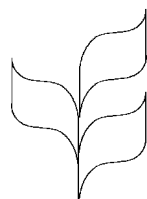




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**MEETING OF THE INFORMAL ADVISORY COMMITTEE
TO THE CLEARING-HOUSE MECHANISM OF THE
CONVENTION ON BIOLOGICAL DIVERSITY**

Paris, France
7 July 2007

**BRAINSTORMING WORKSHOP ON THE IDENTIFICATION OF A STRATEGY FOR THE
CLEARING-HOUSE MECHANISM PARTNERSHIP FOR THE PERIOD 2008-2012**

BRUSSELS, 2 & 3 MAY 2007

Workshop Report

Royal Belgian Institute of Natural Sciences

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Brainstorming Workshop on the Identification of a Strategy for the CHM Partnership for the Period 2008-2012

Brussels, 2 & 3 May 2007

Royal Belgian Institute of Natural Sciences

Executive Summary

The *Brainstorming Workshop on the Identification of a Strategy for the CHM Partnership for the Period 2008-2012* was held on 2 and 3 May 2007 in Brussels. The workshop's objective was to exchange experiences and explore, through a participatory approach, the future of the CHM partnership.

The workshop was organized by the Belgian CHM Focal Point and assembled 10 African countries, Belgium and 3 international organizations.

The vision anticipated for the CHM in 2012 is the following:

- The CHM is evolving equally in terms of methodology and content of its actions.
- At the level of information management:
 - o Technological evolution, increase in web connectivity and the emergence of important themes for society are generating a much greater demand for information.
 - o The CHM is reinforcing its central role in collecting information related to the Convention.
 - o The CHM websites are the principal tool by which information is disseminated, but information dissemination is also carried out through non web-related activities.
- At the level of networking and scientific and technical cooperation:
 - o The CHM provides essential support for the enhanced implementation of the Convention.
 - o CHM-related activities combine web usage with non web-related resources.
 - o Transfer of technology through the CHM is realized.
- Through its multi-functional character, the CHM plays an important role in raising awareness among all public groups and is regarded as a vital tool to support decision-making.

Recommendations have been issued to improve the efficiency and visibility of the CHM:

- Develop a national CHM implementation strategy or develop a strategy for CHM implementation as a part of the National Biodiversity Strategy.
- Develop a communication strategy targeting decision-makers.
- Increase collaboration among national partners through, for example, the integration of the CHM in existing networks or those under development.
- Identify the roles and responsibilities of each national partner in regard to the collection, dissemination and use of information in order to raise awareness.
- Reinforce the clearing-house concept by encouraging focal points and other national partners to contribute information to the CHM.
- Integrate the CHM in the sections of biodiversity-related projects related to themes of "dissemination" or "communication" in order to ensure that the CHM is a part of the distributed project results.

They have been completed by recommendations specifically issued for the CHM partnership:

- Develop guidelines and training modules to assist countries with the installation and development of their national CHM.
- Offer training programmes that respond to the specific needs of partners.
- Assist partners in evolving with new information technologies (The European Community's CHM Portal Toolkit (PTK) is a tool that can be used in this regard.)
- Reinforce networking among the national CHMs, thereby stimulating collaboration and facilitating information exchange through the use of modern communication tools.
- Assist with capacity-building related to infrastructure through the transfer of technology.
- Assist in the development of databases through inventorying existing databases and those of potential use at all levels (international, national, local), directing partners to databases that best respond to their needs or, given the situation, possibly creating new databases and integrating them within the CHM site.
- Assist with the implementation of the Convention through non web-related activities.

1. Background

The Belgian CHM Focal Point has been involved in capacity-building activities related to national implementation of the CHM since 1999. Following the request of several countries, and taking into account the capacities of the Belgian CHM team, a partnership programme was established by the Belgian Focal Point to respond to the needs of partner countries. The first CHM website created as a result of this collaboration was that of the Democratic Republic of the Congo in 1999.

In 2003, the Belgian CHM concluded a framework agreement with the Belgian Directorate-General for Development Cooperation (DGDC) for the period 2003-2007 which focuses on two main areas of activity: (1) development and maintenance of websites for the CHM and (2) public education and awareness-raising through the CHM. These activities are summarized in the tables below:

Table 1. Partnerships for website management (since 1999).

Type of partnership	Number of events	Number of participants	Number of countries
CHM training in Belgium	15	42	27
CHM training at regional and international levels	5	80	27
CHM training at national level	2	16	2
BCH training in Belgium	5	15	15
Follow-up visits to countries	6	16	15
Official hosting of websites on Belgian server			18

Table 2. Partnerships for public education and awareness-raising in 2005.

Country	Responsible institution	Title
Côte d'Ivoire	Centre national de floristique (Université de Cocody)	Sauvons la forêt tropicale : cas du Parc National de la Marahoué
Ghana	Ministry of Environment and Science of Ghana	Species extinction awareness creation
Madagascar	Office national pour l'Environnement (ONE)	Région Anosy, sud-est de Madagascar : promotion d'un outil pédagogique en matière d'éducation et de sensibilisation relatives à l'environnement et à la conservation de la biodiversité
Central African Republic	Ministère des Eaux, Forêts, Chasses et Pêches chargé de l'Environnement et Université de Bangui	Renforcement des capacités en matière d'informations sur la diversité biologique en République centrafricaine

Table 3. Partnerships for public education and awareness-raising in 2006

Country	Responsible institution	Title
Côte d'Ivoire	Centre national de floristique (Université de Cocody)	Sauvons le Parc National de la Marahoué, Phase II : Suivi et consolidation des acquis de la phase pilote
Gabon	Conseil National des Parcs Nationaux	Arrêtons le massacre : sensibilisation des braconniers du Parc National des Monts Birougou
Madagascar	Office national pour l'Environnement (ONE)	Prenons conscience de nos droits et responsabilités dans la gestion durable des espèces animales menacées d'extinction à Madagascar inscrites sur la liste rouge de l'UICN et régies par la CITES
Niger	Conseil National de l'Environnement pour un Développement Durable (SE/CNEDD)	Sensibilisation des femmes des zones périphériques du Parc du W au Niger sur la conservation et l'utilisation durable de la biodiversité
South Asia Co-operative Environment Programme	SACEP, Ministry of Environment of Sri Lanka	Capacity building for the Clearing-House Mechanism of the Convention on Biological Diversity in South Asia, through informing the public and training post graduate students: A Case Study for Sri Lanka

2. Objectives

The CHM partnership has evolved considerably over the last years due to developments in information technology and the demands of partner countries. In 2008, the framework agreement between the Royal Belgian Institute of Natural Sciences (RBINS) and the Belgian Directorate-General for Development Cooperation (DGDC) will be renewed. It is crucial that CHM activities find their proper place in this new agreement. This partnership should not only build upon existing structures, but should also evolve according to country needs and changes in information circulation methods.

