from other multilateral mechanisms.

[22] Document "List of requests received by the CTCN as of 14 October 2015 (51 in total)"

In some cases they are too broad, indicating that the countries are still in the process of defining their technology needs. In other cases, the technology needs are already extremely specific (e.g. "Empty Fruit Bunch of Oil Palm in Indonesia") and might not require a larger scale effort of e.g. UNDP/GEF. The Technology Manager also noted that a comparatively large share of the requests relate to joint adaptation and mitigation technologies. This might indicate that the request-based process helps bring new ideas to the attention of the existing support mechanisms. But this point should be analysed in more depth in the mid-term evaluation.

Table 7: Target outputs of Technical Assistance in response to country requests

TARGET OUTPUTS (per year)[4]		Y1	Y2	Y3	Y4	Y5	Total
Service: Technical assistance in response to country requests							
OUTPUTS	Number of quick response interventions	6-10	50-80	70-100	80-130	90-140	**300-480**
	Number of response projects implemented	0	20-25	50-70	80-100	90-110	**250-300**

44. The planned number of response projects implemented should range between 20 and 25 in the second year according to POW. However, the Advisory Board revised the figures at the 4th Advisory Board Meeting of October 2014 and increased the targeted output to 40-60. In actuality, 2 projects were under implementation by 2014 and another 13 by 2015 with an aim to initiate response plan implementation for the key areas of private of sector financing, traditional technologies, gender approaches and the main areas of Technology Needs Assessment (TNA) priorities (Agriculture, Water, Energy, Transport etc.).

Table 8: Achieved outputs of Technical Assistance in response to country requests

Outputs	Year 1 (Target)	Year 1 – 2014 (Actual)	Year 2 (Target)	Year 2 – 2015 (Actual)	Year 3 (Target)
Service: Technical Assistance in response to country requests					
Number of quick response interventions being implemented	**6-10**	**0**	**30-40**	**7**	**25**
Number of response projects being implemented	**0**	**2**	**40-60**	**13**	**50**
Number of requests received - cumulative		**21**		**52**	

Adaptive management and observations during the first implementation experiences

45. The CTCN is a young mechanism and efforts to manage adaptively are necessary and observable on an on-going basis.

46. **Staffing.** The Mechanism is managed quite effectively by a very small number of staff, but the staffing table is still in flux. One of the Climate Technology Managers positions is currently vacant. Other staff need to make up for the shortfall, and UNEP staff interviewed for this assessment praised the collaborative spirit within the CTCN including UNIDO colleagues for joint efforts to keep the mechanisms running smoothly.

47. **Development of processes and procedures.** The Climate Technology Manager developed a CTCN "framework of technology" to compile and summarize existing compendiums of climate technologies and approaches in mitigation, adaptation and cross cutting approaches and the

templates for quick and full responses as well as the M&E procedures within the process. The CTC strives for a request balance between adaptation and mitigation technology support. The effort to provide a "lean and mean"[23] request process is not easy to fulfil, as can be illustrated by the complex TA request forms. The Technical Assistance Response Plan Form was originally planned to be short. Now, the form is 15 pages long, including 11 pages of guidance that is to be deleted when submitting the Response Plan.

48. **LDC incubator programme.** The number of requests from the least developed countries (LDCs) was considered too small, and a lack of capacity with the NDE was identified as the main reason. In reaction, CTC launched a Request Incubator Programme to accelerate LDCs' access to CTCN during COP20 in Lima in December 2014. The Request Incubator Programme aims at enhancing LDCs capacities to develop requests for Technical Assistance, to build on the assistance provided, to strengthen institutional capacities related to climate technologies, and to reinforce national efforts on Technology Transfer. It provides assistance to developing countries by the regional partners of the CTCN Consortium. Each partner is responsible for supporting a specific number of countries through providing tailored assistance, expert support and facilitating consultations in-country. The programme includes eight modules from which NDE can choose the appropriate ones. As agreed by the Advisory Board, the budget available for this programme is up to US$ 25.000 per country for regional Consortium Partners (CPs) and up to US$ 5.000 per country for global CPs. All funds will be transferred to Consortium Partners to support country activities. At the end of the assistance, the CP will report on actual expenses incurred during the assistance, as per the Project Cooperation Agreement between the CTCN and the CTC. So far, 13 LDCs have participated in the Request Incubator Programme.

49. **Impact through follow-on actions.** The last critical factor mentioned in the POW is the impact through follow-on actions. There is the risk that Technology Transfer will only take place through investments in projects subsequent to the response plans given by CTCN. This risk is partly minimized within CTCN through the project implementation finance of response projects up to a maximum of US$ 250.000. However, the money is not directly paid out to developing countries, but to Consortium or Network members after a bidding procedure managed by UNIDO. Requests that target higher financial investments are not able to be processed under CTCN. It is therefore appropriate for the CTC to make this effort to involve international donors and financing institutions to support NDE from the start to find the right sources of finance.

5.2.3 Outreach, networking and stakeholder engagement

The Network and CTCN stakeholders

50. To get the CTCN going, by the end of 2013, Memoranda of Understanding between UNIDO, UNEP and the Consortium Partners were signed. Since then the CTC has prepared the annual and semi-annual reports for the UNFCCC COP and CTCN Advisory Board as well as for the annual meetings of Consortium Partners and Network Meetings.

51. The active involvement of the Network members is critical to the success of CTCN as they develop and implement Technology Transfer and deployment projects, exchange and disseminate information to practitioners and contribute significantly to knowledge management. The following figure gives an overview of the targeted outputs and the next chapter details the activities in networking.

52. Communications management from 2012 – March 2014 was done by the UNEP Interim Team supported by the DTIE Energy Branch Information Team in coordination with the Head of the

[23] Interview with the CTCN Director on 12 October 2015

Technology Unit, DTIE's Head of Communications and UNEP DCPI communications and project staff. They jointly developed a CTCN interim communications strategy and several key foundational communication materials. After the selection of UNEP to host the CTCN in 2012 the DTIE staff established a CTCN presence on the UNEP.org website, coordinated promotion at relevant international events and relations with the media. Communication focal points were nominated by Consortium Partners. As far as milestones are concerned, the network criteria were drafted as early as September 2013. The first training workshop took place in Thailand in mid -December 2013.

53. The original mandate to CTCN for enabling NDE comprises the following roles and responsibilities:

i. Facilitate effective support from the CTCN on national submissions by:
    a. Identifying priority technology, and capacity-building needs, which are in line with national development and climate strategies, technology needs assessments (TNAs), low-emission development strategies (LEDS), national adaptation plans (NAPS, NAPAS) and Nationally Appropriate Mitigation Actions (NAMAs) and other relevant activities.
    b. Identifying capacity building needs at the individual, institutional and organizational levels, as well as engaging in defining the most appropriate types af activities, target groups, scope, and key topics to be addressed. Assistance in defining further capacity buildng needs could be part of the support, along with identification of the best approaches to ensure sustainability and long-term availability of new capacity.
ii. Engage representatives from national, provincial and local governments in the relevant process to guarantee feasibility of proposals developed at all levels.
iii. Facilitate in-country activities such as training, capacity building and dissemination of information related to both the CTC and the Network.
iv. Facilitate engagement of national organizations in the Network.
v. Participate in regional and global peer learing and collaborative projects conducted by the CTCN and where appropriate provide data and tools that the CTCN can share with other countries.
vi. Coordinate with other national focal points of UNFCCC Mechanisms such as the Adaptation Fund's Designated Authorities and National Implementing Entities; the Clean Development Mechanism's Designated National Authorities and the NAMA's Focal Points, to enhance effectiveness and scope of the CTCN interventions and leverage international funding for adaptation and mitigation activities.
vii. Provide feedback to the CTC on the progress and results of CTCN projects within the country and the overall quality of CTCN assistance.

54. NDE make also use of the intranet to ask the CTC for training or planning documents on Technology Transfer and related topics, e.g. TNA. The Director is also responsible for enlarging the network.

Achievements during implementation

55. To expand CTCN outreach, until today more than the 4-6 targeted international technology events took place. In fact, CTCN organized 11 forums in 2014 and 9 in 2015 and was represented at a number of other international and regional technology events and fora. The number of regional public-private sector workshops also surpasses the planned figure. By 2015, 11 workshops were delivered, 2 more than actually foreseen. A total of 13 regional networking meetings were held in the first two years, equivalent to the expected. Only the number of outcomes of Private-Public-Partnerships and twinning arrangements are currently slightly below the planned outcome. CTC

developed over 9 training modules for NDE to acquaint them with CTCN. The topics for training modules are for instance about nurturing networks, stakeholder engagement and gender.

