

# Convention to Combat Desertification

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Improvement of knowledge management, including traditional knowledge, best practices and success stories: Scientific Knowledge Brokering Portal

# **Progress report on the Scientific Knowledge Brokering Portal**

#### Note by the secretariat

#### Summary

Document ICCD/COP(11)/CST/6 outlines the main activities relating to knowledge management in the UNCCD secretariat. Under the UNCCD 10-year strategic plan and framework to enhance the implementation of the Convention (2008–2018) (The Strategy), Parties mandated the Committee on Science and Technology to establish knowledge management systems that would improve the brokering of scientific and technical information on desertification/land degradation and drought (DLDD) matters. This mandate has been implemented by the development of the Scientific Knowledge Brokering Portal (SKBP), which is planned to be a "portal of portals" gathering content from primary sources of information and making it available to a wide range of end users, including scientists and policymakers.

This document reports on the activities carried out in the secretariat to develop the SKBP, and outlines further work planned for the near future. It provides an overview of the procedures used to invite partner institutions to participate in this project, and of the steps taken to begin developing the portal with qualified information technology specialists and a phased approach. It is expected that a beta prototype will be available at the end of 2013.



#### ICCD/COP(11)/CST/INF.4

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#### I. Background

- 1. The Scientific Knowledge Brokering Portal (SKBP) is a knowledge brokering system designed to improve access to scientific and technical information on desertification/land degradation and drought (DLDD) matters. Its establishment was requested under the 10-year strategic plan and framework to enhance the implementation of the Convention (2008–2018) (The Strategy), adopted by decision 3/COP.8. Paragraph 14 (f) of the annex to that decision mandates the Committee on Science and Technology (CST), in cooperation with relevant institutions, to create and steer knowledge management systems aiming to improve the brokering of scientific and technical information from and to institutions, Parties and end users.
- 2. Under The Strategy the secretariat was requested, in paragraph 20 (b) of the annex to decision 3/COP.8, to support the knowledge management systems established by the CST and perform information and knowledge brokering functions.
- 3. Since the adoption of decision 3/COP.8, several COP decisions have prioritized the conceptualization and implementation of a brokering system dealing with traditional and scientific knowledge, as outlined in article 16 (g) of the Convention, with best practices, and with success stories on combating DLDD.
- 4. Decision 21/COP.10 requests the secretariat to continue elaborating an information platform relating to DLDD, building on existing similar information and categorizations where appropriate and useful, which means that the SKBP will be designed to aggregate knowledge from existing repositories, allowing these to be centralized and accessible from a single search portal, provided that resources and the support of partners are available.

## II. A portal of portals

- 5. The scientific knowledge brokering platform will materialize as a "portal of portals." It will aggregate content from existing knowledge repositories and networks, and gradually expand coverage of these to facilitate access for various audiences to scientific and technological advances and best practices relating to DLDD.
- 6. The SKBP will provide users with a central access point to DLDD-related scientific knowledge and best practices. Institutional partners that specialize in collecting and documenting regional and global DLDD knowledge will share and consolidate their knowledge assets and best practices under a centralized search portal. Thus the secretariat and partners will collaborate to improve the visibility of these best practices.
- 7. Searching for DLDD knowledge will be easier because users will be able to search relevant content sources through one easy-to-use and flexible search interface. Searching for best practices will be simplified by allowing users to filter content using customizable and cross-cutting content refiners. Users will be able to search through multiple knowledge repositories using geographic, chronological, thematic and other types of filter.
- 8. More information on the scope of content and development principles for the SKBP is given in document ICCD/COP(11)/CST/6.