In order to establish a strategy for the CHM for the next five years, the Belgian CHM organized a workshop to reflect and dialogue with partners on 2 and 3 May 2007. The participation of partners was crucial to reinforce the analysis of the situation and solidify proposals to be carried out by the Belgian DGDC.

The objectives of the workshop were the following:

- Evaluation of the CHM partnership after seven years
- Identification of problems related to the creation and maintenance of biodiversity information networks
- Sharing of success stories
- Identification of opportunities available to Parties as a result of the evolution of the Convention and the technology.
- Identification of the needs and expectations of partner countries
- Discussion of the future direction for the partnership

3. Participation

Eleven countries and three international organizations were represented. The countries were Belgium, Benin, Burkina Faso, Burundi, Central African Republic, Côte d'Ivoire, Democratic Republic of Congo, Madagascar, Morocco, Niger, and Rwanda. The three international organizations were the Central Africa Forests Commission (COMIFAC), the Secretariat of the Convention on Biological Diversity (SCBD) and the Secretariat of the Global Information Facility (GBIF). The complete list of participants is presented in Annex 1 of this report.

4. Programme

The workshop was conducted over the course of two days. A detailed programme is presented in Annex 2.

On the first day, participants were brought up to date on the current status of the CHM. Activities in process and successes and difficulties encountered by national CHMs were highlighted. The evolution of the CHM since the partnership's establishment in 1999 was also summarized. In addition, the Secretariats of the Convention on Biological Diversity and Global Biodiversity Information Facility presented information on their respective activities.

The second day was devoted to exploring ideas for the future along the following three themes:

- Identification of factors of change driving the evolution of the CHM
- Elaboration of a vision for the CHM on the 2010-2012 horizon
- Identification of actions to develop in order to achieve this vision

The Belgian CHM had sent a questionnaire to all participants before the workshop. This questionnaire was meant to prepare participants for the workshop by identifying various aspects related to their national situations (strengths, weaknesses, achievements), as well as future expectations related to opportunities that can be offered by different technologies and the CBD.

Results of the questionnaire are presented in Annex 3. The goal of the present report is not to duplicate the analysis conducted on these results but rather to synthesize it and include points that had not been addressed.

5. Part I: Current situation

An analysis of the current situation is presented in Annex 3.

Discussions held during the workshop confirm the results of the questionnaire. Partner countries represented at the workshop have an operational CHM Focal Point that is relatively stable and generally constituted by a few resource persons. Due to recent institutional changes, one country (Rwanda) has had CBD and CHM Focal Points in place for less than six months.

The few persons that constitute what is referred to as the CHM "core team" are motivated and possess sufficient expertise to undertake activities. However, it is rare for countries to be able to benefit from this level of human resources on a full-time basis. In the large majority of cases, the availability of these persons is reduced by their involvement in other projects. Moreover, it is sometimes difficult to convince institutional authorities that more time should be devoted to the CHM. The contribution of non "core team members" to the CHM is less stable, done with less motivation and is more laborious to maintain.

An obstacle often mentioned is the difficulty in maintaining networks of collaborators at the national level. Many national partners are not aware of the importance of the CHM and, even when understood, numerous technical and human resource problems remain. Computer equipment, Internet connections and staff training are often lacking, particularly at decentralized levels and at collaborating institutions. These obstacles naturally make Internet access and CHM website maintenance difficult.

Among success stories, the experiences of Burkina Faso and Morocco were particularly encouraging. In Burkina Faso, the CHM network has become integrated within the national network for environmental information (see: <http://www.spconedd.bf/>) thus ensuring the distribution of biodiversity information. In Morocco, lead persons have been designated for each CHM theme, which has resulted in an appropriation of the process by national actors. An effective participative process has been set up where each person contributes in his/her field of expertise.

Website management is one of the fundamental activities of the CHM Focal Point. The latter is however often also involved in non web-related activities. Those activities depend on the national context. Public education and awareness-raising activities were mentioned by the majority of workshop participants.

SCBD highlighted the extent to which the CHM has evolved since the Convention entered into force. Over time, the CHM has increasingly become a means by which information is disseminated. This is far aligned from the original concept of “clearing-house” where a majority can both access information and contribute to it. Recent technological advances (e.g., “web 2.0”) which make it possible to collaborate among Internet users present opportunities for strengthening the CHM. This way, the CHM could be instrumental in an enhanced and more effective implementation of the Convention and the 2010 Target. This evolution would also significantly increase cooperation, both between the Secretariat and Parties and among Parties (North-South cooperation and South-South cooperation).

GBIF presented information on its missions, objectives, current activities and collaboration projects. African countries that are GBIF members are: Equatorial Guinea, South Africa and the United Republic of Tanzania (voting members); Benin, Burkina Faso, Cameroon, Guinea, Ghana, Madagascar and Morocco (associated members). Belgium is a voting member of the GBIF.

The GBIF has carried out capacity-building activities over the last 3 years that can be divided into three main categories: training, mentoring and institution-building. Approximately 15 workshops were organized in the areas of bioinformatics, geo-referencing, data modelling, quality control of data, IT protocols, etc.

In regard to the potential role of the Belgian partnership, several proposals were made, a few of which are listed below:

- continue training and technical support
- offer personalized support to African CHMs according to their specific needs
- prepare appropriate guidelines and training modules in collaboration with SCBD
- stimulate the CHM network at the (sub-) regional level and install means for South-South cooperation
- participate in the development of the www.chm-cbd.net portal to strengthen the CHM network
- contribute to the repatriation of data
- contribute to the repatriation of websites (back to countries) where local technical conditions permit
- provide funding for micro-projects on data collection, education and public awareness
- develop synergies with SCBD and SGBIF related to mechanisms and tools for information exchange
- in collaboration with GBIF, identify complementarities and develop a training programme
- contribute to GBIF thematic campaigns

6. Part II: Exploring the future

Questions related to the future direction of the partnership were asked in the questionnaire, the results of which are presented in Annex 3.