Table 9: Target outputs of outreach, networking and private sector engagement

TARGET OUTPUTS (per year)[4]		Y1	Y2	Y3	Y4	Y5	Total
Service: Outreach, networking and private sector engagement							
OUTPUTS	Number of international technology events/forums	0	4-6	4-6	4-6	4-6	**15-20**
	Number of regional public-private sector workshops	0	6-9	6-9	6-9	6-9	**25-35**
	Number of regional networking meetings	6-9	6-9	6-9	6-9	6-9	**30-45**
	Number of knowledge partners	10	50	140	300	500	**1000**
	Number of Public-Private Partnerships formed as result of workshops	0	3	3	3	3	**13**
	Number of twinning arrangements as a result of networking events	3	3	4	4	4	**18**

56. Until 2015, CTCN has contacted and invited over 200 relevant institutions to join the CTCN. The CTCN Network has grown to over 100 knowledge partners, which is almost twice the target for the end of the second year. The- partners cover a wide range of sectoral expertise related to climate change mitigation and adaptation and a geographically diverse membership form various regions. Network members are research organizations, non-profit organizations, private companies, intergovernmental organizations, public institutions and others.

57. By the end of 2015, CTCN had organized 20 technology events and participated in more than 10 events each year, including the UNFCCC Subsidiary Body of Implementation and COP side events. To increase the acceleration of climate technology uptake in developing countries, CTCN has started dialogues with organizations and mechanisms. In its regional fora 113 participants of the CTCN Consortium, current and potential Network members and employees from sub-regional, regional and multilateral development agencies, such as the Green Climate Fund, GEF, the Adaptation Fund, Multilateral Development Banks, FAO and the International Renewable Energy Agency were attending the events. To raise awareness and engage the private sector into CTCN, sessions on private sector engagement were organized.

Table 10: Comparison of targets with achieved outputs of outreach, networking and private sector engagement

Outputs	Year 1 (Target)	Year 1 – 2014 (Actual)	Year 2 (Target)	Year 2 – 2015 (Actual)	Year 3 (Target)
Service: Outreach, networking and stakeholder engagement					
Number of international technology events/forums	**0**	**11**	**4-6**	**11**	**4-6**
Number of regional public-private sector workshops	**0**	**0**	**6-9**	**9**	**6-9**
Number of regional networking meetings	**6-9**	**7**	**6-9**	**6**	**6-9**
Number of knowledge partners	**10**	**12**	**50**	**72**	**140**
Number of Public-Private Partnerships formed as result of workshops	**0**	**0**	**3**	**1**	**3**
Number of twinning arrangements as a result of networking events	**3**	**0**	**3**	**1**	**4**

Adaptive management on the basis of first implementation experiences

58. A critical factor of the Programme is the participation of Network Members. The Advisory Board established criteria for membership that are legally not binding for the Network members. Legally binding are service contracts only, when Network members implement assistance on behalf of the CTC. Although CTC tries to keep an eye on all their publicised sources of information displayed and try to limit the KMS to reputable sources, it is questionable whether the KMS is able to check all entries. Although Network members sign a code of conduct, what if for example, certain entities try to market their own technologies and products, who will be able to control them and prevent frauds? And in case frauds do occur, how will these be dealt with, apart from excluding those entities from the Network? CTCN managers admit that the CTCN is not able to fully assess, verify nor endorse technologies displayed on the KMS and will therefore put a disclaimer on its website to clarify this. The Consortium Partners, in comparison, all signed a Memorandum of Understanding, that defines the areas and organization of the cooperation, tackles the issues of intellectual property rights and the use and dissemination of information, and also describes responsibilities and dispute settlement procedures. A smooth operation of CTCN relies heavily on efficient functioning, flexible and quick responses and in the end trust between the Parties involved. Consortium Partners are co-operating together in response to NDE requests, but on the other hand they are competing with each other to prepare the response projects. Other observations relate to the quality of Network members. There are differences in the quality of their contributions within the Knowledge Management System (KMS) and the level of activity and involvement of Network Partners. CTC managers have to deal with both effects and to handle the different tasks to keep the Network partners active, involved and keep up the quality. Inactive Network members will hamper the smooth functioning of the network and undermine the objective of incorporating an ever growing number of Network partners to be able to offer transferrable technology options to all participants.

5.2.4 Knowledge management, peer learning and capacity building

The knowledge management system

59. CTC has established a KMS that comprises knowledge management and information components. It offers an organized, primarily web-based structure for collecting, analysing and disseminating information, products and services on Technology Transfer of Environmentally Sound Technologies (EST) to Consortium and Network members and the general public. It improves the availability and accessibility of knowledge on climate technologies and supports online knowledge exchange and advisory services that act to accelerate the diffusion of cleaner environmental

technologies in developing countries. CTCN officially launched the KMS at COP 20 in Lima. The tasks of the KMS are to[24]:

a. Facilitate and manage the request handling process
b. Support the matchmaking of requests with Consortium and Network members
c. Offer information on technology availability, costs, performance and policies and financing with suitable links to world-wide sources to CTC and NDE
d. Captures and promotes results of quick response and implementation projects
e. Provide a platform to exchange lessons learnt and best practices
f. Offer collaboration spaces for international joint work on support projects
g. Offer expertise profiling options for Consortium and Network members
h. Offer on-line training resources to stakeholders
i. Support management information requirements on current CTCN activities and results
j. Offer social-media connections to integrate CTCN's work with existing high-usage social-media platforms

60. As indicated above, 2014 was the first complete year of actual operation of CTCN. From April 2014 onward the CTCN internal and external communications strategy and activities were coordinated at the CTCN Core Centre in Copenhagen under the guidance of the Knowledge and Communications Manager. Since then, the Core Centre coordinates major events and outreach campaigns with support from the Consortium partners and serves as the clearing house for information regarding the CTCN. The Core Centre aims at maintaining oversight of all partner activities, i.e. partners should inform the Core Centre when they undertake any outreach activity and should inform about results. By December 2014, the CTCN website was launched and KMS started to operate.

61. It was the US National Renewable Energy Laboratory, one of the CP that led the initial design and development of the CTCN KMS. Other Consortium partners contributed to the development of the KMS by providing and reviewing information resources to include on the website. The Consortium also took part in responding to quick response Technical Assistance questions and to create e-learning content. With the input of the Network member REEEP, the CTCN thesaurus was expanded and automatic tagging applications established to more thoroughly cover climate technologies. NREL and CTCN strategic partner DNV GL cooperated to support the development of an internal workflow process, e-learning resources and an associated portal, data visualizations, and an overall strategy for engaging the private sector, including development of web pages targeting the private sector audience.

[24] CTCN Programme of Work 2013, p. 27

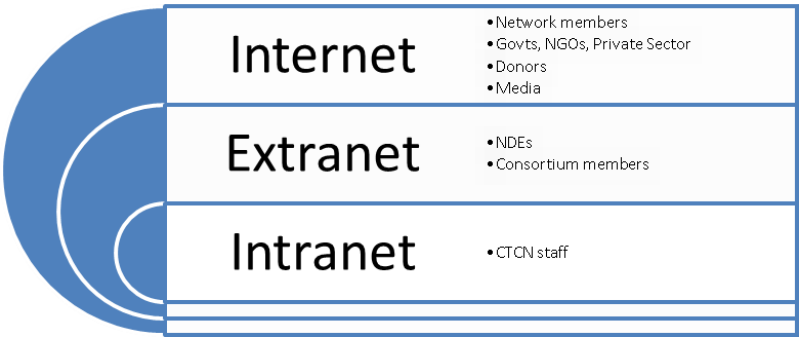
Achievements during implementation and adaptive management

Table 11: Targets for knowledge management, peer learning and capacity building

TARGET OUTPUTS (per year)[4]		Y1	Y2	Y3	Y4	Y5	Total
Service: Knowledge Management, peer learning and capacity building							
OUTPUTS	Number of remote technical advisory responses through helpdesk	0	40-50	50-70	60-80	60-80	**210-280**
	Number of capacity building workshops and training events	3-4	5-7	8-11	8-11	7-9	**30-40**
	Tools and information materials, including coverage of lessons and best practices captured	500	1000	2000	2500	3000	**9000**
	Number of trained CTCN NDEs	30	100	130	130	100	--
	Number of trained CTCN clients	100	250	400	500	500	**1750**
	Number of unique KMS users	500	2500	5000	7000	10000	**25000**
	Number of tool and information resource page visits	2000	13000	35000	50000	100000	**200000**

62. The established CTCN KMS serves as a central repository for CTCN information and updates for internal staff, Advisory Board members, Consortium partners, NDE, Network members and the general public. The KMS is divided into three sections, as shown in Figure 5 below, in order to facilitate both internal and external communications.

