CTCN Proposed KMS Forward Plan

Introduction

About this document
This document is provided at the request of the CTCN Advisory Board. Following a de-brief from AB meeting and summary statement of proposed changes to the KMS and its development, the document covers:

- The purpose of the KMS;
- Component parts of the KMS;
- Guiding principles for the development of the KMS;
- Measures of success;

Debrief from AB7 meeting
The Advisory Board requested the secretariat to provide insight in the forward plan for the KMS with a view to understanding how the team will be addressing concerns expressed during the 7th meeting of the Board, particularly regarding the ‘technology library’, one of the component parts of the KMS. These concerns include its current incomplete content, potential obsolescence of information, sustainability, and overall value for money.

Proposed change in course of action
In response to Advisory Board guidance, the CTCN is proposing to implement the following changes in its approach and work programme:

1. Remove the monolithic structure of the library and discontinue the term “Technology Library”; instead integrate technology information into the KMS by linking technology information to technical assistance pages, network member pages and other types of pages such as regional pages and sector pages.
2. Instead of dragnetting/sweeping up content, we will prioritise information based on technical assistance (TA) analysis;
3. Link different types of information by sectoral/country relevance (webinars, TA, network members, technology information); to
4. Active engagement of content providers, including BINGO, ENGO, and RINGO communities;
5. Further analysis of country priorities, as reflected in e.g. INDCs, to drive prioritisation of technology information.

In this manner, the CTCN knowledge management system will provide more tailored technology information, prioritized by technical assistance demand. This more specific focus enables a more thorough treatment of a smaller group of technologies, facilitating a collection of more relevant and up to date information, cases studies and tools as well as greater sustainability of the system.
Purpose

Ultimately, the purpose of the KMS is to implement the mandate provided by the COP to the CTCN, following Decision 25/CP.19:

**COP Decision 25/CP.19**

“The CTCN should disseminate its outputs and facilitate knowledge-sharing through a well-functioning information platform that responds to the information and knowledge service requirements of its potential users, including NDEs, Parties and a wide range of technology actors, experts and stakeholders.

... ‘share information on current CTCN activities and results’

*...serve as a comprehensive, up-to-date, and easily accessible library of information on technology availability, costs, and performance, policies, financing, and other topics for use by countries, with seamless links to resources available from sources around the world;’

The CTCN has operationalized this mandate into the following mission statement:

*The KMS is the portal through which curated knowledge from a broad array of international sources and CTCN technical assistance and capacity building services are made available to the KMS’s primary audiences: the National Designated Entities (NDEs), the CTCN itself, and the broader climate development community.*

Components of KMS

As presented during AB7, the CTCN’s knowledge management system currently consists of a number of component parts:

1. CTCN Virtual Office: document sharing and task management platform for Secretariat staff;
2. Technical assistance workflow and information management module for Secretariat staff;
3. Technical assistance dashboard featuring real-time information and visualizations (public and CTCN-only);
4. A secretariat-only matchmaking module. This module takes technical assistance request text as input and generates, based on consortium partner and network member profiles, suggestions where expertise to fulfil the request might be greatest;
5. A public website (ctc-n.org);
6. A facet-based search module;
7. Prototype of technology library
8. Content import/linking/structuring wiki system (for editors and submitters of content only);
9. A taxonomy/vocabulary management system that integrates the CTCN vocabularies with the wider climate tagger thesaurus².

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² In the appendix, a profile of the KMS is provided, offering insight into key system parameters such as number of pages, structure of the underlying database, etc.
All these modules are based on existing off-the-shelf software, with some considerable customisation due to the Secretariat’s specific needs.

**Interfaces with other work streams**

The KMS is not an isolated activity within the CTCN as part of the knowledge and communication management work stream. There are essential and mutual dependencies with technical assistance, capacity building, stakeholder engagement, monitoring and evaluation and office management activities.

**Knowledge Management Principles**

The CTCN proposes the following (existing and new) principles that together guide any further development of the system and its content. The principles are and will be used in assessment and prioritisation of requested new functionality by the user base and evaluation of options for software engineering. Each principle is briefly discussed below.