# III. The call for partners for the Scientific Knowledge Brokering Portal

- 9. In late 2012 the secretariat invited global, regional and national organizations to express their interest in being partners in the SKBP. Participating partners will allow the secretariat to access and harvest their DLDD knowledge repositories, and will also provide specifications on their metadata, taxonomy or other information organization structures. They should also demonstrate a willingness to collaborate substantively with the secretariat to optimize the results of the search facility (e.g. to give advice on preferred ranking or evaluation of automatic metadata generation).
- 10. On 15 April 2013 several organizations interested in participating in the development of the SKBP presented details of their knowledge repositories and discussed the proposed SKBP implementation plan during a kick-off meeting held at the secretariat's headquarters in Bonn, Germany.
- 11. Of those organizations that expressed an interest in participating as a partner, the following will be involved in the first phase:
- (a) CEAM (Fundación Centro de Estudios Ambientales del Mediterráneo), a Spanish research institute that carries out applied scientific research on how to improve Mediterranean ecosystems, fosters knowledge transfer and exchange, and facilitates collaboration with resource and land managers in the area of desertification. CEAM will provide knowledge from the European Union projects PRACTICE (Prevention and Restoration Actions to Combat Desertification: An Integrated Assessment)<sup>1</sup> and REACTION (Restoration Actions to Combat Desertification in the Northern Mediterranean);<sup>2</sup>
- (b) CSIC (Consejo Superior de Investigaciones Científicas), a Spanish research institute that will provide access to DIGITAL.CSIC, which gathers documents from CSIC's eight scientific areas and more than 130 institutes. The SKBP will access CSIC's knowledge resources on agricultural sciences<sup>3</sup> and natural resources,<sup>4</sup> which together comprise more than 25,000 items;
- (c) ISRIC World Soil Information, an independent, science-based foundation, founded in 1964 through the International Soil Science Society (ISSS) and the United Nations Educational, Scientific and Cultural Organization (UNESCO), with a mandate to provide the international community with information about the world's soil resources. ISRIC focuses on three priority areas: soil data and soil mapping; the application of soil data in global development issues; and training and education. The SKBP will access ISRIC's GeoNetwork,<sup>5</sup> which gives access to more than 700 digitized soil maps with a worldwide coverage, and to the Wageningen UR (University and Research centre) library, with more than 10,000 documents on soils;
- (d) WOCAT (World Overview of Conservation Approaches and Technologies), a global network of soil and water conservation specialists, contributing to sustainable land management (SLM). WOCAT's goal is to respond to land degradation and desertification through SLM technologies and innovative approaches that result in better implementation of best practices. WOCAT has developed standardized knowledge management and

<sup>&</sup>lt;sup>1</sup> http://80.24.165.149/drupal/?q=node/16.

<sup>&</sup>lt;sup>2</sup> http://practice-netweb.eu.

<sup>&</sup>lt;sup>3</sup> https://digital.csic.es/handle/10261/6.

<sup>4</sup> https://digital.csic.es/handle/10261/8.

<sup>&</sup>lt;sup>5</sup> http://meta2.isric.org/geonetwork/srv/en/main.home.

decision support methods and tools for up-scaling SLM, which will allow the SKBP to aggregate regional- and country-level books, as well as factsheets, brochures, articles, theses, workshop proceedings, videos, a glossary and other tools;

- (e) In addition, the Food and Agriculture Organization of the United Nations (FAO) is in the process of becoming an official partner in order to participate to the development of a proof of concept. FAO will allow the SKBP to harvest information from AGRIS, which provides access to DLDD-related summaries and full-text articles from scientific journals.
- 12. In an effort to efficiently manage resources and the timely development of a proof of concept, the number of partners participating in the first stage will be limited. Other organizations that responded to the expression of interest will remain on the roster of potential partners, and may be considered for later stages of development. Discussions will continue to take place to consider potential forms of collaboration in later stages.

#### IV. The intended users

- 13. The SKBP aims primarily to disseminate knowledge and advancements in DLDD research and in technological developments against desertification. Some of its content may be scientific in nature, but the portal also identifies the following groups as potential users:
- (a) Policymakers, including members of governmental bodies, civil servants and SLM practitioners;
  - (b) Scientists from universities and private and public research centres;
  - (c) Agricultural advisory services and training centres.
- 14. After the beta prototype has been developed, it is expected that a small group of users will be invited to provide feedback on the portal's usability and contributions to the DLDD knowledge discovery process, in order to continue improving the portal's appeal and relevance to different user groups.

### V. Current situation and future developments

- 15. Provided that sufficient resources are available, it is likely that the SKBP will be developed in three phases:
  - (a) Development of a proof of concept;
  - (b) Development of a beta prototype;
  - (c) Formal launch of the portal.
- 16. The SKBP project team has begun necessary procedures to start the first phase. Over the past few months it has identified the critical functional requirements needed to develop the portal and has researched information technology (IT) providers that may be able to support the development of the portal. In July and August 2013, the secretariat finalized its evaluation of potential providers to recommend an IT service provider with experience in designing and implementing search engines, metadata extraction, and autoclassification.
- 17. The selected IT service provider will be responsible for developing the proof of concept that will help determine which search engine and autoclassification configurations are necessary to develop a beta prototype.

- 18. Once the SKBP enters the beta phase of development, the secretariat will progressively add content from other partners' knowledge repositories to the SKBP and will continue to improve users' search experience in the portal.
- 19. The portal will be promoted in collaboration with SKBP partners to reach a greater audience and to optimize dissemination campaigns. The secretariat will also aim to develop a governance structure by which partners can collectively monitor the portal's use to continue improving the quality of content found in knowledge repositories as well as users' search experience with the portal.
- Additional enhancements, such as multilingual searching and personalized searching, may also be considered at this time to continue improving the ease of use and access to the portal.

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