Discussion on future direction took place on the second day of the workshop. An elementary version of the method of “backcasting” was used as a framework for discussion. This exercise begins with the establishment of a snapshot of the desired state-of-the-world in the long term. From this scenario, actions are defined to progressively attain this desired state while taking into consideration both the current situation and trends.

The exercise involved 3 main tasks:

1. The first involved identifying drivers of change and the main stakes involved in the evolution of the CHM.
2. On the basis of the conclusions drawn from the above, the next task consisted in developing a vision for the CHM on the 2010-2012 horizon.
3. Finally, the third consisted in identifying actions to take in order to attain this vision.

Two groups of 6 to 8 participants each were formed so that active discussion on two complementary topics could take place. In each group, a moderator animated discussion and a rapporteur took notes of each participant's contributions.

Group I focused on the evolution of society and technology, particularly within the context of emerging “web.2.0” advanced online services. Questions addressed included: How will African society evolve with new technologies? What will change and what will not? How will the CHM adapt to and benefit from this evolution? What will be the corresponding role of the CHM National Focal Point?

Group II focused on the Convention and its related programmes. Questions addressed included: What topics will be prioritized in the next five years? What direction will the Convention move in? How will the CHM evolve during this time? What will be the corresponding role of the National Focal Point?

The results of the discussions are summarized in the tables below.

Table 4. Factors of change

Group I : Society and technology	Group II : Convention on Biological Diversity
<p>1. Economic and political factors</p> <p>The information society in Africa will develop and follow changes occurring at the international level. This development will however depend on political will. Some countries have already advanced significantly in this regard.</p>	<p>1. The weight of the three objectives of the Convention</p> <p>The three objectives of the Convention will retain their respective importance, however Parties' interest in the second and third objectives will increase. Issues related to access and benefit-sharing will be particularly important for countries rich in biodiversity.</p>
<p>2. Computer equipment and connectivity</p> <p>Computer equipment will become increasingly more affordable and diversified, especially in regard to portable devices that will combine multimedia and communication functions. Internet access poses the risk of remaining a privilege, however the number of cybercafés will be greater and Internet access in the cities will be relatively good.</p>	<p>2. Evolution of themes</p> <p>Political decision-makers will accord more importance to the following subjects: traditional knowledge, transfer of technology, land degradation and restoration of degraded areas, sustainable use, climate change, taxonomy, indicators and biodiversity monitoring, social and environmental impact studies, repatriation of information.</p>
<p>3. Available Internet services</p> <p>The number of online services (e.g., email, data stocking, multimedia tools, telephony, Internet videoconferencing) will continue to increase. The Internet will become an even more immense space in which to collaborate.</p>	<p>3. Biodiversity – a global stake</p> <p>African countries will adopt a common and strong attitude on the importance of biodiversity for the global environment. “The tropics are the lung of the planet and their biodiversity should be preserved.” The international political chessboard should address this.</p>
<p>4. Information management</p> <p>Information on the Internet will become increasingly more comprehensive and available free of charge or at a modest price. It will also support education. A challenge will be to filter the volume of information and determine what is good information and what is not. The concept of websites will no longer be a technical challenge. Contribution at the level of content will be streamlined. Web pages will be more attractive and many “open source” software will be available.</p>	

Table 5. What could the CHM become in 2012?

Group I : Society and technology	Group I : Convention on Biological Diversity
<p>1. The CHM website will be operational, known to the public and accessible by all.</p> <p>Access to computers, Internet and other technologies will allow the CHM to become operational. Information will be accessible and exploitable. Moreover, national actors will be aware of the role of the CHM.</p>	<p>1. The CHM will be a tool to streamline the enhanced implementation of the Convention.</p> <p>The CHM will not only be a system for information dissemination but also serve as a facilitator (indeed a catalyst in some cases) in the development of concrete actions. It will also make information that follows from different actions available at the global level.</p>
<p>2. The CHM website will be a reference tool that provides information that is both reliable and of quality.</p> <p>It will not only be a scientific and technical information system but also a national window through which public awareness is raised and traditional knowledge popularized. Information will be accessed by persons at all levels (technical, political, etc.). The CHM will incite policy-makers to change vision and serve as a tool to aid in decision-making.</p>	<p>2. The CHM will be a tool for communication, education and awareness-raising (CEPA work programme).</p> <p>The CHM will touch a large variety of public audiences and actors and reach beyond the web. It will not serve as a simple mailbox.</p>
<p>3. The CHM website will use new information technology.</p> <p>The CHM will be more lively and interactive as a result of the use of databases, maps, automated exchanges made possible by interoperability mechanisms. Focal Points and other partners will actively collaborate in information networks. Numerous computer solutions will be available through “open source” software and online services.</p>	<p>3. The CHM will be a tool to aid in decision-making.</p> <p>As a result of increased recognition as a tool for information exchange, sharing and awareness-raising, the CHM will contribute to establishing priority themes for intervention at the national level and become a tool to aid in decision-making.</p>
<p>4. Human networks will be organized, well managed and dynamic.</p>	<p>4. The handling of certain themes will be prioritized.</p> <p>Biodiversity knowledge, transfer of technology, access to resources and benefit-sharing, sustainable use, conservation</p>