Figure 5: Sections of KMS



63. Several communications tools have been implemented in 2014 such as communications strategy, branding guidelines, CTCN brochure, CTCN KMS brochure, CTCN bookmark, CTCN roll up, CTCN PowerPoint presentation template, and the CTCN web presence on UNEP.org. In 2015 a database of climate technologies has been launched. It allows for NDE and partners to submit specific technologies for inclusion in the database. By 2015, 5.770 resources in the form of capacity building tools and information and learning material including the coverage of lessons learnt and best practices, have been captured in the KMS. These add to the 1.347 that were already gathered in 2014. Both figures are higher than planned (see tables 9 and 10). Additionally, the systematic integration of the portal with key regional Technology Transfer centres and network was pushed

ahead as well as a knowledge partnership through active engagement in the Climate Knowledge Broker Group. CTCN organised the Climate Knowledge Brokers Workshop in Copenhagen in 2015 jointly with the two CTCN Network members REEEP and the Climate and Development Knowledge Network, bringing together 60 participants from all over the world.

64. Until 2015, 14.082 KMS users requested information on climate technology issues[25]. Since December 2014, users from 200 different countries, including 155 developing countries, have visited the CNN website. In the last months of the year 2015, the CTCN website has averaged 1.000 visits per day or 30.000 visits per months[26].

65. Another element of knowledge sharing is through the use of webinars. Experts of private and public institutions have the chance to showcase their technology products and competence. At the end of 2015 21 webinars were attended by more than 1.500 stakeholders.

66. Various CTCN activities that aim at enhancing the institutional and human capacity on climate technologies took place. In 2014, a first round of 7 regional training workshops occurred, where newly nominated NDE were trained on CTCN services, NDE roles and responsibilities and the technical response process. A total of 140 people were trained representing NDE from 119 countries.

67. In 2015, 6 regional fora took place to support the participating 96 NDE in identifying and accessing funding for follow-up activities post CTCN Technical Assistance or for other climate technology development and transfer.

Table 12: Comparison of targets with achieved outputs of knowledge management, peer learning and capacity building

Outputs	Year 1 (Target)	Year 1 – 2014 (Actual)	Year 2 (Target)	Year 2 – 2015 (Actual)	Year 3 (Target)
Service: Knowledge Management, peer learning and capacity building					
Number of remote technical advisory responses through helpdesk	**0**	**0**	**40-50**	**0**	**50-70**
Number of capacity building workshops and training events	**3-4**	**7**	**5-7**	**6**	**8-11**
Tools and information materials, including coverage of lessons and best practices captured	**500**	**1.347**	**1.000**	**5.570**	**2.000**
Number of trained CTCN NDE	**30**	**140**	**100**	**96**	**130**
Number of trained CTCN clients	**100**	**0**	**250**	**1.400**	**400**
Number of unique KMS users	**500**	**449**	**2.500**	**14.082**	**5.000**
Number of tool and information resource page visits	**2.000**	**1.330**	**13.000**	**182.900**	**35.000**

68. An important modality of capacity building is the Request Incubator Programme - a collaborative effort of CTC and single Consortium Partners to support NDE from LDCs in their efforts to submit requests. The programme was approved by the Advisory Board and has since its introduction considerably helped to overcome the inhibitions of less developed countries to request

[25] CTCN internal document (November 2015): EC contribution-update on progress and way forward, p. 2

[26] Ibid.

the services of CTCN (see paragraph 48 above). By the end of 2015, 13 LDC had received training on project mapping, policies mapping and on stakeholders mapping and engagement.

5.3 Effectiveness: Attainment of project objectives and results

69. The evaluation team feels that it is too early at this stage to assess the extent to which CTCN support to countries has enhanced country capacities and capabilities. The timescale on which success can be measured is very different from one request to another. Focussing on those requests and responses that have achieved "quick wins" would not provide a reliable picture of overall effectiveness of the CTCN. In addition, so far only two response plans are under implementation (Chile and Colombia), both on the same theme (strengthening monitoring systems for adaptation). An in-depth assessment of these two cases would provide a very limited perspective on CTCN effectiveness.

70. However, it is possible to formulate some tentative findings regarding the potential effectiveness of the CTCN on the basis of the quality of outputs delivered so far, the results of the NDE survey and the follow-up interviews.

71. The result of the electronic survey highlights the following experiences with CTCN: of the 32 survey responses, 6 did not interact actively with the CTCN. All others expressed satisfaction with the timeliness and the quality of the services provided by CTCN. A total of 41% of the survey respondents have used the services on knowledge management, 37% have benefitted from capacity building and 22% from Technical Assistance. The NDE also considered services important that they had not yet used themselves, such as the assistance to requests, training, support in project implementation and sharing lessons learned (cf. Results of the NDE Survey0)

72. In order to validate some of the hypotheses of the e-survey, a series of additional key informant telephone interviews were conducted to deepen some of the aspects highlighted through the survey and the series of "internal" interviews. The interviews were carried out between 13 and 25 January, 2016. Of the 6 people that were contacted by the evaluators for an outside stakeholders perspective, 5 responded and in the end 4 telephone interviews were carried out, each with a duration between 40 minutes and 1 ½ hours. They included a) the UNFCCC Secretariat b) 2 NDE in their threefold function as donors, NDE of a developed country and CTCN Advisory Board member c) a NDE of a developing country, whose project is under way and classified by the CTCN Secretariat as "response under implementation".

73. In the responses to both, the electronic survey and key informant interviews, all interviewees expressed considerable satisfaction with the work of the CTCN Secretariat so far. Particular commendations were received by the Secretariat's quick responses and useful advice prior to the submission of the technical responses and the dedication of its staff to high quality service provision. Both groups of informants indicated that the main factor limiting the number of requests submitted by the National Designated Entities is their own weak capacity (staff, time). The NDE in developing countries are aware of the fact that CTCN provides Technical Assistance to facilitate Technology Transfer and that the challenge to get their Technology Transfer (TT) project financed, lies with them. They understand that only some projects can count on financial support by CTCN. In spite of all CTCN efforts to include financiers into the Network, for the non-funded projects remains the difficulty to find a financier, because in most developing countries the private sector alone is neither able or willing to finance the projects on its own nor can governments contribute substantially,

74. Respondents also reported that there are some TT projects, where the financial resources provided by CTCN are simply insufficient. Additionally, NDEs struggle with mechanisms to engage stakeholders within their countries and with the fact that technology needs in some countries are not yet assessed or in the process of being assessed.

75. The key informant interviewees were able to provide more qualified and in-depth views and highlighted a number of issues that should be addressed in more detail in the Mid-Term Evaluation of the CTCN:

1) Almost all interviewees acknowledge that CTCN has a **funding problem**. For lack of a binding funding commitment of Parties to the CTCN, it has been funded on the basis of voluntary Party contributions. Apart from the GEF and until today, only 10 countries have funded the mechanism so far: Norway, the European Union and Denmark contributed between 5 and 8 Mio US$, Canada, USA and Japan between 1 and 2 Mio US$ and Germany, Switzerland, Finland and Ireland less than 1 Mio US$ each. Therefore, in addition to all other institutional and technical responsibilities, the Secretariat is in a constant mode of fund raising, compounding the demands on staff time and worsening existing limitations.

2) **All NDE**, in developed and developing countries, have to deal with **limited personnel and resource constraints**. Though they are willing to contribute, for example by enriching the CTCN technical library on the CTCN website, there is a lack of mandate and personnel that limits the depth of the engagement. Additionally, there are sometimes institutional constraints, for example in terms of the weak national coordination between ministries.

3) In contrast to the role of NDE in developing countries as facilitators of new projects, the **role of the NDE in developed countries is not yet clearly defined**. A discussion on their role is recommended. The lack of a clear description of their role might also constitute a missed opportunity. There are NDE in developed countries that could envision a more pro-active role and contribution. They are not reached by requests for Technical Assistance (TA) or Technology Transfer (TT), and find that this also might limit their contributions to Advisory Board decision making. If CTCN succeeds in defining more concretely how developed countries can be engaged and how the Mechanism can improve their "utilisation", it can eventually lead to increased awareness for the opportunities in TT and potentially mobilise more funds towards CTCN. An option that was brought forward was that requests for TA could be sent not only to Network and Consortium members, but also to all NDE, but the Mid-Term Evaluation should be tasked with a more thorough assessment, weighing of different options and with making some recommendations.

4) The profile of CTCN may need sharpening. There is an assumption of a common understanding of 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.** A number of statements were made that indicate that the understanding of this role might not be exactly the same among all participants. Examples for such statements were:

- CTCN should focus on "implementing concrete projects and programmes on the ground"
- "implementation of technology projects"
- "should not spend too much energy on a forthcoming research and development and design component"
- "bankable" projects
- strategies ready for implementation
- Other interviewees pointed out that the preparation of bankable TT projects of a certain size requires significantly larger funds per request than the CTCN can contribute, in particular if TA should also be covered by these funds.

