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CONFERENCE OF THE PARTIES TO THE
 CONVENTION ON BIOLOGICAL DIVERSITY
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Item 20.2 of the provisional agenda*

SCIENTIFIC AND TECHNICAL COOPERATION AND CLEARING-HOUSE MECHANISM

*Results of the independent review of the clearing-house mechanism of the Convention
on Biological Diversity*

Note by the Executive Secretary

1.   Pursuant to paragraph 2 of decision VI/18, the Executive Secretary is circulating herewith, for the information of participants in the seventh meeting of the Conference of the Parties, the results of an independent review of the clearing-house mechanism, overseen by the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC). The review was established by a memorandum of cooperation between the Secretariat of the Convention on Biological Diversity and UNEP-WCMC within the context of its Chevening Biodiversity Scholarship to assess the current potential role of the clearing-house mechanism in promoting technical and scientific cooperation.

2.   The document is being circulated in the language and the form in which it was received by the Secretariat of the Convention on Biological Diversity.

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UNEP-WCMC

CHM Review Project

Final Report

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List of Acronyms

ABS	Access and Benefit Sharing
BCH	Biosafety Clearing-house
BDM	Biodiversity Data Management
BIS	Biodiversity Information System
BRIHI	Biodiversity-related information holder institution
CBD	Convention on Biological Diversity
CEE	Central and Eastern Europe
CHM	Clearing-house Mechanism
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on Migratory Species of Wild Animals
COP	Conference of Parties
EA	Enabling Activity
EEA	European Environmental Agency
EC	European Community
GBIF	Global Biodiversity Information Facility
GEF	Global Environment Facility
GIS	Geographic Information Systems
GISP	Global Invasive Species Program
GRULAC	Group of Latin America and Caribbean States
IABIN	Inter-American Biodiversity Information Network
IAC	Informal Advisory Committee
IUCN	International Union for Conservation of Nature
GTI	Global Taxonomy Initiative
MMA	Main Matrix of Actions
MoE	Ministry of Environment
MoC	Memorandum of Cooperation
MoU	Memorandum of Understanding
NABIN	North American Biodiversity Information Network
NGO	Non-governmental organization
NFP	National Focal Point
RAMSAR	Convention on Wetlands of International Importance especially as Waterfowl Habitat
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
TFP	Thematic Focal Point
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WCMC	World Conservation Monitoring Centre
WHC	Convention Concerning the World Cultural and Natural Heritage

Executive Summary

The Clearing-House Mechanism (CHM) was set up to facilitate and promote scientific and technical cooperation in relation to the three objectives of the Convention: conservation, sustainable use and fair and equitable sharing of benefits. The CHM supports the work of the Convention by encouraging cooperation in key areas such as: tools for decision-making, training and capacity-building, research, funding, technology transfer and repatriation of information. Its development is guided by the three goals of the CHM Strategic Plan:

- promotion and facilitation of scientific and technical *cooperation*;
- development of a global mechanism for *information exchange* on biodiversity; and
- *network development,* including CHM Focal Points and stakeholder organisations.

This document contains the results of an independent review of the CHM which was overseen by the United Nations Environment Programme-World Conservation Monitoring Centre (UNEP-WCMC) from October 2002 and July 2003. The review was established by a Memorandum of Cooperation between the Secretariat of the Convention on Biological Diversity and the UNEP-WCMC within the context of its Chevening Biodiversity Scholarship and pursuant to paragraph 2 of decision VI/18 which requested the Executive Secretary to commission a review to assess the current and potential role of the clearing-house mechanism in promoting technical and scientific cooperation, including its role in facilitating the transfer of technology and know-how and capacity-building. The CHM national focal point from Armenia was the recipient of the UNEP-WCMC Chevening Scholarship in Biodiversity and undertook the work to complete the review.

More specifically, the review aimed to assess the current level of cooperation under the CHM framework at national and international levels, and to identify needs for its further development and strengthening based on this assessment.

The review consists of three main parts. In the first part, background information on the CHM is presented, including previous review and recommendations, and the objectives, targets and participants of the review defined. In the second part, the results of the survey conducted among the CHM National Focal Points are presented and analyzed. In the third part, recommendations are made in the form of a comprehensive action plan for CHM development based on the feedback received during the review activities.

The main methodology used in the review was a survey among the Parties with official CHM email addresses. A questionnaire was developed and distributed to the CHM National Focal Points through email and personal communication. Forty-five completed forms were received from a broad range of Parties, providing sufficient data to carry out statistical analysis and develop several recommendations based on the feedback.

Main findings of the CHM survey

1. Number of operational CHMs
As of June 2003, of the 187 Parties to the Convention, 40 have yet to nominate a CHM National Focal Point and a further 13 Parties do not have email addresses for contacting these National Focal Points. Overall 62 Parties host CHM websites. The most favorable situation is in the European region, where CHM National Focal Points have been designated in 88% of the countries that are Party to the Convention, and 77% of the countries have a CHM website. Several Parties are still in process of proposal development/submission to UNEP/GEF for further CHM development under the framework of Enabling Activity Phase Add-on modules, and it is recommended that the Secretariat should actively encourage the process of CHM establishment in these Parties.

2. *Variation in status of national CHMs*

There are currently 30 Parties with significantly developed CHM functioning and operational procedures. These parties potentially have a leading role in further advancing cooperation through the CHM, and can be considered decisive players in future progress towards meeting the main objectives of the process. In addition, those Parties can effectively stimulate improved functioning of other national CHMs by assisting partners to attain the level of development they currently possess, for example through sharing experience.

3. *Organizational structure*

The majority of Parties do not have a fully developed organizational structure for the CHM to ensure its effective development and use. Such as structure might include operational regional branches within the country, nominated thematic focal points, and an established steering committee. Organizational improvements should be considered as a key priority for the Parties in trying to improve implementation of the CHM in a manner that involves potential stakeholders. Cooperation at the regional (supra-national) level would also appear to be valuable in promoting development of national CHMs, and this might be facilitated by the establishment of regional CHMs.

4. *CHM websites*

It is estimated that the overall status of the existing CHM websites towards the fulfillment of the requirements of CHM objectives is "excellent" for 15% of respondents; "good" for 30%; and "satisfactory" for the rest. The most common information hosted directly on national web sites are national strategies and/or action plans for biodiversity and national reports for the Convention, with about half of the Parties having their first and second national reports on their web sites in a UN language.

Some Parties host several distinct web sites containing information on biodiversity, including databases and information systems. However, these web sites are not necessarily designated as, or linked to, the Parties' official CHM web site, and may not host CBD-related information such as national reports, strategies, roster of experts, etc. Therefore it is suggested that the national network of CHM should be developed in such a way as to provide a gateway for all stakeholder organizations, similar to the Global CHM becoming the main gateway to national nodes. Where possible, the data incorporated through the stakeholder organizations should be presented in the same format and included in a meta-database within the CHM national web site.

5. *Ensuring appropriate national CHM involvement in biodiversity-related projects*

Only 40% of the Parties are currently engaged in any co-operative project under the CHM umbrella, another 30% are involved only in the activities in the framework of GEF-funded capacity building add-on modules. The remaining 30% do not implement any significant activity at present. However, there is a significant number of on-going biodiversity-related projects in these countries, which, while not strictly responding to the three CHM objectives, deal with either capacity building or awareness raising in the area of biodiversity. National CHM teams should consider identifying the executors of such projects with the aim of ensuring the CHM provides a tool for information exchange and dissemination of best practices in future capacity building or awareness raising activities.

6. *Role of CHMs in increasing the level of international cooperation*

40% of respondents identified bilateral and multilateral cooperation via the CHM as 'low' for all types of activity, while 20% assessed the cooperation as 'medium' and 'high' for case studies, and 35% for joint capacity building activities. For a number of Parties there is little involvement of the scientific/academic institutions and NGOs dealing with biodiversity-related problems with the ongoing and planned activities of the national CHM, and at the same time national CHM websites provide little information on biodiversity-related research at national and international levels in many cases. Thus there is need for greater collaboration in many cases between the CHM and the

scientific and technical communities at the national level. This includes development of joint project proposals on capacity building, technology transfer, and sharing of experience and best practice.

7. Role of CHMs in cooperation with other biodiversity-related Conventions

The level of harmonization of national CHM activities with other biodiversity-related conventions seems generally low. While cooperation with Ramsar and CITES on scientific and technical levels as well as information exchange was reasonably well established for some Parties, cooperation with the World Heritage and Migratory Species conventions is poor or non-existing in most cases. Coordination of activities between biodiversity-related conventions could be achieved by involving a contact person in the national CHM teams who would be responsible for reviewing and streamlining measures aimed at better cooperation.

8. Communication between CHM National Focal Points

Communication between National Focal Points seems inadequate, with 90% not communicating or communicating less than once a month with their counterparts in other countries. This potentially results in a lower level of experience and best practice sharing among the CHMs which were ostensibly set up to promote cooperation. The most favorable situation is in the West European region, where the cooperation between CHM focal points is enhanced through regional meetings and workshops and several bilateral contacts also occur on a regular basis. However, such cooperation could be made more clearly visible and more operational on a daily basis. It is therefore suggested that the CBD Secretariat strengthen its role of catalyst between NFPs, and stimulate the identification of additional possibilities for cooperation between Parties. Parties could be encouraged to communicate with other countries more through the organization of joint CHM workshop/seminars and/or informal meetings.

9. Participation in international initiatives

More than one fifth of the Parties do not participate in any the 25 international biodiversity information related initiatives identified in the questionnaire (or at least if they do, the CHM National Focal Point is unaware of it). It is therefore suggested that national CHM teams should review information on these and other international initiatives in order to identify activities that may be of national interest and priority. This includes initiatives such as DIVERSITAS, BioNet, GISP and Species 2000. Based on the conclusion of this review, participation in the given international initiative should be initiated. The aim is to ensure that the national CHM is appropriately involved in key international information initiatives.

10. National funding for CHMs

It would appear that most Governments provide less financial resources for the cooperative activities under the national CHM umbrella than CHM focal points feel is necessary, and in developing countries there is very little contribution from state budgets to CHM development at all. It is therefore suggested that CHM focal points should develop innovative and convincing ways to "sell" effectively the concepts of the CHM to the national governments, and to increase understanding of how the CHM can and does contribute to international cooperation.

11. International funding for CHMs

Meanwhile, international funding organizations should consider further support to Parties with established CHMs, especially in the developing countries and countries with economies in transition. The CBD Secretariat should act as facilitator in improving procedures on financial arrangements for global CHM network operation, for example through the continuation of its development and regular update of a specific section of the global CHM web site to international financial mechanisms and donor institutions.

12. National strategies for CHM development

There is a priority need to develop strategies for CHM implementation at the national level. These strategies should address national CHM priorities, and be based on a realistic assessment of available funding. The CBD Secretariat could coordinate and facilitate the process of preparation of the national strategic documents through the development of appropriate guidelines and templates. The strategies should be discussed with all national stakeholders and should be endorsed by the CHM National Steering Committee or equivalent.

Further steps proposed

The main outcome of the review is presented in the last part of this document, which proposes a CHM development action plan to address the needs identified in the survey. This action plan, which builds on the previous strategy and subsequent recommendations, addresses the three levels of the CHM network:

- Global level - including actions to be undertaken by the CBD Secretariat and the CHM Informal Advisory Committee
- Regional level - incorporating measures addressed to the Parties within each of the five regions officially identified by the Convention
- National level - dealing with 189 National CHM nodes (includes two non-Parties) categorized into five target groups.

As the review revealed rather different levels of CHM development in the participants to the survey, Parties have been classified into five categories or target groups, in order to provide a list of activities that are in concordance with the varying needs of the national CHMs.

The activities within the action plan are categorised into eight components: awareness raising; involvement of stakeholder institutions; organization and management of CHM structures; capacity building; CHM website and its content; interoperability; cooperation/initiatives; and Financing,

For each measure/activity within the action plan, the following specifications is provided:
- a brief heading or description of the action
- other relevant/associated actions that can be found elsewhere in the action plan
- timeframe of the action, ranging from immediate to the long-term
- background information, briefly stating reasons why the given action is proposed
- expected outputs of the activity to provide a basis for further evaluation of the action.

The proposed action plan is aimed at establishing a comprehensive framework for maintaining and coordinating the CHM network over the coming years. It is based on the outcomes of the CHM review process and provides a more detailed and complementary list of activities to those contained in the CHM Strategic Plan, and the Long Term Programme of Work 1999-2004.

Part 1. Background information

1.1. Chronology of CHM Establishment and Development

The CHM was established in 1995 by the CBD secretariat with the originally identified following objectives: (a) Promotion and facilitation of technical and scientific cooperation; (b) Information exchange; and (c) Network development. This section will present the history of CHM creation and development through presenting the chronology of the main decisions, documents and recommendations on the issue starting from COP 1 up to the present day. At the end of the section, the main accomplishments towards fulfilling the three main objectives of CHM will be summarized.

The establishment and development of CBD CHM and CHM National networks have been supported with a number of COP decisions. The CHM is assisted in its functioning by an Informal Advisory Committee, constituted and coordinated by the Executive Secretary. The committee is to guide and integrate the development of pilot phase activities and endeavour to ensure that all Parties can participate in the CHM. The recommendations of the Subsidiary Body for Scientific, technical and Technological Advice (SBSTTA) and Informal Advisory Committee (IAC) meetings played a decisive role in CHM operation. Among other initiatives, it is worthy to mention four regional workshops conducted during the CHM initial phase (1997-1998), two regional workshops held in 2001 and one workshop in early 2003. Additionally, two expert meetings were held in Germany in June 1997 and in Italy in July 1998. Their purpose was to attain clear definition of national and regional-level scientific and technical information needs and priorities, as well as modalities to deliver information and evaluate national capacities for the implementation of the Convention. Their main recommendation was that the CHM immediately required a global strategic plan for the implementation of the clearing-house mechanism. This was considered by the SBSTTA-V meeting. Table 1 summarizes the main outcomes of the mentioned events, as well as other CHM-related meetings and initiatives in chronological order.

Table 1. Main outcomes of the official and informal meetings on the CHM

	Key recommendations, decisions	Responsibilit /execution by	Deadline reporting
	First meeting of Conference of Parties (COP I) **Nassau, Bahamas, 28 November – 9 December, 1994**		
I/3	▪ To establish a CHM to promote and facilitate technical and scientific cooperation ▪ To provide funding for CHM activities through the regular budget of the Convention and from voluntary contributions ▪ To report on comprehensive study containing recommendation for the CHM establishment	Secretariat	COP II
	Second meeting of Conference of Parties (COP II) **Jakarta, Indonesia, 6-17 November 1995**		
II/3	▪ To start CHM establishment from a pilot phase for 1996-1997 during which the Secretariat should act as focal point ▪ To submit progress report on review of pilot phase ▪ To provide scientific and technical advice ▪ To designate CHM National Focal Points ▪ To provide support to developing country Parties for capacity building in relation to the operation of CHM	Executive Secretary SBSTTA Parties GEF	COP III COP IV Feb 1996 COP III

Table 1 (continued from the previous page)

Key recommendations, decisions	Responsibility /execution by	Deadline /reporting
Second Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA II) Montreal, Canada, 2 - 6 September 1996		
II/6 ▪ To request GEF to support EA for CHM establishment in developing countries ▪ To request the Secretariat to facilitate regional workshops to clearly identify local and regional-level needs for CHM ▪ To endorse the proposal of the Secretariat to publish the CHM newsletter ▪ To recommend the Secretariat to fill the CHM posts as soon as possible		
Third meeting of Conference of Parties (COP III) **Buenos Aires, Argentina, 4 – 15 November 1996**		
III/4 ▪ To extend pilot phase until December 1998 ▪ To provide funding for capacity building related to CHM implementation ▪ To publish a CHM newsletter ▪ To provide relevant information linkages to the national focal points and relevant thematic focal point ▪ To link thematic focal points to the activities at the national and regional level ▪ To identify activities for close cooperation with other relevant conventions and provide recommendations to SBSTTA ▪ To designate CHM NFPs ▪ To connect national CHM home pages to the Secretariat's CHM Home page	Governments, other funding institutions Secretariat National CHM Secretariat Secretariat Parties Parties with Internet	SBSTTA III
First International Expert Meeting on "Building the Clearing-house Mechanism" **Bonn, Germany, 25 - 29 June 1997 and** **Third Meeting of the Subsidiary Body on Scientific, Technical and** **Technological Advice (SBSTTA III) Montreal, Canada, 1 – 5 September 1997**		
III/6 ▪ To provide guidance to GEF in which areas the financial resources should be provided ▪ To request parties to provide concrete examples regarding best practices of the use of CHM and make them available on the internet ▪ To recommend to the Parties to include the activities on CHM implementation in their National Reports ▪ To request the Parties to organize the national CHM Steering Committee / Working Group ▪ To invite the Parties to use the CHM logo as unifying element in their national CHM web pages ▪ To recommend a set of major content elements to be included in the CHM home pages on both Secretariat and country levels ▪ To recommend the Secretariat to implement a list-server and to improve synergy in regard to information exchange with other biodiversity-related conventions ▪ To recommend a set of issues to be discussed and examined at the regional workshops		
Fourth meeting of Conference of Parties (COP IV) **Bratislava, Slovakia, 4 – 15 May 1998**		
IV/2 ▪ To provide funding for CHM development ▪ To organize National CHM Steering Committees/working groups	Governments other funding institutions All Parties	

Table 1 (continued from the previous page)

Key recommendations, decisions	Responsibilit /execution by	Deadline reporting
IV/2 ■ To built up unified "Content of Information" for National CHM ■ To develop a common format for the documentation on the CHM internet sites ■ To support capacity building activities and country-driven pilot projects on CHM ■ To put in place a list server of designated National focal points, to encourage the development of a network among them, to ensure the assistance of the Informal Advisor Committee to CHM ■ To undertake an independent review of CHM pilot phase and to present it to SBSTTA ■ To recommend a set of elements to be used in the independent review of the CHM pilot phase	All Parties Secretariat All Parties GEF Executive Secretary Executive Secretary	 SBSTTA V
Second International Expert Meeting on "Building the Clearing-house" **Florence, Italy, 20 - 23 July 1998**		
■ To begin the development of the Global Strategic Plan for the CHM implementation. ■ To suggest efficiency indicators for each of four goals of the Strategic Plan. ■ To suggest a list of main elements for the guidance of CHM focal points. ■ To propose a list of cross-cutting CBD-themes as possible entry points.		
Fifth Meeting of the Subsidiary Body on Scientific, Technical and Technological **Advice (SBSTTA V) Montreal, Canada, 31 January – 4 February 2000**		
V/2 To recommend to COP V meeting: ■ to endorse the Strategic plan for the CHM ■ to endorse the Longer-term programme of work ■ to recommend a set of priorities for the Parties to implement in 2001-2002 ■ to request the Executive Secretary in consultation with IAC to: (a) develop non-Internet based CHM tools (b) establish cooperative arrangements with international thematic focal points (c) convene a set of regional workshops to support capacity building for CHM (d) develop a pilot initiative for supporting thematic issues identified		
Fifth meeting of Conference of Parties (COP V) **Nairobi, Kenya, 15 – 26 May 2000**		
V/14 ■ To support implementation of the Strategic Plan for CHM and to report on any needed adjustments ■ To endorse the "Longer-term Programme of Work for the CHM" ■ To undertake a set of measures in 2001-2002 ■ To identify and endorse the objectives of the Informal Advisory Committee ■ To undertake a set of activities in consultation with IAC and other relevant bodies (identified in Annex 2 to the decision)	Executive Secretary Parties and Governments Executive Secretary	COP VI 2002
Sixth Meeting of the Subsidiary Body on Scientific, Technical and **Technological Advice (SBSTTA VI) Montreal, Canada, 12 – 16 March 2001**		
VI/4 ■ To decide on the topics that will be targeted by the clearing-house mechanism for facilitating scientific and technical cooperation on ■ To invite the Executive Secretary to explore further the Global Invasive Species Programme with the potential for it to be a CHM international thematic focal point ■ To suggest establishing new international thematic focal points with relevant initiatives and organizations		

Table 1 (continued from the previous page)

Key recommendations, decisions	Responsibility /execution by	Deadline reporting
Pan-European Workshop on Building the CHM Partnership: Facilitating Scientific and Technical Cooperation, Bonn, Germany, 28 - 29 September 2001		
- To use good and meaningful national translations for the terms on biodiversity and CHM - To put more attractive info for general public onto the CHM web sites - To launch awareness programme among national stakeholders - To use CHM as a tool for streamlining implementation of related conventions - To address cross-cutting issues specifically on national CHM sites		
Informal Advisory Committee meeting, Montreal, Canada , 11 November 2001		
- To reach the audience in addition to the scientific community - To foster public awareness and education about the Convention - To create Matrix of Regional Workshop decisions - To complete the updating of CBD web site - To establish new thematic focal points - To complete CHM/GISP document - To participate in new CHM/BCH regional workshops - To participate in GEF/UNEP sustainable alternatives network - To participate in Global Development Gateway - To continue development of controlled vocabularies and metadata standards - To draft questionnaire on status of national CHM - To develop list of best practices including examples from developing countries/regions - To develop non-web information tools parallel to web-based technologies		
Informal Meeting on Formats, Protocols and Standards for Improved Exchange of Biodiversity Information, Montreal, Canada, 19 - 20 February 2002		
To recommend potential activities for (a) CHM toolkit, (b) protocols and standards; (c) searchable CBD COP decisions; and (d) national report formats		
Informal Advisory Committee meeting, The Hague, The Netherlands, 10 April 2002		
- To update CHM Toolkit with tools to assist CHM National Focal Points in making their information interoperable. - To update the developed search tool called BioSeek, to retrieve NFP web addresses - To recognize that the fundamental goal of the CHM goes beyond data exchange and to emphasize facilitating communication, promoting technical and scientific cooperation and ensuring greater communication among experts - To develop the CHM web site with information exchange tools in order to indicate if the user found the information required or not - To use new information technologies, particularly new open information protocols and standards in support of activities to promote technical and scientific cooperation. - To offer the Secretariat to initiate reviewing the work accomplished in the development of the Pilot Phase of the Biosafety Clearing-House (BCH) and describing the synergies and differences between the CHM and the BCH. - To analyze the ways to provide assistance to Parties in the development and establishment of national BCHs - To assist the Secretariat in promoting the goals of the CHM in order to meet the need for Parties to better understand the essential role played by the CHM in assisting with the implementation of the Convention - To present the Matrix of Work to COP - To emphasize the issues contained in *Progress Report on the Mechanisms for Implementation*, and to make recommendations on the future work and activities of the CHM during the sixth Conference of the Parties.		

Table 1 (continued from the previous page)

Key recommendations, decisions	Responsibilit /execution by	Deadline reporting
Ad Hoc Technical Expert Group on Traditional Knowledge and Clearing-House Mechanism, Bolivia, 24 - 26 February 2003		
▪ To support initiatives of indigenous and local communities in the use of communication technologies and networks to enable information sharing ▪ To establish links with distributed networks of national, regional and local focal points ▪ Facilitate the communication between Parties, governments and other relevant organizations through development and establishment of communication mechanisms		
Sixth meeting of Conference of Parties (COP VI) The Hague, The Netherlands, 7 – 19 April 2002		
VI/ 18 ▪ To strengthen the national, sub-regional and regional focal points ▪ To undertake a review to assess the current and potential role of CHM and to report on this issue ▪ To update and develop the CHM tool-kit (by incorporating guidelines and best practices) ▪ To convene additional capacity building workshops at the national and regional levels ▪ To assist in the further development of communication network with emphasis on information-sharing formats, protocols and standards	All Parties Executive Secretary in collaboration with existing information networks	COP VII
Informal Advisory Committee meeting, Montreal, Canada, 9 March 2003		
▪ To implements new communication mechanisms (listservs, discussion forums, etc.) ▪ To complete CBD Controlled vocabulary and new version of CHM toolkit ▪ To establish new international thematic focal points ▪ To organize the planned CHM regional capacity building workshops ▪ To finalize the draft operational procedures for the IAC		

In 1999 an independent review of the pilot phase of the CHM was undertaken for SBSTTA. The review identified key achievements of the pilot phase. As a result, a strategic plan and longer-term programme of work developed. Later, the SBSTTA-V considered the review and the longer-term programme of work and COP-V endorsed the Programme and supported the implementation of the strategic plan for the CHM which will become a component of the Strategic Plan for the Convention.

Based on the Strategic Plan, decisions of COP-V and recommendations of IAC meetings, a Clearing-house Mechanism Matrix of Work was prepared to be presented to COP-VI. COP-VI also requested the Executive Secretary to commission a review to assess the current and potential role of CHM in promoting scientific and technical cooperation. The present report is an output of the review process, initiated by UNEP-WCMC in 2002 in the framework of a MoC with the Secretariat.

Another important tool for the promotion of the CHM network is the organization of capacity building workshops at national, sub-regional and regional levels. With regard to this particular tool, a series of regional workshops on CHM had been conducted during the pilot phase. Table 2 presents the main outputs of the workshops convened during the first cycle. Another cycle of regional meetings has been launched in 2003. Table 3 shows the output of the first of such meetings – the African Regional meeting.

Table 2 Summary of key recommendations from CHM regional workshops[1]

General	CHM Content	CHM Structure	Regional level issues
First Regional Workshop for Latin American and Caribbean region, Colombia, 1997			
Access to metadata and databases, information technology required

Institutional strengthening, training needed

Proper data organization and standardization needed

Ownership of all information should remain with the provider of information

Information exchange should be facilitate via internet and CD-ROMs

Financial support by the Financial mechanism of the Convention required in order to implement both human resources development and the institutional strengthening

Also financial resources need to be available through other bilateral and multilateral funding institutions and international donors | Full text of CBD on native language

Country Studies, Reports, and National Strategies and Action Plans

Opportunities for international, regional and multilateral cooperation

National information on other biodiversity-related conventions

National legislation on biodiversity conservation; sustainable use; access to genetic resources; access to transfer of technology; patents; biosafety; incentive measures; threatened and endangered species; intellectual property rights

Info on components of biodiversity including described genes and genomes, ecosystems and habitats, etc

Directory of institutions and experts, including researchers and scientific collections

Information on indigenous and local communities knowledge

Environmental impact assessment and management

Information on training, surveys, workshops… | CHM National Focal Point should be linked with the CBD National Focal Point

Clear structure should be identified for all the parties

The Secretariat should assist in connecting non-web-connected National Focal Points to the Internet

A National Advisory / Steering Committee should be established to assist National Focal Points

A CHM-NFP e-mail group should be organized

Facilitators among the web-connected NFPs should be designated to assist non-web-connected parties on access and exchange of information

Non-web-connected parties should present their CHMs on CD-ROMs

Avoidance of duplication of efforts is recommended in order to improve synergy in information exchange with other biodiversity-related conventions | Information on common needs and priorities for region, such as shared ecosystems, migratory species and invasive species should be incorporated into CHM web pages |

[1] Starting from the Second regional workshop, only the new recommendations are included in the table since the majority of them restate the recommendations of the First regional workshop.

Table 2 (continued from the previous page)

General	CHM Content	CHM Structure	Regional level issues
Second Regional Workshop for Central and Eastern European region, Hungary, 1997			
Facilitate data-search and information exchange capabilities Development of joint research programs and training to meet capacity building needs	Case studies referring to activities related to CBD implementation Biodiversity-related sectoral legislation within the national legislation framework Spatial and temporal information on the biodiversity components (distribution maps, GIS, etc)	Secretariat news, local news and Regional Focal point news should be incorporated into CHM structure	Nominate CHN National Focal Points by the end of 1997 Make Focal Points operational and nominate Regional Focal Points before the end of the pilot phase Thematic Focal Points should be designated according to regional needs Development of Regional Pilot Projects should be considered as priority for the region
Third Regional Workshop for Asian region, Malaysia, 1997			
Secretariat Focal Point should be a mediator in financial arrangements between source countries and Parties making use of genetic resources Trans-regional transfer of information needed Sharing of locally developed software needed "Training of trainers" on data management is needed	Glossary of terms List of developed parties/donors Financial mechanisms: policy, strategy, priorities and eligibility criteria Guidelines for enabling activities Second-level advanced training on database-web, GIS-web inter-connectivity is needed	Thematic Focal Points should be designated in the following spheres: - Scientific - Technical - Technological - Social-economic - Cross-sectoral issues Suggest to nominate Sub-Regional Focal Points	Nominate CHN National Focal Points before COP IV Make Focal Points operational and nominate Regional Focal Points before the end of the pilot phase Development of Regional Pilot Projects should be considered as priority for the region
Fourth Regional Workshop for African region, Kenya, 1998			
Facilitate networking of different counterparts of exchange centers (national, regional, specialized)	Translation of COP and SBSTTA documents into native languages	At the next COP meeting is it necessary to establish criteria and guidelines for designation of Thematic Regional Focal Points and identify their functions	Assist national counterparts to obtain information on genetic resources originated from their respective countries which are preserved ex-situ in northern countries

Table 3. Conclusions of Africa regional meeting on the CHM (Kenya, April 2003)

Goals and objectives	Capacity needs	Recommendations	Role of CHM national focal points and the Convention CHM
Use of new information technologies to promote and facilitate technical and scientific cooperation			
Establish an African regional CHM	Infrastructure, expertise and sustainability; Greater sharing of expertise and resources	Begin the development of an Africa regional clearing-house mechanism	The regional African CHM should: Provide expertise and training for the region as a whole; Provide a platform for more effective regional exchange of data; Provide information, including guidelines, indicators, projects, etc., to assist with capacity-building in the evaluation of monitoring programs; Establish regional discussion forums to facilitate cooperation; Create a regional roster of experts; Monitor the level of implementation and assist with capacity and development of national African CHMs.
Protect, document and promote indigenous and traditional knowledge including their innovations and practices	Implement effective legislation and encourage cultures and practices that protect traditional and indigenous knowledge; Better legislation at the national, subregional and regional level; Have indigenous and local communities benefit from their knowledge; Ascertain benefits arising from the use of traditional and local knowledge	Implement effective legislation protecting traditional and indigenous knowledge	CHM NFPs should: Assist indigenous and local communities to acquire and use new information technologies and integrate the use of these technologies to foster better communication and protection of their knowledge; Assist with the documentation of indigenous and local communities' practices through the use of modern information technologies; Promote the issue of intellectual property rights and protection of indigenous and traditional knowledge; Assist countries in raising awareness of intellectual property rights; Work with the CBD thematic focal point on indigenous and local communities issues; Share knowledge of underlying social conditions, i.e., poverty, population, etc.