Table 6. Actions and resources to develop

Group I : Society and technology	Group II : Convention on Biological Diversity
<p>1. Awareness-raising of the role and importance of the CHM among decision-makers</p> <p>The first phase involves establishing an awareness programme and lobbying decision-makers to obtain political support. The benefits the CHM provides for all partners should be demonstrated.</p>	<p>1. Organization of national networks</p> <p>In regard to point 2 of Group I, the structured national network could eventually be divided into thematic sub-networks.</p>
<p>2. Creation of a structured national network</p> <p>National information sources and major biodiversity initiatives in the country should be identified. The creation of a network will follow from this. Nomination of Focal Point(s). Establishment of a legal instrument. Description of terms of reference, role of persons and institutions. Establishment of a steering committee.</p>	<p>2. Information collection</p> <p>Information collection is required before awareness-raising and decision-making activities can be carried out. Case studies can serve as useful information sources to illustrate one problem or another and may originate in other countries when information does not exist at the national level. This information is also useful to compare national successes and difficulties with those of neighbouring countries.</p>
<p>3. Definition of a strategic vision for the CHM</p> <p>One of the first tasks of the constituted network is to establish a national strategy for the CHM. What will be the role of the CHM? What tasks need to be carried out? What information should be transmitted? What results should be achieved? What are the benefits for all?</p>	<p>3. Information dissemination and sharing</p> <p>Information collected should be made publicly available through the Internet and other means (e.g., scientific articles or popularization methods).</p>
<p>4. Training of CHM partners</p> <p>Each partner should be trained in how to collaborate most efficiently within the network.</p>	<p>4. Use of information for awareness-raising and communication of strong messages</p> <p>Awareness-raising can be carried out at various levels (scientists, decision-makers, civil society, etc.).</p>
<p>5. Development of website</p> <p>This phase concerns website conceptualization, identification of technologies to use, technical development and transfer to the web.</p>	<p>5. Promote and assist with the development of tools and measures where they are lacking</p> <p>For example, where a legal gap exists in regard to benefit-sharing, the CHM can use its network of experts to identify actors able to contribute to the improvement of regulatory text. The CHM can also contribute to the launching of debates on questions and emerging issues.</p>
<p>6. Launching of website at the national level</p> <p>The launching of the website should be publicized at the national level and decision-makers and other actors made aware that a reliable and updated source of pertinent information is available to them.</p>	<p>6. Assistance for the location and mobilization of resources</p> <p>These resources can be financial (projects, micro-financing), human (resource persons), technological (materials, software, etc.), educational (training and capacity-building) or strategic (identification of priority actions).</p>
<p>7. Maintenance and updating of website</p> <p>The stability of the project should be assured. Equipment and software will need to be adapted on a permanent basis. Partners should receive advanced and updated training. Tools for information exchange and modern applications will progressively reinforce the national website.</p>	<p>7. Assistance for decision-making and evaluation of policy effectiveness</p> <p>The CHM can play a role in the identification of appropriate indicators and collection of pertinent information.</p>

Table 7. Group II (Convention on Biological Diversity).

Some examples of national activities related to the Convention, for which the CHM can provide support, recalling that the three missions of the CHM are (1) information management (2) creation and maintenance of networks and (3) the facilitation of scientific and technical cooperation. This table highlights some examples identified during the workshop (it is not comprehensive).

	Benefit-sharing	Sustainable use	Conservation	Knowledge on biodiversity	Transfer of technology
1. Organization of network	Establishment of a group of experts				
2. Collection of information	Compilation of information on genetic resources and traditional knowledge	Compilation of case studies on the sustainable use of biodiversity (at national, regional and international levels)		Compilation of taxonomic data (development of databases or monographs) Repatriation of biodiversity data	
3. Distribution of information	Presentation of issues related to benefit-sharing resulting from the use of genetic resources	Adaptation of case studies and documentary resources collected within the national context	Information for political decision-makers on the impact of climate change on biodiversity, and on possible adaptation measures		Editing and dissemination of a scientific bulletin at the national level
4. Use of information to communicate a message (awareness-raising)	Awareness campaign targeted towards government officials Organization of a public debate on Article 8j	Use of newspapers, making information available online, use of radio to present case studies			
5. Assistance for the development of tools and measures	Identification of gaps in existing legal instruments and development of appropriate instruments	Establishment of management plans for natural resources (e.g., fauna management, forest management, etc.)	Identification of vulnerable zones and facilitating the establishment of legislation for their protection	Integration of biodiversity in environmental and social impact assessments	
6. Mobilization of resources			Identification of available sources of funding and assistance for project editing	Identification of taxonomic needs and contribution to the installation of training programmes	
7. Assistance with decision-making and evaluation	Research of appropriate indicators and, if required, assistance with their adaptation to the national context				

7. Results of exploration of the future

The results produced by both groups are very complementary and highlight some major conclusions. However, it is important to recall the visionary context in which the workshop was conducted. Participants were asked to imagine an “ideal situation” and the purpose was not to enumerate truths or obligations.

The CHM will most likely evolve sensibly in the years to come, and equally at the levels of methodology and content of its actions.

Technological evolution and increased web connectivity, coupled with the emergence of critical themes for the African society (benefit-sharing, traditional knowledge, biodiversity inventorying, conservation, sustainable use, transfer of technology, etc.) will generate a higher demand for information from all levels of the society. The CHM should be ready to respond to these demands by providing comprehensive and reliable information.

The transfer of technology by CHM is an issue that does not carry much weight at the moment; however, greater importance will be attached to it in the future. Thus the CHM will have an increasingly important role to play in terms of facilitating the transfer of both “hard” (e.g., technical processes) and “soft” (e.g., knowledge and expertise) technology, while respecting the intellectual property rights of providers.

However, the CHM will not be satisfied to be solely a tool for information collection and dissemination. It will make sound use of this information to play a greater role in raising awareness among all public groups. In addition, it will strengthen its networking and cooperation components and will strongly position itself in supporting decision-making. Information provided by the CHM will serve to establish strategies and action plans, and to follow up on their implementation.

To reach these results, recognition of the CHM at the national level needs to be strengthened. The CHM needs to be appropriated by all biodiversity stakeholders and become an effective support mechanism for the implementation of the Convention, functioning as an information networking and cooperation tool for the 2010 Biodiversity Target, thematic programmes and cross-cutting issues. The structure and organization of these networks are therefore crucial steps that need to focus more on realistic and concrete elements and less on theoretical ones. In short, institutional authorities will need to provide the necessary human, technical and financial resources to enable the CHM to perform at its optimum.

The CHM will always operate through its website which will remain the principal tool by which a larger public audience is reached at restrained costs. However, other activities will complement the web-based activities over time. This will require the CHM to gather all possible resources to collect and distribute information, and circulate important messages in order to, it is hoped, mobilize different public groups to debate themes or undertake actions.

8. Analysis and lessons learned

The goal of this exercise was to exchange experiences and explore, through a participatory approach, the future of the CHM. This vision should respond to the challenges faced by developing countries, particularly those in Africa, and help identify how these countries and their international partners can overcome these challenges.

This exercise was conducted in three phases. In the first, participants analyzed the current situation and identified drivers that can potentially influence the evolution of the CHM. The second phase consisted of imagining what the role of the CHM in 2012 would consist of. The third and final phase involved reflection on what actions are necessary to achieve this vision for the CHM.