It is unclear to the evaluators if all of these statements imply the same activities and levels of funding, and that they all can be asked from the CTCN. The core of this challenge is to define 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. It is implied in the question that Technology Transfer Projects can take many shapes and sizes. In the perception of the evaluators, the CTCN modalities are a good approach of providing appropriate levels of flexibility, but there is no explicit strategy yet for how to deal with the larger projects and longer-term engagements required by some TT initiatives.

In addition, for some of the stakeholders, the complementarity with the Financial Mechanism of the UNFCCC is too weakly defined. This issue should be investigated further in the Mid-Term Evaluation. Overall, defining and redefining complementarity of the Mechanisms of the UNFCCC needs constant attention.

5) The flipside of this is that the project cycle on the national implementation level might not be covered sufficiently to ensure the success of TT projects. For example, there is a worry that CTCN is going to be limited to Technology Transfer of smaller projects. In a Working Paper of the University of Tokyo, Advisory Board member Mr. Kazuhiko Hombu identifies a **lack of potential funding in the operational chain to implement larger mitigation projects, like power plant projects:** "We need to recognize that, in case of 100-1000MW or larger power plants, making the Request for Proposal for each plant requires several specialists, several years and several million dollars. This is far beyond the present Technical Assistance by the CTCN"[27].

6) There is common and joint interest in involving the "private sector", and in particular small and medium sized enterprises (SMEs) into the Mechanism and the TT processes. However, the concern persists, that small and **medium-sized companies** might not be fully **integrated into the processes of CTCN** yet. SME with emphasis on Technology Transfer have limited resources. CTCN has tried to include them in regional workshops, but this has not generally resulted in their feeling that they can adequately contribute with their technical solutions. Overall the "private sector" is the most important carrier of technology knowledge and can play an active role in providing technologies to developing countries, creating jobs in those countries, and supporting economic growth. However, the "private sector" is a very heterogeneous group of very different actors with different resources at their disposal and different roles to play in the TT process. So far the CTCN has not yet looked in detail into this diversity, and no structured analysis and strategy for including different parts of the private sector at different stages and levels of the TT process exists.

7) A number of comments were made on procedural and organizational issues. **Donors and stakeholders want transparency** on the use of funds and achievements. Administrative complications were mentioned in particular with respect to donor reporting requirements, and solutions are being worked out. The hosting arrangements within the two organizations also were raised by some interviewees as potentially confusing.

76. The above raised issues 3 – 6 could not be fully assessed at this point due to the relative immaturity of the portfolio. Further implementation experience is absolutely mandatory for meaningful recommendations. An important topic that affects the effectiveness of the network relates to the relevance of the technology support requests made by the countries. As earlier noted, these requests vary from very broad to very specific, possibly indicating a high degree of variety in

[27] Hombu, Kazuhiko et al., October 2015: How to promote low-carbon investment for mitigation actions in developing countries. The role of the Climate Technology Centre and Network.

the progress that countries have made so far in identifying their technology needs. Related to this, is the level of buy-in and support that can be expected *within* a country for a specific technology for which an NDE is requesting CTCN support. This in-country buy-in and support is likely to have an important effect on the use that is made of CTCN Technical Assistance.

5.4 Sustainability and replication

77. None of the components is implemented so far that the sustainability and replication could be meaningfully assessed. This will be more easily possible in the mid-term evaluation. Some preliminary observations can be formulated.

78. The CTCN institutional core consisting of UNEP and UNIDO seems quite stable. A distribution of roles and responsibility is being established that speaks to the mutual comparative advantages of the two organizations. In terms of the rest of the Consortium Partners, the picture is not quite the same. With one Consortium member – GIZ – it has yet not been possible to conclude a legal agreement with respect to funds transfer. With respect to the other Consortium Partners, it is unclear if the requests reflect their comparative advantages so that they will be able to serve meaningfully in the Consortium. However, at this early stage the structure seems to provide a sustainable model.

79. There is the possibility that response plans can be replicated across countries. Active knowledge management from the side of the CTC would be supporting that. While the systems are being set up it is a potential recommendation to not lose sight of this important way of multiplying the impact of the CTCN. Replicating Technology Transfer generally should enlarge the market for a certain technology, lead to growth opportunities for technology and service providers and accelerate the learning curve effects in terms of costs and technological maturity so that the ESTs can be provided to more countries faster and at lower cost through replication.

5.5 Efficiency

80. Financial expenditures are in line with the planned expenditure except for the Technical Assistance areas that are underspent because less activities than planned have taken place so far While the number of response plans reaches the target, the number of implementation projects is still slightly below the planned figures.

81. The project builds on existing relationships and seeks to avoid duplications. However, on financial issues, insufficient data are provided even in the project document. It served for fund raising and not all activities (including M&E activities) have been fully fleshed out and costed in this document[28].

82. CTCN proves to be very efficient on the response-request process. Therefore all interviewees are satisfied with the timeliness and the high quality of the technical service provided. Apart from Secretariat's quick responses, particular commendations were received by the useful advice prior to the submission of the technical responses.

83. At the same time, 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. By now, the Secretariat keeps up its efficient and lean internal modus operandi, though there is a slight tendency to start complicating administrational processes.

[28] This section needs to be completed on the basis of additional desk review and interviews.

5.6 Factors affecting performance

5.6.1 Design

84. The project design assessment is based on the Joint UNEP-UNIDO Project Document and follows the UNEP EO standard design criteria. It led to the following observations:[29]

85. The project operates on global, regional and sub-regional levels. The project document sometimes lacks specificity and remains rather vague in many respects. For example, stakeholder analysis, gender analysis and risk discussions remain generic by necessity and are neither broken down to regional or country level nor to different stakeholder groups. In the project document, there is no evidence of stakeholder consultation during the project design process. Gender dimensions and environmental safeguards are not mentioned.

86. Strong aspects of the project design are its very strong focus on government capacity building, bringing the projects very much in line with the Bali Strategic Plan as well as the needs of the Convention. Another strong aspect of project design is its high degree of country driven-ness and responsiveness to the UNFCCC by design, ensuring relevance. The projected document is very clear on the demand-driven principle and the relevance of cross-cutting issues. In terms of the intended results and programme theory, the causal pathways are convincingly described.

87. The multi-donor structure is affecting performance in a number of ways: monitoring and evaluation procedures, reporting structures and administrative processes of different donors affect the efficiency of project implementation. At the same time, the inherent instability of the long-term funding prospects places the Secretariat in a kind of permanent "fund-raising mode". Both these aspects are inefficiencies that could be avoided in a project that is so important for a Multilateral Environmental Agreement.

88. Monitoring and Evaluation procedures are foreseen to be installed by CTC and reviewed by the Advisory Board. However, no further information or details are provided in the document, nor is a budget outlined for M&E positions or activities.

5.6.2 Implementation

89. **NDE capacity**. The functioning of CTCN relies heavily on the NDE. Already in the ProDoc the risk was identified that "NDE are unable to fulfil their role as CTCN focal points", and the CTCN POW formulates that "NDE may be understaffed, not have the capacity or understanding to carry out their role or not be profiled well enough". The inability of NDE to carry out their functions is indeed a critical success factor and the early experiences of the CTCN suggest, that this risk is present. As NDE in many countries lack information, capacity, legitimacy or resources, the CTC struggled hard to get the first NDE installed". It became very clear to the CTC that setting up an NDE as CTCN focal point is already a political process, in which many government institutions in developing countries are involved. It is a time consuming and sometimes lengthy process.

90. **Staffing.** An important factor is the lean staffing table of the CTC. It has distinct advantages in terms of financial efficiency, and potentially also operational efficiency through small team sizes. This has worked well up to now, but a number of factors need to be considered for the future:

- The number of requests from Developing Country NDE has been lower than envisioned. This has led to a manageable work load and the time to learn and develop administrative structures and templates that lend themselves to some automation and can potentially

[29] The assessments and ratings are included in Annex 0

handle higher numbers. Still, higher numbers of requests would potentially exceed the staff capacity or delay response times or both.

- Currently, basically two technical managers handle all requests, with the help of a UNIDO manager who is ad interim also serving as Climate Technology Manger for the time the new staff is undergoing recruitment. Where necessary, they are supported by consultants. This limits the level of their technical involvement. For more in-depth technical capacity, CTCN staff need to reach out to the Consortium (including the support teams at UNEP and UNIDO) or sometimes even to the Network. Arguably, the breadth of relevant climate technology is so broad that no-one, and not even the Consortium can provide sufficient technical competence for handling all requests. However, a minimum level of technical capacity needs to be available in house (in the form of one or more Climate Technology Managers) for UNEP and UNIDO to limit reputational and actual risk of making wrong assessments.
- The current situation, where one of the Climate Technology Managers' contract was has not been renewed, leaves the remaining technical staff not only with the added work load which should be remediated from additional workload from consultants and staff in UNEP and UNIDO, but also constitutes a high risk situation for the whole mechanism.