Table 3. (continued from the previous page)

Goals and objectives	Capacity needs	Recommendations	Role of CHM national focal points and the Convention CHM
Better management of knowledge and information	Capacity to evaluate benefits in making information available in the public domain; Protect information where necessary	Restrict access where necessary, especially to protect genetic resources and knowledge, including indigenous and local community knowledge respecting indigenous and local community procedures; Implement mechanism to evaluate potential benefits and drawbacks of information in the public domain.	Make available information on best practices and successful case studies pertaining to knowledge and information management, especially with regard to the programme areas and cross cutting-areas of the Convention; Share expertise at the sub-regional and regional levels.
Use alternative and adaptive information dissemination mechanisms to reach all institutions and communities	Evaluate alternative and adaptive technologies	Develop mechanisms using alternative and adaptive technologies, in conjunction with modern information technologies, to more effectively disseminate information.	Optimize use of alternative and adaptive technologies (CD-ROM, fax, pamphlets, publications, radio, etc.) to disseminate information to promote greater institutional participation in collaborative projects.
Ensure data validity and authentication	Have data and information serve national level needs; Develop procedures to ensure validity, long-term availability and authentication of data and information; Increase sharing of information at the national, subregional and regional levels.	Adhere to the use of common formats, protocols and standards; identify best national institutional setup to establish sharing of information. The CHM should not act as a data custodian.	Make available information on common formats, protocols and standards; Use controlled vocabularies.

Table 3. (continued from the previous page)

Goals and objectives	Capacity needs	Recommendations	Role of CHM national focal points and the Convention CHM
Ensure the availability and sustainability of the human and physical infrastructure	Training; Access to new information technologies and expertise.	Call on Parties to adequately fund national CHMs, and, where necessary, seek alternative funding sources, either internally or externally; Encourage Parties to internalize the CHM; Use available and new funding mechanisms, including the GEF Enabling Activities; Undertake new needs assessment survey with regards to programme areas of work in the Convention; Encourage the Government of Belgium to enlarge its partnering programme; Encourage other Governments to follow the example of the Government of Belgium: Invest in training to manage and disseminate information, how to create and manage web sites, listservs, databases; The CBD should work with donors and development partners to mobilize financial resources to establish CHM national focal points; Improve on the existing CBD roster to include capacity-building expertise; Recommend the identification of innovative approaches making more effective use of existing infrastructures; Identify partners at the national, subregional and international levels to organize capacity-building activities in support of the Convention's programme areas at the national, subregional and regional levels.	Make available information on funding opportunities at the national, subregional and regional levels; Assist in the development of a regional proposal to establish an African regional clearing-house mechanism to assist in sustaining infrastructure; Promote more communication among the CHM NFPs, the Secretariat, other information networks, research institutions and other stakeholders; Promote the use of appropriate technologies and best practices.

Table 3. (continued from the previous page)

Goals and objectives	Capacity needs	Recommendations	Role of CHM national focal points and the Convention CHM
Continue to encourage synergy and collaboration among different networks and other relevant Conventions	Improve integration among different institutional sectors; Improve harmonization of programs and information; Highlight unique role of the CHM through collaborative initiatives.	Identify and make available information on institutional sectors; Encourage the establishment of memoranda of cooperation with organizations and other appropriate institutions toward this goal; Elucidate the relationship among different networks as an item of discussing in capacity-building workshops and make available operational policies and procedures for each network and initiatives; Encourage Parties to use institutional name to identify NFPs and identify contact person.	Identify institutional linkages and create communication channels among these institutions; Act as a portal to existing networks and initiatives; Assist in the harmonization of information among Conventions, collaborate with NFPs and national networks capacity-building initiatives; Foster collaborative initiatives among conventions' clearing-house mechanisms and/or national focal points; Use the framework of existing networks such as UNEP Infoterra and other similar initiatives to maximize resource use and eliminate duplication of effort. .
Develop and share metadata between institutions and organizations	Development of metadata standards at the national, subregional and regional levels.	Review available metadata standards, and recommend adherence to common standards; Use the regional CHM network to develop subregional and regional metadata and standards.	Make national metadata publicly available; Make use of controlled vocabularies; Develop metadata to describe national programs; Make use of existing metadata standards and software for creating metadata; Use metadata to assist in the harmonization and rationalization of information among different NFPs, institutions, conventions networks and initiatives.
Increase support and use of the CHM through public-awareness programs	Increase awareness and participation by policy makers and stakeholders; Sustain public-awareness programs.	Develop a national inter-institutional team to increase awareness to policy makers; Develop and operationalize a national and regional clearing-house awareness programme, emphasizing the role of the CHM in technical and scientific collaboration.	Increase proactiveness of CHM NFPs; Take initiatives; Parties with well established, active CHMs should present case studies for the region on CHM development and responsibilities; National CHMs should make available a working model for the development of CHMs;

Table 3. (continued from the previous page)

Goals and objectives	Capacity needs	Recommendations	Role of CHM national focal points and the Convention CHM
			Generate activities of shared interest; Increase awareness of data collected and made available; Cooperate with the Secretariat's public-awareness and education programme to increase awareness of national CHM activities and needs; Show what the CHM can offer and showcase/market its products; Articulate links with other networks to Parties and stakeholders; Publish a guide or manual on the activities of the CHM to promote greater awareness.
Greater synergies and collaboration between national CHMs and biosafety-clearing-houses	Need to improve institutional cooperation	Improve communication and share resources between national CHMs and biosafety-clearing-houses whenever possible	Encourage collaboration and joint work; Share expertise and resources whenever possible; Share infrastructure whenever possible.
Regional needs to implement effectively recommendations related to the thematic areas and cross-cutting issues of the convention			
Establish partnerships with international thematic focal points, intergovernmental organizations, the private sector and non-governmental organizations.	Infrastructure to participate equitably in programme areas of the Convention.	Synergize activities with international thematic focal points, intergovernmental organizations, the private sector and non-governmental organizations.	Work with international thematic focal points to establish joint initiatives and work programmes with and among international thematic focal points.
Assist countries to participate in managing invasive alien species, particularly within the work programme of the Convention and the GISP and other similar initiatives	Required expertise; Access to invasive alien species information; Access to case studies.	Establish working relationships with the GISP within the work programme of the GISP and international thematic focal point; Use and/or develop mechanisms to identify invasive alien species.	National CHM NFPs should work with the Convention clearing-house mechanism to establish working partnerships with the GISP to implement information exchange systems and join the emerging global invasive species information network;

Table 3. (continued from the previous page)

Goals and objectives	Capacity needs	Recommendations	Role of CHM national focal points and the Convention CHM
			Work with the clearing-house mechanism and GISP to identify experts and implement capacity-building initiatives; Work with the GISP to improve access to the Internet and new information technologies in support of work to identify and manage invasive alien species.
Cooperate with BirdLife International, and other national and international non-governmental organizations to use its information resources in support of the programme areas and cross-cutting issues of the Convention at the national level	Develop human and physical infrastructure, to use BirdLife's and other sources and information	Establish partnerships with BirdLife International, and other similar initiatives, particularly in support of the Convention's programme areas and cross-cutting issues.	Make BirdLife International information available through national CHMs; Cooperate with BirdLife International, and other similar initiatives, to support national programmes of the Convention; Work with BirdLife International, and other similar initiatives, in the development of local, national, subregional and regional networks; Request non-governmental organizations to facilitate the nomination of a representative to work with national CHM NFPs.
Work with the Africa Environment Information Network and other relevant network initiatives to share resources and increase national capacity	Develop institutional capacities; Encourage harmonization of efforts; Assist in integrating data and information in decision-making.	Collaborate with the Africa Environment Information Network and other relevant network initiatives in areas related to the programme areas of the Convention; Implement joint programs; Jointly organize capacity-building initiatives.	Establish formal links between national CHMs and the Africa Environment Information Network and other relevant network initiatives and request the CHM of the Convention to establish formal links with the Africa Environment Information Network and other relevant network initiaves; Collaborate in the development of databases and information systems in Africa and work to harmonize the information in these systems; Collaborate in the development and maintenance of a data exchange platform, including formats, standards and protocols, database architecture and infrastructure

Table 3. (continued from the previous page)

Goals and objectives	Capacity needs	Recommendations	Role of CHM national focal points and the Convention CHM
			National CHM NFPs and the CBD CHM should work with the Africa Environment Information Network and other relevant network initiaves to establish the CHM regional network; Foster links with the NEPAD through the Africa Environment Information Network and other relevant network initiatives.
Establish partnerships with the NEPAD and other similar initiatives	Improved infrastructure; Improved institutional capacities.	National CHM NFPs should formalize partnerships with the NEPAD, particularly in the area of information management.	Work with the NEPAD to improve information management and exchange; Work with the NEPAD in the development and use of metadata and controlled vocabularies; Work with the NEPAD to improve access to new information technologies.
Fufil the goals of the CHM strategic plan at the national level	Develop infrastructure required to implement effectively the CHM strategic plan.	Adapt the CHM strategic plan objectives for the national level, emphasizing the importance of the second and third objectives (information exchange and network development) to the first objective (promotion of technical and scientific collaboration.)	Draft country-specific CHM strategic plans; Use the national CHM strategic plans as a guide for activities and projects; Encourage the Convention Secretariat to develop the new toolkit in line with the development of national CHM strategies.
Implement paragraph 1 of decision VI/18, which invites Parties to establish or strengthen national, subregional or regional focal points for the clearing-house mechanism, if they have not done so already	Develop human and physical infrastructure	Promote the establishment of CHM NFPs in all African countries; Promote the development of websites in all African CHM NFPs.	National CHM NFPs and the CBD CHM should assist countries without CHM NFPs and websites to find sources of funding or partnerships; Offer advice on technical issues; Offer advice on information management.

At the end of this section, to go over the main achievements of the CHM so far, it is worth mentioning the following activities undertaken towards three main goals (see Table 4). The table does not include all the spheres of scientific and technical cooperation but rather is a summary of the Secretariat's efforts towards the implementation of the CHM Strategic Plan and Matrix of Work.

Table 4. Main achievements to date on the global CHM network

Goal	*Accomplishments*
#1: Promotion and facilitation of scientific and technical cooperation	▪ Collaborating with GISP on the implementation of a Global Invasive Species Information Network ▪ Drafting with GISP "Building a Global Invasive Species Information Network" document. First draft completed. Second draft completed. ▪ Discussing with the Belgian CHM focal point the mechanisms and training programs for the transfer of expertise to developing areas. ▪ Discussed surveys on information access with UNDP ▪ Established MoC with the GEF/UNEP Sustainable Alternatives Network ▪ Discussing a protected areas/marine and coastal protected areas project with WCMC ▪ Established MoC with UNEP-WCMC in support of Decision VI/18 to commission a review to assess the current and potential role of the CHM in promoting technical and scientific cooperation.
#2: Information exchange	▪ Using the Dublin Core as the metadata standard for the CHM and BCH web pages. ▪ Constituted a core group to examine the issue of metadata. ▪ Working with experts to develop metadata guidelines. ▪ Organized and convened an Informal Meeting on formats, protocols and standards for improved exchange of biodiversity-related information. ▪ Signed MoC with the GEF/UNEP Sustainable Alternatives Network on further information dissemination on new green technologies ▪ Has requested assistance from IAC to ascertain if mirror sites are still required.
#3: Network development	▪ New CHM Brochure published ▪ Launch of new web site ▪ Developed automatic news dissemination mechanism ▪ Developing new mechanisms for the public to communicate with the CBD Secretariat ▪ Programs and issues page revised and updated ▪ Paper on synergies and differences between the CHM and the BCH being drafted ▪ Two established international thematic focal points: Global Invasive Species Program and Global Taxonomy Initiative ▪ Drafted communications plan for the Secretariat

Table 4 (continued from previous page)

Goal	*Accomplishments*
#3: Network development (continued)	- Assistance to the implementation of the Pilot Phase of the Biosafety Clearing House, started on April, 2001. - Developed Toolkit for use with the Biosafety Clearing-House - CHM Toolkit being developed in collaboration with the European Community, the Governments of Belgium and the Netherlands and the Global Biodiversity Information Facility - Organized regular meetings of Informal Advisory Committee which led to a set of concrete recommendations - Four Regional Workshops for the Latin American and Caribbean region, Central and Eastern European region, Asian region and African region. A new cycle of regional CHM meetings started in 2003 - Finalized an MoU with GISP to act as a thematic focal point. - Organized and convened a meeting with GISP to discuss development of platform for Global Invasive Species Network - Joined the GISP Information Management Committee as co-Chair - Participated in GISP capacity building workshop in Latin America. - Establishment of (1) Global Taxonomy Initiative (GTI); (2) Global Invasive Species Program (GISP); (3) NatureServe and (4) Birdlife International as international thematic focal points. - Discussing with Indigenous groups the establishment of an indigenous thematic focal point pursuant to Article 8(j) - Assisted in the organization and presentation of a joint BCH/CHM regional capacity-building workshop in Africa. - Assisted in the organization of and participated in the Southern Africa Regional Training Workshop on the Establishment and Operationalization of the Commonwealth Knowledge Network and the Convention on Biological Diversity Clearing-house Mechanism - Participated in Regional Biosafety Capacity Building Workshops in Africa, Latin America and Asia - Additional capacity-building workshops planned for Africa, GRULAC, CEE and Asia. Ongoing discussion on organization of joint GRULAC workshop with IABIN and joint CEE workshop with the European Community - A new CHM web site based on XML and database technologies and added metadata to all pages. Also the web site will be presented in all six UN languages - Incorporation of the "Second National Report Analyzer" within the web site - A Financial Resources and Mechanism Cooperation Projects Database developed within the CHM web site. - A developed controlled vocabulary and adoption of Dublin Core as the metadata standard - Development of an updated CHM toolkit including new standards, metadata recommendations and information exchange protocols. - Development of the structured vocabularies for public use.

1.2. UNEP-WCMC CHM Review Project

In October 2002, UNEP-WCMC initiated a one-year project on Research on Clearing House Mechanism Development (afterwards "CHM Review" Project) mainly aimed at:
1. Systematic review of national-level implementation of the CHM, with a view to developing recommendations that will lead to improvements in national implementation of the CHM through more targeted sharing of experience and active seeking of synergies.
2. Assessment of the extent to which national biodiversity information networks are integrated with national CHM development and implementation, also taking account of the former UNEP Biodiversity Data Management project and the benefits that could be achieved by providing an effective link between this approach and CHM implementation.

Justification
Since the entry into force of the CBD in 1993, many Contracting Parties have established national CHMs in response to Article 18 of the Convention and decisions of the Conference of Parties. There is a CHM toolkit, an agreed strategic plan, the process has benefited from the advice of a CHM Informal Advisory Committee, and there have been a series of regional and topic-related CHM meetings. However, to a large extent, each national CHM has been set up independently, and approach and content varies widely.

Recently attempts have been initiated to harmonize some approaches within the CHM by looking at issues such as interoperability and sharing experience on means to promote scientific and technical cooperation. Both have the potential to lead to improvements at national and international levels in what can be achieved by the CHM "network" and to make it more cost-efficient, but this is only a small first step.

It is therefore recommended that a systematic review of what Contracting Parties are currently doing within their CHMs, and what their future plans are, could provide a very useful basis for a series of pragmatic recommendations for the future development of the CHM at national and international levels.

Many countries have, or are developing, national biodiversity information networks, often as collaborative projects between agencies at the national level. In many, though not all, cases these are a direct response to Article 7 of the CBD, and are developing in the context of national biodiversity strategies and action plans.

Several years ago UNEP coordinated implementation of a GEF-funded project on biodiversity data management (BDM), which involved UNEP-WCMC in the development of training materials and the facilitation of workshops in a number of countries, bringing national agencies together to plan for their future biodiversity information management.

This process was very much about promoting the necessary scientific and technical cooperation in order to develop the necessary information networks. There are clearly links between the biodiversity information networks and implementation of the CHM at the national level, but these links are often not explicitly made.

> *It is therefore recommended that existing and developing national biodiversity networks be reviewed in a number of countries, with a view to assessing the extent to which they are linked to the CBD and the CHM, and how these relate to potential future development of the BDM project.*

Activities

The project implementation can be categorised into the following four main tasks:

Task 1. Investigation of CBD Decisions and related documents on CHM and their implementation
- identifying key documents and manuals, concerning CHM establishment and development and analyzing their provisions and the extent to which they meet the needs and capacities of the countries
- compiling a uniform questionnaire addressing all the aspects of CHM development

Task 2. Investigation of the national CHM implementation
- analyzing the extent of separate CHM structures in the countries with already developed CHM structures, assessment of each country's capacities available through the internet.
- contacting CHM National Focal Points and querying the CHM current status and plans by requesting them to complete the questionnaire developed
- analyzing the results of the survey by identifying the advantages and gaps of the CHM process in each country as well as analyzing the extent of co-operation between the countries.

Task 3. Investigation of the national CHM establishment
- contacting CHM National Focal Points of the countries in the phase of CHM establishment and querying the current status of CHM
- analyzing the results of the survey by identifying the opportunities and constraints of the CHM process in each country

Task 4. Comparative analysis of the data obtained from Tasks 2 and 3 for further harmonization of CHM activities
- identifying ways on how the experience of the countries with developed CHM can be disseminated to the countries considered under Task 3.
- prioritizing areas of importance for each country
- developing set of measures / actions needed for future development of CHM in the priority areas identified.

Outputs

The following activities have been accomplished during the implementation of the project:
- Key documents and manuals on CHM establishment and development reviewed.
- CHM web sites accessed and their contents reviewed.
- A questionnaire addressing all the aspects of CHM current status and development at the national level prepared and sent to CHM National Focal Points.
- International initiatives reviewed through available web sites.
- A GIS-compatible map on current CHM status developed and sent to the Secretariat for review (All data is as of January 1, 2003). It categorizes the countries into 6 categories, namely (1) CBD parties with CHM email; (2) CBD parties with CHM web site; (3) CBD parties with neither CHM e-mail nor web site; (4) Non-CBD parties with CHM email; (5) Non-CBD parties with CHM web site; and (6) Other non-CBD parties. It is also possible to view the information on CHM status, e-mail and URL by choosing "info" button and clicking onto the particular country within the ArcView (or ArcExplorer) software.

- Analysis of the received responses to the survey. Opportunities and constraints of the CHM process in each country revealed. Current needs of CHM development at the national level identified.
- The Project Interim Report presented at the IAC meeting (Montreal, March 9, 2003) and during the side event to the 8th SBSTTA meeting (Montreal, March 13, 2003).
- An Action Plan on CHM further development at various levels developed.
- The present report prepared and presented at the informal Workshop on 'Concrete actions for co-operation between European national CHMs', hosted by Royal Belgian Institute of Natural Sciences (Brussels, June 19-20, 2003).

1.3. Key target group of the review

The Independent Review of the CHM Pilot phase was implemented in 1999. The Final Report of the Review considered the level of CHM establishment and development in **175** Parties of the Convention. Of this number, **137** Parties had nominated National Focal Points as of October 1999, **104** Parties had E-mail address and **41** Parties hosted CHM web sites.

These numbers have seen notable changes since that time. As of July 2003, the total number of countries involved in the CHM process reached **189** (including **187** CBD-Parties and the USA and Thailand as non-CBD Party). Out of this total, **147** countries have currently designated National Focal Points for the CHM, **133** have e-mail addresses and **62** host CHM national web sites. The current status of CHM by region is presented in Table 5 below. For the breakdown of the current CHM status by the countries, refer to Appendix 1 to this report.

Table 5. CHM current status by regions

Region	Total CBD Parties	CHM NFP		CHM E-mail address		CHM Web site	
		Yes	No	Yes	No	Yes	No
Africa	52	44	8	38	14	15	37
Asia and the Pacific	54[(1)]	36	18	30	24	7	47
Central and Eastern Europe	23	17	6	16	7	9	14
Latin America and the Caribbean	33	27	6	25	8	11	22
Western European and Others	27[(2)]	23	4	24	3	20	7
Total	**189**	**147**	**42**	**133**	**59**	**62**	**127**

[(1)] including Thailand - non-CBD Party with operational CHM e-mail address

[(2)] including United States of America – non-CBD party with operational CHM e-mail and web page

As one can see from the table the "Western European and others" region is distinguished by the highest percentage of the e-mail addresses and web pages available (**88.8%** and **74.1%** respectively). The "Asia and the Pacific" region shows the lowest ratio (**55.6%** for available e-mail addresses and only **13%** for CHM web pages).

The main target group of the current report is composed of **134** CHM entities. In addition to the above mentioned 133 operational CHM e-mail addresses, the CHM contact person of Greece is contacted as well, although not being officially nominated yet.

The term "Party" will be used throughout this report to represent those 134 CHMs

Part 2. Survey on CHM Current Status and Development Needs

2.1. Participants of the Survey

In order to reveal the CHM current status and development needs a survey was conducted during the Project. The questionnaires were sent to **134** CHM National Focal Points with e-mail addresses. Three survey calls were made on December 13, 2002, January 14, 2003 and March 6, 2003. The survey form has four main sections, namely (1) Current status of the CHM at national level; (2) CHM Web-site; (3) Cooperation; and (4) CHM Development. It also included a section for comments and suggestions intended for completion by the National Focal Points for their suggestions, recommendations or other considerations (see Appendix 2 to this report). The first, third and fourth sections of the survey form were intended for completion by all respondents contacted, while the second section should had been completed only if the Party had a CHM web-site.

As of July 2003, a total of **forty-five** Parties have responded with filled in forms (see Appendix 3 to this report for the list). Meanwhile, **ten** Parties had e-mail address delivery failure (see Appendix 4). As one can see from Figure 1 below, the parties from "Western European and others" region have the highest representation ratio in the survey (**60%**). On the other hand, the lowest representative ratio is displayed by the African region and the Asia and the Pacific region Parties (**21%** and **23.3%** participation respectively). At the same time one can notice the following breakdown of the number of respondents:

1/3 from African, Asian and Pacific regions;
1/3 from Central, Eastern Europe, Latin America and Caribbean regions; and
1/3 from Western European and other region.

The analysis of the responses obtained from CHM National Focal Points is presented in Sections 2.2-2.6. The resulting assessment of the current and potential role of the CHM has led to the development of recommendations on improvement of CHM network at both local and international levels. The proposed measures are organized in the form of a CHM Action Plan (refer to Part 3 of the report).

Fig.1 Participants of CHM Review Survey by Region
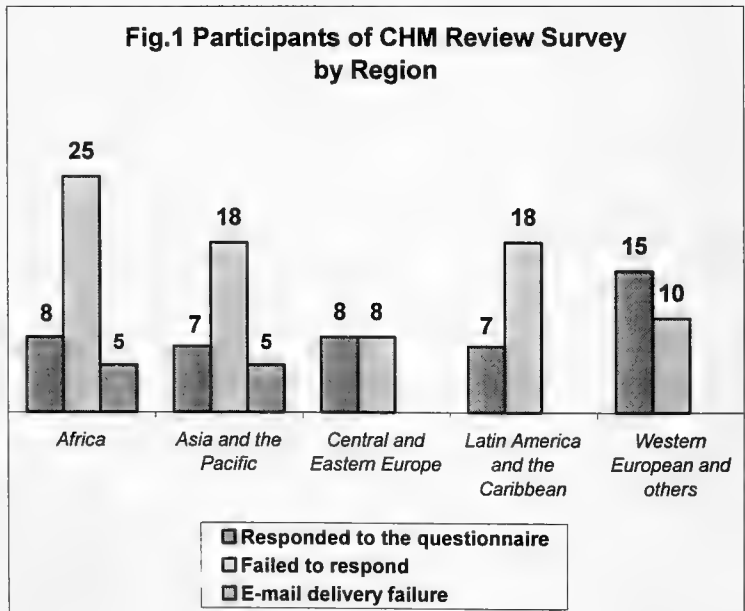
2.2. Current status of national CHMs

Out of forty-five survey respondents, 41 consider their national CHM either already established or in the process of establishment (26 and 15 Parties respectively). Four Parties, namely the Dominican Republic, Israel, Sierra Leone and Venezuela negatively answered this question, stressing the further national requirements toward CHM creation (Fig.2).

Fig 2. Current status of national CHM establishment

9%
33%
58%

- Established National CHM
- In process of establishment
- Not established yet
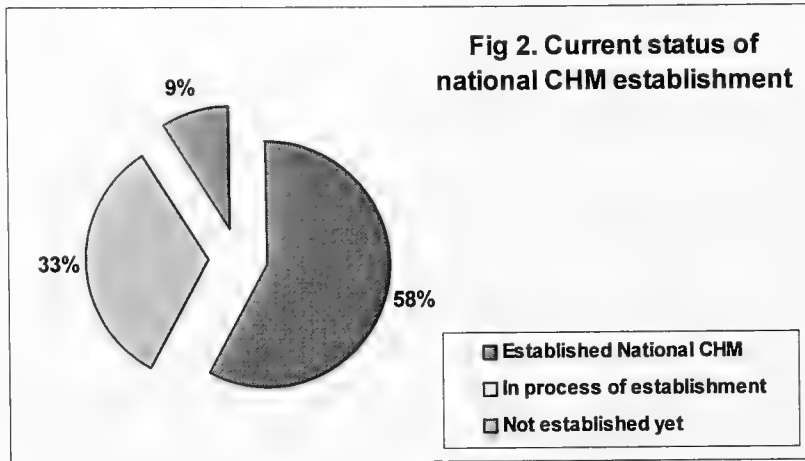
The process of CHM establishment at the national level has been and is currently supported mainly by GEF through biodiversity enabling activities on capacity building. Only Indonesia and Egypt run the project through national funding. In four Parties the projects are in progress, while in the Russian Federation and Armenia they had finished at the end of 2002. The main outputs of these EA projects are (1) the establishment of working structures within the Party and (2) launching of the official CHM web site. The summary of the projects currently underway in the Parties-respondents is presented in the Table 6 below. For further information on GEF financing of national CHMs, refer to the database search engine at the URL: http://www.gefonline.org/home.cfm.

Table 6. List of on-going projects on CHM establishment in the survey respondent Parties

Party	Starting date	Duration	Funding source
Bolivia	August 1999	4 years	UNEP/GEF + national government
Hungary	August 2000	on-going by UNEP/GEF and add-on components	
Fiji	Jan 2002	24 months	UNEP/GEF + national government
Estonia	Jan 2002	18 months	UNEP/GEF
Indonesia	May 2002	on-going via national funding	
Iran	June 2002	12 months	UNEP/GEF + national government
Egypt	June 2002		National government
China	July 2002	20 months	UNEP/GEF + national government
Czech Republic	Sep 2002	14 months	EEA / Finseil
Greece	Jan 2003		UNEP/GEF
Bahamas	Jan 2003	11 months	UNEP/GEF
Mali	Jan 2003	12 months	UNEP/GEF
Denmark	June 2003	planned to be funded by Danish Forest and Nature Agency	

2.2.1. CHM current management and maintenance

The national CHM organizational capacities towards efficient CHM functioning at national level were investigated. The statistical results obtained show that only twenty-six Parties out of 45 (**57.8%**) have nominated separate NFPs for CHM than CBD. At the same time only 16 Parties (**35.6%**) have established a CHM Steering Committee or Group so far (with three Parties in the process of establishment).

Twelve Parties (**26.7%**) have published CD ROMs with their CHM web sites and one Party is in the process. Out of the 45 respondents, 33 (**73.3%**) already host a developed CHM web site, 11 (**24.4%**) are working on it and only New Zealand has a completely different approach, preferring mutual cooperation promotion to web site maintenance.

CHM regional branches at the local level has been already established only in Belgium, Canada, Fiji Island, Peru and the United States of America while 37 Parties (**82.2%**) have not started the process yet and 3 respondents, namely, Bolivia, Estonia and Russian Federation, reported that the process is underway. The comparable summary of the above-mentioned statistics is presented in Figure 3 below.

In Canada those branches do not have the official status of national CHM local offices, but act as focal point institutions contributing to the de-centralized approach to the development of the CHM. In Belgium the situation is more exact – there are three regional CHM branches, one for each of the three Belgian administrative regions. Fiji has a head office in Suva, which coordinate various governmental and non-governmental branch-organizations throughout the islands. Peru created a joint regional and thematic network in partnership with several universities and institutions distributed within the Party. The USA implements national CHM through the US National Biological Infrastructure (NBII), which has 12 regional nodes covering the country. Those nodes are interconnected via the Internet.