This workshop can be considered “an innovation” or “a first” in terms of organization of work and manner in which content was approached, as well as a success in terms of the ideas brought forth for the future of the CHM.

The workshop’s success is underscored by the interest sustained by participants during the exercises. Imagined scenarios for the future were thoroughly played out with. For example, participants both assumed the role of the expert and the role of the ordinary citizen interested in acquiring knowledge on biodiversity.

A second indicator of success relates to the high level of preparatory work that had gone into the workshop at the national level. The questionnaire served to quickly identify issues to address. The exercise conducted on the second day on the exploration of ideas for the future was divided into three distinct phases, enabling optimal participation and an extremely rich exchange of ideas. The use of an elementary version of the “backcasting” method was a risk, but it played out in a logical and constructive manner as discussions evolved.

Finally, a third indicator of success is illustrated through the participation of representatives of international organizations (Secretariats of the Convention on Biological Diversity and Global Biodiversity Information Facility) and a regional organization, the Central Africa Forests Commission (COMIFAC). This type of participation was critical to demonstrate the interplay of national-level experiences with those at the regional and international levels and facilitated the identification of numerous synergies and opportunities for collaboration.

9. Conclusions and recommendations

As a result of the workshop, the Belgian CHM is now able to develop a partnership strategy based on a participatory approach and a clearer vision for the future of the CHM. It is important that the partnership offer be varied, flexible and able to adapt well to the needs of partners. Web-related training and website hosting will remain solid elements of the partnership but they will need to be complemented by other types of activities.

Partnership activities will be useful and sustainable only if effective cooperation and collaboration among various actors, as well as a long-term vision, exist at the national level. In order to create conditions favourable to such an approach, participants issued the following recommendations:

1. To improve the efficiency and visibility of the CHM:

- Develop a national CHM implementation strategy or develop a strategy for CHM implementation as a part of the National Biodiversity Strategy.
- Develop a communication strategy targeting decision-makers.
- Increase collaboration among national partners through, for example, the integration of the CHM in existing networks or those under development.
- Identify the roles and responsibilities of each national partner in regard to the collection, dissemination and use of information in order to raise awareness.

- Reinforce the concept of clearing-house by encouraging focal points and other national partners to contribute information to the CHM.
- Integrate the CHM in the sections of biodiversity-related projects related to themes of “dissemination” or “communication” in order to ensure that the CHM is a part of the distributed project results.

2. For the CHM Partnership:

- Develop guidelines and training modules to assist countries with the installation and development of their national CHM.
- Offer training programmes that respond to the specific needs of partners.
- Assist partners in evolving with new information technology (The European Community’s CHM Portal Toolkit (PTK) is a tool that can be used in this regard.)
- Reinforce networking among the national CHMs, thereby stimulating collaboration and facilitating information exchange through the use of modern communication tools.
- Assist with capacity-building related to infrastructure through the transfer of technology.
- Assist in the development of databases through inventorying existing databases and those of potential use at all levels (international, national, local), directing partners to databases that best respond to their needs or, given the situation, possibly creating new databases and integrating them within the CHM site.
- Assist with the implementation of the Convention through non web-related activities.

It is not the objective of this report to assign responsibilities for the activities of the partnership. Rather, it is up to each country, regional and international organization to determine the type of partnership that it considers most appropriate.

Annex 1. List of Participants

Name / Position / Address	Country / Org.	Contact Information
Belgium		
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Annex 2. Workshop Agenda

Wednesday 2 May 2007	
09.00 – 09.30	Welcome.
09.30 – 09.45	Welcome speech by Mr. J. Van Goethem, Belgian CBD & CHM NFP.
09.45 – 10.00	Introduction to the workshop and practical information.
10.00 – 11.00	Round table: Recent CHM developments at the national level.
11.00 – 11.15	Coffee break.
11.15 – 12.00	Round table (Continued).
12.00 – 13.00	Discussion: Assessment of CHM strengths and weaknesses at the national level.
13.00 – 14.00	Lunch break
14.00 – 14.30	Olivier de Munck (SCBD): Evolution of the CHM and vision for strengthening it within the context of the 2010 target.
14.30 – 15.00	Beatriz Torres (GBIF): Contribution of GBIF to capacity building and use of data for decision making.
15.00 – 15.30	Han de Koeijer: Recent developments of the portal toolkit (PTK) and of the European network.
15.30 – 15.45	Coffee break.
15.45 – 17.15	Discussion: What are the difficulties related to creating and maintaining CHM human networks?
17.15 – 17.30	Conclusion et closure of the first day.
Thursday 3 May 2007	
09.00 – 09.15	Presentation of the second day.
09.15 – 10.30	Identification of drivers of change which require an evolution of the CHM. Group 1: drivers related to the evolution of the society and the technology. Group 2: drivers related to the evolution of the Convention.
10.30 – 10.45	Coffee break.
10.45 – 11.00	Drivers of change: presentation of group results.
11.00 – 12.30	Prospective vision. What will the CHM be in 2012? Group 1: the know-how and the technologies for implementation. Group 2: themes covered by CHM.
12.30 – 14.00	Lunch break.
14.00 – 14.15	Vision 2012: presentation of group results.
14.15 – 15.30	Actions and means to develop for reaching the 2012 vision. Group 1: the know-how and the technologies. Group 2: themes.
15.30 – 15.45	Coffee break.
15.45 – 16.00	Actions: presentation of group results.
16.00 – 17.00	General discussion on the results and closure of the workshop.