91. **Use of ICT.** The CTCN is almost a virtual organization. Working closely together, UNEP and UNIDO staff is spread across three locations, and undergoing significant travel. Coordination by email and video conference is done effectively and efficiently. Similarly, request processes such as M&E and KM activities also 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.

92. **Funding.** CTCN has limited financial resources and sets strict caps on the size of the projects. Not all response projects that are approved by CTCN can be funded in the phase of implementation. Instead, CTCN needs to stop at the funding of response plans. Requests that target higher financial investments than 250.000 US$ cannot be processed at all under the CTCN. This limits the effectiveness in the actual technology transfer.

In addition, there are administrative challenges within UNEP that have delayed that the funds from the biggest donor, the EC, reached the CTCN quickly. The pooling of EC funds under the Special Cooperation Agreement has provided difficulties for CTCN in the year 2013, when UNEP received the EC contribution in April, but the first instalment of 50% was not transferred to CTCN until November 2013.

93. **Monitoring and reporting**. The CTC Secretariat has various reporting obligations. They report on the basis of the ProDoc logframe to UNEP / UNIDO, and additionally on the requirements of different donors. In some cases variations in the formulation of objectives lead to significant complications in this reporting process. For example, the objective statement of the EC contribution to CTCN is "to allow a quick start of the CTCN by providing early support for a subset of the overall activities of the CTCN[30]". However, EC contribution are applied towards 3 objectives that correspond roughly with the 3 CTCN outputs mentioned in the CTCN ProDoc logframe, but without using the same wording. The sequence of outputs and activities is also different in the two reporting structures. For example: In the CTCN ProDoc logframe activity 1.1 is "Providing advice and support related to the identification of technology needs and the implementation of environmentally sound technologies practices and processes". In the UNEP Project Document activity 1.1 is the "Design and establishment of an online Knowledge Management System". Hence, CTC must draw the reports on the basis of different reporting schemes. This is a very time consuming activity which even might create confusion or misunderstanding.

[30] UNEP Project Document – Support to the UNFCCC CTCN, p. 11

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 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 13: Evaluation Ratings gives an overview of performance at this early stage.

Table 13: 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
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	Satisfactory

Criterion	Summary Assessment	Rating
	than planned.	
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. The rating "moderately unsatisfactory" is dominated by the financially precarious character of the project.	Moderately Unsatisfactory
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

Criterion	Summary Assessment	Rating
F. Factors affecting project performance		Satisfactory
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	Unsatisfactory

Criterion	Summary Assessment	Rating
	for M&E positions or activities	
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
c. M&E Plan Implementation	The Project Management reacted to deficencies 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

6.2 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.

6.3 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 fund-raising 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 UNFCC. 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.

6.4 List of individuals consulted for the case study

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Manfredi Caltagirone, Project Manager, CTCN, UNEP Paris. 22 July 2015

Giulia Ferrini, Consultant CTCN, UNEP Paris, 22 July 2015

Agate Laure, Consultant CTCN, UNEP Paris, 22 July 2015

Jukka Uosukainen. Director CTCN. UNEP Copenhagen. 12 October 2015.

Jason Spensley. Climate Technology Manager. UNEP Copenhagen. 12 October 2015.

Rajiv Garg. Network and Capacity Building Manager. UNEP Copenhagen. 12 October 2015.

Lisa Coverley. Administration & Finance. UNEP Copenhagen. 12 October 2015.

Nima Joshi. Administration & Finance. UNEP Copenhagen. 12 October 2015.

Mariarosa Giannotti. Administrative Officer. UNEP Copenhagen. 12 October 2015.

Karina Larsen. Knowledge & Communications Manager. UNIDO Copenhagen. 12 October 2015.

David Reidmiller, NDE United States of America, 13 January 2016

Karsten Krause, NDE European Union, 15 January 2016

Wanna Tanunchaiwatana, UNFCCC Secretariat, 18 January 2016

Ng Yun Wing, NDE Mauritius, 25 January 2016

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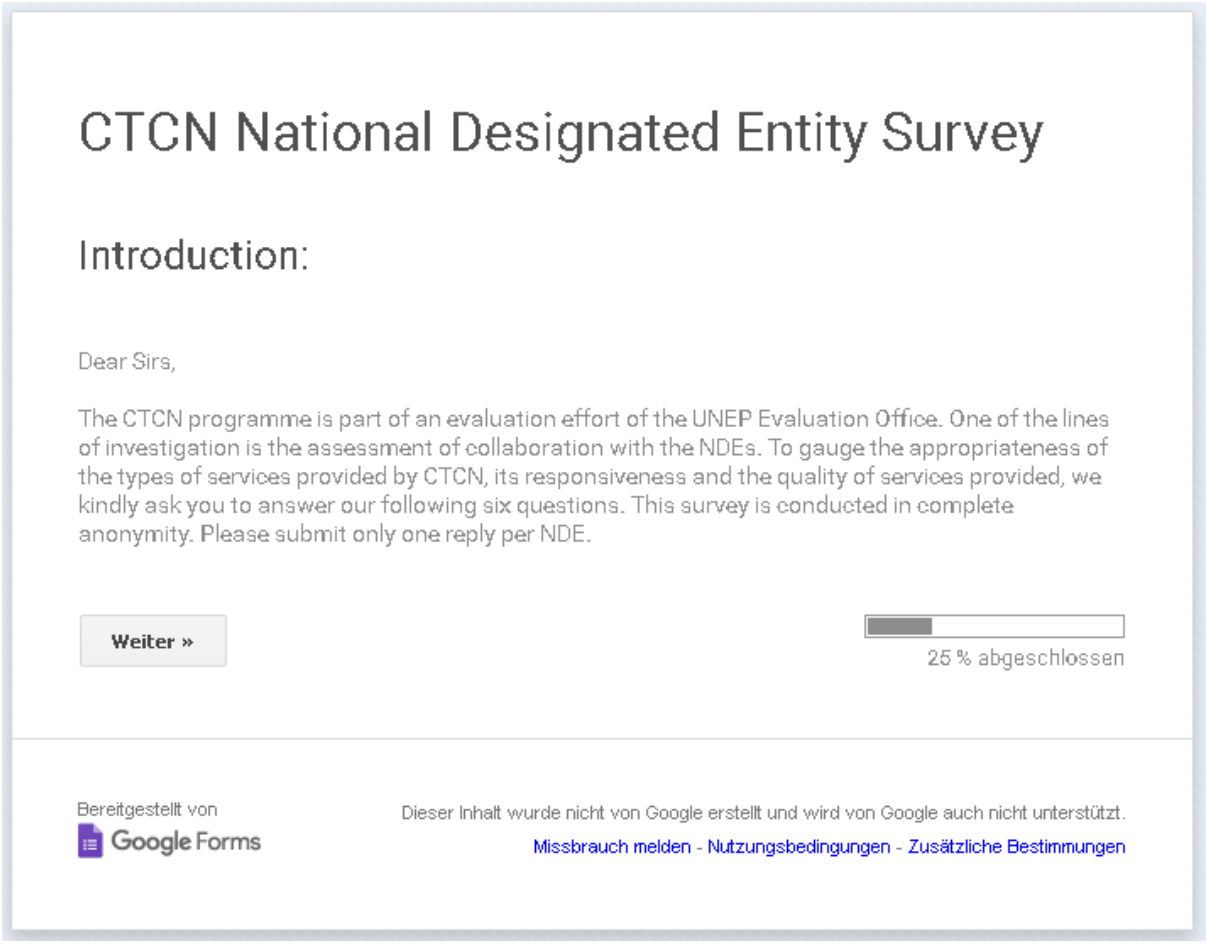
Survey Questionnaire



CTCN National Designated Entity Survey

Introduction:

Dear Sirs,

The CTCN programme is part of an evaluation effort of the UNEP Evaluation Office. One of the lines of investigation is the assessment of collaboration with the NDEs. To gauge the appropriateness of the types of services provided by CTCN, its responsiveness and the quality of services provided, we kindly ask you to answer our following six questions. This survey is conducted in complete anonymity. Please submit only one reply per NDE.

Weiter »

25 % abgeschlossen

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CTCN National Designated Entity Survey

Technical assistance of CTCN in response to national requests

Have you had any interactions with the Climate Technology Centre & Network (CTCN)?

- ◯ Yes
- ◯ No

If yes, what do you think about the timeliness and quality of services provided ?

	Highly satisfied (++)	Satisfied (+)	Moderately Satisfied	Moderately Unsatisfied (-)	Unsatisfied (- -)
Are you satisfied with the timeliness of services ?	◯	◯	◯	◯	◯
Does the quality of services correspond with your needs?	◯	◯	◯	◯	◯

Do you want to add any comments on the timeliness and quality of services provided?