Fig. 3 Statistics on some national CHM structures
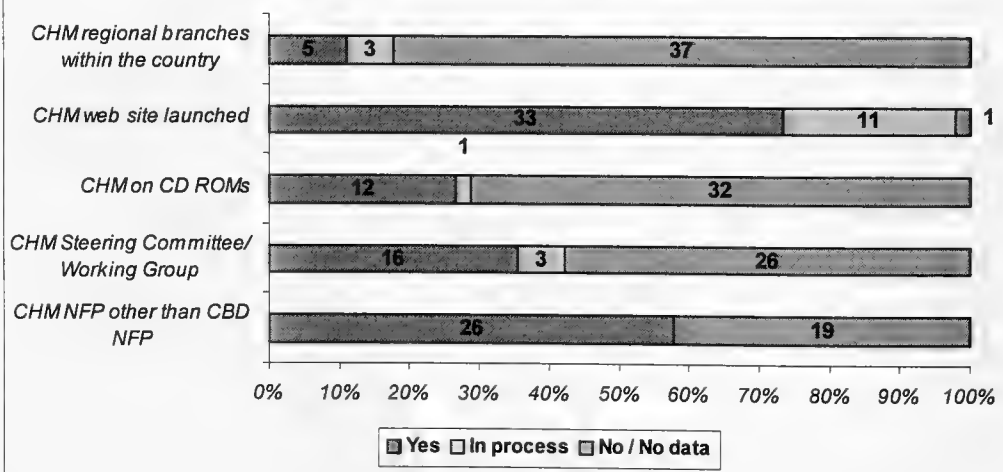
A total of twenty-one Parties (**46.7%** of survey respondents) gave a positive response to the question on availability of CHM thematic focal points/contact persons at national level, while Canada, Estonia and the Russian Federation are in the process of nominating ones. Those 21 Parties have contributed experts to 32 different thematic areas (see Fig 5 on the next page). The most representative are Biosafety (19 respondents), Forest biodiversity (16), Taxonomy (15) and Access and Benefit Sharing (ABS) and Protected Areas (14 each) thematic areas. As one can see from the chart, an important area for CHM such as Capacity Building is lacking designated persons at national level. At the same time, it is typical to designate official focal points for ABS, Biosafety and Taxonomy fields while the other areas are represented mainly by unofficial contact persons.

The level of efficiency of CHM functioning depends not only on the availability of local human resources – experts, consultant on different spheres of biodiversity, but also on the level of timely and fast access to this information. From this point of view the accessibility of local rosters/databases of consultants and experts has been queried. The figure to the right shows the comparison of the number of Parties with developed rosters of consultants nominated both by the government and independently, as well as related NGOs in the field of biodiversity. The analysis shows comparatively high availability of the databases on NGOs at the local level, while the numbers on other two categories do not differ significantly.

Fig. 4 Statistics on availability of rosters / databases at national level
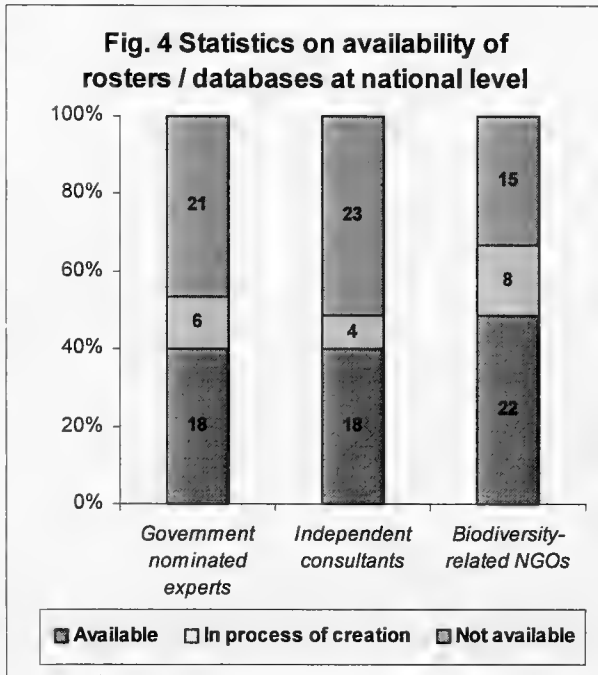
Among other entities of efficient CHM maintenance six Party-respondents provided additional information which is summarized in Table 7 below.

Table 7. Additional national CHM entities in the survey respondent Parties

Party	Entity
Bolivia	Research cooperation facilities
Estonia	Operational state level information system on biodiversity
Germany	Database of COP decisions
Jamaica	Roster/directory of biodiversity-related government agencies
Poland	Meta-database on biodiversity-related government agencies and institutions and their information resources
USA	Thematic nodes and infrastructure node

Fig. 5 Number of Parties with specific CHM thematic area focal points / contact persons

Thematic area	#
Access and benefit sharing	14
Agricultural bidiversity	13
Alien and invasive species	11
Amphibians	1
Avian conservation	1
Biodiversity indicators	11
Biosafety	19
Botany	1
Capacity building	4
Development and management	1
Dry and sub-humid lands	6
Ecosystems	10
Environmental law	9
Forest biodiversity	16
Genetic resources	2
Global plant conservation strategy	1
Impact assessment	7
Incentive measures	4
Inland water	10
Intellectual property rights	1
Marine and coastal biodiversity	13
Monitoring forest concessions	1
Mountain biodiversity	4
Protected areas	14
Public education and awareness	10
Research activities	1
Sustainable tourism	4
Sustainable use	7
Taxonomy	15
Threatened species	1
Traditional knowledge	8
Wildlife-human disease	1

The question on the use of CHM start-up tool-kit during the creation of national CHM nodes gave a surprising result. Six Parties did not know of the existence of such a tool-kit. Moreover, only three Parties that had used the tool-kit mentioned that it was actually useful (refer to Figure 6 on the right). Almost half the respondents gave a negative answer to the question stating availability of own resources or their unawareness of the existence of the tool-kit (13 and 6 Parties respectively). The responses revealed a need to review not only the CBD tool-kit, but also those of the European Community and the Netherlands in order to ensure they complement each other and avoid duplication of efforts.

Fig. 6 Attitude of survey respondents towards CHM Start-up tool-kit
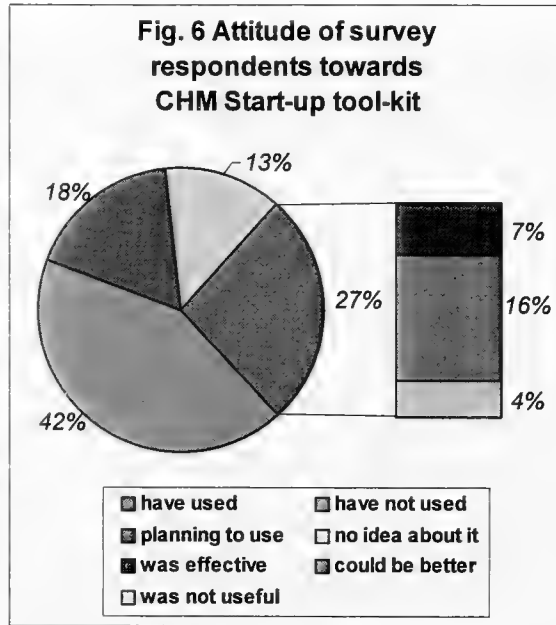
Concluding the analysis of this part of survey, it is worth mentioning the processes that are currently underway in the Parties with regard to proper management and efficient maintenance of national CHMs. The analysis shows that most of the activities underway are due to finish at the end of 2003; Canadian actions are planned till December 2004 and Peru's project will last till 2005. Nine Parties have mentioned some activities in progress without specifying the date they are due to complete. Table 8 summarizes on-going activities ordered by estimated date of completion in another nine respondent Parties (**20%** of total).

Table 8. On-going CHM activities with specified completion dates

Party	Activity in progress	Estimated date of completion
Estonia	CHM national web site development	March 2003
Bolivia	▪ Establishment of CHM branches within the country ▪ Putting CHM web site on-line ▪ Development of the rosters of government nominated experts, independent consultants in various areas of biodiversity and biodiversity related NGOs	April 2003
Estonia	▪ Designation of CHM thematic focal/contact persons ▪ Establishment of CHM branches within the country	April 2003
Indonesia	CHM national web site development	April 2003
Bolivia	▪ Establishment of CHM Steering Group / Committee ▪ Publishing national CHM on CD-ROM	June 2003 August 2003
Czech	CHM national web site development	October 2003
Bahamas	▪ CHM national web site development ▪ Development of the roster of government nominated experts in various areas of biodiversity	November 2003

Party	Activity in progress	Estimated date of completion
Indonesia	▪ Publishing national CHM on CD-ROM ▪ Development of Roster/database of related NGOs	December 2003
St. Lucia	Development of Roster/database of related NGOs	December 2003
Canada	▪ Designation of CHM thematic focal/contact persons ▪ Development of the roster of independent consultants in various areas of biodiversity	December 2004
Peru	National Biodiversity Information Systems	2005

2.2.2. Capacities of national CHM network

In this section seven questions were presented to the survey participants to identify the current volume of information hosted by the national CHMs as well as the expected progress for the coming years. All of the respondents except five Parties gave a positive answer to the question on availability of biodiversity-related archives/collections of non-electronic format in their countries (with two Parties in the process of creation). In those Parties, the collections and archives are maintained within the Biodiversity related information holder institutions (abbreviated to BRIHI afterwards throughout the report).

Regarding the availability of Biodiversity Information Systems (BIS), **64%** of respondents have already developed such tools, including databases, rosters and map libraries. However, the number of elaborated BISs varies from country to country with only nine Parties (or **20%** of all respondents) having completed more than 10. Figure 7 below shows the comparative distribution of the answers regarding development of information systems at national level. For the level of integration of those BISs into the CHM web site refer to the Section 2.3.

Fig. 7 Availability of Biodiversity Information Systems at national level

16%

64%

20%

20%

26%

18%

□ Developed
□ Not developed yet

□ In the process of development
▪ more than 10
□ 3-10
□ less than 3
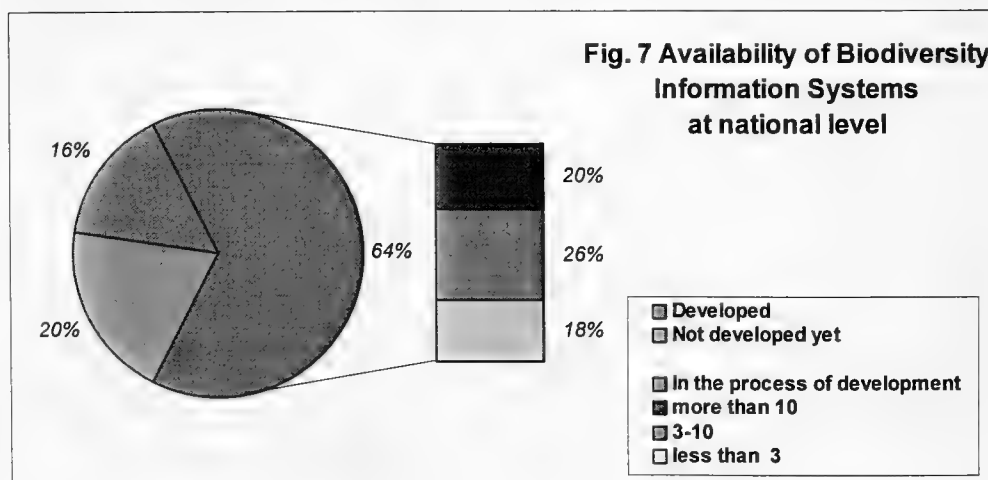
Almost half the respondents (22 Parties, or **48.9%**) have already identified and established a local network of the BRIHIs. Another 7 Parties (**15.6%**) are in the process of creating such a system. Surprisingly, **35.5%** of respondents (16 Parties) have not and do not plan to complete this major task yet.

The next two questions revealed a comparably large number of Parties currently engaged in the process of development of both indicators for biodiversity conservation and sustainable use and/or indicators for biodiversity management and policy (**31.1%** and **28.9%** of all respondents respectively). Comparable analysis of the responses obtained to this pair of questions is presented in Figure 8 on the right and Table 9 below.

Fig. 8 Status of development of biodiversity indicators
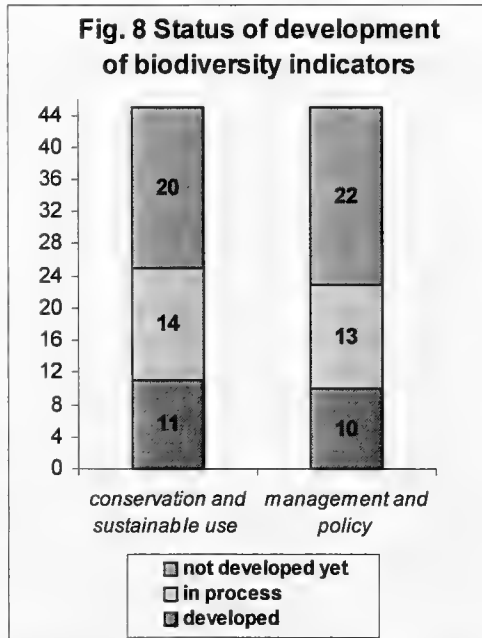
Table 9. Availability of two types of biodiversity indicators at national level

	# of Parties	% of total respondents
developed one type only	3	6.7
developed both types	8	17.7
in process of development of either one	3	6.7
in process of development of both type	12	26.7
lacking both types	19	42.2

Only eighteen Parties are currently involved in projects or activities aimed at three main goals of CHM at national level (for the full list of projects see Table 10). Eight respondent-Parties are in the stage of formulating such actions, while other 19 CHMs are not fully operational at the moment. For the comparable ratio refer to Figure 9.

Fig. 9 Status of current involvement in CHM activities at national level
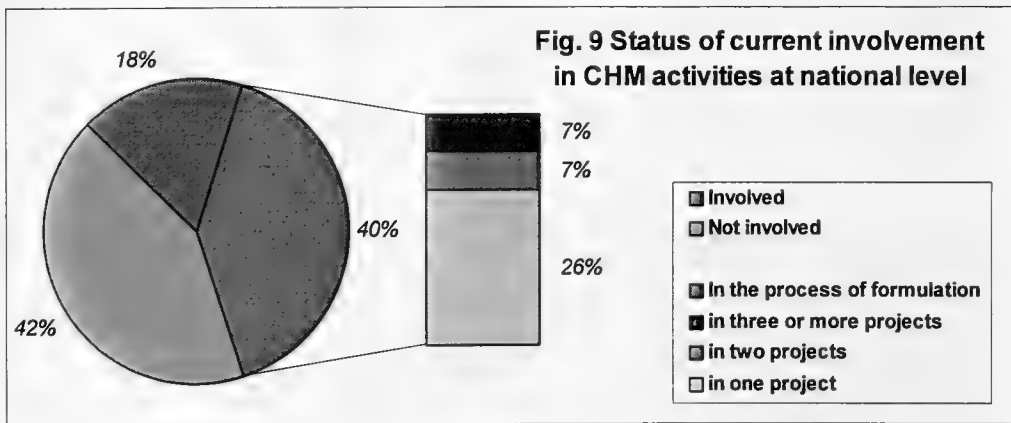
Table 10. List of CHM projects/activities at national level

Party	Project/Activity Title	Ending date
Australia	National Action Plan on Management of Climate Change Impacts on Biodiversity	On-going
Bahamas	▪ Additional Biodiversity EA ▪ National Capacity Building Needs Self-Assessment	Jan 2003 Sep 2003
Belgium	CHM Partnership	On-going
Burundi	▪ Additional Biodiversity EA ▪ CHM Web Site Sheltered by Belgium	Feb 2004 On-going
Canada	National Biosystematics Strategy	2004
Czech Republic	▪ National Information System on Nature Conservation and Landscape Protection ▪ Information System on Ecological Education ▪ Information System on Bodies and organization under MoE	2004 On-going On-going
Hungary	National Biodiversity Monitoring System	On-going
Indonesia	National Biodiversity Information Network	On-going
Iran	National biodiversity Strategy and Action Plan	On-going
Israel	Project on Biodiversity GIS	On-going
Egypt	National Plant genetic Resource Programme	2005
Estonia	Assessment of Capacity Building Needs and Participation in CHM	June 03
Fiji	▪ Coral Study ▪ Bird Survey	2003 2005
France	Project with EPGRIS	3 years
Peru	National Biodiversity Information Systems	2005
Slovenia	▪ Establishing Roster of Experts ▪ Indicators of Biodiversity ▪ Red Lists	Jan 2003 Oct 2003 Oct 2003
Saint Lucia	▪ Public Awareness and Traditional Knowledge ▪ Monitoring and Assessment ▪ Legislation and Institutional Framework	2003 2003 2003
United Kingdom	National Biodiversity Network UK Biodiversity Action Plan	On-going On-going

The level of involvement of national governmental and non-governmental institutions within these projects varies from Party to Party. However, the following conclusions can be drawn based on the survey responses:

- Governmental institutions, including ministries of environment and environmental agencies are involved in all the above-mentioned Parties;
- Scientific institutions dealing with biodiversity-related problems participate in the projects in 8 Parties (out of 19 mentioned);
- There is a lack of participation of non-governmental organizations in 5 Parties. Other national CHMs ensure proper participation of relevant NGOs within the projects.
- There are several biodiversity-related projects/activities underway in almost all survey participant Parties, which do not strictly underlie the main three CHM objectives. However those projects deal with either capacity building or awareness raising in the area of biodiversity and contribute to the overall information exchange between various institutions at national level.

The last two questions of this section are devoted to the self-evaluation of the current situation of the CHM activities in regard to meeting three main goals at national level. The responses demonstrated that the second goal on information exchange is better met than the other two. More than half the respondents (**51%**) have ranked their contribution toward information exchange as "high" or "very high". The same numbers for "scientific and technical cooperation" and "network development" are **26.7%** and **31.1%** respectively. For the complete picture of the ranking see Figure 10 to the right. One of negative outcomes of the analysis is the fact that **40%** of the respondents either assessed their contribution towards the network development as low or very low or has not answered the question.

Fig. 10 Current ranking of National CHM towards meeting CHM goals
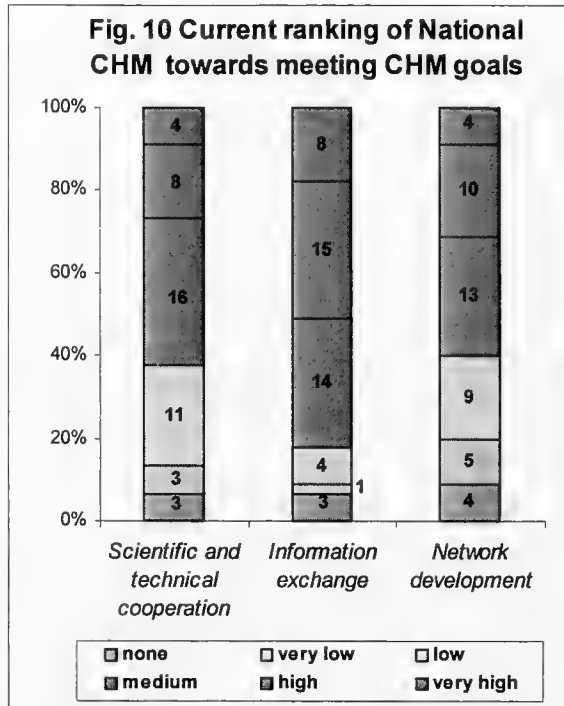
In spite of the above-mentioned situation, all the Parties surveyed are optimistic for their performance over coming several years. None of the respondents gave "slight decline" or "significant decline" answers to the question on estimation of their Party's progress towards meeting the same goals in the near future. This time the assessment does not vary much among different goals, with about **9-13%** of the respondents mentioned there would not be any positive development and the situation would remain the same (see Figure 11 to the left). At the same time almost half the respondents indicated only slight improvement of the situation, while **35-42%** demonstrated highest level of optimism. Although the current situation is not excellent in regard to meeting main objectives, the Parties are keen on future advance of national Clearing-houses and are expectant for support and advice in meeting their needs toward the accomplishment of the main goals of the Mechanism.
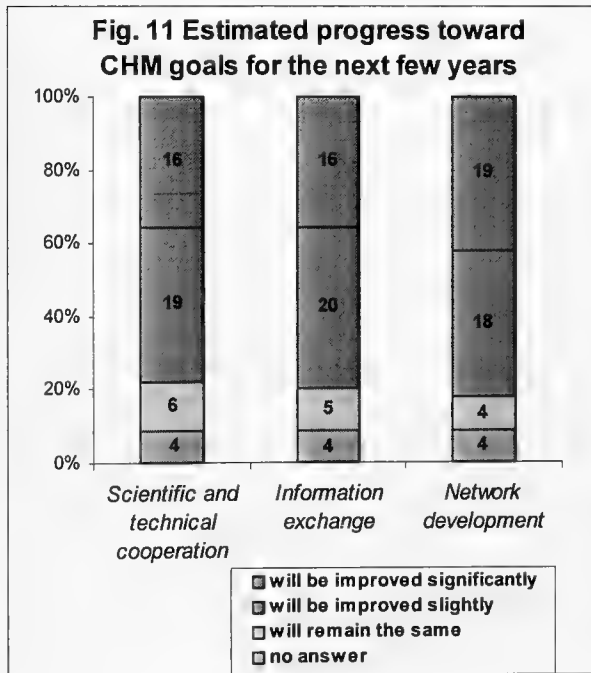
Fig. 11 Estimated progress toward CHM goals for the next few years

2.3. CHM Web site

The analysis under this section will be derived of the responses of 33 Parties which host CHM web sites. Twelve Parties, namely Bahamas, Dominican Republic, Fiji, Greece, Estonia, Indonesia, Iran, Israel, Mali, Sierra Leone, Venezuela and New Zealand have not developed an official CHM web site yet. The special opinion of New Zealand on this matter is presented in Section 2.6 of this report.

It is worth mentioning the experience of the Russian Federation, which succeeded to the development of a new national web site at URL: http://www.biodat.ru, in addition to the former official CHM web page at URL: http://www.rcmc.ru/chm. The new web site hosts a great number of information systems, map libraries, databases, as well as links to the sites of other biodiversity-related institutions at national and international level. Similarly, the United Kingdom provided information on three URLs, namely http://www.chm.gov.uk; http://www.ukbap.org.uk and http://www.searchnbn.net. There are separate Steering Groups for the latter two web sites.

Initially the contents of the national CHM web sites were investigated through the checklist of various documents available in each national node. The first group of entities was related to the official documents of the national and CBD Secretariat level. The comparative overview of the availability of those materials via national web sites is presented in Table 11 below.

Table 11. Availability of documents via CHM national web sites

Document	Available (# of Parties)			Not available	
	At national web site	Link to CBD web site	Link to other web site	#	%
Text of the Convention in UN language	12	18	0	3	9
Text of the Convention in national language	19	4	1	9	27
COP decisions	7	20	0	6	18
SBSTTA recommendations	3	21	0	9	27
First National Report in UN language	23	7	0	3	9
First National Report in national language	17	1	0	15	45
Second National Report in UN language	22	5	0	6	18
Second National Report in national language	13	2	0	18	54
National Biodiversity Strategy and Action Plan	25	1	1	6	18
Glossary of related terms in UN language	6	5	3	20	60
Glossary of related terms in national language	8	0	2	23	70

As one can notice, the First National Report is the mostly representative document within the national web sites, while almost one fifth of Parties failed in making available such a significant document as National Biodiversity Strategies and Action Plans. Another characteristic fact is that most Parties' web sites contains links to the COP and SBSTTA documents contained within the CBD Secretariat web site (**60%** and **63%** respectively). The existence of biodiversity term glossaries is of major gaps within the web sites, with only **24%** of the respondents hosting such information in national languages.

Next group of questions raised was aimed at revealing advanced features of the CHM national web sites. The following are major conclusions one can draw on the basis of answers obtained:

♦ Almost half of the respondents (16 Parties) host the rosters of national consultants and experts on their web site, 10 of them having the lists categorized by areas of expertise. Similar statistics apply to the databases on biodiversity-related NGOs at national level (12 Parties possess this kind of information). Another eleven Parties (one third of respondents) failed to host either of the rosters discussed.

♦ Regarding the availability of biodiversity related strategic documents via the web site, seven Parties **(21.2%)** gave a negative answer to all three possible entities asked for, namely (a) "State of the Environment" or other similar reports; (b) "National Environment Action Plans", and (c) sectoral strategies and/or action plans. Only five Parties **(15.2%** of respondents) presented the opposite picture.

♦ Ten Parties (or **30.3%** of survey respondents) gave positive answers to the question on the availability of sectoral strategies and action plans. Figure 12 demonstrates the breakdown of those documents by the sectors they refer to. It is obvious that agriculture and forestry are the best-represented topics.

Fig. 12 Number of Parties with sectoral strategies/action plans available on the CHM web site
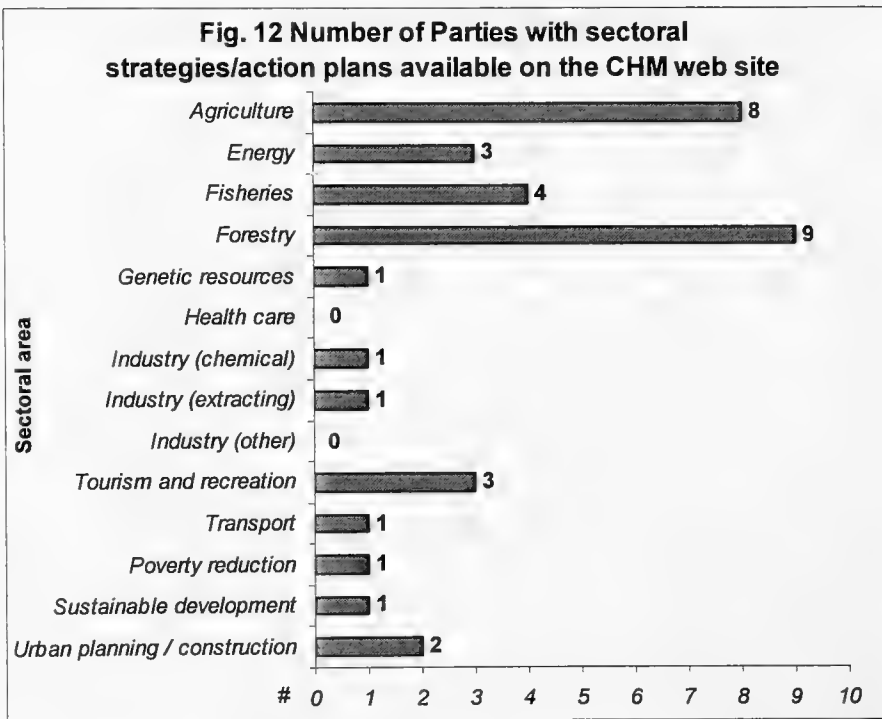
♦ As one can recall from the previous section, there are 29 respondent Parties with developed Biodiversity Information Systems. Eleven of them (or **38%**) have incorporated those databases into their CHM web sites, another 6 Parties have links to the corresponding web sites, while another 12 Parties (or **41%** of respondents) have failed to ensure the accessibility of their information systems through the web site. It is worth mentioning that the actual number of different Information Systems integrated by the above-mentioned 11 Parties into the web sites is low: in eight Parties it does not exceed 5, with only two Parties hosting more than 20 databases. One of these two Parties, namely the Russian Federation, hosts most of the BISs in national language.

♦ Responses have shown a very low number in terms of availability of maps via CHM web sites, with 24 Parties (**72.7%** of respondents) hosting no map library at all. Only seven Parties have incorporated maps with two other respondents hosting links to other sites containing appropriate information.

♦ Only eight Parties (**24.2%**) participate in the IUCN Environmental Law Information System, while almost half of the respondents (15 Parties or **45.4%**) do not have any idea what it is about. However, the situation is much better in terms of accessibility to the national legislation through the web site: twenty-four Parties responded positively with twenty-one national nodes providing downloadable documents within their CHM web site. Table 12 below illustrates the breakdown of answers with regard to different types of legislative documents available (the percentage is calculated from the total number of 33 Parties).

Table 12. Availability of legislative documents via CHM national web sites

	Available				Not available	
Legislative documents	*via CHM web site*		*in native language*			
	#	%	#	%	#	%
All main biodiversity-related laws	24	**72.7**	16	**48.5**	9	**27.3**
National regulations, directives	21	**63.6**	16	**48.5**	13	**39.4**
Directives of local authorities	11	**33.3**	11	**33.3**	22	**66.7**

The next question was devoted to the availability of the biodiversity - related policy documents on CHM web sites. Responses revealed that 22 Parties host such information, fourteen out of which made it downloadable from the CHM URL. The distribution of those documents by the fields they refer to is shown in figure 13.

Fig. 13 Number of Parties that host various policy documents on their CHM websites
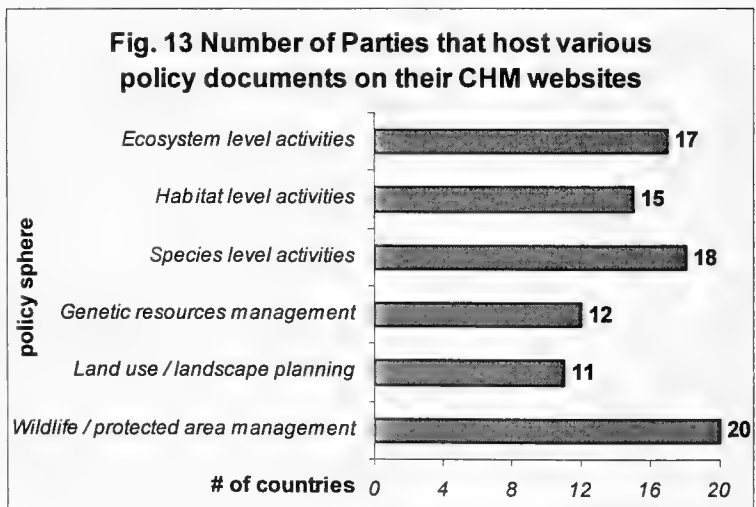
The next pair of questions revealed quite a positive feature of the national CHM web sites: they are rather complete in terms of contact information on BRIHIs as well as donor organizations of local, regional or international nature. Only **12%** of respondents (4 out of 33 survey participants) failed to include any kind of information, while in **45%** of cases (15 national web sites) both databases are present (see Table 13 for the summary of responses obtained).

However, only 3 Parties – Germany, Sweden, and the USA – responded positively to the question on the availability of developed mail network (list-server) among the organizations involved in biodiversity information maintenance and management.