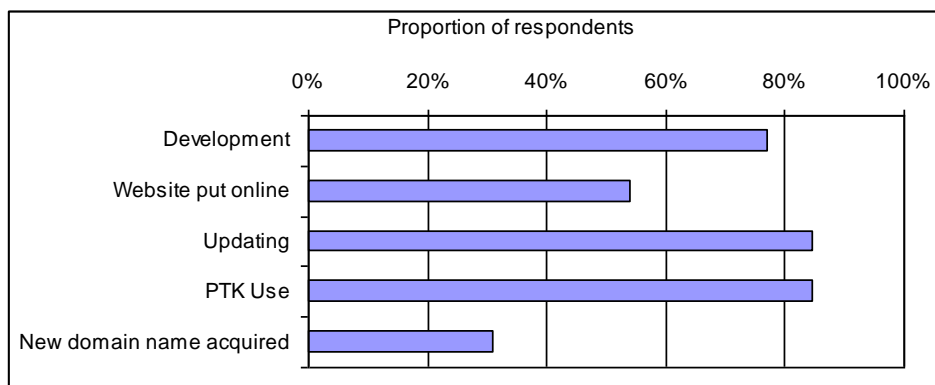
Annex 3. Results of the questionnaire

In total, 13 countries, 1 regional organization and 35 persons participated in this survey. Of the 13 countries, 10 were from Africa (Benin, Burkina Faso, Burundi, Central African Republic, Côte d'Ivoire, Democratic Republic of Congo, Madagascar, Morocco, Niger, and Rwanda) and 3 were from Europe (Germany, Belgium, the Netherlands). COMIFAC was the sole participating regional organization.

I. Current situation

1. What web activities have been carried out since 2005?

More than half of respondents have developed or updated their website since 2005. Nearly 80% use the European Community's CHM Portal Toolkit (PTK) as a management tool. This is regarded as an adequate tool in terms of logic and has been adopted to a significant extent both at the European level and within the framework of the Belgian partnership. Few countries have recently bought a specific domain name.



2. What non web-related activities have been undertaken since 2005?

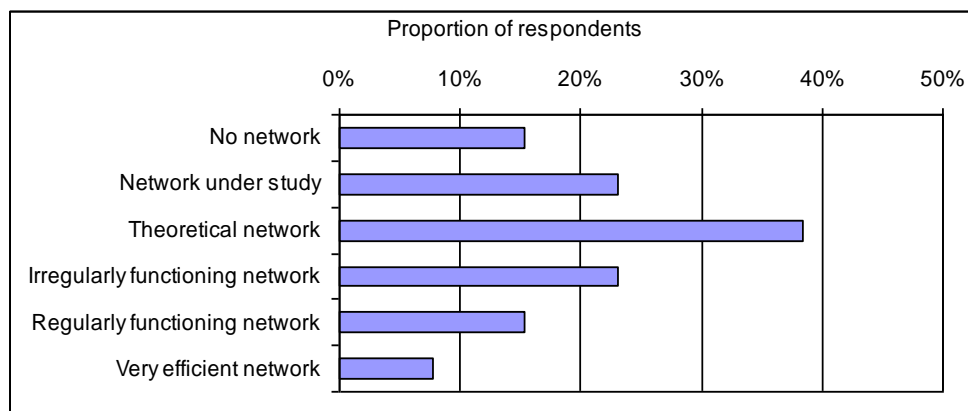
Only 3 of the 14 respondents have not undertaken non web-related activities. In these particular cases, the web is either considered as the CHM's essential tool or the activities of the CHM Focal Point are currently in the process of being reorganized. Where non web-related activities have been undertaken, they have been quite diversified however can be re-grouped into three main categories:

- Networks: strengthening and improvement of networks of national collaborators for environmental monitoring and/or biodiversity conservation
- Training: knowledge improvement for teams working with the CHM Focal Point or for national collaborators
- Awareness-raising: development of an extensive series of activities targeted towards several different public groups

Some examples		
Networks	Training	Awareness-raising
Thematic discussions at the level of national networks (e.g., transfer of technology, traditional knowledge, future of CHM)	Evaluation of training needs (biodiversity monitoring, conservation, traditional knowledge, etc.)	Development of brochures and posters (e.g., endemic species, threatened species)
Installation of local, regional or thematic communication relays within the country (often related to decentralized situations)	Training of Focal Point collaborators (team, civilians, etc.) in the use of the EC's CHM Portal Toolkit (PTK)	Activities related to the International Biodiversity Day (22 May) or another important national day
Reorganization of national CHM networks	Sub-regional CHM training (EC's CHM Portal Toolkit (PTK), etc.)	Information and awareness-raising meetings on the CHM
Development of a national strategy for the CHM and transfer of technology	Training on the importance of taxonomy	Organization of radio programmes on biodiversity and the CHM
Meeting of Focal Points at the sub-regional level		Awareness-raising on the importance of traditional knowledge
		Awareness-raising for eco-citizensry
		Signature of a legal agreement with ministerial authorities
		Public awareness-raising on arrival of spring season

3. What is the development status of the networks of national CHM collaborators?

The development of national CHM networks is quite variable. Only one country (Germany) considers its network to be functional and very efficient. Two respondents have advised that no networks exist. The large majority of respondents report that the institutional framework for the network has been established and partners have been identified. However, the operation of the network is limited or irregular. It is nevertheless reassuring to see that, in spite of operational difficulties, the nature of responses tends to be more positive (theoretical network or better) than negative.



The total number of responses surpasses the number of participants due to the fact that, in certain cases, network development is in transition between two stages (e.g., irregular versus regular).

4. What are strengths of the CHM at the national level?

At the **institutional** level, the majority of respondents report an adequate level of support as a result of the CHM Focal Point's presence within a unit with close ties to environmental decision-making powers (ministries, state agencies, inter-ministerial structures, etc.).

At the level of **human resources**, 11 of the 14 respondents report that personnel is available to contribute to the CHM. The "CHM Team" is often composed of 2 to 4 persons of varied backgrounds (e.g., biologists, computer specialists, sometimes also economists). The expertise of these persons is recognized as a strong point by the majority of respondents; however, it is rare that these persons can devote 100% of their time to the CHM.

At the **technical** level (web), 10 of the 14 respondents report a sufficient mastery of computer tools (including the EC's CHM Portal Toolkit (PTK)) and familiarity with Internet functions.

At the level of **collaboration among partners**, a strong point is the existence of formal structures (e.g., National CHM Committee or inter-institutional focal points). In the case of COMIFAC, the support provided by partners to fund activities of focal points of member countries is considered a strong point.

5. What are the constraints related to CHM implementation at the national level? (formerly question 6)

In spite of the general satisfaction expressed with regard to **institutional** support, three types of constraints were identified:

- The CHM Focal Point of several countries stated that no specific budget has been allocated for their operations. One country reported that appropriate premises were lacking.
- The technical character of the CHM is not always adequately recognized. Focal points should be properly equipped with computer resources required for good web management (computers, adequate Internet connections, repatriation of the website on a national server, etc.).
- National partners and collaborating institutions are neither sufficiently aware of issues nor equipped to contribute to the CHM in an efficient manner.