Have you ever requested the following products and services of CTCN:

	Yes	No
Assistance to requests	◯	◯
Response plans	◯	◯
Quick responses	◯	◯
Response projects	◯	◯
Training	◯	◯

Online tutorial	○	○
In-person tutorial	○	○
Conference	○	○
Online workshop	○	○
In-person workshop	○	○
Online knowledge centre	○	○
Sharing data	○	○
Sharing lessons learned	○	○
Sharing reports	○	○
Sharing case studies	○	○
Receiving data	○	○
Receiving lessons learned	○	○
Receiving reports	○	○
Receiving case studies	○	○
Webinars	○	○

If yes, on which subjects or themes (please specify for each type of request made)?

Which of the following services do you consider important for your country, even if you have not accessed them yet?

	Urgently needed (++)	Very useful (+)	Moderately useful	Somewhat useful (-)	Not needed (- -)
Assistance to requests	○	○	○	○	○
Response plans	○	○	○	○	○
Quick responses	○	○	○	○	○
Response projects	○	○	○	○	○
Support in implementation	○	○	○	○	○
Training	○	○	○	○	○
Online tutorial	○	○	○	○	○
In-person tutorial	○	○	○	○	○
Conference	○	○	○	○	○
Online workshop	○	○	○	○	○
In-person Workshop	○	○	○	○	○
Online knowledge Centre	○	○	○	○	○
Sharing data	○	○	○	○	○
Sharing lessons learned	○	○	○	○	○
Sharing reports	○	○	○	○	○
Sharing case studies	○	○	○	○	○
Receiving data	○	○	○	○	○
Receiving lessons learned	○	○	○	○	○
Receiving reports	○	○	○	○	○
Receiving case studies	○	○	○	○	○
Webinars	○	○	○	○	○

Why do you need certain services more than others?

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CTCN National Designated Entity Survey

Barriers to the utilization of CTCN services

What prevents you from making use of CTCN services?

	In most cases	Sometimes	Rarely
Lack of personnel in NDE´s office	○	○	○
Lack of time of NDE personnel	○	○	○
Countries´ Technology Needs not yet assessed	○	○	○
Country has not yet developed a Technology Action Plan	○	○	○
NDE got not enough information about CTCN	○	○	○
Coordination efforts in the national government are too high to submit a request	○	○	○
Operational problems of NDE	○	○	○
Political constraints within government	○	○	○
CTCN does not provide enough financial resources to finance technical transfer projects	○	○	○
CTCN offers no sustained follow-on financing	○	○	○
The whole request procedure is too time-consuming	○	○	○
Country does not require the type of services offered	○	○	○
NDE struggles with mechanisms to engage stakeholders	○	○	○
The countries´ technology needs cannot be answered by CTCN – other modalities would be necessary	○	○	○
Other barriers	○	○	○

Nothing	○	○	○
No need so far	○	○	○

If you checked "other", please elaborate here:

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CTCN National Designated Entity Survey

Do you have any remarks or messages for the evaluation team?

Thank you for your support. The aggregated results will be shared with CTC and its donors, feed into a larger evaluation, and help improve the work of CTCN.

« Zurück Senden

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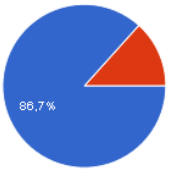
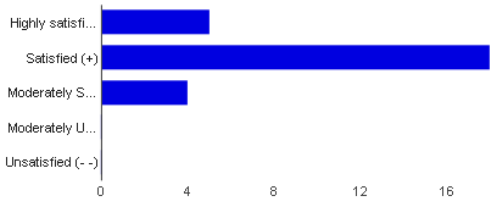
Results of the NDE Survey

Have you had any interactions with the Climate Technology Centre & Network (CTCN)?



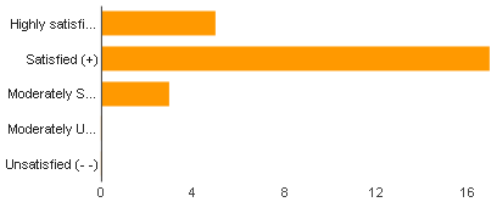
Yes	**26**	86.7 %
No	**4**	13.3 %

Are you satisfied with the timeliness of services ? [If yes, what do you think about the timeliness and quality of services provided ?]

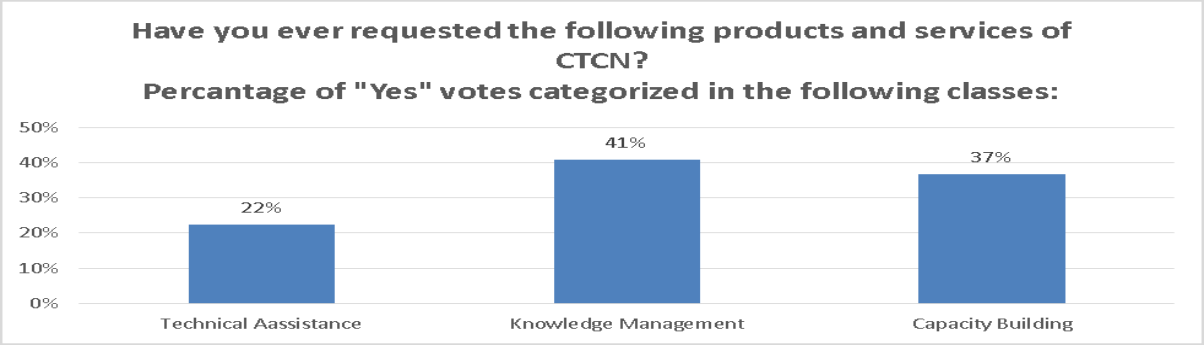


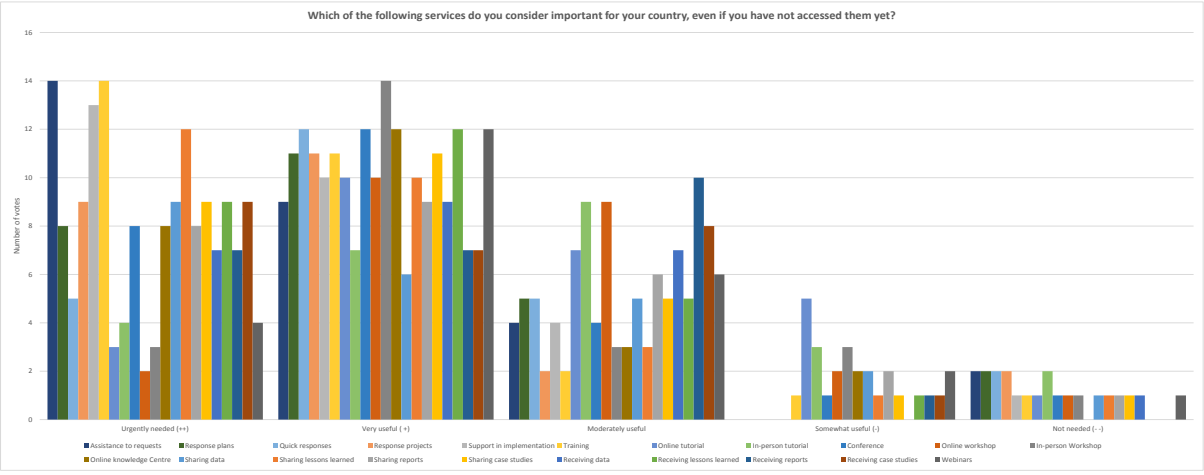
Highly satisfied (++)	**5**	18.5 %
Satisfied (+)	**18**	66.7 %
Moderately Satisfied	**4**	14.8 %
Moderately Unsatisfied (-)	**0**	0 %
Unsatisfied (- -)	**0**	0 %

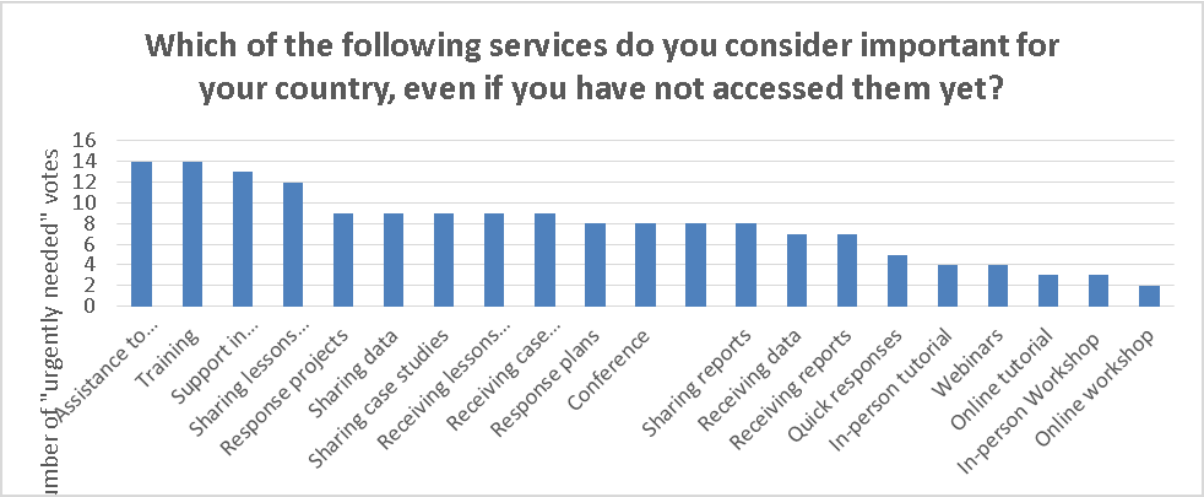
Does the quality of services correspond with your needs? [If yes, what do you think about the timeliness and quality of services provided ?]