Table 13. Statistics on contact information on BRIHIs and donor institutions via web sites

Contact information	Available				Not available	
	via CHM web site		in native language			
	#	%	#	%	#	%
Biodiversity-related information holder institutions	26	78	1	3	6	18
Biodiversity-related donor institutions	16	48	3	10	14	42

The next question disclosed the level of information availability through CHM web sites on the biodiversity-related research at both national and international level. A total number of 17 Parties host some information on research, which comprises exactly half of respondents with a CHM web-site. Data on current research at national level is available though all those 17 web sites. However, four Parties present it only in the forms of abstracts. Nine Parties own information in their native language as well. The fewest number of positive answers has been gained from the information on the future biodiversity-related research at the international level (for more details see Figure 14). This shows a relatively low level of project proposals intended for international initiatives and/or joint projects on biodiversity.

Fig. 14 Contents of CHM web sites regarding biodiversity-related research

- Completed research at national level for the last 10 years
- Completed research at international level for the last 10 years
- Current research at national level
- Current research at international level
- Project proposals for future research at national level
- Project proposals for future research at international level

Unfortunately, only five Parties answered the question on the type of metadata they use, with three of them mentioning the Dublin Core standard. Two responders mentioned they do not use any metadata. Other Parties ignored this question because of either misunderstanding or unavailability of any metadata within their web sites.

Two questions were asked relating to the maintenance level of the national web sites. The first of them was devoted to the web statistics available. Three responders mentioned the incorporation of the web counts into the web sites is currently underway, and only 8 Parties (**24%**) count on a regular basis the number of hits, number of visitors and the number of pages visited. These numbers vary for different Parties from 1000 to 90,000 for monthly average hits and from 1,500 (Russian Federation) to 27,000 (Canada) to 150,000 (United States of America) for monthly average pages viewed.

The second question dealt with the updating of national web sites. In most of the Parties the information is being added or updated by web administrators only (27 respondents or **82%** of total). In two Parties it has been taking place at the request of the team of experts. Another four respondents mentioned the possibility of adding data from anybody who makes such a request via an interactive page.

Regarding the frequency of updates, the time frames vary from country to country, with the most popular answer being "no regular update" (**24%** of respondents). There are also some Parties (**12%**) where no update of the information has been done since the first launch of the web site (Figure 15).

Fig. 15 Frequency of updating CHM web sites

No answer	Never since creation	On daily basis	On weekly basis	On monthly basis	Five times a year	Four times a year	On annual basis	Not regularly
4	4	3	4	3	1	1	5	8
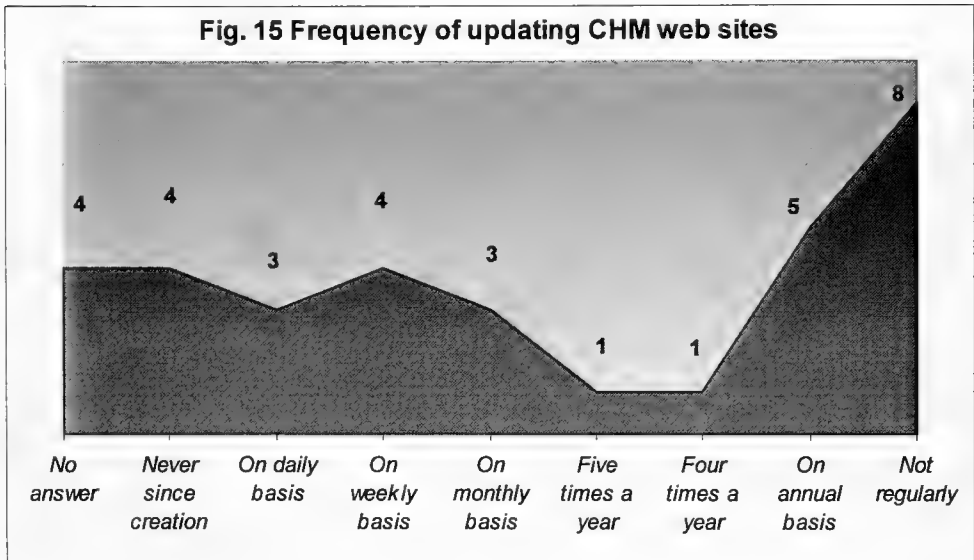
The question on the amount of time needed to access CBD Secretariat web site from the main national CHM server got responses from 32 Parties. Here one can see the overall optimistic picture with two thirds of respondents mentioning the highest connection speed and only one Party, where more than five minutes is required to get into the CBD main site (Fig. 16).

Fig. 16 Time needed for accessing the CBD web site from CHM national sites

3% 3%
12%
15%
67%

- Several seconds
- Less than a minute
- 1-3 min
- 3-5 min
- More than 5 min
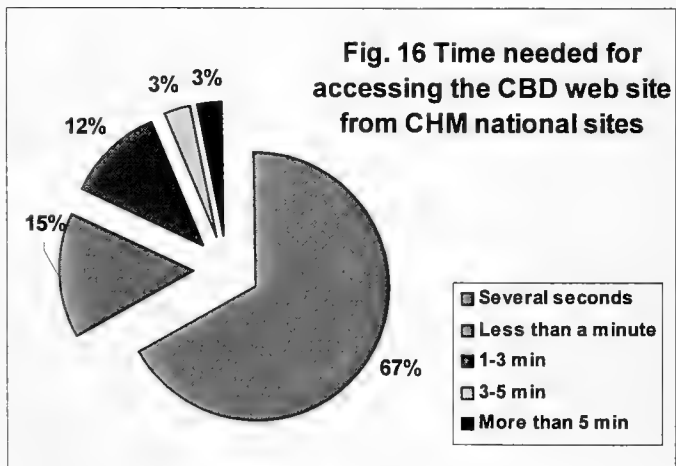
The survey participants were asked to determine the most popular CHM-related pages as well as to cite the pages within their national CHM site with the largest attendance. Unfortunately only 25 respondents out of 45 participated in this unofficial "voting". The results revealed a significant gap between the three most popular CHM web sites, namely the ones of the CBD Secretariat, the European Community and Belgium, and others. The full listing of this mini-survey is presented in Table 14.

Table 14. Number of votes given by respondents for the most popular web sites and pages

Popular CHM-related web sites	#	Popular pages within national CHM web site	#
CBD Secretariat Home page	17	Homepage of National CHM web site	6
EEA/EC Home page	14	Biodiversity Strategy and Action Plan	3
CHM web site of Belgium	8	Country profile, gene bank page, databases	2
CHM web site of Germany	4	National report, biodiversity FAQ, roster of experts page, red book page, flora and fauna page, list-server, NGO contacts section	1
CHM web sites of Colombia, China, Finland and Peru	3		
CHM web sites of Canada, Congo, France, Mexico, The Netherlands, Poland and UK	2	Within the CHM Main web site the most popular pages are:	
CHM web sites of Democratic Republic of the Congo, Jamaica Latvia, Madagascar, Mauritania, Sweden, Switzerland and	1	▪ Links to international initiatives ▪ Thematic area pages ▪ Meetings' database page ▪ Page with links to funding sources	
Home pages of the following organizations: CITES, IUCN, NBII, RAMSAR, WCMC and UNEP	1	▪ Biosafety page ▪ GISP page ▪ CHM strategic plan page ▪ News page	

Statistics on some technical means used in the CHM national web sites concludes this section (Table 15 below). The comparison of numbers shows the Parties lean towards the regular update of the events and news section rather than the use of such interactive tools as search engine and discussion forum. It resulted to lower interactivity level of the national CHM web sites. Only 6 Parties run discussion forum in the national CHM web site while no respondent shows a readiness to incorporate this interactive tool in future. At the same time there is a tendency of increasing the number of web sites with search engines as 6 more Parties complete their creation.

Table 15. Statistics on technical tools used at the CHM national web sites

Section of the web site	Available				Under construction		Not available	
	via national CHM web site		via links to other sites					
	#	%	#	%	#	%	#	%
Search engine	10	30.3	-	-	6	18.2	17	51.5
Calendar of events	15	45.5	7	21.2	-	-	11	33.3
News / hotline section	15	45.5	5	15.2	-	-	13	39.3
Discussion forum	6	18.8	-	-	-	-	27	81.8

2.4. Cooperation

The survey participants answered nine questions in this section to demonstrate the level of cooperation among national CHMs. The issues covered are related to both bilateral and multilateral cooperation projects, participation of national CHMs in international initiatives, as well as the level of harmonization of efforts with other biodiversity-related conventions. Initially, the national focal points were asked to assess the current level of their country's technical and scientific cooperation through CHM (Figure 17).

Fig. 17 National CHMs' assessment of their involvement in cooperation activities
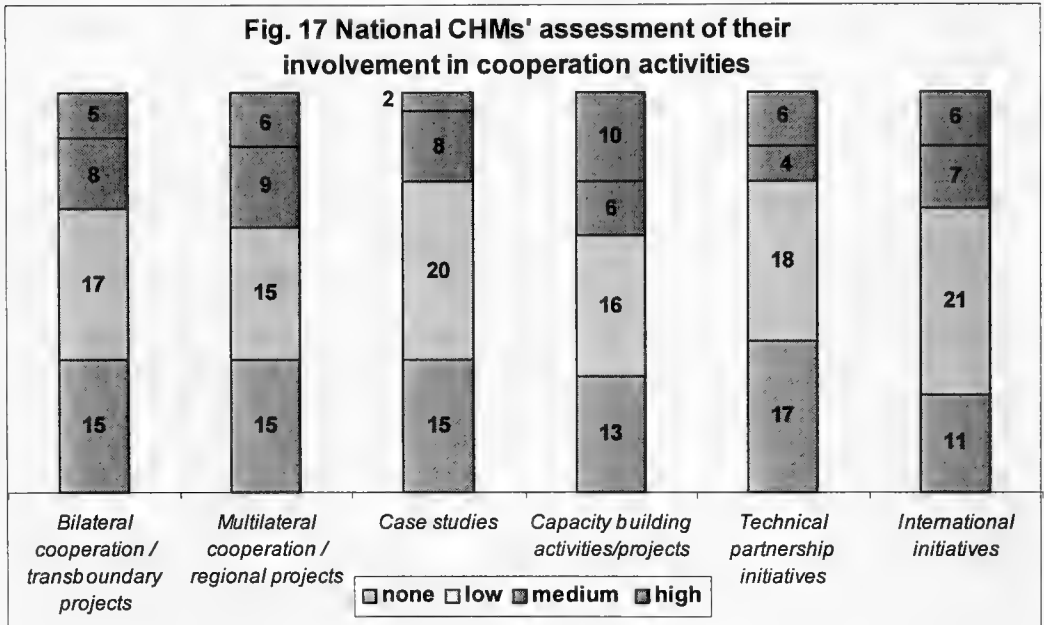
The responses obtained have revealed a rather pessimistic view that around **35%** of respondents failed to rank the level of cooperation via national CHMs and another **35-45%** of Parties identified it as "low" for all the options provided. The number of Parties that assessed the cooperation as "medium" and "high" ranges from 10 (with regard to case studies) to 16 (for capacity building activities). Comparing responses obtained among the options provided it is worth mentioning the relatively low level of cooperation through case studies as only two Parties have ranked it as "high". Another worrying fact is the absence of any cooperation via technical partnership initiatives in **38%** of respondent Parties.

The list of on-going bilateral cooperation projects shows an active participation of a small number of Parties (namely Australia, Belgium, Germany, New Zealand in a greater extent and Egypt, Fiji, USA in smaller). Meanwhile most of the other Parties show slight interest in cooperation with one another or with the Parties with similar current CHM development status. At the same time there are a great number of projects between biodiversity-related institutions in various Parties. These projects are not officially recognized as activities under the framework of national CHM component, but at the same time they contribute fundamentally to information exchange and capacity building in the area. Table 16 summarizes the bilateral cooperation projects mentioned in the survey forms by CHM NFPs.

Table 16. List of bilateral cooperation projects

Bilateral cooperation projects	Starting	Ending	Comments
Egypt – Mediterranean countries			Development of Mediterranean Action Plan
Egypt – Red Sea countries	1998	2003	Project on Red Sea Environment
Australia – New Guinea	1999	open	Project on marine protected areas
Australia – Iran	2000	2002	Partnership project
Belgium – 12 African countries	2000	open	CHM web site sheltering projects
Germany - Colombia	2000	2003	Project with Humboldt Research Institute
Germany - Cameroon	2001	2003	Project through Environment Ministries
Germany - Poland	2002	open	Project through CHM National Focal Points
New Zealand – Chile / Argentina, potential expand to cover Peru	2002	2003	Project on marine protected area science cooperation
New Zealand - Chile	2003	2003	Project on species recovery planning and threat classification
New Zealand – Chile / Argentina	2003	open	Project on pest eradication evaluations
Indonesia - Norway	2003	2005	Project to be proposed shortly
Fiji – Pacific Island Countries	2002	2003	Projects on study of corals in progress
United States – India	2002	2004	Cooperation on biodiversity informatics

Regarding the cooperation at regional or international level, the following responses were received:

- There are several projects in progress between the European Community CHM and Western European countries (including Belgium, France and Greece).
- Finland has mentioned a mutual Biodiversity Education Project "EuroDets" with Germany and Russian Federation, ending in 2003
- New Zealand implements an islands co-operative initiative on alien species with small island countries.
- Hungary is involved in three international activities, namely
  (1) Emerald Network and Nature 2000 at European regional level;
  (2) Projects under the framework of the Central and Eastern European (CEE)
     Working Group for the Enhancement of Biodiversity with some CEE countries;
  (3) Planning to establish Regional Biosafety Clearing House with Slovenia, Slovakia, Czech Republic and Poland.
- Thailand participates in the activities within the ASEAN Regional Centre for Biodiversity Conservation projects, where 9 other countries are involved.

Apart from the above-mentioned activities, the Parties are currently involved in a number of international initiatives, mainly in UNESCO Man and the Biosphere Program (28 Parties or **62%** total respondents), Global Biodiversity Information Facility (27 or **60%**), Global Taxonomic Initiative (24 or **53%**) and Global Biodiversity Forum (20 or **44%**).

Eight Parties (**17.8%** of survey participants), namely Armenia, Burkina Faso, Democratic Republic of Congo, Burundi, Latvia, Mali, Sierra Leone and Venezuela do not participate in any of the international initiatives so far. Refer to Figure 18 for the total number of such projects each survey participant is involved in.

Fig. 18 Participation of respondents in international initiatives

Country	#
Australia	9
Austria	3
Bahamas	1
Belgium	10
Bolivia	2
Canada	12
Chad	12
China	3
Czech Republic	10
Denmark	3
Dominican Republic	1
Egypt	4
Estonia	7
Fiji	4
Finland	4
France	10
Germany	8
Greece	3
Hungary	3
Indonesia	4
Iran	1
Israel	1
Jamaica	5
Mauritania	1
Mongolia	5
New Zealand	7
Peru	7
Poland	3
Russian Federation	8
Saint Lucia	5
Slovenia	1
Spain	2
Sweden	7
Switzerland	4
Thailand	4
United Kingdom	8
United States of America	12

Countries (y-axis), # (x-axis: 0 2 4 6 8 10 12 14)

Some National Focal Points failed to answer this question due to unawareness of the Party's participation in some of the international initiatives mentioned in the questionnaire. Particularly, some respondents from the European region were unaware of the existence of such initiatives as "Species 2000" and "Tree of Life".

The next question was devoted to the examination of Parties' cooperation level with other biodiversity-related conventions. The responds obtained were analyzed with regard to both cooperation levels with each of four conventions considered, as well as in terms of meeting three main CHM goals. The conventions listed in the question were: (1) the *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (afterwards CITES); (2) the *Convention on Wetlands of International Importance especially as Waterfowl Habitat* (RAMSAR); (3) the *Convention Concerning the World Cultural and Natural Heritage* (WHC); and (4) the *Convention on Migratory Species of Wild Animals* (CMS).

Fig. 19 Ranking cooperation with CITES
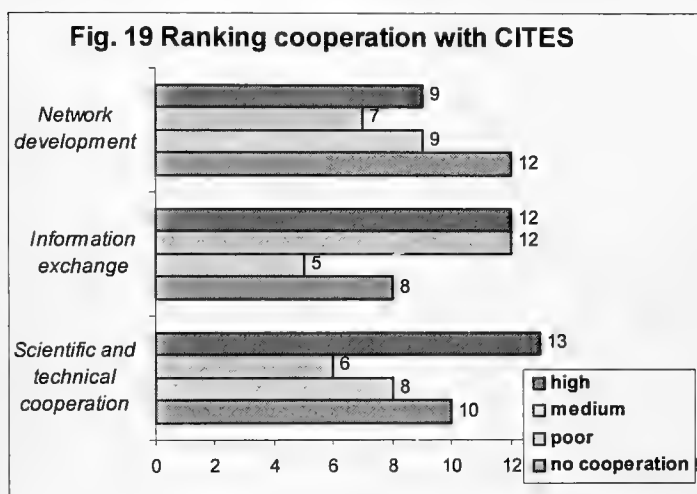
Out of 45 only **37** Parties answered this question, all of them Parties of CITES and RAMSAR. At the same time there are only **27** signatory Parties of CMS and **25** of WHC within the respondents of the Survey. Figures 19-22 at the left reflect the advance of national CHMs in cooperation with each of the conventions through three main goals defined.

Fig. 20 Ranking cooperation with RAMSAR
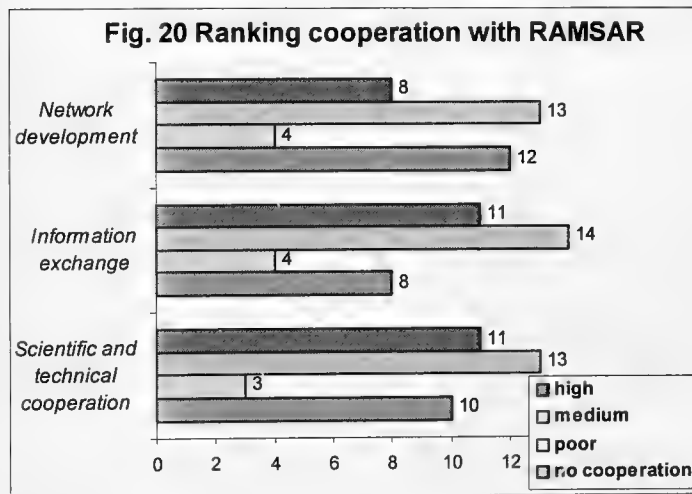
One can notice the most favorable situation is with regard to the RAMSAR Convention: medium and high levels of cooperation prevailed among respondents. The highest rankings here were observed in the area of information exchange (14 Parties or **38%** of respondents to the question) and towards the scientific and technical cooperation objective (13 or **35%**). Cooperation with CITES on scientific and technical cooperation is one of the advantageous spheres as well – nineteen respondents (or **51%**) ranked it either "medium" or "high". Network development objectives for both conventions gained the most "none" rankings **(32%)**

Fig. 21 Ranking cooperation with WHC

Network development: no cooperation 6, poor 7, medium 7, high 5

Information exchange: no cooperation 7, poor 10, medium 5, high 3

Scientific and technical cooperation: no cooperation 8, poor 7, medium 7, high 3

□ no cooperation   □ poor   □ medium   □ high

Fig. 22 Ranking cooperation with CMS

Network development: no cooperation 4, poor 8, medium 7, high 8

Information exchange: no cooperation 6, poor 11, medium 6, high 4

Scientific and technical cooperation: no cooperation 6, poor 10, medium 6, high 5

□ no cooperation   □ poor   □ medium   □ high

On the other end of the scale are the WHC and CMS. Particularly, the lack of any cooperation with CMS towards the network development component is mentioned by **8 (32%)** respondents. There is a significant difference in levels of cooperation between the first and last two conventions considered. WHC gained the estimates with "none" or "poor" ranking among 8-12 (30-44%) of respondents. Almost the same situation exists with CMS although here one can see slight advances within the information exchange and scientific, technical cooperation components.

The mentioned facts and overall picture prove the assumption that the harmonization of efforts and stimulation of cooperation is of high importance within the CBD parties in general and parties with CHM in particular.

The next three questions of the survey referred to the level of communication between national CHMs. National Focal Points were asked about their personal contacts with colleagues in other Parties. Surprisingly, **27%** of respondents gave a negative answer to the question stating they do not have any established links with other FPs. The majority **(64%)** maintains regular communication with at least one National Focal Point less than once a month. The remaining **9%** of respondents sustain more frequent contacts. Only one NFP stated he communicated with other FPs several times a week and more frequently if needed.

The national CHM web sites are being visited by National Focal Points on a less regular basis than the personal communication maintained. Twelve survey participants **(27%)** never refer to other CHM web sites and prefer personal communication to the virtual one. Similarly, half the NFPs questioned refer to the CHM web sites several times a year, and **22%** more frequently.

Sharing best practices has been ranked as "none" or "poor" by almost two thirds of respondents (**64%**), while only six Parties granted the highest rank. Obviously these are leading Parties with highly developed CHM structures and experiences that should be disseminated to other national nodes. There is an obvious link between the consistency of communication among national focal points and the level of experience sharing among the national CHMs (see Figure 23 below).

Fig. 23 Level of experience sharing among CHMs to the personal communication and reference to other CHM web sites
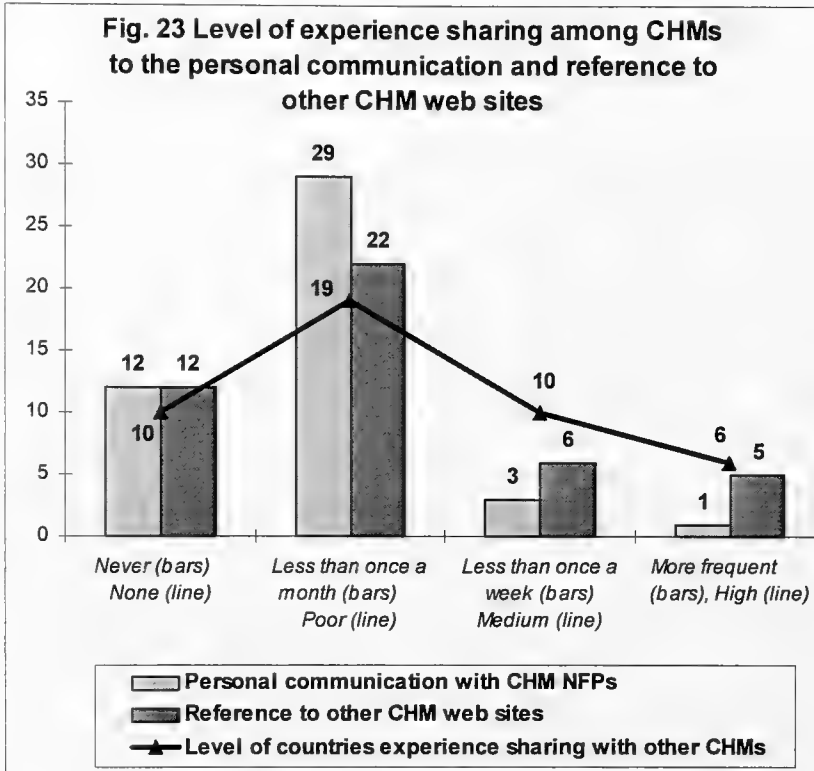
The last question in this section concerned the actions currently underway aimed at increasing cooperation in general and ensuring more efficient CHM networking. Nearly two thirds of survey respondents failed to find at least one activity contributing to cooperation strengthening. The answers provided by another 16 Parties in a free form demonstrated the broad spectrum of actions that can be considered as important milestones towards better enforcement of CHM networking (for the summary refer to Table 17 below).

Table 17. Activities aimed promoting cooperation

Party	Activity
Belgium	▪ Partnership role with developing countries ▪ EC CHM Task Force and Steering Committee ▪ Organization of workshops/meetings ▪ Joint development of web applications with other national CHMs
Bolivia	▪ Dynamic and interactive web page design, with easy operational search engines that will facilitate meeting demands on cooperation, training, etc among the biodiversity information holder institutions.

Table 17. (continued from the previous page)

Canada	■ Facilitating national CHM inter-operability with CBD CHM ■ Case study project on the needs assessment/capacity building within French-speaking African countries
China	■ Establishing liaison group among national implementing authorities of various international conventions ■ Holding national/international workshops on cooperation and harmonisation of efforts for different conventions ■ Publishing, distributing newsletters, offering web page linkages for biodiversity-related conventions, other means of awareness raising
Egypt	■ Strengthening capacities of National Biodiversity Unit (NBU) to serve as a focal point for co-ordinating biodiversity research and monitoring ■ Establishing inventory maintenance system to assist monitoring and evaluating natural heritage and biodiversity ■ Increasing cooperation and information exchange between the NBU and other departments of Egyptian Environmental Affairs Agency.
Germany	■ Preparation of a workshop "Technology Transfer and Technology Cooperation, including scientific cooperation through CHM" ■ Pilot Model "Facilitating Scientific Cooperation" with Poland ■ Development of a concept for wide national scientific audience to participate at the topics discussed at SBSTTA meetings
Indonesia	■ Revitalising the national CHM through improvement of communication and cooperation among institutions and National CHM
Jamaica	■ Sharing information through Caribbean list-servers and web sites
Latvia	■ Stronger cooperation with other CHM National Focal Points
New Zealand	■ Direct interaction with people involved in national implementation in other countries ■ Advertising available information through list-servers and other mechanisms ■ Strengthening New Zealand's cooperation mechanisms with other Parties
Peru	■ Defining action plan for 2003 in terms of in country improvements in networking and capacity building
Saint Lucia	■ Creating more links to other CHM web sites ■ Developing scientific and technical cooperation with other national CHMs ■ Developing information exchange with other national CHMs
Slovenia	■ Establishment of the roster of experts ■ Development of national biodiversity indicators ■ Cooperation with national GBIF group with the aim at avoiding duplication and sharing knowledge ■ Sharing information in the "Natura 2000" project
Switzerland	■ Participation at CHM workshops/meetings at European level
United Kingdom	■ Development of national focal points to cover the ecosystem themes ■ Tracking activities by other national focal points to assist as much as possible
United States of America	■ Working actively through regional IABIN connections ■ Working with GBIF/CHM/IABIN focal points through organization of joint meetings

2.5. CHM Development

The last section of the survey examines the current needs for CHM development at the national level. It can be divided into three sets of questions, querying (1) the intended projects on CHM both within the Parties and at regional/international level; (2) the needs for CHM further development; and (3) the requirements for proper CHM management and functioning.

2.5.1. Proposed projects on CHM

Four questions were asked in order to find out the level of progress anticipated in the CHM national nodes. Firstly, the Parties presented the lists of intended projects and activities on further CHM development. Although 13 Parties (or about **30%** of survey participants) failed to mention at least one activity considered, the total number of projects proposed by other Parties is quite high. However, most of the projects mentioned are related to the project proposals already submitted to GEF as part of Biodiversity Enabling Activities scheme. Nine Parties have been given state funding (in Finland's case with minor funds) for implementation of some components aimed at CHM development at national level. Apart from these projects, there are only 20 Parties (**44%** of respondents) involved in claiming funds with already developed project proposals (Tables 18 and 19).

Table 18. Summary of intended projects/activities at national level

Party	Intended project at local level	Status
Canada	Development of Roster of Experts	approved, but not funded yet
	Portal Development	proposed
Chad	Completion of establishment of the CHM structures	assistance by
	Inventory of species	Belgium, CBD
	Development of partnership	Secretariat
China	Construction of biodiversity information infrastructure	proposed
	Survey and monitoring of biodiversity of China	proposed
	Management of China biodiversity CHM	proposed
Czech Republic	Obtaining a CHM Tool-kit	proposed
	Establishing CHM Steering Committee	proposed
	MoU with scientific institutions on information sharing	proposed
Denmark	Putting CHM web site on-line (until summer 2003)	proposed
Democratic Republic of Congo	Biodiversity Information Collection (until April 2004)	proposed
	Creation, Development and maintenance of web site	proposed
	Exchange of information and expertise among different biodiversity-related institutions (until Dec 2005)	proposed
Fiji	Completion of biodiversity information system database	proposed
Greece	Putting CHM web site on-line (until the end of 2003)	proposed
Jamaica	Development of metadatabases	proposed
Mali	Development of Roster of Experts	in preparation
	Set-up of the Biodiversity Management System	in preparation
Peru	BiodivPERU Initiative	proposed
	Regional and Thematic Networks	approved
Thailand	Biodiversity data management (May 2001-Dec 2003)	funded

Table 18. (continued from the previous page)

Party	Intended project at local level	Status
Switzerland	Development of web content National Environmental Database Biosafety Clearing-house	funded funded funded
United States of America	Activities on biosafety Activities on invasive species National implementation of activities through IABIN	funded in-kind funded

Table 19. Summary of intended projects/activities at international level

Party	Project at international level	Partner countries	Status
Bolivia	Traditional knowledge module	under consideration	under design
Belgium	Acronym and Glossary Database	Netherlands	not started yet, intended to start in 2003
Chad	Development of information and technology exchange mechanisms	Canada	not started yet, intended to start in 2004
Czech Republic	CHM partnering project	EEA / Finseil	under negotiation
Egypt	Bio MAP project	Italy	funded
Greece	Cooperation activities	European Community	proposed
Democratic Republic of Congo	Creation of the Network of CHM Focal Points of the Central Africa	Central African countries	in consultation
	Dissemination and exchange of the information and expertise among biodiversity-related entries of Congo river basin	Countries of the Congo river basin	making public aware of the proposal
	Creation of the Biodiversity Information System	Regional/international organisations	in preparation
Germany	Facilitation of scientific cooperation	Several	planning
Finland	CHM Partnership projects	Kenya, Tanzania, Uganda, Ecuador	pending
New Zealand	Developing co-operative projects with Latin America countries	Chile, Argentina, Peru, Mexico, Brazil, Uruguay	underway in Chile, due to initiation in other countries
	Supporting development of international island initiative on marine biosecurity	Island countries	underway
United States of America	Regional activities via IABIN Activities through NABIN Activities through GBIF	IABIN countries several several	underway underway underway

Taking into consideration all of the above-mentioned data, one can assume the following rough estimation of respondent-Parties' involvement in CHM activities both at national and international level in the near future:

- **30%** - no significant activity intended so far
- **30%** - activities in the framework of GEF-funded capacity building add-on modules
- **40%** - other projects / initiatives, **60%** of which through possible state funding

The next important issue concerns the availability of CHM development documents at national level. Those include strategies (or action plans) both officially endorsed and for internal use as well as project proposals ready to be submitted to donors. The analysis of the responses obtained (Figure 24) shows that only 18 Parties (**40%** of survey participants) possess at least one of the documents, while fourteen respondents (**31%**) has neither one developed.