*Use and maintain agreed CTCN vocabulary:* the system maintains a (multi-level) list of terms for sectors, regions (following UN stats definitions), countries, enablers, approaches, climate technology types, climate technologies, organisation types and service types. These lists are maintained by the secretariat with input from external experts. Using the taxonomy of terms, we are able to 1) (auto-)tag content using an agreed vocabulary with and 2) show interrelations between various CTCN domains (technical assistance, capacity building, and network).

*Technical assistance portfolio drives content development/sourcing:* to put some boundaries around what content is linked to the KMS and to increase relevance, we propose that the portfolio of technical assistance requests provide, after keyword extraction of all the documents associated with TA, the list of (technology) areas that the KMS needs to show further information on.

*Analysis of search terms drives content development/sourcing:* equally, the capture of search terms used will provide input for what information users are looking for.

*Bring related information together:* ultimately, the KMS needs to show information in context. For example, when a user finds a piece of information on a technology, they also need to see which network members might have experience with it, which technical assistance has been provided in the past on the subject, which capacity building opportunities they can have access to and which other UNFCCC-related content is available (INDCs, TNA, NAMA, NAPs, etc.).

*No duplication, but linking:* to prevent duplication of information and ensure that the latest information is reflected we will link to information rather than copy it.

*Work with trusted knowledge partners:* with its network, CTCN is able to promote knowledge resources from its members. We will endeavour to make linking to information represented in the

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2 Climate Tagger is a suite of tools to help organizations streamline and catalogue their data and information resources, and connect them to the wider climate knowledge community. Climate Tagger automatically scans, labels, sorts and catalogues data and documents utilizing Linked Open Data.

3 Information provided by Network members/Knowledge Brokers outside this scope would also be onboarded but there will be no active outreach outside this scope.
network easy by offering step-by-step recipes for network representatives (and their web teams) to do so.

Publish unique CTCN content as open data: CTCN generated content such as technical assistance information to be published as open data, so that others can use it on their portals, following the knowledge grid principle as advocated by the Climate Knowledge Brokers, of which CTCN is a supporting member.

User needs analysis and feedback loops: it is clear that we have to listen more closely to our non-secretariat user base, particularly with a view to further develop and integrate technology information into the system. We aim to gather more user feedback through NDE forum events, online surveys, small user testing groups and involve consortium partners in reaching out to users.

CTCN’s Value Proposition
The ctc-n.org is not a simple, out-of-the-box wordpress site, but it is also not Google, nor does it aspire to be. So, what differentiates the CTCN web-platform? We believe that its value proposition is based on the following:

- Value is created, not by indexing all the worlds’ websites and showing results in a long results list, but by carefully sourcing information from sources that are approved by the CTCN and by presenting and combining that information in meaningful ways (information in context);
- Presenting (technology) information in a consistent format, allowing users to compare information like-for-like. This is unlike a public search engine, where the results are webpages that present information in different formats, varying levels of detail and potentially unknown provenance;
- Prevention of information overload for users by being selective;
- CTCN technical assistance driven information, so the information presented is related to country demand.

Measures of success
The 2015 CTCN operational plan provided some key target outputs associated with the KMS, which we believe have reached or exceeded (see tabular excerpt from the 2015 plan). It is clear that we need to stretch these goals for 2016 and further. It is our proposal to be looking at additional measures of success, including:

- Visits from developing world, including their duration, where they look, their demographics, etc.;
- Percentage of network that provides information;
- Successful matches between on-line search on the KMS and information provided.

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4 We run Google Analytics and are able to develop intelligence on provenance, gender, age groups, devices used, visitor paths through the platform, traffic sources, etc.
Appendix

Governance of CTCN Knowledge Management System

CTCN Governance Structure
Proposal V0.4

NOTE: This is a dynamic document and as such it will be updated at regular intervals to reflect the latest decisions on governance structure as decided by the CTCN.

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Purpose

- To provide a systematic approach to governing the content knowledge management system;
- To create a structure which ensures the continual enhancement of quality controlled content;
- To form an expert committee that can assess the progress of the KMS as well as address any technology gaps or developing technology issues that arise.

