

## Terms of Reference

### *Strengthening the Central Information Services of the Clearing House Mechanism*

#### Background

The Convention on Biological Diversity (CBD) is one of the key agreements adopted at the 1992 Earth Summit in Rio de Janeiro, where world leaders agreed on a comprehensive strategy for sustainable development – meeting our needs while ensuring that we leave a healthy and viable world for future generations. The Convention has 193 Parties and three main goals: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources.

The Secretariat of the Convention, administered by the United Nations Environment Programme (UNEP), is located in Montreal, Canada. It is a small but dynamic and multicultural office consisting of approximately 80 staff. Its main tasks are to arrange for and service CBD meetings, and to coordinate with other international bodies and processes for the effective implementation of the Convention, including its strategic plan and work programmes.

The Clearing-House Mechanism (CHM) provides the information exchange platform of the Convention on Biological Diversity. Created in accordance with Article 18(3), it has evolved into a global network of websites with the CBD website ([www.cbd.int](http://www.cbd.int)) as its central node. The CHM is expected to play an increasingly important role in supporting the implementation of the Convention, and its central information services should be strengthened as requested by the Conference of Parties at its ninth and tenth meetings (COP 9 & COP 10). The implementation of this request has been greatly facilitated by a generous contribution from the government of Spain.

#### Work to be Undertaken

The work to be undertaken, in collaboration with relevant staff members and other experts, will include the following tasks to strengthen both the infrastructure and content of the central CHM information services:

##### *Infrastructure-related tasks*

- (a) Providing expert advice on how to design the requested information services, taking into account the existing infrastructure.
- (b) Designing the corresponding data model and service architecture.

- (c) Designing a user-friendly and attractive user interface for each information service.
- (d) Developing and implementing the corresponding services within the web and database infrastructure of the CBD Secretariat.
- (e) Maintaining and enhancing each information service, whenever needed.
- (f) Performing additional tasks to further develop the infrastructure of the central CHM information services.

*Content-related tasks*

- (g) Inventorying key information and knowledge available within the CBD Secretariat.
- (h) Identifying major information sources relevant to the CBD and its implementation.
- (i) Contributing to the establishment of an information architecture and classification system.
- (j) Providing expert advice on how to structure the CHM knowledge base in a logical and intuitive way.
- (k) Enhancing content quality by assessing its relevance, checking its accuracy, streamlining it, adding metadata, and establishing connections to related information.
- (l) Cataloguing key publications and other relevant documentation.
- (m) Organizing content in formats facilitating transfer to an information system.
- (n) Performing additional tasks to improve the content provided by the central CHM information services.

## **Expected Results**

The final products will consist of the following central CHM information services, as described in document UNEP/CBD/CHM/IAC/2010/1/3<sup>1</sup>:

- A knowledge base providing key information and knowledge about the Convention and its implementation, mostly in the form of interconnected information sheets on relevant resources (guidelines, case-studies, initiatives, organizations, people, etc), with cross-references between programmes and countries.
- A powerful and smart search engine to present results in a user-friendly and structured way, and featuring full-text search on core CBD resources such as decisions, strategies, reports, and other major references.
- A user workspace to facilitate human networking, collaboration, knowledge sharing, and submission of information related to the Convention and its implementation.
- An interoperability mechanism for exchanging information with national CHM and partners, based on Web 2.0 open standards and technologies, and offering customizable information feeds.
- A first version of a mobile phone application providing CBD-related information.
- An overall multilingual infrastructure for the CBD website and the CHM information services, with general support for multimedia information such as photos, videos and geo-location features.
- Some additional supporting tools and services for the CHM.

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<sup>1</sup> This document is available online at: [www.cbd.int/doc/?meeting=chmiac-2010-01](http://www.cbd.int/doc/?meeting=chmiac-2010-01)

## **Timeframe**

The work is expected to take place from January to December 2011, with gradual progress expected on a quarterly basis:

1. An initial phase of 3 months to establish the core services focusing on the user workspace and the knowledge base with initial content.
2. A second phase of 3 months for making all main services operational with substantive content.
3. A third phase of 3 months combining maintenance and further additions.
4. A final maintenance period of 3 months.

## **Expertise and Service Providers**

Due to the multidisciplinary nature of the work, it is envisaged that several experts will work collaboratively on this project. Also, some components may be developed in collaboration with other staff members, partners, or consultants. Based on the submissions received, the CBD Secretariat will determine the most appropriate arrangements for successful implementation, including possible outsourcing to service providers or partner institutions. Multiple service providers, partners and individuals can be involved in this project. Additional information is available in the annex.

## **Financial Considerations**

A maximum budget of USD 80,000 is available for the project. It will be allocated to the selected service provider(s) and/or expert(s) based on their respective responsibilities and delivery. Payment of services on a per-transaction basis can be envisaged, in which case the service provider(s) will be requested to provide billing details.

## **Application**

Submissions should contain an expression of interest, together with a description of relevant expertise and capacity to undertake the work.

**All submissions should be made electronically to [secretariat@cbd.int](mailto:secretariat@cbd.int) before 10 December 2010**

## **Contact Information**

Secretariat of the Convention on Biological Diversity  
413, Saint-Jacques Street- Suite 800  
Montreal, QC H2Y 1N9, Canada

E-mail: [secretariat@cbd.int](mailto:secretariat@cbd.int)

Tel.: +1 514 288 2220

Fax: +1 514 288 6588

Web: [www.cbd.int](http://www.cbd.int)

## **Annex – Additional Information on Expertise and Service Providers**

### **Introduction**

This annex provides details on the expected expertise to implement the global business and biodiversity platform. It also describes the responsibilities of any service provider or partner that may be involved through an outsourcing arrangement.