Fig. 24 Availability of national strategies and proposals on CHM development
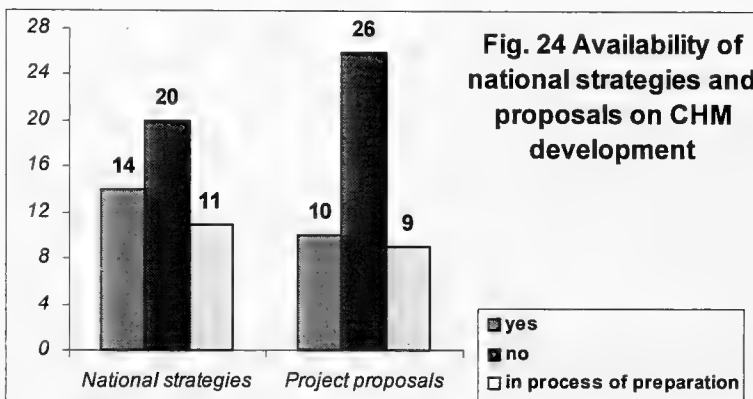
2.5.2. CHM further development needs

Survey participants were asked to prioritize their countries' needs with regard to CHM further progress. The responses obtained demonstrate rather equal demand among the options offered (Figure 25). As one can see, eight actions have been assessed as priorities by 29-34 respondents out of 45 (each Party can select as many components as needed). Three other actions, namely the need for assistance in information systematization, intellectual property rights and harmonization of efforts, gained much less priority demand.

The training component has been selected by **69%** of respondents (31 Parties) as a priority action towards CHM development. Out of this number, both "specialized CHM training" and "training on technology transfer" gained the demand of nineteen respondents (or **61%** of the Parties requested training). Seventeen Parties (or **55%**) requested training on information exchange and on data management. On the other end of the scale, there is only one Party, Estonia, which requested training on networking. Ten more Parties joined Estonia demanding organization of web page creation courses at national level. These eleven Parties (or **35%** those who required any training) comprise a group of respondents where CHM web sites are currently under construction. The general breakdown of the requests for training is presented in Figure 26.

Fig. 25 Classification of CHM development needs at national level by number of countries

- ■ Financial assistance
- ☐ Data collection and management methodologies
- ☐ Training
- ▨ Monitoring techniques
- ▨ Promoting cooperation at national level
- ▨ Technology
- ▨ Capacity building
- ▨ Promoting cooperation at international level
- ■ Systematization of information
- ▨ Intellectual property rights
- ☐ Harmonization of tools and methodologies

Out of a total of 31 respondents, 12 Parties **(39%)** considered training as the first priority action, while almost half of respondents (15 Parties or **48%**) ranked this component as a "third" or below priority.

In order to evaluate the significance of the given priority action a method of weighting will be used hereafter in this report. A "weighting point" is assigned to each demand for activity, following the rules below:

Action priority	Weighting points assigned
First	5
Second	3
Third	2
Forth and below	1

The sum of the "weighting points" gained will represent the degree of importance of the given measure in general. This methodology will help to compare the general significance of different priority actions for CHM global advancement.

Based on the method described, the activities toward further development of the CHM have been assessed and the results are presented in Table 20.

Fig. 26 Number of Parties considered given type of training as a priority need

- ▨ ... on web page creation
- ▨ specialised CHM training
- ☐ ... on technology transfer
- ☐ ... on data management
- ▨ training of CHM trainers
- ■ ... on information exchange
- ▨ ... on GIS and mapping technologies
- ☐ ... on biodiversity informatics
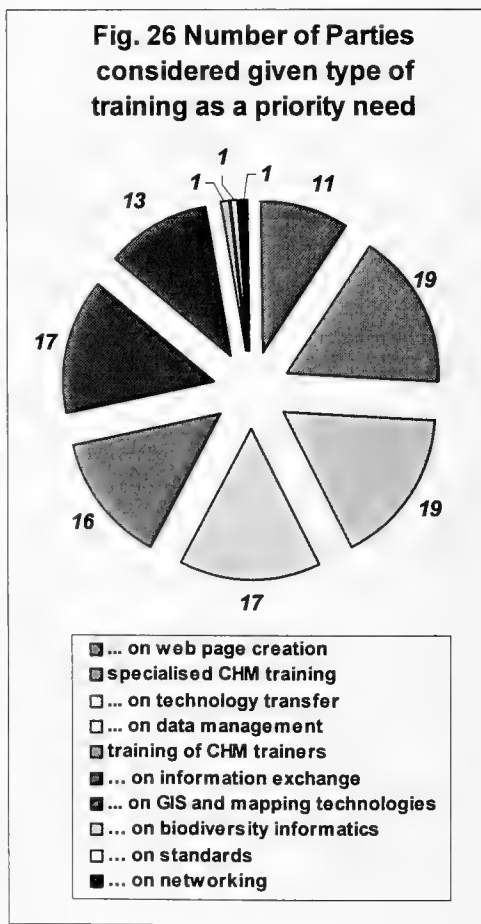- ☐ ... on standards
- ■ ... on networking

Table 20. Comparative analysis of Parties' demand for measures for CHM development

#	Priority measure	# of Parties with given priority				Total weighting points
		First	Secon	Third	Fourth & below	
1	Financial assistance	22	2	3	7	129
2	Promoting cooperation at national level	16	4	2	11	107
3	Data collection/management methodologies	15	3	3	9	99
4	Capacity building	12	7	5	8	99
5	Training	12	4	5	10	92
6	Promoting cooperation at international level	10	5	3	14	85
7	Monitoring techniques	8	4	4	14	74
8	Technology	7	5	1	16	68
9	Intellectual property rights	-	1	-	-	3
10	Harmonization of tools	-	1	-	-	3
11	Systematisation of information	-	-	1	-	2

In general, almost half the Parties questioned (21 out of 45 or **46.7%**) consider the first eight measures of the table as priorities. It appears to be obvious that the major assistance the Parties require is of a financial kind. Another conclusion derived is that promoting cooperation at national level is of a higher significance for Parties than the same action at international level. The comparative analysis of priority measures shows that the Parties who requested financial assistance as the first priority do consider technology transfer as an issue of higher priority compared to the Parties with no need of funding. Nevertheless the rest of the respondents have also mentioned "technology" as a priority but of a lower level.

By applying the same technique for the analysis of training component request, one can notice a priority need for training courses on technology transfer at the national level, followed by training of CHM trainers, and data management (Table 21).

Table 21. Comparative analysis of Parties' demand for training

#	Type of training	# of Parties with given priority				Total weighting points
		First	Secon	Third	Fourth & below	
1	Training on technology transfer	6	4	3	6	54
2	Specialised CHM training	6	3	3	7	52
3	Training of CHM trainers	6	4	3	3	51
4	Training on data management	6	3	2	6	49
5	Training on information exchange	6	2	3	6	48
6	Training on GIS and mapping technologies	4	4	2	3	39
7	Training on web page creation	5	2	1	3	36
8	Training on biodiversity informatics	1	0	0	0	5
9	Training on standards	0	0	1	0	2
10	Training on networking	0	0	0	1	1

Apart from the selection from the above-mentioned options, the respondents were given a chance to identify the most significant actions needed in a free format. The results obtained are summarized in Table 22.

Table 22. Three actions of the highest priority identified by NFPs at national level

Party	Priority action 1	Priority action 2	Priority action 3
Armenia	Creation of CHM branch offices	Nomination of thematic focal points	Development of project proposals
Austria	Financial support	Personnel support	
Belgium	Improved cooperation at national level	Increasing public awareness	
Bolivia	Operational CHM via Internet with support from various institutions involved	Ensuring interactivity between users and CHM institutional coordinators	Preparing/disseminating printed materials
Burkina Faso	Need for equipment	Capacity building	International cooperation
Burundi	Repatriation of Web site sheltered by Belgium	Capacity building	Promoting cooperation at national and international level
Canada	Networking at local level	Inter-operability	
China	Technology for information networking and data management	Techniques for biodiversity monitoring	Personnel training
Czech Republic	Establishing permanent cooperation between all biodiversity stakeholders	Increasing public awareness	
Democratic Republic of Congo	Financial support	Capacity strengthening	Cooperation promotion
Estonia	Networking at local level	Developing information delivery and networking strategy	Integrating biodiversity information into other sectoral action plans
Fiji	Financial assistance	Technical assistance for capacity building	
Finland	Technical capacity building	Information content capacity building	CHM partnership projects
France	Developing key themes of CBD (ABS, Invasive species, etc)	Developing other themes	Increasing public awareness
Germany	Network development	Content development	Developing better methods of cooperation
Greece	Putting CHM web page on-line	Networking	Data collection and metadata use
Hungary	Awareness raising on CHM among local administrative, scientific and public groups	Engagement of at least one more person to manage national CHM	

Table 22. (continued from previous page)

Party	Priority action 1	Priority action 2	Priority action 3
Indonesia	Networking at local level	Dissemination of national CHM	Standardisation of database format
Iran	Reliable internet connection	Translation of documents into/from English	Training of personnel
Israel	Budget allocations	Inclusion of CHM into national programmes	
Jamaica	Increase the number of CHM staff	Financial support	Training on metadatabases
Latvia	Permanent funding for CHM		
Mali	Permanent funding for CHM	Assistance in techniques and	Equipment
Mauritania	Capacity building	Training	
Mongolia	Capacity building for NFP and training on CHM	Financial support	Proper information exchange
New Zealand	Permanent funding for CHM	Developing better methods of cooperation	Alternative ways to facilitate cooperation
Peru	Financial support	Improvement of CHM administrative capacity (regional and thematic nodes)	Provision of specialised software and dedicated training
Poland	Permanent funding for CHM	Capacity building	Promoting cooperation at national and international level
Russian Federation	Support for English version of web site	Widening of users' number from abroad	Interactive usage of web site
Saint Lucia	Data collection and database development	Networking at local level	Improved cooperation at national level
Sierra Leone	Financial assistance	Capacity building	Technology transfer
Slovenia	Networking at local level	Reconstruction of CHM web page	Establishing permanent cooperation between all biodiversity stakeholders
Switzerland	Awareness raining on the role of the CHM	Awareness raining on the CHM functions	
United Kingdom	Establish focal points, active implementation programmes for all cross-cutting issues and ecosystem	Determine best ways of CHM support to the CBD implementation	Comply with CBD COP decisions on CHM
United States of America	Building biodiversity informatics expertise		

The last question of this section revealed the need for CHM web site improvement in the Parties where it exists. Again, ten different answers were offered to the 33 respondents who could choose as many measures as needed. The responses were distributed as follows:

▪ Incorporating databases into web page	29 respondents	87.9% of total
▪ Increasing interactivity of web page	22	66.7%
▪ Adding more links within web page	21	63.6%
▪ Developing metadatabases	20	60.6%
▪ Adding more information into web page	18	54.5%
▪ Translating contents	17	51.5%
▪ Incorporating information systems	16	48.5%
▪ Adding search engine	14	42.4%
▪ Putting web page on-line	13	39.4%
▪ Publishing CHM CDs	11	33.3%

2.5.3. CHM management needs

As with the case discussed in the previous section, the Parties were queried on the possible developments in terms of CHM organization and management at national level. Again, the distribution of answers obtained was not broadly scattered: seven measures gained "priority votes" from 28 to 31 Parties out of 45 (or from **62%** to **69%** of the total). Another option – designating regional focal points – gained consideration from **44%** respondents. Four options, including one on development of national strategy on CHM, were at the bottom of the list with one Party interested in each of them (Figure 27).

Fig. 27 Classification of CHM organization and management priority needs at national level

☐ Creating national CHM management team
■ Organizing seminars/workshops on CHM
☐ Facilitating contact with Secretariat
☐ Facilitating contacts with national CHMs
■ Designating thematic focal points/contact persons
☐ Designating regional focal points
▨ Establishing local CHM branches
■ Developing CHM National Strategy
☐ Endorsement of national agencies to cooperate within CHM
▨ Marketing CHM to potential national user groups
■ Determining key international audiences and their needs

If one applies the weighting points methodology to the seven main actions considered, one would notice that the highest priority measure is currently the creation of national CHM management teams. The organization of seminars/workshops on CHM is also one of the actions of key significance required by National Focal Points (refer to Table 23 for comparative results of the first seven measures).

Table 23. Comparative analysis of Parties' demand for measures for CHM management

#	Priority measure	# of Parties with given priority				Total weighting points
		First	Second	Third	Fourth & below	
1	Creating national CHM management team	22	4	2	3	**129**
2	Organising seminars/workshops on CHM	13	8	3	7	**102**
3	Nominating TFPs/contact persons	10	9	3	7	**90**
4	Facilitating contact with Secretariat	8	6	10	7	**85**
5	Establishing local CHM branches	7	4	9	8	73
6	Facilitating contacts with national CHMs	6	6	7	10	72
7	Designating regional focal points	5	3	4	8	50

2.6. Comments by CHM National Focal Points

In this section the comments received from the CHM National Focal Points as well as the innovations used by the Parties towards meeting CHM goals will be discussed. Out of 45 survey respondents, twenty-three NFPs provided comments in the last section of the questionnaire. Since the information under this section is rather distinct, it will be presented country by country in alphabetical order.

Australia:
The online database used within the web page is considered as an innovation.

Belgium:
The country mentioned several actions of importance, including the Belgian partnership role with developing countries, activities within Informal Advisory Committee and EC CHM Task Force Steering Committee. The organization of meetings/workshops and the development of joint web applications with other national CHMs are of advantage as well.

Bolivia:
In Bolivia, the main innovations are with regard to the CHM web site, which is not public yet but will begin to operate shortly. The site has dynamic pages, so any user is able to ingress their data through forms designed. It is also possible to view the offers for cooperation in any area related to biodiversity. For these purpose the following tools are incorporated:
(1) Forms to record the cooperation received from a person or institution. With this information a country profile related to cooperation can be made.

(2) Forms to record the cooperation, training and offers of any kind of cooperation from persons or institutions related to biodiversity.

(3) Needs and offers of cooperation are listed dynamically and are being updated periodically.

(4) There are two search services that facilitate the cooperation among users and the contact to persons or institutions managing some information. One, in which a person or institution can be found by writing his name, or other contact data; and another in which the search is operated by selecting one or more geographic areas in Bolivia (the areas are represented like CBD articles).

Burundi:
The CHM in Burundi was initially developed during the execution of the project on National Strategy and Action Plan with the GEF support. At that time, only a computer and an e-mail address were available for the CHM. Since the end of the project in 2001, the address ihas ceased to function because of lack of financial resources. The CHM Focal point has never taken part in CHM meetings (either regional ones or those concerning the Biological Diversity Convention). In September 2002, the Focal Point was trained to be a web site manager in Belgium and has created a web site for Burundi. Thus, one can conclude that Burundi is not yet advanced and the focal point needs to be strongly supported for further CHM development.

Canada: Comments are summarized regarding their focus on issues of consideration:

(1) CHM branches: Although there are not officially sanctioned Clearing-house Mechanism branches in Canada, most thematic areas have focal points that act as CHM branches. For example, someone searching for "forests" within CBIN (Canada's node on the CHM) will be directed to the National Forestry Information Service (NFIS) which is the focal point for forest issues in Canada. These are networks that have an existence on their own and they do not necessarily exist because of the Clearing-house Mechanism, however, since they are considered points of entry into a particular subject, they are considered as thematic focal points for the purposes of the clearing house. This is also in line with the de-centralized approach to the development of the CHM.

(2) On-going activities: Being an active participant in the IAC, Canada have frequently written information documents to stimulate discussions on the issue of CHM national node inter-operability with the central CHM. Canada has also been involved in determining a case study project on the capacity building needs assessment within francophone-speaking African countries. In order to assist them in CHM establishment, Canada provided access to documentation on CBD implementation. This project is still in the conceptual stages.

(3) Innovations: Forum and metadata entry tool that automatically requests updates from originators every six months in order to keep entries up to date can be considered innovations for the Canadian CHM.

Chad:
The country needs to raise the understanding of CHM role and functions.

Czech Republic:
There are many different types of biodiversity data in a variety of institutions and bodies within the country. The biggest problems are probably property rights, data sharing and a functioning Clearing-House Mechanism. The CHM web page in the Czech Republic is under construction. Cooperation with different specialists from different sectors has already started and the Scientific Panel on CBD and the CBD Czech National Committee are functioning.

Democratic Republic of Congo:
There is a need to integrate a huge volume of information on biodiversity into electronic format. And for that purpose, assistance on training of specialists is required. Also the training for executives involved in biodiversity management issues will be worthwhile.

Estonia:

The country is now in the process of establishing three CHM regional branches: one for North-Estonia, one for South-Estonia and one for West-Estonia. Each region is described as a merge of five administrative districts of the country. Institutions will be chosen among state administrative units dedicated to the management of nature conservation on country level and belonging directly to the Ministry of Environment. Duties for those regional focal points will be informing their region about CBD matters and vice versa to upload and update information about their region in the CBD-CHM web page.

Finland:

One of the 13 regional environmental centres of the country, namely the Regional Environment Center of Southwest Finland, has recently started developing a pilot project for a regional biodiversity clearing-house. Regarding involvement in the international initiatives, numerous Finnish universities or research institutes have some kind of cooperation with several of the international initiatives mentioned in the questionnaire. As an innovation the Finnish NFP mentioned a cooperation project "EuroDets" with Germany and Russia on biodiversity education and awareness, started in January 2003.

Germany:

The current actions on CHM include:

- preparation of a study plus workshop on a "Technology Transfer and Technology cooperation" including "scientific cooperation" through the CHM
- pilot model "facilitation of scientific cooperation" with Poland by integrating several national partner organizations in Germany (partly members of the national CHM Working Group)
- development of a concept to let a wider national scientific audience interested in biodiversity participate in the main topics discussed at SBSTTA meetings

The GIS mapping tool developed for a national wide-running multimedia project "Naturdetektive" allowing both online and offline work can be considered an innovation in the field.

Indonesia:

The country expects to improve communication among institutions and CHM Focal Point at the end of the year 2003, including increasing possible cooperation.

Iran:

Emphasized that the actions on CHM development are slow due to technical and financial limitations.

Mali:

Considers biodiversity information management as a main issue of biological conservation. It needs to establish an effective system of information sharing. The technical support and financial support of the international community are required for these purposes.

Mongolia:

Needs training of NFP in regional and international meetings and workshops. The separate office for action on CHM, CBD & Biosafety also needs to be established. There is further requirement for increasing cooperation on biodiversity database management and creation of the integrated web site for Biodiversity and Biosafety information

New Zealand

The country has a special opinion on "What is CHM"? New Zealand considers CHM "primarily a mechanism for scientific and technical cooperation between Parties, which requires experts to actively interact. As the methods and information developed in one country are almost never directly applicable in another, they need to be used as a starting point for new development, or be adapted in some way. And that is generally only achievable if the relevant experts get together". Thus, the position of New Zealand can be briefly formulated as follows: "The CHM should be focused on connecting people, not focused on passing on information through passive mechanisms".

Thus, the actions within CHM are essentially carried out through direct interaction with people involved in national implementation in other countries, not through interaction with CHM networks. This is being done through:

- Responding to direct requests from people in other countries. The number of requests is gradually increasing, as the ability/willingness of NZ to cooperate is becoming more widely known.
- Initiating bilateral cooperation projects, mainly on capacity building or technical partnership.
- Identifying potential areas of cooperation through other sources, such as the Aliens List Serve, information received second-hand, etc, and initiating contact.
- Seeking to initiate or assist wider processes, such as the islands cooperative initiative, SPREP, ISSG, etc.
- Encouraging establishment or strengthening of mechanisms for cooperation between New Zealand and other countries, within aid and scientific programs.
- Advertising available information through listservs and other mechanisms.
- Working with colleagues in other processes, notably SBSTTA and GISP.

At the same time, New Zealand has made a conscious decision to not involve the CHM in any within-country activities. The country already has adequately functioning systems in place (Ministerial coordinating committee, numerous individual programs) and does not feel that this is an appropriate area for the CHM to become involved in. New Zealand opposed the CBD decision to have the CHM involved in national level activities, instead of working on inter-country cooperation.

Peru:

Suggests providing countries with free software and updating it as frequently as possible.

Russia:

The priority needs are:

- Seeking funding for our initiatives on the translation into English of the main resources of CHM web site.
- Establishment of the updated Database of results of international projects on biodiversity in a UN language (English).
- Storage and maintenance of more than 3600 real maps on Map Info, Arc Info and other GIS-systems formats

The innovations used by the Russian CHM can be summarized as follows:

- Tool for interactive work at URL:www.biodat.ru
- Use of "speed-internet" technology
- Use of "speed-mapping" software for interactive preparation of illustrations

Slovenia:
The CHM in Slovenia is at present designed more to exchange and to promote scientific and technical information of biodiversity and less to carry out projects. The national priorities are now directed towards accession to the European Union and towards meeting the obligations of that process. One of this obligations is implementation of the "habitats" and "birds" directives and establishment of the "Natura 2000" network. Proper management of the CHM means a lot of work and needs the full time work of more than one person, which at the moment cannot be the case in Slovenia but is planed for achievement.

St. Lucia:
The country needs to appreciate the significance of the Clearing-house Mechanism so that adequate arrangements can be made in terms of personnel and finance.

Sweden:
The main innovative tool of the Swedish CHM is using preset search profiles in the much more extensive Swedish EnviroNET. In addition, when establishing the web site, several working groups were established with specialists from governmental and non-governmental organizations and scientists. These working groups developed the relevant pages of the portal according to an agreed structure with texts and relevant links for each thematic theme. However, during 2002, activities regarding further development and marketing of the CHM portal were low due to change in personnel and reorganization of the host institution, namely, the Swedish Environmental Protection Agency.

United Kingdom:
The UK has a huge number of managed biodiversity information systems. The National Biodiversity Network attempts to standardize access to this information, and currently contains over 10 million species records as well as sources of habitat records and boundaries of protected sites.

The UK is currently considering how to increase co-operation. National series of focal points have been developed within the UK to cover the ecosystem themes and cross cutting issues with a view to enhancing the UK's overall implementation of the CBD. Regarding international cooperation, the activities carried out by other national focal points have been tracked as well.

The UK's approach to web site development under the CHM has been threefold:

1. A web site to support the implementation of the UK Biodiversity Action Plan, essentially that part of the UK's National Biodiversity Strategy which relates to priorities for in situ and ex situ biodiversity conservation. This web site (www.ukbap.org.uk) is a means of informing those organizations participating in action plan delivery of matters relevant to assisting them in their work, and also supports monitoring and reporting on progress. The purpose and audience of this web site is clear (i.e. it is aimed at implementing agencies and partners within the UK and its purpose is to help them in their work).

2. A National Biodiversity Network, accessed via the internet, which will eventually contain all main UK biodiversity data. The network is described on www.nbn.org.uk and accessed via www.searchnbn.net. At the moment it has some 10 million species records, habitat data and protected site data; but this is just a start. Within 5 years it will be a major land management decision tool and research facility. The audiences here are

primarily land and water managers and decision takers, but it will also serve researchers and policy makers.

3. The UK CHM web site in the strict sense is aimed at supporting implementation of CBD CoP decisions across all 3 objectives of the CBD and serving as a vehicle for enhancing scientific and technical co-operation between the UK and other countries. The audience for this web site (www.chm.gov.uk) is, as yet, very unclear (initially CBD CHM and national CHM focal points) and the guidance provided by CoP decisions has not proved particularly helpful in this regard. The UK is skeptical about the value of producing lists of NGOs or national experts, or indeed of producing lists of research. The purpose and use of this material needs considerable further thought to enable available resources to be spent wisely. The maintenance /updating costs of this material can be considerable. The UK's approach, wherever possible, is to link the CHM web site to other web sites which maintain this material, since these other web sites can be expected to carry out this maintenance.

The United Kingdom recognizes that the CHM is a process rather than a web site, because that is what appears to be intended. However, references have been made to the other web sites when appropriate. A considerable constraint has been the problem in identifying the key international audience for CHM web site and identifying their priority needs. The NFP has been assisted in some degree by the various regional workshops undertaken to identify needs through the CBD and other processes, which the UK has supported, (for instance, relatively recently one in Malawi). However, the conclusions of these workshops are often of a very general nature, and the workshops are sometimes concerned more with the mechanics of CHM development rather than with the needs the CHM is seeking to meet.

Currently the following activities are underway to contribute to the UK CHM development:
1. summaries of CBD-relevant UK Legislation;
2. awareness raising and practical guidance on the Ecosystem Approach, initially in the UK and then more widely;
3. identification of biodiversity research priorities (starting at the UK level but extending internationally in due course).

United States of America:
The main CHM activities are undertaken within the framework of regional IABIN nodes and GBIF. Portal technology to build and unify communities of interest can be considered an innovation.

2.7. Conclusions and recommendations

The number of Parties responded to the survey have provided ample information to draw up several recommendations for further development of the CHM network. The conclusions are summarized in this section.

After each described outcome, there is a reference to the appropriate question(s) of the survey. Then some recommendations are made to address the issue. Those recommendations will serve as a basis for the development of measures for the CHM Action Plan (Part 3).

CHM functioning at national and regional level

(1) OUTCOME: Although the majority of CBD Parties have nominated CHM NFPs and have E-mail addresses, some of those CHMs are not operational yet due to lack of funding. Several Parties are in the process of proposal development/submission to UNEP/GEF for further CHM development under the framework of Enabling Activity II Phase Add-on module. (QUESTIONS #1, 9, COMMENTS BY NFPs)

RECOMMENDATION: The CHM component of the proposals should be formulated more precisely, taking into consideration identified national needs and priorities of cooperation.

(2) OUTCOME: The majority of Parties lack a fully developed organisational structure for the CHM which include regional branches (82% of survey respondents), thematic focal points (52% of respondents) or a CHM steering committee (64% of respondents). (QUESTION #3)

RECOMMENDATION: In order to ensure a fully operational CHM network, the Parties should integrate efforts of a team of dedicated professionals, which could include regional focal points, thematic focal points, coordinators for bilateral cooperation activities and web masters, who would be able to compile and maintain up-to-date information. One way to achieve this objective could be through the establishment of a CHM Steering Committee that would oversee CHM activities.

(3) OUTCOME: For the 48% of survey participants with thematic focal points, Biosafety is so far the area with the greatest number of designated thematic focal points (19 Parties out of 45 respondents). (QUESTIONS #3, 4)

RECOMMENDATION: Thematic focal points at national level should be considered one of the key priorities for CHM development. Parties with established thematic focal points should work towards the synchronization of their activities with relevant thematic contact persons of other biodiversity-related Conventions.

(4) OUTCOME: Most of the on-going CHM projects at national level are due to end at 2003 (83% of projects mentioned by Parties). Parties lack long term cooperation agreements. (QUESTIONS #2, 9, 10).

RECOMMENDATION: To ensure sustainability of CHM maintenance, the development of new project proposals at both national level (with involvement of BRIHIs) and international level (through bilateral and multilateral cooperation activities) should be encouraged. The Secretariat should continue to work on the compilation of project proposals, with its further inclusion into the main CBD web site.

(5) OUTCOME: Only several Parties (5 respondents) currently organize their CHM activities with the help of regional branches within the country, while some Parties (3) are in the process of establishing them (QUESTIONS #3,5, COMMENTS BY NFPs).

RECOMMENDATION: Parties should consider the establishment of such CHM regional branches. The focal points of these branches should be actively involved in CHM activities at the national level and should be represented in the national CHM Steering Committee.

(6) OUTCOME: Communication between CHM NFPs is generally insufficient, as 91% respondents declared that they did not communicate or communicated less than once a month with other NFPs. This also results to a low level of experience sharing among the CHMs as 65% of respondents ranked it as "none" or "poor"(QUESTIONS #35-37)

RECOMMENDATION: The CBD Secretariat could strengthen its role as a catalyst between NFPs and stimulate seeking additional possibilities for cooperation between Parties. Parties could be encouraged to communicate more through the organization of joint workshop/seminars or informal meetings at regional level.

(7) OUTCOME: CHM activities at regional level need managerial/structural improvements.

RECOMMENDATION: The establishment of Regional (Supra-national) CHMs should be initiated through:
- designation of CHM regional focal points;
- designation of contact persons for regional cooperation at each national CHM;
- organization of joint workshops, seminars, conferences and meetings with participation of all BRIHIs of the given region;
- identification of priority areas of scientific and technical cooperation in the region among the national CHMs as well as among the corresponding BRIHIs;
- establishment of CHM regional Steering Committee.
- construction of regional CHM web sites

CHM websites and BRIHIs

(8) OUTCOME: Almost half of the Parties which responded to the survey declared that information relating to human and institutional resources in the field of biodiversity (experts, consultants, NGOs, etc.) is not widely available in the form of databases and/or rosters at national level. (QUESTIONS #3,6,14).

RECOMMENDATION: Parties need more active involvement in the development of national rosters of experts and consultants, as well as databases of biodiversity-related institutions and NGOs. This information should be available to all national BRIHIs. The CBD Secretariat should encourage the Parties to nominate national experts for thematic areas and should ensure a periodical and timely update of this information at global level.