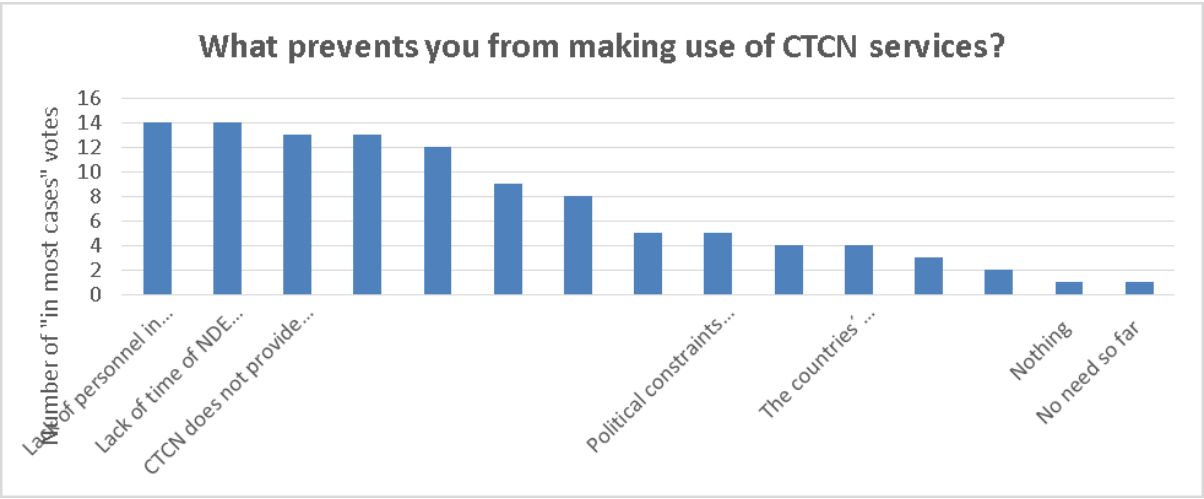


Highly satisfied (++)	**5**	20 %
Satisfied (+)	**17**	68 %
Moderately Satisfied	**3**	12 %
Moderately Unsatisfied (-)	**0**	0 %
Unsatisfied (- -)	**0**	0 %






Which of the following services do you consider important for your country, even if you have not accessed them yet?
umber of "urgently needed" votes
16
14
12
10
8
6
4
2
0
Assistance to...
Training
Support in...
Sharing lessons...
Response projects
Sharing data
Sharing case studies
Receiving lessons...
Receiving case...
Response plans
Conference
Sharing reports
Receiving data
Receiving reports
Quick responses
In-person tutorial
Webinars
Online tutorial
In-person Workshop
Online workshop


What prevents you from making use of CTCN services?
Number of "in most cases" votes
16
14
12
10
8
6
4
2
0
Lack of personnel in...
Lack of time of NDE...
CTCN does not provide...
Political constraints...
The countries' ...
Nothing
No need so far

Project design assessment

	Project context		Evaluation Comments	Rating
1	Does the project document provide a description of stakeholder consultation during project design process?		No	MU
2	Does the project document include a clear stakeholder analysis? Are stakeholder needs and priorities clearly understood and integrated in project design? (see annex 9)		The document contains an unspecific stakeholder analysis, as the the project approaches a wide variety of stakeholders from public sector and industry, government officials, international donors and financing institutions, private sector companies to civil society at international and national levels.	MU
3	Does the project document entail a clear situation analysis?		The project document entails a general analysis of climate change and the need to act on adaptation and mitigation to enhance clinate resilience and support low-carbon development on a global level.	S
4	Does the project document entail a clear problem analysis?		The poject document entails a general analysis of the barriers to climate technology development and transfer on a global level. It raises awareness for the differences between climate technologies and their transfer in adaptation and mitigation strategies.	S
5	Does the project document entail a clear gender analysis?		No.	U
	Relevance			**Rating**
6	Is the project document clear in terms of relevance to:	i) Global, Regional, Sub-regional and National environmental issues and needs?	The document does not provide an assessment of the difference in the needs between regions, sub-regions and countries, but implies that the countries will request according to their needs. It is assumed that developing countries trough their NDE articulate their technology and capacity-building needs in line with national development and climate strategies.	MS
7		ii) UNEP mandate	The link to the gobal issue of climate change and UNEP´s role as the leading global environmental authority make the link to UNEP´s mandate very clear. Therefore UNEP launched i.a. the Green Economy Initiative (GEI).	S
8		iii) the relevant GEF focal areas, strategic priorities and operational programme(s)? (if appropriate)	The relationship with GEF CC focal area is not discussed. The Conference of the Party made a decision to ask the Global Environment Facility for funding to secure the continued operation of the CTCN.	MS
9		iv) Stakeholder priorities and needs?	Stakeholder priorities and needs are not clearly documented in the ProDoc, but incorporated in the response plans.	MS
10	Is the project document clear in terms of relevance to cross-cutting issues	i) Gender equity	The response plan contributes indirectly to gender equity through fostering a more integrated approach to policy planning. The implemented projects shall have a more direct impact on gender equality.	MU
11		ii) South-South Cooperation	South-south cooperation takes part when Consortium partners from the South give technical support for requests received through the NDE in developing countries or Network partners from South support NDE in implementation of TT. Networks, partnerships and capacity building for both TT south-south and south-north shall be strengthend (output 3 of the logframe).	HS

12		iii) Bali Strategic Plan	The projects' focus on government capacity building is very strong, bringing the projects very much in line with the Bali Strategic Plan	S
	Intended Results and Causality			
13	Are the outcomes realistic?		The outcome targets are realistic, but difficult to achieve.	S
14	Are the causal pathways from project outputs [goods and services] through outcomes [changes in stakeholder behaviour] towards impacts clearly and convincingly described? Is there a clearly presented Theory of Change or intervention logic for the project?		The causal pathways from outputs to outcomes towards impacts are not clearly described, but there is an discernable intrinsic logic within the project.	MS
15	Is the timeframe realistic? What is the likelihood that the anticipated project outcomes can be achieved within the stated duration of the project?		The outcomes can be achieved within the stated duration of the project, once operationalization of the programme is brought to an end.	S
16	Are activities appropriate to produce outputs?		Yes. The acitivities are logically structured and lead to the proposed targetted outputs for key services.	HS
17	Are activities appropriate to drive change along the intended causal pathway(s)?		Discussion on reconstructed TOC.	S
18	Are impact drivers and assumptions clearly described for each key causal pathway?		The key assumptions on objective, outcome and programme output level are clearly displayed. The impact drivers are less clearly stated.	MS
19	Are the roles of key actors and stakeholders clearly described for each key causal pathway?		The roles of key actors and stakeholders are only generally outlined.	MU
20	Is the ToC-D terminology (*result levels, drivers, assumptions etc*.) consistent with UNEP definitions (*Programme Manual*)		Yes	S
	Efficiency			
21	Does the project intend to make use of / build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency?		The project builds upon existing relationships, partnerships and institutions and utilizes them in a strategic manner. CTCN explicitely tries to avoid the duplication of work of other bodies (p.6) and seeks cooperations with Green Climate Fund and GEF where possible. CTC closely cooperates with technical experts of 11 Consortium partners and gradually contracts new network members.	HS
	Sustainability / Replication and Catalytic effects			