The following types of expertise have been identified:

- Expertise in User Experience and Web Design.
- Expertise in Web Development.
- Expertise in Information and Knowledge Management.

Additional types of expertise may be considered if they can effectively contribute to a successful implementation of the project.

### **Common Qualifications**

#### ***Core Competencies***

- Professionalism – Strong knowledge of the field of expertise with good analytical skills and ability to solve problems.
- Planning & Organizing – Ability to plan work and manage conflicting priorities.
- User Orientation – Ability to understand, analyze and respond to user needs.
- Commitment to Continuous Learning – Willingness to keep abreast of new developments in the field of expertise.
- Communication – Good spoken and written communication skills, including the ability to liaise with technical staff and present information in a clear and concise style.
- Teamwork – Good interpersonal skills and ability to establish and maintain effective partnerships and working relations in a multi-cultural, multi-ethnic environment with sensitivity and respect for diversity.

#### ***Languages***

Fluency in English; fluency in other United Nations languages is an asset.

### **Specific Qualifications in User Experience and Web Design**

#### ***Education***

University degree in information systems, preferably with a specialization in user experience and web design.

#### ***Work Experience***

Minimum five years of recent experience in designing user-friendly, visually-attractive and modern user interfaces of websites and other applications, following web design standards and making appropriate use of Web 2.0 technologies.

### ***Technical Skills and Expertise***

- Expert knowledge in designing user interfaces and maximizing user experience.
- Expert knowledge of modern website design techniques, including graphical design.
- Expert knowledge of HTML, CSS & Javascript.
- Knowledge of modern web standards and usability guidelines.
- Knowledge of Web 2.0 technologies and services.
- Knowledge in designing user interfaces of mobile phones is an asset.
- Knowledge of XML standards and technologies, including AJAX is an asset.
- Basic knowledge of Internet protocols, databases & programming.

## **Specific Qualifications in Web Development**

### ***Education***

Advanced university degree in information and communication technology (ICT), preferably with a specialization in the development of web-based applications and online systems, or a first degree with relevant combination of academic and professional qualifications.

### ***Work Experience***

Minimum five years of professional experience in designing, implementing and maintaining web applications, on-line databases, search engines and web 2.0 technologies. At least three years of web development and programming in C# and ASP.NET.

### ***Technical Skills and Expertise***

- Expert knowledge of web-related languages and protocols especially HTML, XHTML, CSS, Javascript, XML and HTTP.
- Expert knowledge of C# programming, ASP.NET 3.5, the Visual Studio development environment, as well as the SubVersion (SVN) source control environment.
- Proven practical experience with Web 2.0 technologies, including jQuery, JSON, AJAX, REST and SOAP.
- Excellent knowledge of relational databases, in particular SQL Server database.
- Knowledge of application development for mobile phone is an asset.
- Knowledge of website security threats, and ability to develop secure information systems.
- Knowledge of website design techniques, including graphical design, web standards and usability guidelines.
- Knowledge of multimedia technologies and mapping techniques is an asset.
- Other skills in information and communications technologies are an asset.

## **Specific Qualifications in Information and Knowledge Management**

### ***Education***

University degree in a field related to information and knowledge management.

### ***Work Experience***

Minimum five years of experience in managing content of modern online information services preferably in an area related to biodiversity or the environment.

### ***Technical Skills and Expertise***

- Expert knowledge of online repositories such as documentation systems and knowledge bases.
- Expert knowledge in information architecture, classification systems, and metadata standards, preferably in an environmental context.
- General knowledge of biodiversity issues and multilateral environmental agreements.
- Expertise in writing and organizing content for websites.
- Knowledge of relational databases and XML is an asset.

### **Service Provider Responsibilities**

One or more service providers may be selected to support the CBD Secretariat in strengthening the central CHM information services through outsourcing arrangements. The service provider(s) will assist the CBD Secretariat by undertaking the following tasks:

- Identifying, in collaboration with the CBD Secretariat, the type of expertise needed to accomplish in the most efficient manner the individual project-related tasks defined by the CBD Secretariat.
- Writing, in collaboration with the CBD Secretariat, the Terms of Reference (TORs) for the individual project-related tasks.
- Seeking for third party professionals/agencies from the most appropriate sources, including but not limited to, the service provider's staff and roster, employment agencies, recruitment websites, online rosters and virtual marketplaces.
- Reviewing third parties' qualifications, ratings, portfolios and skills, and selecting, in agreement with the CBD Secretariat, the best options/proposals.
- Negotiating work contracts between the service provider and selected third parties while ensuring that new intellectual property rights received from the third party are properly transferred to the CBD Secretariat.
- Managing third parties, project-related tasks and administrative matters (e.g. payments).
- Providing the CBD Secretariat with monthly reports/invoices on a timely basis.
- Maintaining proper records of all services provided, purchased or arranged under the contract and making them available to the CBD Secretariat for verification, upon request.
- Maintaining the CBD Secretariat updated with industry trends and changes that may have a direct or indirect impact on the cost and level of service.