(9) OUTCOME: A number of Parties (64% of survey respondents) have already developed biodiversity information systems in relevant biodiversity-related information holder institutions (BRIHIs). The main problem is to ensure their wider availability of such databases and rosters at national level. (QUESTIONS #6, 8, 14, 16)

RECOMMENDATION: Parties could include facts on these biodiversity information systems on the national CHM web sites, and whenever possible make physical links to the systems from the CHM web site. Also, BRIHIs representatives could be granted password-protected accounts to access and update, if needed, the information available on the CHM web site.

(10) OUTCOME: There are a great number of on-going biodiversity-related projects (with participation of BRIHIs), which do not strictly underlie the main three CHM objectives, but deal with either capacity building or awareness raising in the area of biodiversity (COMMENTS BY NFPs).

RECOMMENDATION: National CHM offices should identify the executors of the mentioned projects and provide a tool for information exchange between and dissemination of best practices in future capacity building or awareness raising activities within the CHM framework.

(11) OUTCOME: Data on biodiversity within the national BRIHIs are mainly available in non-electronic format and still need to be transformed into the relevant electronic databases (QUESTIONS #6, 7, COMMENTS BY NFPs).

RECOMMENDATION: To ensure the interoperability of the CHM networks (that is the national biodiversity data are at the same format), the Parties should consider conversion of available information of non-electronic format into databases, rosters, GIS-compatible map libraries, etc. This process should be implemented using and, if necessary, expanding the standards approved by the Secretariat (such as the Dublin Core format) and will eventually result to the interoperability of the global CHM network.

(12) OUTCOME: Some Parties host several distinct web sites containing information on biodiversity, including databases and information systems. However, these web sites are not necessarily designated as, or linked to, the Parties' official CHM website, and may not host CBD-related information such as national reports, strategies, roster of experts, etc. (QUESTIONS #6, 8, COMMENTS BY NFPs)

RECOMMENDATION: The Parties should be encouraged to clearly link all their biodiversity-related web sites to their official CHM web site. Thus these web sites can be established as second level nodes in the CHM network of the country.

(13) OUTCOME: Most of the Parties might not fully understand the concept of metadata, as only 5 countries answered the questions on metadata. (QUESTIONS # 24, 44)

RECOMMENDATION: A special training course on interoperability issues, including metadata, formats and protocols, could be developed by the CBD Secretariat or by Parties and conducted at national level.

(14) OUTCOME: Some Parties lack proper involvement of the scientific/academic institutions and NGOs dealing with biodiversity-related problems into the on-going and planned activities through national CHMs. At the same time the national CHM web sites provide a small amount of information on biodiversity-related research at national and international levels. (QUESTIONS # 9, 10, 27).

RECOMMENDATION: To strengthen the link between national CHM teams and relevant scientific institutions, NGOs and other stakeholders, efforts should be made to prepare collaborative project proposals between the organizations within the given country, as well as with relevant organizations in other Parties. National CHMs should encourage such institution-level collaboration through seeking possible financial support.

(15) OUTCOME: When examining the answers of Parties to questions on the content of the CHM web sites (QUESTIONS # 14-29), it can be estimated that the overall status of the existing CHM web sites towards the fulfillment of the requirements of CHM objectives is "excellent" for **15%** of respondents; "good" for **30%**; and "satisfactory" for the rest.

RECOMMENDATIONS:

- The national network of CHM should be developed taking into consideration the properties of non-hierarchy interoperability. This means that the national CHMs should serve as an entry for all BRIHIs, similar to the Global CHM becoming the main gateway to national nodes. Where possible, the data incorporated through BRIHIs should be presented in the same format and included in a meta-database within the CHM national web site.

- For several Parties, the national CHM web sites should correspond better with CHM requirements, particularly regarding the incorporation of the Second National and thematic reports as well as linkages to the CBD Secretariat web pages with COP decisions and SBSTTA / IAC recommendations.

- The development of a glossary on biodiversity-related terms in national languages should be implemented on the basis of the CBD controlled vocabulary. The terms of national glossaries should be used in further metadata development in order to ensure the proper operation of search engines. Cooperation between Parties with the same national language(s) should be encouraged in order to avoid duplication of efforts.

- The Secretariat should periodically remind the Parties to make appropriate changes and additions to the national CHM web sites, particularly regarding the following data:
  - rosters of national consultants and experts;
  - contact information on all BRIHIs and biodiversity-related NGOs;
  - contact information on biodiversity donor organizations and funds;
  - available biodiversity-related strategic documents and sectoral action plans;
  - biodiversity-related legislation documents;
  - data on biodiversity-related scientific research;
  - Biodiversity Information Systems or links to them; and
  - map libraries or links to them.

- National CHM web sites could be improved in terms of technical tools, such as:
  - incorporation of web statistics, such as counts for number of visitors, number of pages visited, and number of hits;
  - incorporation of a search engine using the metadata of adopted standard;
  - periodical update of the content (recommended on the monthly basis);
  - adding "hot news" section and/or calendar of events;
  - improving interactivity through incorporation of the forum for discussion;
  - improving main CHM server's capacities to ensure faster access to the Internet.

- To enhance cooperation activities between Parties, the establishment of regional (supra national) CHMs, including regional CHM web sites, should be encouraged.

International/regional cooperation

(16) OUTCOME: There is a lack of bilateral and multilateral cooperation among almost two thirds of the Parties that responded to the survey. (QUESTIONS # 30, 31, 32)

RECOMMENDATION: Joint project proposals on capacity building, technology transfer and case studies should be prepared by the Parties involved in cooperation and should be submitted to the donor organizations though national CHMs.

(17) OUTCOME: Almost one fifth of the survey participants do not participate in any international initiative. (QUESTION # 33)

RECOMMENDATION: The national CHM teams should start research on available international initiatives and identify activities that are of national interest and priority. Based on the conclusion of the CHM team, the participation in the given international initiative should be approved by the national CHM Steering Committee and a contact person can be designated, if needed.

(18) OUTCOME: The level of harmonization of National CHM activities with other biodiversity-related conventions is generally low. Little or no cooperation with all four relevant Conventions (CITES, RAMSAR, WHC and CMS) is mentioned by more than half of those who responded to the survey (QUESTION # 34)

RECOMMENDATION: Coordination of activities between biodiversity-related conventions could be achieved by involving a contact person in the national CHM teams, who would be responsible for reviewing and streamlining measures toward better cooperation.

Financing

(19) OUTCOME: Most national Governments often do not provide sufficient financial resources for CHM activities, as 75% of the respondent countries defined financial assistance for the CHM as a priority. In particular, developing countries lack any contribution from the state budgets to CHM-related activities. This can be due to a low awareness level by the governments and an underestimation of potential benefits. (QUESTIONS #41, 42, COMMENTS BY NFPs)

RECOMMENDATIONS:
- The Parties should develop innovative and convincing ways to "sell" the concepts of CHM to the national governments. The CBD Secretariat could act as a driving force in the exchange of ideas between Parties.
- International funding organizations should consider further support of Parties with established CHMs, especially in the developing countries and countries with economies in transition. This approach should stimulate national governments to provide the necessary budget for meeting scientific and technical cooperation needs through cooperation activities.
- The CBD Secretariat should act as facilitator in improving procedures on financial arrangements for global CHM network operation, for example through the continuation of its development of a specific section of the global CHM website on international financial mechanisms and donor institutions.

Other issues

(20) OUTCOME: The survey revealed that almost half of the Parties lack indicators for biodiversity (QUESTIONS # 6).

RECOMMENDATION: The CBD Secretariat should encourage Parties to prepare (or finalize, if started) a list of indicators for (a) biodiversity conservation and sustainable use and (b) biodiversity management and policy. These documents can be put on the national CHM web sites for public discussion and can serve as a basis for further assessment and decision-making activities at the country level.

Part 3. CHM Action Plan

3.1. Main outcomes of the CHM review process

Two main outcomes of the CHM review process can be formulated as follows:

1. There are currently several Parties with already developed CHM functioning and operational procedures. They largely contribute to the essence of CHM global network by ensuring both scientific and technical cooperation, information exchange and network development. They maintain a leading role to further advance in cooperation through the CHM and can be considered decisive players in future progress towards meeting the main objectives of the process. In addition, those Parties can effectively stimulate proper functioning of other national CHMs by assisting partners to attain the level of development they currently possess.

2. There is a need to elaborate National and Regional Strategies of CHM Development. These Strategies should be based on national CHM priorities, regional cooperation priorities and a realistic assessment of available international funding. The CBD Secretariat could coordinate and facilitate the process of preparation of the National and Regional Strategies through the development of appropriate guidelines and templates. The National Strategies should be discussed with all national stakeholders and should be endorsed by the CHM National Steering Committee before submission to the CBD Secretariat. Similarly, the regional Strategies are to be discussed during CHM Regional Workshops and/or Expert Meetings and have to be approved before submission to the CBD Secretariat.

3.2. Objectives of the CHM Action Plan

The overall aim of the CHM Action Plan is:

> *To provide an integrated framework within which the CHM network can be maintained and co-ordinated over the coming years.*

The five objectives listed below provide a more detailed expression of the overall aim.

1. *To classify the actions into categories/areas of implementation*
2. *To categorize Parties into target groups with regard to the level of CHM development and functioning*
3. *To identify sets of actions at global and regional CHM levels as well as for each target group at national level*
4. *To provide cross-referencing of the actions*
5. *To ensure sustainability of activities through monitoring and evaluation*

> *The Action Plan is based on the results of the CHM Survey (Part 2) and main outcomes of the CHM Review Process (Section 3.1). At the same time every effort has been made to avoid duplications with the CHM Strategic Plan, the Matrix of Work and the Long Term Programme of Work 1999-2004 and to provide a complementary and detailed tool to implement the mentioned documents.*

3.3 Structure of the CHM Action Plan

The CHM Action Plan intends to be a comprehensive and inter-referenced set of measures (actions and activities) aimed at the fulfilment of the three primary CHM objectives. The Plan addresses three levels of the CHM network:

(1) *Global level,* including actions to be undertaken by the CBD Secretariat and the IAC;

(2) *Regional level,* incorporating measures addressed to the Parties within each of the five regions officially identified by the convention. Where the action relates to the Global level initiatives, the appropriate cross-linkages have been made.

(3) *National level,* dealing with 189 National CHM nodes, categorised into five Target Groups (see Section 3.4).

The actions (activities) for the Global and Regional levels as well as for the first three Target Groups at National level are presented in the form of a matrix (described in the Section 3.6). For the fourth and fifth Target Groups at National level a set of recommended measures are provided. Each action of the Action Plan has one of the following timeframes: immediate, short-term, medium-term or long-term. Refer to Figure 28 for the overall structure of the Plan.
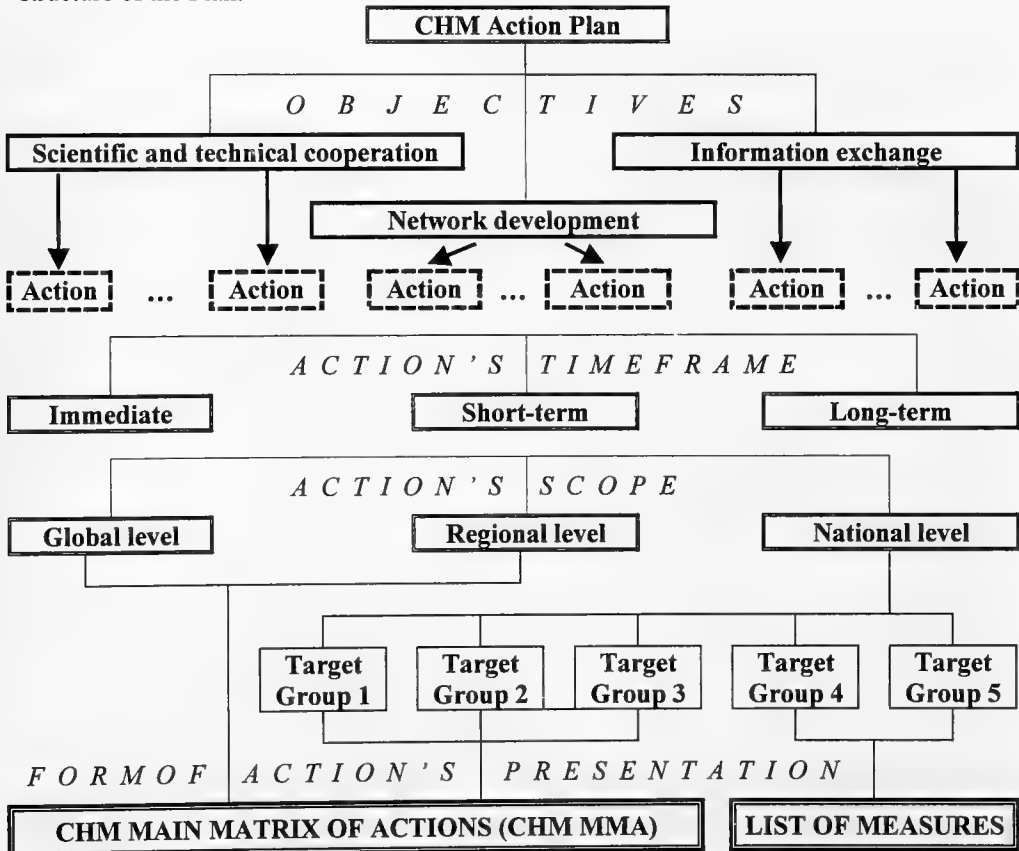
Fig. 28 Structural organization of the CHM Action Plan

3.4 Classification of Parties

The CHM Review revealed rather different levels of CHM development among the participants in the survey. In order to provide a list of activities that are in line with the varying needs of the National CHMs, the Parties have been classified into five categories, subsequently called "Target Groups". The main purpose of such classification is to distinguish groups of Parties that currently have a similar level of scientific and technical cooperation, information exchange and network development. The Target Groups are formed based on the following criteria:

- Existence of nominated CHM NFP.
- Existence of CHM E-mail address;
- Existence of CHM web page;
- Actively operational CHM
- Cooperation at bilateral and multilateral level;
- Membership in GBIF and other international initiatives;

The compliance of the Parties with the mentioned criteria allows it to be assigned to one of the five Target Groups according to the following matrix (Table 24):

Table 24. Criteria for the definition of Action Plan target groups

#	Criteria / Target group	I	II	III	IV	V
1.	Actively operational CHM and cooperation at bilateral and multilateral level	X				
2.	Membership status in GBIF	X	X			
3.	Existence of CHM web page	X	X			
4.	Existence of CHM E-mail address	X	X	X		
5.	Existence of nominated CHM NFP	X	X	X	X	

According to the table, the following assumptions about the Target Groups composition are correct:

- All the GBIF voting members are represented in the first Target Group. They are accompanied with those associated participants who meet criterion #1.
- The rest of the GBIF associate participants are in the second Group. Thus, the first two groups unite all GBIF members as of June 2003.
- The first and second Target Groups include all the Parties with CHM web sites as of June 2003.
- The first three Target Groups unite the 134 Parties addressed in the CHM review survey.
- Finally, the first four Target Groups include all the Parties with CHM E-mail addresses as of June 2003.

Assigning the Parties to a given target group is a dynamic process and can be changed either by a Party's request or by an IAC recommendation as soon as the Party meets the criteria in the above table. A party assignation to a certain target group will change once the set of measures contained in the corresponding section of the Action Plan has been completed. Therefore, the composition of the Target Groups will change gradually.

Based on this classification, the following initial Target Groups have been formed:

TARGET GROUP 1. Parties with advanced CHM functioning

This group comprises **30** members, out of which 28 are Parties to the Convention and 2 are non-Parties (Thailand and United States of America). The group represents 20 voting and 5 associate participants of GBIF, as well as 5 Parties with well-advanced biodiversity information systems. Twenty-seven Parties of the group host CHM web pages, while China's web sites exists but has not been officially announced yet. New Zealand rejects the electronic form of a CHM node. More than two thirds of this group's members (21 Parties) took part in the CHM review survey. The full list of the Parties of this target group is as follows:
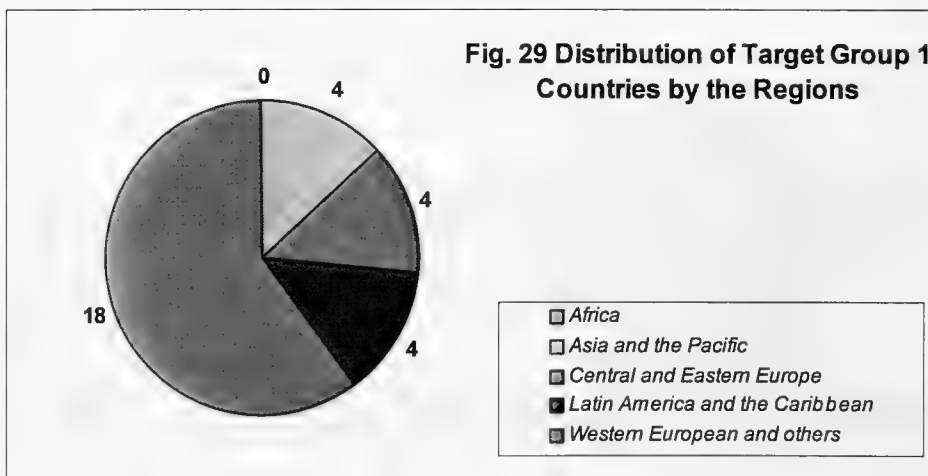
Australia (*)	Finland (*)	Republic of Korea
Austria (*)	France (*)	Russian Federation (*)
Belgium (*)	Germany (*)	Slovenia (*)
Canada (*)	Iceland	Spain (*)
China (*)	Italy	Sweden (*)
Colombia	Mexico	Switzerland (*)
Costa Rica	Japan	Thailand (*)
Czech Republic (*)	New Zealand (*)	The Netherlands
Denmark (*)	Peru (*)	United Kingdom (*)
European Community	Poland (*)	United States of America (*)

Here and afterwards the (*) sign denotes the Parties that responded to the CHM Review questionnaire.

The regional representation of the group is presented in Table 25 and Figure 29.

Table 25. Percentage of Parties in Target Group 2 by Region

Region	Total number of CBD Parties in the region	Number of Parties in Target Group 1	%
Africa	52	0	**0**
Asia and the Pacific	54	4	**7.4**
Central and Eastern Europe	23	4	**17.3**
Latin America and the Caribbean	33	4	**12.1**
Western European and others	27	18	**66.7**

Fig. 29 Distribution of Target Group 1 Countries by the Regions

- Africa
- Asia and the Pacific
- Central and Eastern Europe
- Latin America and the Caribbean
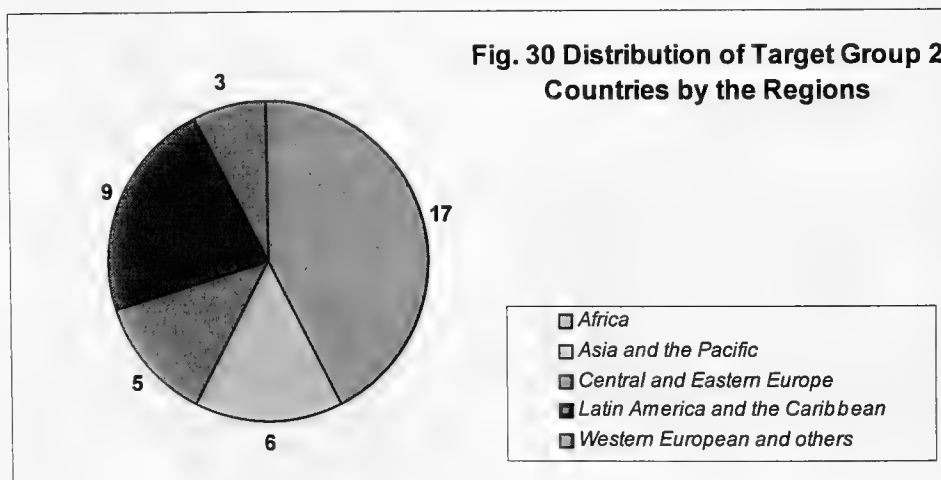- Western European and others

TARGET GROUP 2. Parties with intermediate CHM functioning

This group unites 35 Parties hosting CHM web sites as of June 2003 that are not included in the first group, the rest of group members are associate participants of GBIF. The majority of the target group members is currently seeking financing for proper maintenance of the CHM network after the successful completion of the establishment phase, financed through the assistance of UNEP/GEF enabling activities. Parties from the African region that participate in bilateral web-hosting projects with Belgium are also included in this group. The list of **40** target group members and their distribution by region are presented below. Refer to Table 26 and Figure 30 for statistics on distribution of these countries per region.

Argentina	Congo	Jamaica (*)	Pakistan
Armenia (*)	Côte d'Ivoire	Latvia (*)	Philippines
Benin	Dem. Rep. of Congo (*)	Luxembourg	Qatar
Brazil	Djibouti	Madagascar	Republic of Moldova
Bulgaria	Ecuador	Malaysia	Saint Lucia (*)
Burkina Faso (*)	El Salvador	Malta	Senegal
Burundi (*)	Gabon	Mauritania (*)	Slovak Republic
Cameroon	Ghana	Namibia	Trinidad and Tobago
Central African Republic	India	Niger	Uruguay
Chad (*)	Iran (Islamic Republic) (*)	Norway	Venezuela (*)

Table 26. Percentage of Parties in Target Group 2 by Region

Region	Total number of CBD Parties in the region	Number of Parties in Target Group 2	%
Africa	52	17	**32.7**
Asia and the Pacific	54	6	**11.1**
Central and Eastern Europe	23	5	**21.7**
Latin America and the Caribbean	33	9	**27.3**
Western European and others	27	3	**11.1**

Fig. 30 Distribution of Target Group 2 Countries by the Regions

☐ Africa
☐ Asia and the Pacific
☐ Central and Eastern Europe
☐ Latin America and the Caribbean
☐ Western European and others

TARGET GROUP 3. Parties with CHM in early stages of development

The members of Target Group 3 are Parties with CHM E-mail addresses that do not have yet operational CHM web sites and whose non-electronic means are under development. The total number of such Parties, as of June 2003, is **63**. The share of each region in the group is as follows (Figure 31):

Fig. 31 Distribution of Target Group 3 Countries by the Regions

- □ Africa
- □ Asia and the Pacific
- ▨ Central and Eastern Europe
- ▧ Latin America and the Caribbean
- ▨ Western European and others
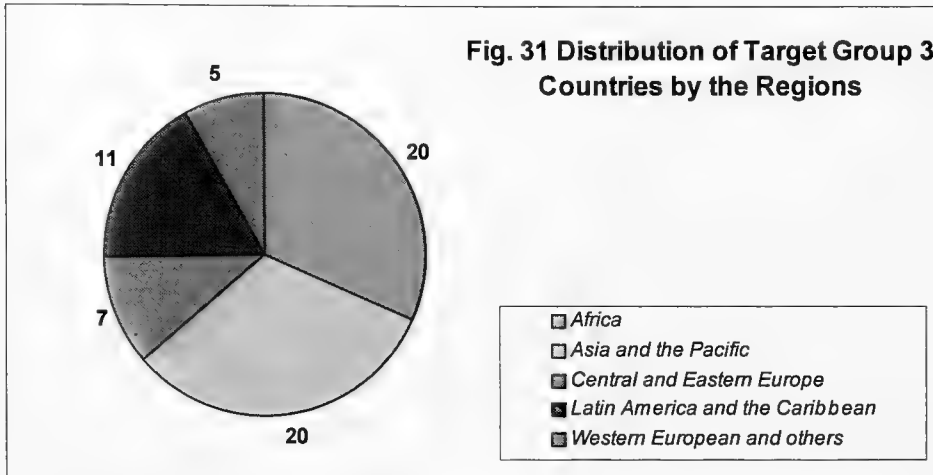
The respondents to the CHM survey are spread over the different target groups as follows:

> **21** Parties (or **70%** of group members) in Target Group 1;
> **11** Parties (or **27%** of group members) in Target Group 2;
> **13** Parties (or **21%** of group members) in Target Group 3.

The last two targets groups are *TARGET GROUP 4. Non-operational CHMs* and *TARGET GROUP 5. Parties without CHM NFPs.* They include **17** and **39** Parties respectively. These Parties have not been targeted by the CHM Review survey; nevertheless there are several recommendations in the Action Plan that addresses them.

The general breakdown of the Convention Parties by region and the Target Groups of the Action Plan are presented in Table 27 (Note that the total number of 189 differs of the official number of 187 because of consideration of non-parties Thailand and United States).

Table 27. Distribution of Parties by Target Groups addressed in the Action Plan

Region / Target Group	I	II	III	IV	V	Total
Africa	-	17	20	7	8	52
Asia and the Pacific	4	6	20	6	18	54
Central and Eastern Europe	4	5	7	1	6	23
Latin America and the Caribbean	4	9	11	3	6	33
Western European and others	18	3	5	0	1	27
Total	30	40	63	17	39	189

3.5. Classification of Actions

The actions (activities) within the Matrix Plan are classified into 8 categories (Table 28)

Table 28. Categories of the actions (activities) within the CHM Action Plan

I	Awareness raising on CHM	V	CHM Web site and its content
II	Involvement of BRIHIs	VI	Interoperability
III	Organization and management of CHM structures	VII	Cooperation/Initiatives
IV	Capacity building	VIII	Financing

3.6. Structure of the Main Matrix of Actions

The CHM Main Matrix of Actions (hereafter MMA) describes the specific activities that need to be completed to achieve the overall aim and objectives of the Action Plan. The data is primarily grouped into three levels that have been discussed in Section 3.2. Letters, G (for Global), R (for Regional) and N (for National), are assigned to each action (or activity) within the Matrix. The actions (activities) under the National level are denoted by the numbers of the Target Groups addressed (e.g N1, N2, etc.). A Roman numeral indicates the category of the action according to their classification. The explanation of each of the seven MMA columns is presented below:

a) Number of the action or activity: each action and activity has a unique code to allow it to be identified and cross-referenced within the Matrix.

b) Name of the action or activity: a brief heading or description of each action (or activity).

c) Related activities: other closely associated actions (or activities) that can be found elsewhere in the Matrix are indicated here. This information (using the individual reference numbers for actions) also allows cross-referencing to other, related or similar, activities throughout the whole CHM MMA.

d) CHM Objective: this column indicates to which of the three objectives each action (or activity) is expected to contribute. The numbers in this column relate to the numbering of CHM key objectives in the Report.

e) Timeframe: each action within the plan is categorised according to the following timeframes:

IM = Immediate   proposed for the period up to the end of 2003;
ST = Short-term   up to the end of 2004;
MT = Medium-term   up to the end of 2005; and
LT = Long-term   beyond 2005
Each timeframe can be preceded by prefix **RG = On regular basis**

f) Background information: this column refers to the reasons why the given action (or activity) is incorporated into the CHM MMA.

g) Outputs: verifiable achievements for each action (or activity) are listed, and they provide a basis for evaluation of success or completion. These outputs are proximal achievements, but completion of any activity is also expected to have impacts on the wider achievement of the three CHM goals under the given level.