In terms of **human resources**, despite a quasi-unanimous level of expert knowledge, 9 of the 12 respondents reported that human resources available to the CHM are insufficient. Personnel are often busy with other tasks and, as a result, their contribution to the CHM suffers. One country reported on the lack of permanent equipment, while another uses people doing their national service to strengthen the existing team. Four countries indicated the need for capacity-building in different areas. Human resource management was one area mentioned in this regard.

At the **technical** level (web), constraints vary quite significantly from one country to another. Constraints mentioned include:

- Irregular and problematic Internet connections (4 respondents)
- Lack of software expertise of certain actors (4 respondents)
- Insufficient computer parks, particularly at the level of decentralized communication relays (2 respondents)

In one case, the CHM Focal Point is obliged to connect to the Internet via a cybercafé and pay for associated costs.

Constraints can sometimes accumulate within the country thereby increasing the difficulties related to the updating and maintenance of the CHM website.

11 respondents reported that **collaboration among partners** could be improved. Constraints identified include lack of partner involvement, reticence to share information, insufficient number of meetings, inadequate system of organization, unsatisfied demands of partners in regard to, for example, computer hardware and financing, difficulties collaborating online due to poor Internet connections.

6. Can you provide example(s) of a recent national CHM success story? (formerly question 5)

11 out of 14 respondents mentioned one or several success stories. As with focal point activities, success stories were also diversified. They can be summarized as follows:

- Success of awareness-raising activities (5 countries)
- Website recognition at national and international levels (2 countries)
- Organization of training workshops, conferences or meetings at national and international levels (3 countries and COMIFAC)
- Use of CHM to distribute strategic documents (2 countries) or scientific documents (2 countries), in electronic or paper format
- Designation of decentralized communication relays to contribute to the CHM (2 countries)
- Synergy between CHM and BCH (1 country)

7. How has partnership with Belgium been useful for the national CHM?

10 countries (one of which is European) responded to this question. The partnership with Belgium was judged to be useful in the following four areas:

- Capacity-building and briefings for personnel (7 countries)
- Installation of the national CHM (including website) and provision of technical support for the CHM (6 countries)
- Exchange of experiences at the national and sub-regional levels (4 countries and COMIFAC)
- Support for awareness-raising activities (4 countries)

8. What has partnership with Belgium not provided that might have been welcomed?

Numerous suggestions were given, including continuing with the status quo and developing new initiatives on, for example, a more strategic form of support. The table below summarizes the major points raised in the questionnaire.

Six countries hope that Belgium can provide assistance for the acquisition of adequate computer hardware, including peripheral devices and newly-developed software. COMIFAC hopes that Belgium can further strengthen its support for the installation of a sub-regional interface for the CHM Focal Points of different countries.

Some examples			
Installation of the CHM, technical and logistical support	Capacity-building and briefing of personnel	Strategic support	Awareness-raising
Assistance for the acquisition of computer hardware, peripheral devices, software	Briefing and continuous training for personnel already trained	Installation and implementation of a CHM strategy and communication plan at the national and regional levels	Support for awareness-raising activities, for the public and decision-makers, on the concept of the CHM and usefulness of information sharing and exchange
Effective operation of thematic networks at decentralized level	Training of new national collaborators	Support for the development of a legal statute with terms of reference (job description) for the CHM Focal Point	
Repatriation of website and assistance with its operational implementation	Provision of technical and scientific documentation as pedagogical support	Development of opportunities for micro-projects, especially related to data collection	
Assistance for the digitization of biodiversity data			

II. Exploring the future

1. Does a recent (since 2003) strategy or action plan exist to strengthen the CHM at the national level? If so, what are its main characteristics?

12 out of 14 respondents defined activities to undertake.

Websites should be updated (2 countries), made more attractive to users (1 country) or translated into national languages other than French (1 country). 3 countries envisaged proceeding with the quantification of biodiversity data and the creation of databases accessible via the CHM.

One country proposed expanding non web-based activities through the publication of a scientific bulletin, fliers or brochures. The CHM should also promote activities related to the Convention's other thematic areas such as taxonomy, Article 8(j), etc.

Five countries envisaged improving the functioning of national networks, especially through the creation or strengthening of decentralized nodes and installation of a network of concerned actors (scientific institutions, NGOs, etc.).

Two countries mentioned that they would focus on strengthening the operations of the national CHM team by training personnel or acquiring adequate computer hardware.

The COMIFAC will endeavour to install an information exchange mechanism at the sub-regional level.

2. How can a partnership with Belgium (or other European countries) prove useful in the next five years (apart from the question of structural financing)?

The suggestions provided are closely related to those mentioned under question 8 above.

New elements comprise:

- Support for decentralization and creation of local-level communication relays
- Support for the creation of a regional CHM network
- Facilitation of integration of international networks
- Facilitation of information exploitation at the international level
- Micro-financing of projects at the national level for the collection of scattered data
- Harmonization of knowledge and used terms (standardization)

3. Could a sub-regional network for the CHM assist with the implementation of the Convention? If yes, how? If no, why not?

Interest in a sub-regional network is unanimous among all respondents. Two countries stated that the following conditions were essential: the network should be truly functional and CHM managers should be able to remain in their positions long enough for the sub-regional experience to be useful. One country suggested using existing mechanisms to create the structure for the sub-regional network.

The exchange of experiences and best practices is the explanation most often given for the potential success of a sub-regional network. Moreover, it could serve as a discussion framework for partner countries and a privileged means by which the Convention can be implemented.

4. In your opinion, what factors will soon drive an evolution in CHM activities?

At the level of technologies:

- Use of new information and communication technologies for the CHM (4 responses)
- Improvement in Internet connections (2 responses)
- EC's CHM Portal Toolkit (PTK) technology will permit a greater participation of national actors and an easier delivery of information (2 responses)
- The CHM website will use and manage databases (2 responses)
- The evolution of Internet concepts will play an important role in shaping the future of the CHM: « web 2.0 » presently and « web 3.0 » soon (1 response)
- One country will play a central role in hosting the websites of several other countries (1 country)
- No changes in CHM activities (1 response)

At the level of **societal evolution**, 7 countries mentioned that the general public will be better informed of the importance and fundamental good behind the concept of the sustainable use of biodiversity. This will drive a much higher degree of political attention and change in information research. Public expectations can change which will require the adaptation of awareness-raising methods. A larger segment of society will be able to follow information available on the Internet. More CHM partners will exist at the national level as well as within civil society (including indigenous and local communities).