Principles

- Centralized oversight and control of the CTCN’s technology content
- Quality controlled content by technology experts
- Technology neutrality
- Appropriate balance of adaptation and mitigation technologies
- Developing as well as developed country technologies
- Due consideration for innovative technologies including linkages to the RD&D community
- Content drawn from a wide net of freely available, trusted sources
- On-going consideration of user feedback to address currency and relevancy of information

Key Components of the Governance Structure

- CTCN management group
- CTCN technical support group
- Climate Technology expert group
- Climate Technology content providers
- Climate Technology user group

The management group, with the assistance of the technical support group, will establish the expert group and the user group, giving due consideration to the roles and responsibilities of these groups as well as operational needs and constraints.
CTCN Technology Information Management Group

The management group is the highest authority within this governance structure and will consider input from the other groups when making decisions. The management group consists of the following personnel:

- **CTCN Director**, who is the ultimate decision maker that approves decisions while also providing direction and a senior level vision to the KMS.
- **CTCN Knowledge and Communications Manager**, who maintains the strategic direction and overview of CTCN’s knowledge management activities for both Secretariat operations and dissemination of technology and CTCN information publically.
- **CTCN Technical Support Group Lead**, who is the main decision formulator and provides the operational direction for the design, development and implementation of the KMS. The lead will formulate decisions based on consultation with other managers to ensure harmony with other work streams of the CTCN.
- **CTCN Network and Capacity Building Manager**, who provides input to ensure that the KMS meets the Capacity Building needs of the CTCN while leveraging the Network of the CTCN.
- **CTCN Climate Technology Managers**, who provide input to ensure that the KMS meets the needs in line with the type of technical assistance delivered by the CTCN. The Climate Technology Managers specifically will provide input and insights regarding their respective adaptation and mitigation fields.

The management group is responsible for the overall direction of the KMS and the establishment and oversight of its structure. The management group, with the assistance of the technical support group, will formulate the expert group and user advisory group by seeking expressions of interest

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5 The lead will be provided by DNV GL.
from the CTCN, Consortium Partners, NDEs, CTCN Network, and other CTCN partners including the climate technology community.

**Climate Technology Expert Group**

The expert group represents the coordinators of the various thematic types and categories of technologies. This group is responsible for:

- Coordinating activities that pertain to their assigned areas of expertise;
- Seeking quality content and recommending trusted sources of information for the KMS;
- Facilitating contact between technology providers and the technical support group including recommendation of options for onboarding provider information and initiation of authorization for onboarding of technologies with provider; and
- Providing input to the terminology framework which supports the KMS’ content organization and search function.

Considerations when formulating this expert group include:

- Expert knowledge in adaptation or mitigation and/or in one or more technologies; and
- Professional network of technology providers in their respective field of expertise.

Furthermore, these thematic experts should possess strong knowledge of the CTCN and its mandate. Ideally, members of the expert group are from:

- The CTCN and its host organizations, UNEP and UNIDO;
- CTCN Consortium Partners;
- CTCN Network members;
- NDEs;
- Sector associations (with the potential co-benefit of making them interested in CTCN and/or to stimulate their members).

**Climate Technology Content Providers**

The content providers represent the holders of the technologies that may contribute information to the KMS. Thus, this group is less specific and potentially unlimited as should be the sources of technologies. There is no actual group formation but some considerations when evaluating sources of technologies include:

- Representation of technologies from developing and/or developed countries;
- Regional applicability of technologies;
- International organizations;
- Country level organizations; and
- Wider climate change community with representation from the private sector, public sector, research institutions and ENGOs, RINGOs, BINGOs.

Content providers should provide information that is freely available to ensure that copyrights are not infringed upon.
Climate Technology User Group
The role of the advisory group is to provide practical feedback on the development of the Technology. This group is responsible for:

- Using and testing the KMS;
- Providing feedback on the effectiveness and usability of the KMS;
- Confirming the applicability and usefulness of the content; and
- Assist in identifying content gaps and user trends.

It is proposed to organise user advice by means of open calls for feedback.

CTCN Technical Support Group

The technical support group is responsible for designing, developing and implementing the architecture of the KMS. The technical support group consists of staff from CTCN and CTCN strategic partner DNV-GL.

- CTCN staff provides guidance on web development to ensure that the KMS is consistent with decisions of the management group and functions in harmony with the broader CTCN knowledge management system.
- In addition to web development support, DNV GL staff provides strategic advice on the development of the KMS as well as facilitation support.