3.7. CHM Main Matrix of Actions

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
			G L O B A L L E V E L (G)			
G.I	**AWARENESS RAISING ON CHM**					
G.I.1	Launch the new CHM start-up kit	G.V.1	3	IM	In process of finalisation	New CHM start-up kit available
G.I.2	Provide national nodes with overall framework (guidelines) for preparation of national strategies of CHM development.	N1.III.6 N2.III.5 N3.III.9	1,2,3	ST	National Strategies of CHM Development need to be based on the national CHM priorities and needs	Guidelines on development of National CHM Strategies prepared
G.II	**INVOLVEMENT OF BRIHIs**					
G.II.1	Continue identification and establishment of new international thematic focal points	G.VII.3	3	RG ST	Four international thematic focal points established	List of potential thematic focal points identified
G.II.2	Submit a list of proposed international thematic focal points to IAC for approval	G.II.1	3	RG MT	IAC advice and approval is needed for TFP establishment	IAC approval for establishment of new TFPs
G.II.3	Continue the practice of signing MoC and MoU-s with BRIHIs of international importance.	G.II.1 G.II.2	3	RG LT	Apart from establishment of TFPs, broader involvement of BRIHIs is needed	MoC / MoU signed with BRIHIs of international importance
G.III	**ORGANIZATION AND MANAGEMENT OF CHM STRUCTURES**					
G.III.1	Finalise the operational plan of IAC and ensure its periodic review and update if needed	-	1,2,3	IM	Draft operational plan is currently under discussion	Proper organization of IAC activities
G.III.2	Present the current report and the CHM Action Plan for the discussion and endorsement to the 9th meeting of the SBSTTA	-	1,2,3	IM	Final Report on CHM Review as a information document to SBSTTA	Final Report on CHM Review project discussed and endorsed
G.III.3	Encourage designation of thematic focal points at national level	N1.III.3 N2.III.2 N3.III.3	1,2,3	ST	52% of survey participants have not established TFPs	TFPs designated at national level
G.III.4	Identify indicators to assess the efficiency of CHM functioning at national level. Based on the indicators defined, develop a guidelines for self-assessment of national CHMs	G.III.6	1,2,3	ST	A definite criteria is needed to be developed for periodic evaluation of national CHM status and needs	a/. List of indicators b/. Guidelines for National CHM self-assessment

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
G.III.5	Organize at global level a "Friends of CHM" database of international institutions, initiatives and individuals interested in partnership building activities and involve them in a listserv	R.II.3	3	MT	There are currently a group of NFPs/institutions devoted to the notion of CHM and largely contributing to its functioning	A "Friends of CHM" database established and a listserv organised
G.III.6	Based of the results of self-assessment of national CHMs, prepare periodic reviews on annual evaluation of CHM status and needs	G.III.4 G.IV.1	1,2,3	RG LT	The CHM network need to be periodically assessed and monitored by the Secretariat	Annual Reports on current status and development needs of CHM network
G.III.7	Continue updating the global CHM status on a periodical basis *	G.V.2 R.V.2	1,2,3	RG LT	CHM e-mail and URL databases need regular updates	More regular update of CHM e-mail and URL databases
G.III.8	Continue the organization of CHM regional workshops on a regular basis, e.g, one workshop each two years for each region	G.IV.4 R.I.1 R.II.2	1,2,3	RG LT	Regional workshops need to address the CHM demands in timely manner	Regional CHM workshops organised on a periodical basis
G.III.9	Maintain permanent contact with CHM National teams, existing CHM National and Regional Steering Committees	R.III.2	2,3	RG LT	There is a need for better communication of CHM global network	Communication between Secretariat and CHM structures enhanced
G.III.10	Encourage the establishment, where missing, CHM National teams, CHM National and Regional Steering Committees	N1.III.1 N2.III.1 N3.III.2	1,2,3	RG LT	Better organization of CHM management through Steering Committees is needed	CHM maintenance and management structured improved
G.III.11	Facilitate the development of five Regional CHMs	G.V.7 G.VII.1	1,2,3	RG LT	Creation of Regional CHMs is one of priority needs	Five regional CHMs established and linked to the Secretariat
G.III.12	Facilitate the development of CHM national strategies by the Parties	G.I.2	1,2,3	RG LT	A need to elaborate of CHM National Strategies	Regular methodological advice to the Parties
G.IV	**CAPACITY BUILDING**					
G.IV.1	As part of the annual review, conduct a survey on training demands among the NFPs	G.III.6 R.IV.2	1,2,3	ST	31 Parties out of 45 selected training as a priority need	Survey on training demands organised and results analysed
G.IV.2	Identify regional and/or international organizations to provide requested training courses and sign MoC with them	G.IV.3 R.IV.2	1,3	ST	Appropriate institutions need to be conducted to address various needs on training	MoC-s signed with institutions on potential training activities at national and regional levels

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* In particular, make the following additions to the database as of July 2003: (1) add the alegakis@biol.uoa.gr as the CHM E-mail contact for Greece and (2) add the URL http://www.biodiv.gov.cn as a CHM web site for China

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
G.IV.3	Facilitate organization of training courses, particularly on web site creation for Parties without CHM web sites and on metadata for parties with advanced CHM functioning	G.IV.2	1,2,3	MT	All the parties without web sites requested a training course on web site creation. 5 Parties out of 45 answered questions on metadata.	a/. Training courses on web site creation conducted b/. Training courses on metadata organised
G.IV.4	Develop a special training course for CHM NFPs and conduct one training cycle for each region that can be within the framework of CHM regional workshops	G.III.8	1,2,3	RG LT	A specialized training course on CHM is considered top priority need by survey participants	A specialized training course on CHM conducted for CHM NFPs within the framework of regional workshops
G.V	**CHM WEB SITE AND ITS CONTENT**					
G.V.1	Ensure that the contents of the new CHM toolkit do not duplicate those of the ECE and the Netherlands.	G.I.1	2	IM	The new CHM toolkit is in the stage of finalization	Three toolkits on CHM that complement each other
G.V.5	Encourage Parties to improve appropriately the content of national CHM web sites and to enhance the web sites with technical tools.	N1.V.1 N1.V.2 N2.V.1 N2.V.2	2	RG LT	The national CHM web sites need to be periodically updated and improved in terms of technical tools	a/ Content of national CHM web sites significantly improved. b/ CHM web sites improved technically
G.V.3	Encourage Parties and Regional CHMs to develop National Biodiversity Information Networks and, when developed, incorporate those into the national CHM web pages using Dublin Core as a metadata standard. Use Regional experiences, if needed.	G.V.4 G.VI.2 R.V.3	2	ST	Several Parties host different web sites containing information on biodiversity, including databases and information systems, which are not linked to, the Parties' official CHM websites.	a/ The National Biodiversity Information Networks established and developed b/ These websites serve as a second level nodes in the national CHM network
G.V.4	Develop Global CHM search engine on the CHM Global network that will work with all relevant and available metadata of national CHM nodes.	G.V.3 G.VI.2	2	MT	Work is underway	CHM Global search engine with possibility for simultaneous search on metadata from national nodes.
G.V.2	Incorporate a GIS-based map on the current status of CHM Global network into the web site	G.III.7	2	IM	Draft map prepared and presented to the Secretariat	An updateable GIS-based map on CHM status incorporated.

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
G.V.6	Develop and regularly update the financial section of the global CHM web site, where information on donor institutions is made available. Attribute projects to categories of funding whenever possible (e.g. field projects, research, training, etc.)	G.VIII.2	1,2,3	RG LT	A web page "Guide to sources of financing for biodiversity 2003" created	Detailed and up-to-date information available on potential sources of funding for capacity building activities
G.V.7	Encourage construction of Regional CHMs web sites and link them to the main CHM web site	G.III.11 R.I.4	1,2,3	RG LT	Creation of Regional CHMs is one of the priority needs	Links to five Regional CHM web sites
G.VI	**INTEROPERABILTY**					
G.VI.1	Develop metadata vocabulary for each thematic focal area (for a list of thematic areas refer to Table 29, Section 3.9)	N1.V.5	2	ST	NFP need to use generic metadata vocabulary for every thematic area to increase interoperability	Set of 25 vocabularies in English, French and Spanish
G.VI.2	Encourage building a decentralized and interoperable network of CHM nodes to ensure that the information added to a single node of a network is immediately available to the others.	G.V.3 G.V.4 G.V.7	2	LT	Universal standards and norms are needed for the biodiversity-related data scattered in various sectors, and research institutions.	The Global CHM to become the main gateway to national nodes: Similarly, national nodes to serve as gateways to other national biodiversity servers.
G.VII	**COOPERATION/INITIATIVES**					
G.VII.1	Develop an "Operational Framework" for newly created Regional CHMs networks and Plan on Cooperation with them.	G.III.11	1	ST	Regional CHMs need a precise framework of operation.	a/ "Operational Framework" and b/ "Plan on Cooperation" with Regional CHMs
G.VII.2	Develop a plan of actions towards harmonisation of efforts with other biodiversity-related conventions	R.VII.4	1	MT	A stronger harmonisation of efforts with other biodiversity-related conventions is needed	Plan of Actions on Synergy with other conventions developed
G.VII.3	Develop a plan of collaboration with key international initiatives, including potential designations for thematic focal points	G.II.1	1	LT	A comprehensive plan for co-operation with international initiatives is a priority need.	A plan aimed at reducing duplication of related efforts by different international initiatives.
G.VII.4	Regularly update the "Database of biodiversity-related projects in developing countries around the world"	R.VII.5	1	RG LT	The database will be finalised and put online shortly	Database and corresponding web page regularly updated

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
G.VIII	**FINANCING**					
G.VIII.1	Develop guidelines to COP to facilitate further financial mechanisms for CHM through GEF EA Phase III or other possible means	-	1,2,3	ST	Only 58% of survey participants consider their national CHMs established.	Report to COP on possible CHM financing via UNEP/GEF or other financing institutions
G.VIII.2	Finalise the compilation of the "Guide to sources of financing for biodiversity 2003"	G.V.6 R.VIII.2	1,2,3	ST	The process is underway	Separate web page under the CHM main web site

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
R E G I O N A L (S U P R A - N A T I O N A L) L E V E L (R)					
R.I	**AWARENESS RAISING ON CHM**					
R.I.1	Present the idea of "Regional CHM" to the BRIHIs and other interested stakeholders in the region during the seminars, workshops and informal meetings.	G.III.8	1,2,3	ST	The roles and functions of regional CHMs need to be widely presented to BRIHIs, other regional stakeholders	Seminars, workshops, informal meetings organized and conducted. The idea of "Regional CHM" presented.
R.I.2	Publish CDs with information on national CHMs, BISs, and identified best practices of cooperation and disseminate among the regional BRIHIs	N1.1.1 N2.1.1 N3.1.1	2	MT	Information on existing CHM websites, BISs, and cases of successful cooperation in the region need to be presented.	A set of CDs published and received by regional BRIHIs and other interested stakeholders
R.I.3	Organize and implement awareness raising campaign aimed at properly "selling" the ideas of CHM to regional and international initiatives and donors at regional level	N1.I.2 N2.I.2 N3.I.3	2	MT	International initiatives and donor organisations lack full perception of the CHM role and functions.	a/ CDs, leaflets, booklets distributed to international initiatives, donor organisations. b/ Seminars, meetings organised.
R.I.4	After establishment of the regional CHM organize a final workshop and official launching with participation of all BRIHIs	G.V.7	1,2,3	LT	-	Five Regional CHMs officially launched and linked to the Secretariat
R.II	**INVOLVEMENT OF BRIHIs**					
R.II.1	Create regional e-mail lists with involvement of NFP e-mail addresses and key BRIHI contact point addresses	N1.II.1 N2.II.2	3	ST	Regional BRIHIs need broader involvement in CHM activities at regional level	Regional e-mail lists created with inclusion of key BRIHI contact point addresses

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
R.II.2	Encourage BRIHIs to take an active part in assistance to CBD at regional CHM workshops/meetings.	G.III.8	3	MT	Regional BRIHIs need broader involvement in CHM activities at global level	Regional CHM workshops/ meetings assisted / facilitated by regional BRIHIs' representatives
R.II.3	Establish regional "Friends of CHM" groups among the regional BRIHIs and maintain permanent communication on CHM issues.	G.III.5	3	MT	There are currently a group of regional institutions largely contributing to the CHM	Five regional "Friends of CHM" groups established and a listserv organised
R.II.4	Facilitate the contacts of scientists working in the field of biodiversity information systems within the region	N1.II.5 N2.II.7	1,2,3	RG LT	Most Parties lack proper involvement of the scientific institutions in CHM activities	Better collaboration of the scientists working on BISs systems at regional level
R.III	**ORGANIZATION AND MANAGEMENT OF CHM STRUCTURES**					
R.III.1	Encourage designation of CHM focal points for each of the five regions	R.III.2	1,2,3	IM	One of main steps in regional CHM establishment	Five Regional CHM focal points designated
R.III.3	Encourage designation of contact persons for regional cooperation in each national CHM of the given region	N1.III.3 N2.III.2 N3.III.3	1	ST	One of main steps for proper functioning of regional CHMs	A CHM contact person responsible for cooperation within the region nominated at each national CHM
R.III.2	Establish Regional CHM Steering Committees (or Task Groups) with involvement of Regional and National Focal Points to oversee the process of Regional CHMs' development	R.III.1 G.III.10	1,2,3	ST	One of the administrative settings towards creation of operational Regional CHMs	Five Regional CHM Steering Committees (or Task Groups) established
R.IV	**CAPACITY BUILDING**					
R.IV.1	Identify key needs for establishing Regional CHMs and seek the involvement of expertise within the region. Contact the Secretariat if assistance is needed	G.III.11	1,2,3	ST	Secretariat is to provide assistance if needed for establishment of regional CHM	Key needs for the establishment of Regional CHMs identified
R.IV.2	Identify training needs for each Party in the region and appropriate regional or international organisations to conduct training	G.IV.1 G.IV.2	1,2,3	MT	The NFPs identified various areas of training as priorities during the survey	a/ key training needs identified b/ institutions for training conduction identified
R.IV.3	Identify the Parties capable of providing training and facilitate organization of the requested training for other Parties in the region	N1.IV.2 N2.IV.3 N3.IV.4	1,3	RG LT	Some Parties have capabilities to provide regional training requested by the other Parties	Training courses organised by Parties at regional level to meet the demand of other Parties.

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
R.V	**CHM WEB SITE AND ITS CONTENT**					
R.V.1	Establish regional CHM web sites with links to the National web sites and with the following content: ▪ Reports on regional needs and priorities ▪ Regional CHM assessment template to be filled annually by each Party in the region ▪ National/thematic reports of the Parties without CHM web sites ▪ Key on-going activities in the Parties within the region ▪ Examples of best practices of regional scientific and technical cooperation ▪ Priority areas of cooperation within the region	G.V.7 G.III.4 R.VI.4 R.VII.6 R.VII.2	2	ST	The newly created regional CHM web sites are to contain similar framework of contents	Regional CHM web sites established and linked both to the Secretariat web site and National web sites of the Parties of the given Region
R.V.2	Update the CHM NFP mailing lists and web pages database on a periodical basis	G.III.7	2	RG LT	CHM e-mail and URL databases need to be reviewed and updated regularly	More regular update of CHM regional e-mail and URL databases
R.V.3	Encourage countries to develop National Biodiversity Information Networks and incorporate those into the newly created regional CHM web site using Dublin Core as a metadata standard.	G.V.3	2	RG LT	Several Parties host different web sites containing information on biodiversity, including databases and information systems.	The National Biodiversity Information Networks developed and linked to the newly created regional CHM web site
R.VI	**INTEROPERABILTY**					
R.VI.1	Use structured vocabulary developed recently by CBD secretariat	R.VI.2 R.VI.3	2	ST	Ensure interoperability of the newly created regional CHM web sites	The structured vocabulary used
R.VI.2	Use Dublin Core or compatible standard as a metadata standard for the newly created Regional CHM websites	R.VI.1 R.VI.3	2	ST		The Dublin Core used as a metadata standard
R.VI.3	Develop an instrument for automatically synthesizing the information according to thematic areas of interest within the region.	R.VI.1 R.VI.2	2	MT		The information systematised to the thematic areas

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
R.VI.4	Periodically synchronise the regional CHM activities with those of national level of the Parties of the given region	R.V.1	1,2,3	RG LT	The activities of the regional CHM need to be synchronised with those on national level to provide advanced interoperability.	
R.VII	**COOPERATION/INITIATIVES**					
R.VII.1	Identify priority areas of scientific and technical cooperation in the region among the national CHMs and regional BRIHIs	R.VII.2	1	ST	Regional BRIHIs and CHMs need to decide on the list of priority areas of cooperation	Priorities identified
R.VII.2	Prioritize areas of main cooperation in the region and post relevant information online for collaboration seekers	R.V.1 R.VII.1	1	ST	with its further dissemination to all Parties of the region	Priority areas for cooperation identified and disseminated to collaboration seekers
R.VII.3	Develop a package of proposals for bilateral and multilateral scientific and technical cooperation within the region	R.VII.1 R.VII.2	1	MT	Main functions of Regional CHM is the facilitation of cooperation within the region	Set of Project proposals on development of national CHMs within the regional CHM
R.VII.4	Define the ways to cooperate at regional level with other biodiversity-related conventions through CHM	G.VII.2	1	MT	A stronger harmonisation of efforts with other biodiversity-related conventions is needed	Plan of Actions on Synergism at regional level developed
R.VII.5	Establish a database of bilateral or multilateral cooperation projects within the region	G.VII.4 R.VII.3	1,2	LT	Better co-ordination is needed for cooperation projects	Five databases on cooperation projects established
R.VII.6	Exchange information on best practices of bilateral cooperation within the region via regional CHMs	R.V.1	1,2	RG LT	Existing information on collaboration and successful practices of cooperation need to be disseminated to all Parties within the region	Existing information between Parties of the region shared Better information exchange through the regional CHM ensured
R.VIII	**FINANCING**					
R.VIII.1	Encourage donor international organizations (such as UNDP/UNEP/GEF) contribute to the establishing Regional CHMs	R.VIII.3	1,2,3	ST	Regional CHMs need proper financing mechanism for establishment	Project proposal on "Establishment of Regional CHMs" supported by donors
R.VIII.2	Develop guidelines for the National CHMs of the region to facilitate seeking funding for cooperation through regional CHM	G.VIII.2	1,2,3	MT	National CHMs need proper coordination on funding seeking	Guidelines to National CHMs of the region

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
R.VIII.3	Identify key opportunities to seek funding for CHM activities at regional level and develop and submit short-term and long-term proposals to international funding mechanisms	R.VIII.1	1,2,3	RG LT	Active seeking of funding is needed	List of possible arrangements for financial assistance Set of project proposals developed and submitted

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N A T I O N A L L E V E L : T A R G E T G R O U P # 1 (N1)						
N1.I	**AWARENESS RAISING ON CHM**					
N1.I.1	Publish CDs with information on the national CHMs and existing biodiversity information systems and disseminate to BRIHIs and other interested stakeholders/individuals	R.I.2	2,3	ST	There is a need to present comprehensively information on available CHM web site and BISs available.	A set of CDs published and received by BRIHIs and other interested stakeholders/individuals
N1.I.2	Organize and implement awareness raising compaign aimed at proper "selling" the ideas of CHM to regional and international initiatives and donors at regional level	R.I.3 N1.I.3	2,3	MT	International initiatives and donor organisations lack full perception of the CHM role and functions.	a/ CDs, leaflets, booklets distributed to international initiatives, donor organisations. b/ Seminars, meetings organised.
N1.I.3	Improve the political visibility of the CHM by providing clear and targeted information to relevant ministers and administrations	N1.I.2	2	MT	There is a need for better politically targeted information on CHM	Expected better financing of CHM and raised profile in all political spheres
N1.I.4	Improve awareness and involvement of scientists and researchers by supplying them with adequate information on research needs and funding opportunities	R.II.4	3	MT	Scientists and researchers on biodiversity lack proper information exchange and networking through CHM	Enhanced networking and information dissemination
N1.II	**INVOLVEMENT OF BRIHIs**					
N1.II.1	Regularly update (or establish if missing) the integrated database on national experts and consultants on biodiversity from BRIHIs	R.II.1	3	RG LT	Up-to-date information on human resources is a key step towards BRIHIs' involvement	Integrated database on BRIHIs periodically updated

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N1.II.2	Develop and implement a mechanism of collaboration promotion with BRIHIs through MoC and MoU or other means. Contact the Secretariat for assistance, if needed.	G.II.3 N1.III.2	1,3	RG LT	Broader involvement of BRIHIs in national CHM activities is needed	MoC / MoU signed with BRIHIs
N1.II.3	Promote calls for collaborative proposals from BRIHIs and facilitate their submission to relevant funding / grant awarding institutions	N1.VII.1 R.VII.5 R.VIII.3	1,3	RG LT	There is a lack of collaborative activities with national BRIHIs	Proposals on cooperation with BRIHIs developed and submitted to donors
N1.II.4	Encourage BRIHIs to provide up to date and regularly updated information about researchers and research projects who/which are interested in cooperation through the CHM	R.II.1	1,3	RG LT	Several Parties lack proper involvement of the scientific/ academic institutions into the activities through national BRIHIs	The link between scientific-academic institutions and National and Regional CHMs strengthened through enhanced information exchange and involvement level.
N1.II.5	Encourage preparation of collaborative project proposals between the scientific-academic institutions within the given country and at regional level	R.II.4	1,3	RG LT	CHMs. The national CHMs possess a small amount of information on biodiversity-related research.	
N1.III	**ORGANIZATION AND MANAGEMENT OF CHM STRUCTURES**					
N1.III.1	Establish or improve if already established, the CHM Steering Committee and CHM national team (for a model structure refer to Table 30, Section 3.9)	G.III.9 G.III.10	1,2,3	IM	One of the main activities for ensuring proper CHM functioning	Better synergy between CHM activities and the needs of the country
N1.III.2	Establish (or improve the structure of) regional CHM offices/branches within the country. Possibly nominate existing BRIHI as an official CHM branch. Provide contacts of the established offices/branches to the Secretariat	N1.II.2	1,2,3	ST	82% of survey participants lack CHM regional offices/branches	Network of CHM offices or stakeholder institutions operating as CHM branches established (or improved)
N1.III.3	Nominate thematic focal points (for the full list of areas refer to Table 29, Section 3.9) and a contact person for the Regional CHM	G.III.3 R.III.3	1,2,3	ST	More than 50% of survey participants lack thematic focal points/contact persons	Thematic focal points nominated, a contact person for Regional CHM designated
N1.III.4	Review current activities on national CHM functioning and management	N1.III.6	1,2,3	ST	Step towards development of CHM National Strategy	Current situation assessed

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N1.III.5	Identify the main gaps in the national CHM process and design actions to fill those gaps	N1.III.6	1,2,3	ST	Step towards development of CHM National Strategy	Main gaps identified
N1.III.6	Based on the assessment of current situation and analysis of identified gaps, develop an integrated National Strategy on CHM	N1.III.4 N1.III.5 G.I.2	1,2,3	MT	National CHMs need a comprehensive development strategy	National Strategy on CHM Development prepared
N1.IV	**CAPACITY BUILDING**					
N1.IV.1	Request CBD Secretariat to facilitate conduction of special training courses on metadata and interoperability at national level	G.IV.3	3	ST	Most of the Parties have low understanding on the concepts of metadata	A person(s) responsible for CHM web site maintenance passed training on metadata
N1.IV.2	Organize capacity building workshops for other Parties to inform and train on up-to-date status and needs for CHM further development	R.IV.3	2,3	MT	Parties need more capacity building on CHM-related activities	Capacity building workshops organised
N1.IV.3	Build capacity among indigenous and local communities to understand and participate in the activities of the Convention	-	2,3	LT	Indigenous and local communities need to be involved in CHM activities	Wider participation of indigenous and local communities in CHM
N1.V	**CHM WEB SITE AND ITS CONTENT**					
N1.V.1	Put the national web sites into correspondence with CBD Secretariat requirements, particularly, if missing, incorporate Second National Reports, thematic reports as well as linkages to the CBD Secretariat web pages with COP decisions and SBSTTA / IAC recommendations	G.V.5	2	ST	The content of the web sites need to be improved in regard to CBD Secretariat requirements	Content of national web sites improved Enhanced diffusion of information on national CBD implementation
N1.V.2	Technically improve the CHM web sites, particularly through (1) using web statistics, (2) constructing search engine, (3) increasing level of interactivity and (4) improving CHM server's capacities for faster access to Internet	G.V.5	2	ST	The CHM web sites need to be improved technically	Web sites technically improved
N1.V.3	Provide a specific page on the national CHM web site that should act as an access portal to national BRIHIs' web sites.	N1.VI.1 G.V.3	2,3	ST	All national BRIHIs should be linked through the national CHM web site	CHM serving as a gateway to all available biodiversity information

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N1.V.4	Create a separate web page for inclusion of new developed project proposals and bilateral and multilateral cooperation activities	G.V.5	1,2	MT	All project proposals on cooperation need to be widely available	Information on project proposals and cooperation activities easily accessible and updated
N1.V.5	Systematize information into the key areas (for the list of areas refer to Table 29, Section 3.9)	G.VI.1	2	MT	Information need to be categorised into key areas	Information on the national web sites systematised
N1.V.6	Use Structured Vocabularies developed by the Secretariat to adapt the relevant terms within the web site. If possible develop a glossary of biodiversity-related terms in local language	G.VI.1	2	LT	Structured Vocabularies prepared by the Secretariat need to be adapted on national web sites	Structured Vocabularies used / Glossary of biodiversity-related terms in local language developed
N1.VI	**INTEROPERABILTY**					
N1.VI.1	Adopt Dublin Core or related formats* as a metadata standard to ensure interoperability and inter-comparability of the data amongst the national CHM and BRIHI web sites.	N1.V.3	2	ST	A common metadatabase is needed to be used for the main CHM national web site and all available BRIHI sites	Non-hierarchical and interoperable CHM network with national CHMs serving as an entry for all BRIHIs
N1.VI.2	Ensure existing information systems are able to incorporate multi-lingual usage (priority should be given to UN languages and/or local language of given Party)	N2.VI.2 N3.VI.2	2	MT	Users need to be allowed to access and retrieve information using local languages wherever possible	Interoperability with regard to multi-lingual usage of information within the CHM web sites
N1.VI.3	Convert available information of non-electronic format into databases, rosters, GIS-compatible map libraries, using standards approved by the Secretariat	N2.VI.3 N3.VI.3	2	MT	Biodiversity data available within the national BRIHIs are mainly in non-electronic format	Set of newly developed databases/rosters of the same format
N1.VII	**COOPERATION/INITIATIVES**					
N1.VII.1	Promote call for proposals on bilateral and multilateral cooperation, develop a bank of proposals	N1.II.3 N1.V.4	1	MT	There is a lack of bilateral and multilateral cooperation among 2/3 of the Parties.	a/ Joint project proposals submitted b/ Bank of proposals developed.

* such as the metadata standards introduced in Federal Geographic Data Committee (FGDC) or National Biological Information Infrastructure (NBII)

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N1.VII.2	With assistance of Regional CHMs, define the ways to cooperate with other biodiversity-related conventions through the national CHMs and disseminate the results to Parties (and focal points/contact persons of corresponding conventions)	R.VII.4	1	MT	The level of harmonization of National CHM activities with other biodiversity-related conventions is generally low. Poor or no cooperation with 4 relevant conventions is mentioned by more than half of Parties.	a/ Strategy or plan of actions on harmonisation of activities with other relevant conventions. b/ Person(s) responsible for reviewing and streamlining measures toward better cooperation designated within the CHM national team
N1.VII.3	Organize bilateral workshops with CHMs from developing countries and countries in transition as a concrete methodological approach on stimulation of further cooperation	N1.VII.4	1	MT	Discussions are needed to clarify the concrete niche the CHM should gradually fulfill	Recommendations on facilitation of further cooperation
N1.VII.4	Develop partnership initiatives with developing countries through (1) providing temporary web sheltering and maintenance of national CHM web sites until they can be repatriated on national servers (2) conducting training courses on building web sites, technology transfer; (3) other relevant capacity building initiatives.	N1.VII.3	1	LT	Parties with highly developed CHM operational procedures should maintain a leading role for further advance in elimination of a gap between various levels of national CHM functioning	Gradual elimination of a gap between CHM development status of developed and developing countries / Cooperation with developing countries strengthened
N1.VII.5	Periodically contact other NFPs and share recent information on Party's efforts and knowledge related to CBD implementation	G.III.9 N2.VII.5 N3.VII.5	1,2	LT	Communication between CHM NFPs is generally insufficient (in 91% of Parties)	Communication between CHM NFPs improved
N1.VIII	**FINANCING**					
N1.VIII.1	Review and study available financing mechanisms appropriate for the given Party for further strengthening of CHM national node	G.VIII.2 R.VIII.2	1,2,3	ST	Most national Governments often lack financing of CHM activities, as 75% of the Respondent countries defined financial assistance for the CHM as a priority	Report on potential financing opportunities
N1.VIII.2	Determine the budget for primary measures at national level and recommend on way of seeking financing	G.VIII.2 R.VIII.3	1,2,3	MT		Budget for primary measures and sources for funding identified
N1.VIII.3	Seek funding for cooperative and collaborative projects/activities	N1.VIII.1 N1.VIII.2	1,2,3	RG LT		Project proposals submitted to different donor organization

N A T I O N A L   L E V E L :   T A R G E T   G R O U P   # 2   (N2)

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N2.I	**AWARENESS RAISING ON CHM**					
N2.I.1	Publish CDs with national CHM and available biodiversity information systems and disseminate to BRIHIs and other interested stakeholders/individuals	R.I.2	2,3	MT	Only 26% of survey participants have already published CHMs on CDs, no respondent has mentioned CDs with BISs.	CDs with national CHMs and BISs published and disseminated
N2.I.2	With assistance from BRIHIs organize and implement awareness raising campaign aimed at proper "selling" the ideas of CHM to the national governments, international initiatives and donors	R.I.3 N1.I.3	1,2,3	LT	Most national governments lack financing CHM activities. The international initiatives and donor organisations lack full perception of the CHM role and functions	CDs, leaflets, booklets distributed to governmental organisations, international initiatives and donor organisations. Series of seminars, meetings organised
N2.I.3	Improve the political visibility of the CHM by providing clear and targeted information to relevant ministers and administrations	N1.I.2	2	LT	There is a need for better politically targeted information on CHM	Expected better financing of CHM and raised profile in all political spheres
N2.II	**INVOLVEMENT OF BRIHIs**					
N2.II.1	Develop a "CHM model" for the given Party with inclusion of all BRIHI as a future target of the CHM national strategy	N2.III.5	3	MT	CHM national strategy should ensure proper involvement of BRIHIs	Participation of BRIHIs in future CHM National Strategy
N2.II.2	Regularly update (or establish if missing) the integrated database on national experts and consultants on biodiversity from BRIHIs	R.II.1	3	RG LT	Up to date information on human resources is a key step toward BRIHIs' involvement	Integrated database on BRIHIs periodically updated
N2.II.3	Organize workshops, conferences, seminars and expert meetings with involvement of national BRIHIs	N2.II.4	2,3	RG LT	Mutual participation in various events is needed by CHM and BRIHIs	Involve representatives of relevant BRIHIs in the events organised within the CHM
N2.II.4	Participate in the workshops, conferences, seminars and expert meetings organized or hosted by BRIHIs	N2.II.3	2,3	RG LT		Participation in workshops, conferences, seminars, meetings organized by national BRIHIs

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N2.II.5	Develop and implement a mechanism of collaboration promotion with BRIHIs through MoC, MoU or other means.	G.II.3 N1.III.2	1,3	RG LT	Broader involvement of BRIHIs in national CHM activities is needed	MoC / MoU signed with BRIHIs
N2.II.6	Promote calls for collaborative proposals from BRIHIs and facilitate their submission to relevant funding / grant awarding institutions	N1.VII.1 R.VII.5 R.VIII.3	1,3	RG LT	There is a lack of collaborative activities with national BRIHIs	Proposals on cooperation with BRIHIs
N2.II.7	Encourage preparation of collaborative project proposals between the scientific-academic institutions within the given country.	R.II.4	1,3	RG LT	Several Parties lack proper involvement of the scientific institutions in CHM activities	Information exchange between scientific-academic institutions and National CHMs improved
N2.III	**ORGANIZATION AND MANAGEMENT OF CHM STRUCTURES**					
N2.III.1	Establish or improve if already established, the CHM Steering Committee and CHM national team (for a model structure refer to Table 30, Section 3.9)	G.III.9 G.III.10	1,2,3	IM	One of the main activities for ensuring proper CHM functioning	Better synergy between CHM activities and the needs of the country
N2.III.2	Nominate thematic focal points (for the full list of areas refer to Table 29, Section 3.9) and a contact person for the Regional CHM	G.III.3 R.III.3	1,2,3	ST	More than 50% of survey participants lack thematic focal points/contact persons	Thematic focal points nominated, a contact person for Regional CHM designated
N2.III.3	Identify the main barriers of national CHM functioning and measures to overcome them.	N2.III.5	1,2,3	MT	Step towards development of CHM National Strategy	Main gaps identified
N2.III.4	Identify short-term and long-term measures for CHM development at national level	N2.III.5	1,2,3	MT	Step towards development of CHM National Strategy	Measures for CHM development identified
N2.III.5	Prepare a comprehensive National Strategy for CHM Development	N2.III.3 N2.III.4	1,2,3	MT	National CHMs need an overall development strategy	National Strategy on CHM Development prepared
N2.III.6	Establish (or improve the structure of) regional CHM offices/branches within the country. Possibly nominate existing BRIHI as an official CHM branch. Provide contacts of the established offices/branches to the Secretariat	N2.II.1	1,2,3	LT	82% of survey participants lack CHM regional offices/branches	Network of CHM offices or stakeholder institutions operating as CHM branches established (or improved)
N2.IV	**CAPACITY BUILDING**					
N2.IV.1	Conduct a survey to identify training needs at national level and report to the Secretariat	N2.III.3 N2.III.4	3	ST	Part of the process of self-assessment of national CHMs	Key training identified and reported to the Secretariat

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N2.IV.2	Seek assistance from the Secretariat on organization of training courses particularly on technology transfer, metadata, as well as a specialised training course for CHM NFPs	G.IV.3	2,3	MT	The NFPs identified various areas of training as priorities during the survey	a/ CBD Secretariat contacted for assistance b/ Training courses organised
N2.IV.3	Organize capacity raising workshop on protocols, standards and formats and identify ways to promote their application in BRIHIs	N2.VI.4	2,3	LT	National BRIHIs need further capacity raising on the issues of interoperability	Capacity raising workshops conducted with participation of national BRIHIs
N2.V	**CHM WEB SITE AND ITS CONTENT**					
N2.V.1	Put the national web sites into correspondence with CBD Secretariat requirements. In particular, if missing, incorporate Second National Reports, thematic reports as well as linkages to the CBD Secretariat web pages with COP decisions and SBSTTA / IAC recommendations	G.V.5	2	MT	The content of the web sites need to be improved in regard to CBD Secretariat requirements	Content of national web sites improved Enhanced diffusion of information on national CBD implementation
N2.V.2	Technically improve the CHM web sites, particularly through (1) using web statistics, (2) constructing search engine, (3) increasing level of interactivity and (4) improving CHM server's capacities for faster access to Internet	G.V.5	2	MT	The CHM web sites need to be improved technically	Web sites technically improved
N2.V.3	Provide a specific page on the national CHM web site that should act as an access portal to national BRIHIs' web sites.	N2.VI.1 G.V.3	2,3	MT	All national BRIHIs should be linked through the national CHM web site	CHM serving as a gateway to all available biodiversity information
N2.V.4	Use Structured Vocabularies developed by Secretariat to adapt the relevant terms within the web site. If possible develop a glossary of biodiversity-related terms in local language	G.VI.1	2	LT	Structured Vocabularies prepared by the Secretariat need to be adapted on national web sites	Structured Vocabularies used Glossary of biodiversity-related terms in local language developed
N2.V.5	Identify the biodiversity information systems developed by the BRIHIs and incorporate them into the national CHM web site physically or as links	N2.VI.3 N2.VI.4	2	LY	There is a need to ensure wider availability of those databases and rosters	Physical inclusion or links to the available BISs from the national CHM web sites.