In terms of **themes to be dealt with**, the importance of climate change will increase (2 countries). Globalization, regionalization, decentralization and desertification are other themes that will need to be addressed.

At the level of **international obligations**, a greater multi-purpose role for the CHM is envisaged in regard to subject matter and demands for rapid reaction and information vis-à-vis the demands of governments, other actors and public. In regard to COMIFAC, the CHM will play an important role in the installation of an international regime on access and benefit-sharing.

Generally, survey respondents are optimistic that the CHM can facilitate a more efficient implementation of the Convention and reinforce good governance for the sustainable use of biodiversity, as well as for the equitable sharing of benefits arising from natural resources and the protection of indigenous knowledge.

5. How do you imagine CHM activities in 2012?

At the level of resources, technologies and methodologies:

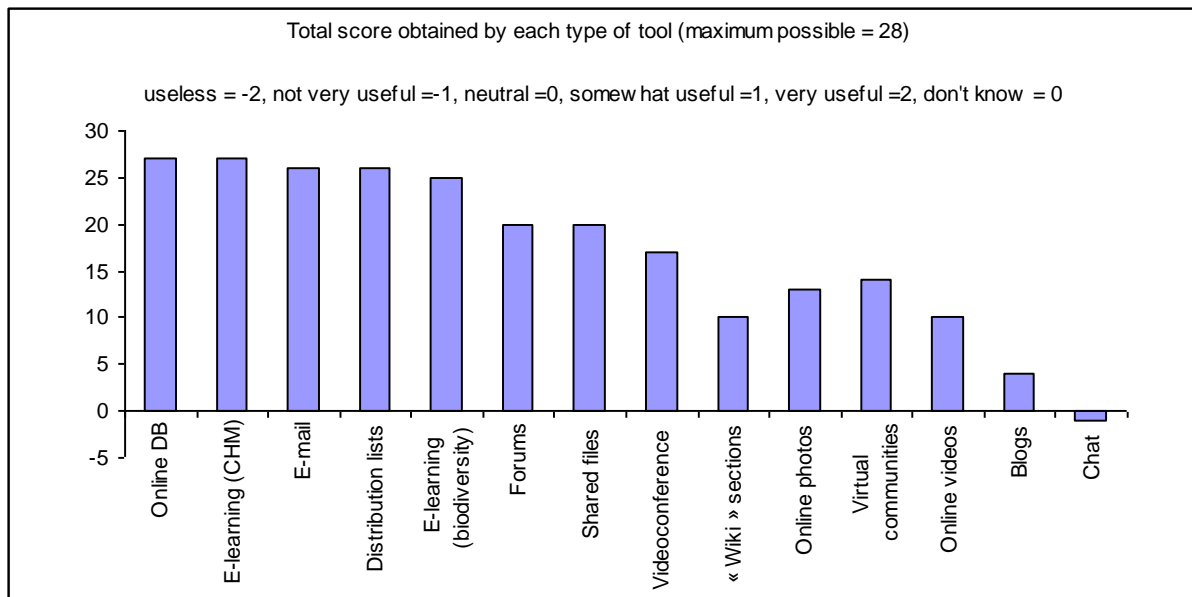
- The roles of the CHM Focal Point will be improved (6 respondents). The CHM will have funding, specialized human resources, well trained and motivated personnel and efficient computer tools at its disposal.
- The CHM network will be well established at the national level. (3 respondents)
- They will be a higher degree of interaction among national focal points. (1 respondent)
- A sub-regional network will play an interfacing role among countries. (1 respondent)
- CHM objectives will be better perceived by the population. (1 respondent)
- CHM website content will better respond to the expectations of various groups and the information will be more easily accessible. (3 respondents)
- “Feeding” the CHM will become a reflex ; the CHM will be completely democratized and used by any citizen. (1 respondent)

The content of activities and issues to address will be better targeted. Themes will more accurately reflect the concerns at different levels and be given a greater degree of attention by decision-makers, scientists and the general public. Climate change issues will become an important issue within this framework.

III. Tools for the future

Among the following tools, which ones do you think could be useful for CHM web-related issues at the level of (a) operations and (b) content?

	Useless	Not very useful	Neither useful nor useless	Somewhat useful	Very useful	Don't know
Online databases				1	13	
Educational material/ e-learning (on CHM)				1	13	
E-mail				2	12	
Distribution lists				2	12	
Educational material / e-learning (biodiversity)			1	1	12	
Forums		1		5	8	
Shared files		1		5	8	
Videoconference			1	7	5	1
« Wiki » sections		1	3	3	4	3
Online photos		1	2	8	3	
Virtual communities			1	8	3	2
Online videos	1	2		8	3	
Blogs		1	5	3	1	4
Chat	1	5	1	4	1	2



Five tools obtained a score of 25 or greater out of a maximum of 28 (more than 80% voted “very useful”): online databases, online educational resources on the CHM, email, electronic distribution lists, online educational resources on biodiversity.

These tools are therefore considered essential for the proper functioning of the CHM at the technical level (online databases, email, distribution lists) and at the content level (educational resources on the CHM and biodiversity). It is interesting to note that these five tools are all tools which enable information exchange and the distribution of knowledge. The excellent score accorded to online databases underlines the necessity to pursue reflection on complimentary roles for the CHM and GBIF, especially at the national level.

The use of discussion forums and the possibility to share files online closely follow the popularity of the five tools indicated in the previous paragraph. The majority consider these two tools (that can be classified as participatory tools and interactive information exchange tools) as “useful” or “very useful”.

Opinion is clearly more nuanced in respect of the other tools. The possibility to place photographs and videos online, as well as create virtual user communities, received moderately positive votes.

Survey respondents are divided on the subject of hosting “wiki”-type sections (web pages that can be modified by the public) – which most likely also reflects the general feelings of society on tools such as Wikipedia. Even though interactivity and participation are maximized, doubt remains as to the quality of information that can be collected in this manner.

Respondents are very unwilling to consider the use of blogs or chat for the CHM. Perhaps these two tools are considered too external to the sphere of professionalism?