22	Does the project design present a strategy / approach to sustaining outcomes / benefits?	The outcome of the programme is to a large extent in the hand of the National Designated Entities. They prepare the requests for CTCN. CTCN is demand driven. If requests of national entities are not linked to national TNAs or TAPs, CTCN can classify them as not eligible. If NDE present requests that are closely linked to TNA or TAP, the outcomes and benefits in developing and adopting EST for climate change mitigation and adaption will be sustaining.	S
23	Does the design identify social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts?	The project is demand driven and relies heavily on the initiative of the NDE in devoloping countries. Other political factors depending upon the engagement of national and international stakeholders or social influence factors are not yet identified.	MS
24	Does the design foresee sufficient activities to promote government and stakeholder awareness, interests, commitment and incentives to execute, enforce and pursue the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project?	The project design assumes that the governments are comitted to fostering climate Technology Transfer; it assumes that public and private stakeholders engage at the design stage of projects and that they are committed. To ensure their support the following measures are undertaken:1) advise and support related to the identification of technology needs is provided through communication with Consortium and network partners 2) CTCN supports international and subregional technology events, knowledge-sharing events and country peer reviews 3) CTCN povides a knowledge management system and web-based information portal with web based peer learning and on-line training courses 4) it builds up an ever growing international network of national, regional, sectoral and international technology centres to support the NDE in their project implentation phase	S
25	If funding is required to sustain project outcomes and benefits, does the design propose adequate measures / mechanisms to secure this funding?	The indicative programme budget is 50 mio US$ over the first 5 years and is not secured. At the time of Pro Docs only potential donors are identified and talks are initiated. A number of donors expressed their interests including Denmark, Germany, Japan, Netherlands, Switzerland, USA and EC. Funding is only secured from Denmark- 5 mio US$, Canada - 2.5mio US$ and EC - 5 mioUS$. In-kind and direct contributions are possible. UNEP provides 3.9 mio US$ and UNIDO 2,075 mio US$. The COP decided to ask GEF for support.	MS
26	Are financial risks adequately identified and does the project describe a clear strategy on how to mitigate the risks (in terms of project's sustainability)	The financial risks are incorporated in the risk log (risk description 2). As the CTCN is important in the international climate fora, the propect for funding is judged as "real" (p. 19). The COP will ultimately rely on GEF to close funding gaps.	S
27	Does the project design adequately describe the institutional frameworks, governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustain project results?	Chapter C.7 deals with the underlying assumptions and rationale and CTCN strategies for adressing risks. It ist stated, that evidence is found that countries are eager to promote climate technology and transfer on a global level. Despite all efforts, the section is too brief to include all dicussions from institutional to legal and accountability frameworks.	MU
28	Does the project design identify environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits?	There are no environmental factors mentioned that influence the flow of future project benefits.	MU

29	Does the project design foresee adequate measures to promote replication and up-scaling / does the project have a clear strategy to promote replication and up-scaling?	Up-scaling is part of the expected project outcome. Output 3 is about the outreach and expansion of a growing network that can handle a high volume of support requests and cover a broad scope of support topics in a rapidly evolving operating context.	S
30	Are the planned activities likely to generate the level of ownership by the main national and regional stakeholders necessary to allow for the project results to be sustained?	The request process of submitting is demand driven. Therefore the level of ownership of the main national stakeholders will be sustained. The sustainablity of regional stakeholders depends on their participation and committment, depending to which degree the NDE and national governments let them participate. This can be measured by number of collobarative initiatives of PPP etc.	S
	Learning, Communication and outreach		
	Has the project identified appropriate methods for communication with key stakeholders during the project life?	There will be international and (sub-) regional tecchnology events supported by CTCN, north-south and south-south knowledge sharing events and country peer reviews, a knowledge management and web-based information portal, a web based peer learning and on-line training courses and international meetings of knowledge-sharing.	S
	Are plans in place for dissemination of results and lesson sharing.	Dissemination takes place through the knowledge management system and communication and best practices.	HS
	Do learning, communication and outreach plans build on analysis of existing communication channels and networks used by key stakeholders ?	No explicit plans are provided, but it is obvious that the stakeholder analysis includes all relevant target groups.	MU
	Risk identification and Social Safeguards		
31	Are all assumptions identified in the ToC presented as risks in the risk management table? Are risks appropriately identified in both, ToC and the risk table?	Risks in risk table correspond with the assumptions.	S
32	Is the risk management strategy appropriate?	There is no appropriate risk management strategy.	MU
33	Are potentially negative environmental, economic and social impacts of projects identified?	No.	MU
34	Does the project have adequate mechanisms to reduce its negative environmental foot-print?	The underlying assumption is that there is no negativ footprint as the project aims at accelerating transfer and deployment of national adaptation and mitigation policies in developing countries.	MU

	Have risks and assumptions been discussed with key stakeholders?	The document gives no indication of that.	MU
	Governance and Supervision Arrangements		
35	Is the project governance model comprehensive, clear and appropriate? (*Steering Committee, partner consultations etc.*)	The government and management of CTCN stems from COP decisions 1/CP.16, 2/CP.17 and X/CP. 18. A tripartite steering committee, including representatives from UNEP, UNIDO and CTCN Director and co-chaired by the heads of the responsible Branches at UNEP and UNIDO meets basically on a six-months basis or as needed. Additionally, Consortium Partners meet as needed virtually basically once a year. The advisory board gives overall guidance to CTCN , decides upon timelines etc. (As decided in § 14/CP.14 the Advisory Board is comprised of 16 government representatives, 3 UNFCCC organizations, government representatives elected by the COP etc. see COP report Warsow 2013 decision 25/CP.19). The Advisory Board members are selected by the COP and determines operational modalities, rules of procedure, approves reports and work programmes, endorses the Appointment of the Director and key financial matters and monitors and evaluates the CTCN responses and response plans.	S
36	Are supervision / oversight arrangements clear and appropriate?	Oversight arrangements are described, but only on a general level.	S
	Management, Execution and Partnership Arrangements		
37	Have the capacities of partners been adequately assessed?	The capacities of the Consortium partners are only generally explained.	MU
38	Are the execution arrangements clear and are roles and responsibilities within UNEP clearly defined?	UNEP and UNIDO will be responsible for procurement, recruitment, administration, management and reporting. Financial contributions are stated more in detail. Roles and responsibilities are less clearly defined.	MS

39	Are the roles and responsibilities of external partners properly specified?		The role of NDE is defined as intermediaries between CTCN and national stakeholders and serve as focal points of CTCN activities. They manage the national submission process and support the articulation of requests (1-2). They shall also identifiy priority technology and capacity-building needs in line with TNA/TNP (3), facilitate private sector cooperation and provide feedback to CTCN (4-5).	S
	Financial Planning / budgeting			
40	Are there any obvious deficiencies in the budgets / financial planning? (*coherence of the budget, do figures add up etc.*)		Obvious deficiencies in the budget cannot be traced.	S
41	Is the resource utilization cost effective?		N/a. Cannot be assessed as activities are formulated very generally	N.a.
42	How realistic is the resource mobilization strategy?		It is not described in the document and seems to be rather unspecific.	N.a.
43	Are the financial and administrative arrangements including flows of funds clearly described?		no	HU
	Monitoring			
44	Does the logical framework	· capture the key elements of the Theory of Change for the project?	The logical framework does not comment on the causal links between input and output , output and outcome or outcomes and impacts , but complies with UNEP standards.	S
		· have 'SMART' indicators for outcomes and objectives?	The indicators at objective level are equally specific, measurable attainable, relevant and time-bound as at outcome level.	S
		· have appropriate 'means of verification'?	yes	S

45	Are the milestones appropriate and sufficient to track progress and foster management towards outputs and outcomes?	Milestones underpin the organisational structure and Technical Assistance.	HS
46	Is there baseline information in relation to key performance indicators?	Outcome and outputs provide baseline information.	HS
47	How well has the method for the baseline data collection been explained?	It is not explained. N/a	N/a
48	Has the desired level of achievement (targets) been specified for indicators of outputs and outcomes?	Yes.	S
49	How well are the performance targets justified for outputs and outcomes?	The targets seem ambitious and can only be achieved when timeline is maintained.	S
50	Has a budget been allocated for monitoring project progress in implementation against outputs and outcomes?	In the indicative budget there is no provision for M&E.	U
51	Does the project have a clear knowledge management approach?	The installation of KMS is one activity of output 2.	HS
	Have mechanisms for involving key project stakeholder groups in monitoring activities been clearly articulated?	In Pro Docs the means of verification relies on country communication.	S
	Evaluation		
52	Is there an adequate plan for evaluation?	It is only mentioned that Advisory Board is responsible for M&E.	U
53	Has the time frame for evaluation activities been specified?	A time frame is not specified.	MU
54	Is there an explicit budget provision for mid-term review and terminal evaluation?	no	S
55	Is the budget sufficient?	There is no evaluation budget	
	Stakeholder Assessment		

56	Have all stakeholders who are affected by or who could affect (positively or negatively) the project been identified and explained in the stakeholder analysis?	The stakeholder analysis is very broad and comprises all relevant actors.	S
56	Did the main stakeholders participate in the design stages of the project and did their involvement influence the project design?	There is no evidence given in the document that stakeholders were previously involved.	MU
56	Are the economic, social and environmental impacts to the key stakeholders identified, with particular reference to the most vulnerable groups ?	No.	MU
56	Have the specific roles and responsibilities of the key stakeholders been documented in relation to project delivery and effectiveness?	No.	MU
56	For projects operating at country level, are the stakeholder roles country specific? Is there a lead national or regional partner for each country/region involved in the project?	In each country there is an NDE involved in the project. Their roles are clearly defined.	S