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N2.VI	**INTEROPERABILTY**					
N2.VI.1	Ensure the inter-comparability of the data incorporated by BRIHIs into a metadatabase within the CHM national web site.	N2.V.3	2	MT	A common metadatabase needs to be developed for the CHM national web site and existing BRIHI sites	Non-hierarchical and interoperable CHM network with national CHMs serving as an entry for all BRIHIs
N2.VI.2	Ensure existing information systems are able to incorporate multi-lingual usage (priority should be given to UN languages and/or native language of given Party)	N1.VI.2 N3.VI.2	2	LT	Most of the Parties lack data on native language within information systems	Interoperability with regard to multi-lingual usage of information within the CHM web sites
N2.VI.3	Convert available information of non-electronic format into databases, rosters, GIS-compatible map libraries, using standards approved by the Secretariat	N1.VI.3 N3.VI.3	2	LT	Biodiversity data available within the national BRIHIs are mainly in non-electronic format	Set of newly developed databases/rosters of the same format
N2.VI.4	Evaluate the process of standardisation and ensure the inter-comparability of newly created databases and information systems	N2.IV.3	2	RG LT	The creation on new databases and information systems should ensure their future interoperability.	Issues of interoperability considered during the process of creation of new databases and information systems
N2.VII	**COOPERATION/INITIATIVES**					
N2.VII.1	Carry out research on available international initiatives and identify activities that are of national interest and priority	G.VII.3	1	ST	One fifth of the survey respondents do not participate in any international initiative	Process of participation at international initiatives initiated (or improved)
N2.VII.2	Identify the national projects on-going outside of CHM framework but related to capacity building or awareness raising in biodiversity and establish periodical information exchange and dissemination of results of those projects	N3.VII.2	1	ST	There are a number of on-going biodiversity-related projects that do not strictly underlie the main CHM objectives	Working tool for information exchange and dissemination of results from all on-going biodiversity-related activities at national level
N2.VII.3	Define the ways of harmonized cooperation with other biodiversity-related conventions through main CHM objectives	R.VII.4 G.VII.2 N3.VII.3	1	MT	Improvement of cooperation with other biodiversity-related conventions is needed	Report on current cooperation status and recommendations on improvement

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N2.VII.4	Establish a database of project proposals with national BRIHIs and bilateral and multilateral cooperation, develop a bank of proposals	R.VII.5 N3.VII.4	1	MT	There is a lack of bilateral and multilateral cooperation among 2/3 of the Parties.	A/ Joint project proposals developed and submitted b/ Bank of proposals developed.
N2.VII.5	Periodically contact other NFPs and share recent information on Party's efforts and knowledge related to CBD implementation	G.III.9 N1.VII.5 N3.VII.5	1,2	RG LT	Communication between CHM NFPs is generally insufficient (in 91% of Parties)	Communication between CHM NFPs improved
N2.VIII	**FINANCING**					
N2.VIII.1	Review and study available financing mechanisms appropriate for the given Party for further strengthening of CHM national node	G.VIII.2 R.VIII.2	1,2,3	ST	Most national Governments often lack financing of CHM activities, as 75% of the respondent countries defined financial assistance for the CHM as a priority	Report on potential financing opportunities
N2.VIII.2	Determine the budget for primary measures at national level and recommend on way of seeking financing	G.VIII.2 R.VIII.3	1,2,3	MT		Budget for primary measures and sources for funding identified
N2.VIII.3	Submit project proposals to international funding organizations seeking further support, especially in the developing countries and countries with economies in transition	N2.VIII.1 N2.VIII.2	1,2,3	RG LT	The lack of financing is the main problem currently faced by the Parties towards further CHM development	Set of project proposals submitted to various international funding organizations

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
	N A T I O N A L L E V E L : T A R G E T G R O U P # 3 (N3)					
N3.I	**AWARENESS RAISING ON CHM**					
N3.I.1	Publish CDs with information on existing biodiversity information systems and disseminate to BRIHIs and other interested stakeholders/individuals	R.I.2	2,3	ST	There is a need to present comprehensively information on available CHM web site and BISs available.	A set of CDs published and received by BRIHIs and other interested stakeholders/individuals
N3.I.2	Inform BRIHIs on possible incorporation of the databases and systems they host into the future CHM network at national level	N3.I.1	2,3	ST	Relevant BRIHIs need to be informed on the future contents of the CHM web site	Raised awareness among BRIHIs on the future national CHM web site.

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N3.I.3	Organize and implement awareness raising campaign aimed at properly "selling" the ideas of CHM to regional and international initiatives and donors at regional level	R.I.3 N3.I.2	1,2,3	RG LT	International initiatives and donor organisations lack full perception of the CHM role and functions.	a/ CDs, leaflets, booklets distributed to international initiatives, donor organisations. b/ Seminars, meetings organised.
N3.I.4	Improve the political visibility of the CHM by providing clear and targeted information to relevant ministers and administrations	N3.I.3	2	RG LT	There is a need for better politically targeted information on CHM	Expected better financing of CHM and raised profile in all political spheres
N3.I.5	Improve awareness and involvement of scientists and researchers by supplying them with adequate information on research needs and funding opportunities	R.II.4	2,3	RG LT	Scientists and researchers on biodiversity lack proper information exchange and networking through CHM	Enhanced networking and information dissemination
N3.II	**INVOLVEMENT OF BRIHIs**					
N3.II.1	Conduct an inventory of existing national BRIHIs including contact information, present status of biodiversity-related data they own and their role on information management	N3.I.1	3	ST	The existing national BRIHIs need to be assessed in regard to available information, human resources and institutional capacities	A comprehensive inventory on existing BRIHIs conducted
N3.II.2	Establish a database on national experts/ consultants on biodiversity from BRIHIs	N3.II.1	3	ST		A database of national experts/ consultants from BRIHIs created
N3.II.3	Identify the BRIHIs hosting already developed biodiversity information systems and negotiate on possible cooperation within CHM	N3.I.2	3	MT	Some BRIHIs already possess developed information systems and databases on biodiversity	Raised awareness among BRIHIs aimed at linking available BISs to the future national CHM web site.
N3.II.4	Discuss with key BRIHIs the opportunities of possible collaboration promotion through MoC, MoU or other means.	G.II.3 N1.III.2	1,3	MT	Broader involvement of BRIHIs in national CHM activities is needed	Framework and methods for future cooperation identified
N3.II.5	Develop a "CHM model" for the given Party with inclusion of key BRIHI as a future target of national CHM strategy	N2.III.5	1,2,3	LT	CHM national strategy should ensure proper involvement of BRIHIs	Participation of BRIHIs in future CHM National Strategy

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N3.II.6	Conduct a survey among the key national BRIHIs to reveal their vision and future role regarding the national strategy of CHM development	N3.III.9	3	LT	BRIHIs' role and functions need to be incorporated into the future National Strategy for CHM Development	Section of national strategy of CHM development on BRIHIs' role and functions drafted
N3.II.7	Organize workshops, conferences, seminars and expert meetings with involvement of national BRIHIs	N3.II.8	2,3	RG LT	Mutual participation in various events is needed by national BRIHIs	Involve representatives of relevant BRIHIs in the events organised within the CHM
N3.II.8	Participate at the workshops, conferences, seminars and expert meetings organized or hosted by BRIHIs	N3.II.7	2,3	RG LT	CHM and BRIHIs	Participation in workshops, conferences, seminars, meetings organized by national BRIHIs
N3.III	**ORGANIZATION AND MANAGEMENT OF CHM STRUCTURES**					
N3.III.1	Request the new Start-up tool kit from CHM Secretariat if needed	G.I.1	3	IM	New Start-up tool kit is in the process of finalization	CHM Start-up tool kit received from the Secretariat
N3.III.2	Establish or improve if already established, the CHM Steering Committee and CHM national team (for a model structure refer to Table 30, Section 3.9)	G.III.9 G.III.10	1,2,3	ST	One of the main activities for ensuring proper CHM functioning	Better synergy between CHM activities and the needs of the country
N3.III.3	Nominate thematic focal points (for the full list of areas refer to Table 29, Section 3.9) and a contact person for the Regional CHM	G.III.3 R.III.3	1,2,3	ST	More than 50% of survey participants lack thematic focal points/contact persons	Thematic focal points nominated, a contact person for Regional CHM designated
N3.III.4	Organize at national level a "Friends of CHM" database of individuals and institutions interested in partnership building activities and identify their needs and maintain permanent communication on CHM issues with them	G.III.5 R.III.2	1,2,3	MT	Individuals and institutions largely contributing to the CHM need to be identified	"Friends of CHM" group established and a listserv organised
N3.III.5	Establish regional CHM offices within the country. Possibly nominate existing BRIHI as an official CHM branch. Provide contact information of established offices/branches of regional CHM to the Secretariat	N2.II.1	1,2,3	MT	82% of survey participants lack CHM regional offices/branches	Network of CHM offices or stakeholder institutions operating as CHM branches established (or improved)

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N3.III.6	Ensure active participation at the meetings of CHM NFPs, as well as informal meetings of thematic or regional contact points	N1.VII.5 N2.VII.5	2,3	MT	The attendance level of CHM NFP meetings is low within the Parties of his target group	Better communication and participation at CHM NFPs level ensured
N3.III.7	Identify the main barriers of national CHM functioning and measures to overcome them.	N3.III.9	1,2,3	LT	Step towards development of CHM National Strategy	Main gaps identified
N3.III.8	Identify short-term and long-term measures for CHM development at national level	N3.III.9	1,2,3	LT	Step towards development of CHM National Strategy	Measures for CHM development identified
N3.III.9	Draft a comprehensive National Strategy for CHM Development and ensure broad discussion at national level	N3.III.7 N3.III.8 N3.II.6	1,2,3	LT	National CHMs need an overall development strategy	National Strategy on CHM Development drafted and discussed
N3.III.10	Finalize the National Strategy for CHM Development	N3.III.9	1,2,3	LT		National Strategy on CHM Development finalized
N3.IV	**CAPACITY BUILDING**					
N3.IV.1	Identify training needs at national level and report to the Secretariat	N2.III.3 N2.III.4	3	ST	Part of the process of self-assessment of national CHMs	Key training identified and reported to the Secretariat
N3.IV.2	Request CBD Secretariat to facilitate conduction of specialised training course for CHM NFPs and national teams	G.IV.3	3	ST	Most of the Parties requested a specialized training for national NFPs	CHM NFPs and national teams participated in a specialised training
N3.IV.3	Seek assistance from the Secretariat on organization of training courses particularly on technology transfer and metadata	G.IV.3	3	MT	The NFPs identified various areas of training as priorities during the survey	a/ CBD Secretariat contacted for assistance b/ Training courses organised
N3.IV.4	Organize capacity raising workshop on protocols, standards and formats and identify ways to promote their application in BRIHIs	N2.VI.4	3	MT	National BRIHIs need further capacity raising on the issues of interoperability	Capacity raising workshops conducted with participation of national BRIHIs
N3.V	**CHM WEB SITE AND ITS CONTENT**					
N3.V.1	Identify the structure of the national CHM web site and discuss it with BRIHIs	N3.V.5	2	IM	The Parties of the Target Group lack national CHM web sites.	CHM web site structure discussed with BRIHIs
N3.V.2	Investigate other CHM web sites for identification of better practices and their application during the construction	N3.V.5	2	ST		Best practices revealed

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N3.V.3	Identify the metadata standard to be used in the web site and facilitate creation of database driven (dynamic) web pages.	N3.V.4	2	ST		Metadata identified
N3.V.4	Request the Secretariat to provide training, if needed, on web site creation or metadata	G.IV.3	2,3	ST		Secretariat contacted and training requested
N3.V.5	Start construction of national CHM web site incorporating all existing reporting and contact information	N3.V.1 N3.V.2 N3.V.3	2	MT		Main information for the content identified
N3.V.6	Officially launch the national web site and submit link to CHM Secretariat	N3.V.5	2	MT		National CHM web sites with dynamic web pages launched
N3.VI	**INTEROPERABILTY**					
N3.VI.1	Inter-connect the existing biodiversity information systems and publish a series of CDs as a basis for future web site	N3.V.5	2	ST	The interoperability of the existing data on biodiversity should be ensured	Set of CDs with existing BISs to be included into the future CHM web site
N3.VI.2	Ensure existing information systems are able to incorporate multi-lingual usage (priority should be given to UN languages and/or native language of given Party)	N1.VI.2 N2.VI.2	2	MT	Most of the Parties lack data on native language within information systems	Interoperability with regard to multi-lingual usage of information within the CHM web sites
N3.VI.3	Convert available information of non-electronic format into databases, rosters, GIS-compatible map libraries, using standards approved by the Secretariat	N1.VI.3 N2.VI.3	2	LT	Biodiversity data available within the national BRIHIs are mainly in non-electronic format	Set of newly developed databases/rosters of the same format
N3.VII	**COOPERATION/INITIATIVES**					
N3.VII.1	Carry out research on available international initiatives and identify activities that are of national interest and priority	G.VII.3	1	MT	One fifth of the survey respondents do not participate in any international initiative	Process of participation in international initiatives initiated (or improved)
N3.VII.2	Identify the national projects on-going outside of CHM framework but related to capacity building or awareness raising in biodiversity and establish periodical information exchange and dissemination of results of those projects	N2.VII.2	1	MT	There are a number of on-going biodiversity-related projects that do not strictly underlie the main CHM objectives	Working tool for information exchange and dissemination of results from all on-going biodiversity-related activities at national level

No.	Action/activity	Related activities	CHM objective	Time frame	Background information	Outputs
N3.VII.3	Define the ways of harmonizing cooperation with other biodiversity-related conventions through main CHM objectives	R.VII.4 G.VII.2 N2.VII.3	1	LT	Improvement of cooperation with other biodiversity-related conventions is needed	Report on current cooperation status and recommendations on improvement
N3.VII.4	Establish a database of project proposals with national BRIHIs and bilateral and multilateral cooperation, develop a bank of proposals	R.VII.5 N2.VII.4	1	LT	There is a lack of bilateral and multilateral cooperation among 2/3 of the Parties.	a/ Joint project proposals developed and submitted b/ Bank of proposals developed.
N3.VII.5	Periodically contact other NFPs and share recent information on Party's efforts and knowledge related to CBD implementation	G.III.9 N1.VII.5 N2.VII.5	1,2	RG LT	Communication between CHM NFPs is generally insufficient (in 91% of Parties)	Communication between CHM NFPs improved
N3.VIII	**FINANCING**					
N3.VIII.1	Review and study available financing mechanisms appropriate for the given Party for further strengthening of CHM national node	G.VIII.2 R.VIII.2	1,2,3	ST	Most national Governments often lack financing of CHM activities, as 75% of the	Report on potential financing opportunities
N3.VIII.2	Determine the budget for primary measures at national level and recommend on way of seeking financing	G.VIII.2 R.VIII.3	1,2,3	ST	respondent countries defined financial assistance for the CHM as a priority	Budget for primary measures and sources for funding identified
N3.VIII.3	Submit project proposals to international funding organizations seeking further support, especially in the developing countries and countries with economies in transition	N2.VIII.1 N2.VIII.2	1,2,3	RG LT	The lack of financing is the main problem currently faced by the Parties toward further CHM development	Set of project proposals submitted to various international funding organizations

3.8. List of measures for Parties in Target Groups 4 and 5

Actions for Target Group 4 *With non-operational CHMs*	*Actions for Target Group 5* *Parties without CHM NFPs*
1. Establish a network of people – representing the government, institutions, organisations, and other groups that recognise the importance of the CHM and are dedicated to meet CHM objectives	1. Nominate a CHM national focal point as soon as possible
2. To organize regular meetings / workshops with identified group of stakeholders and representatives of national BRIHIs on role, functions, objectives of the CHM and the niche it should have	2. Identify a network of partners and donor organizations, including international initiatives, to be included in the projected activities through CHM
3. Participate in the workshops, conferences, seminars and expert meetings organised or hosted by BRIHIs	3. Organize workshops, conferences, seminars and expert meetings with involvement of national BRIHIs on the creation of a common understanding of what the CHM is about and its real benefits and added value
4. Periodically contact other NFPs and share recent information on Party's efforts and knowledge related to CBD implementation	4. Participate in the workshops, conferences, seminars and expert meetings organized or hosted by BRIHIs
5. Regularly report to the Secretariat on the advance towards operationalization of national CHM	5. Identify the list of national BRIHIs and other interested stakeholders
6. Establish permanent contact with CBD Secretariat	6. Install the CHM using the newly developed CBD Secretariat Start-Up Tool kit
7. Identify institutional structures and capacities at national level to facilitate national CHM establishment process	7. Identify institutional structures and capacities at national level to facilitate national CHM establishment process
8. Identify national needs and priorities for CHM establishment	8. Identify national needs and priorities for CHM establishment
9. Attend meetings and maintain permanent contact with CHM NFPs	9. Attend meetings and maintain permanent contact with CHM NFPs
10. Develop and submit proposals for GEF Enabling Activity II Phase Add-on module, containing CHM development component	10. Develop and submit proposals for GEF Enabling Activity II Phase Add-on module, containing CHM establishment component

3.9. Auxiliary tables to the CHM MMA

Table 29. List of key biodiversity-related areas to be used for classification of information
(The approach used is to include the relevant CBD-articles and cross-cutting issues):

1. Access to genetic resources and benefit-sharing	9. Dry and sub-humid lands	18. Impact assessment
2. Agricultural biodiversity	10. Ecosystem approach	19. Marine and coastal biodiversity
3. Alien and invasive species	11. Environmental law	20. Mountain biodiversity
4. Biodiversity indicators	12. Forest biodiversity	21. Protected areas
5. Biodiversity and tourism	13. Global strategy for plant conservation	22. Public education and awareness
6. Biosafety	14. Global taxonomy initiative	23. Sustainable use of biodiversity
7. Capacity building	15. Inland waters biodiversity	24. Taxonomy
8. Climate change and biodiversity	16. Incentive measures	25. Traditional knowledge
	17. Intellectual property rights	

Table 30. Model structure of National CHM office and management
(The actual CHM organization can vary according to given Party's approaches and priorities):

CHM Steering Committee members (*)	CHM Office, comprised of (but not limited to)	
	CHM National team	Supporting staff
■ CBD NFP	■ CHM NFP	■ Web master(s)
■ CHM NFP	■ Deputies/Assistants to the CHM NFP	■ Communication officer(s)
■ CHM TFPs	■ CHM TFPs	■ IT person(s) in charge of
■ Regional CHM contact person	■ Contact persons of regional CHM branches	LAN and database
■ Representative of the Ministry of Environment	■ Contact person(s) of BRIHIs	maintenance
■ Representatives of other relevant ministries	■ Person to monitor and evaluate the CHM activities	■ Logistics person (in charge of organization of
■ Representative of academic sector	■ Person(s) in charge of bank of cooperation proposals	meetings, seminars,
■ Representative of NGO sector	■ Person(s) in charge of CHM national strategy	workshops, etc)
	■ Person in charge of synergism with other conventions	

(*) The number of members should remain small (e.g. < 15) in order for the Committee to remain operational.

3.10. Monitoring and evaluation of the Plan

It is widely recognised that the components of the Global CHM network, that is, the nodes of the national Clearing-houses, are at different stages of implementation with different infrastructures, support and demands. To ensure that the CHM Action Plan provides a road map for members of Global CHM network at all levels of implementation, regular monitoring and evaluation of the Plan is needed.

The monitoring and evaluation process is essential not only to follow the progress of implementation, but also to ensure that any changes are taken into account to revise the Plan. In order to be effective, monitoring and evaluation procedures need to be incorporated periodically under the overall responsibility of the CBD Secretariat and with advice and support from the IAC.

The purpose of monitoring and evaluation can be defined as:

- To identify how successfully the plan is being implemented.
- To assess the impact of the planned activities.
- To avoid duplication of efforts.
- To incorporate growing experience.
- To use experience to avoid making the same mistakes again.
- To allow the plan to evolve with changing situations.

In designing monitoring and evaluation mechanisms, it is worth considering a series of questions, which provide a framework for assessment. Such questions might include:

- To what extent have the planned activities achieved their outputs?
- To what extent have the overall CHM objectives been achieved through these activities?
- What lessons have been learnt about the factors that have made these activities a success or failure?
- What other information has become available that may help the development of the plan?
- What gaps exist in the Plan, based on the information and experience that is available?
- How can the development of existing activities or the addition of new ones in the plan fill these gaps?

Regular reports on the implementation of the Plan will be prepared by the Secretariat and presented to the IAC meetings for review and endorsement. The feedback from CHM NFPs should be incorporated in the reports.

Appendices

Appendix 1. Status on CHM by countries as of July 2003

ID	Country	CBD Party	CHM NFP	CHM E-mail	CHM Web site
1.	Albania	Yes	Yes	Yes	No
2.	Algeria	Yes	Yes	No	No
3.	Antigua and Barbuda	Yes	Yes	Yes	No
4.	Argentina	Yes	Yes	Yes	No
5.	Armenia	Yes	Yes	Yes	Yes
6.	Australia	Yes	Yes	Yes	Yes
7.	Austria	Yes	Yes	Yes	Yes
8.	Bahamas	Yes	Yes	Yes	No
9.	Bahrain	Yes	Yes	Yes	No
10.	Barbados	Yes	Yes	Yes	No
11.	Belarus	Yes	Yes	Yes	No
12.	Belgium	Yes	Yes	Yes	Yes
13.	Belize	Yes	Yes	Yes	No
14.	Benin	Yes	Yes	Yes	Yes
15.	Bhutan	Yes	Yes	No	No
16.	Bolivia	Yes	Yes	Yes	No
17.	Botswana	Yes	Yes	Yes	No
18.	Brazil	Yes	Yes	Yes	Yes
19.	Bulgaria	Yes	Yes	Yes	Yes
20.	Burkina Faso	Yes	Yes	Yes	Yes
21.	Burundi	Yes	Yes	Yes	Yes
22.	Cameroon	Yes	Yes	Yes	No
23.	Canada	Yes	Yes	Yes	Yes
24.	Central African Republic	Yes	Yes	No	Yes
25.	Chad	Yes	Yes	Yes	Yes
26.	Chile	Yes	Yes	Yes	No
27.	China	Yes	Yes	Yes	No
28.	Colombia	Yes	Yes	Yes	Yes
29.	Comoros	Yes	Yes	Yes	No
30.	Congo	Yes	Yes	Yes	Yes
31.	Cook Islands	Yes	Yes	Yes	No
32.	Costa Rica	Yes	Yes	Yes	Yes
33.	Côte d'Ivoire	Yes	Yes	Yes	Yes
34.	Croatia	Yes	Yes	Yes	No
35.	Cuba	Yes	Yes	Yes	No
36.	Cyprus	Yes	Yes	Yes	No
37.	Czech Republic	Yes	Yes	Yes	Yes
38.	Dem. People's Rep. of Korea	Yes	Yes	Yes	No
39.	Dem. Republic of Congo	Yes	Yes	Yes	Yes
40.	Denmark	Yes	Yes	Yes	Yes
41.	Djibouti	Yes	Yes	Yes	Yes
42.	Dominica	Yes	Yes	Yes	No
43.	Dominican Republic	Yes	Yes	Yes	No
44.	Ecuador	Yes	Yes	Yes	Yes
45.	Egypt	Yes	Yes	Yes	No
46.	El Salvador	Yes	Yes	Yes	Yes
47.	Equatorial Guinea	Yes	Yes	Yes	No
48.	Eritrea	Yes	Yes	Yes	No
49.	Estonia	Yes	Yes	Yes	No
50.	Ethiopia	Yes	Yes	Yes	No

ID	Country	CBD Party	CHM NFP	CHM E-mail	CHM Web site
51.	European Community	Yes	Yes	Yes	Yes
52.	Fiji	Yes	Yes	Yes	No
53.	Finland	Yes	Yes	Yes	Yes
54.	France	Yes	Yes	Yes	Yes
55.	Gabon	Yes	Yes	Yes	Yes
56.	Gambia	Yes	Yes	Yes	No
57.	Germany	Yes	Yes	Yes	Yes
58.	Ghana	Yes	Yes	Yes	No
59.	Greece	Yes	No	Yes	No
60.	Grenada	Yes	Yes	No	No
61.	Guinea	Yes	Yes	Yes	No
62.	Guinea-Bissau	Yes	Yes	Yes	No
63.	Honduras	Yes	Yes	No	No
64.	Hungary	Yes	Yes	Yes	No
65.	Iceland	Yes	Yes	Yes	Yes
66.	India	Yes	Yes	Yes	Yes
67.	Indonesia	Yes	Yes	Yes	No
68.	Iran (Islamic Republic of)	Yes	Yes	Yes	Yes
69.	Ireland	Yes	Yes	Yes	No
70.	Israel	Yes	Yes	Yes	No
71.	Italy	Yes	Yes	Yes	Yes
72.	Jamaica	Yes	Yes	Yes	Yes
73.	Japan	Yes	Yes	Yes	Yes
74.	Kazakhstan	Yes	Yes	Yes	No
75.	Kenya	Yes	Yes	Yes	No
76.	Kiribati	Yes	Yes	Yes	No
77.	Kyrgyzstan	Yes	Yes	No	No
78.	Lao People's Dem. Rep.	Yes	Yes	Yes	No
79.	Latvia	Yes	Yes	Yes	Yes
80.	Lebanon	Yes	Yes	Yes	No
81.	Lesotho	Yes	Yes	No	No
82.	Luxembourg	Yes	Yes	Yes	Yes
83.	Madagascar	Yes	Yes	Yes	Yes
84.	Malawi	Yes	Yes	No	No
85.	Malaysia	Yes	Yes	Yes	Yes
86.	Maldives	Yes	Yes	Yes	No
87.	Mali	Yes	Yes	Yes	No
88.	Malta	Yes	Yes	Yes	Yes
89.	Mauritania	Yes	Yes	Yes	Yes
90.	Mauritius	Yes	Yes	Yes	No
91.	Mexico	Yes	Yes	Yes	No
92.	Monaco	Yes	Yes	Yes	No
93.	Mongolia	Yes	Yes	Yes	No
94.	Morocco	Yes	Yes	Yes	No
95.	Mozambique	Yes	Yes	Yes	No
96.	Myanmar	Yes	Yes	No	No
97.	Namibia	Yes	Yes	Yes	Yes
98.	Nauru	Yes	Yes	Yes	No
99.	Nepal	Yes	Yes	Yes	No
100.	New Zealand	Yes	Yes	Yes	No
101.	Niger	Yes	Yes	Yes	Yes
102.	Niue	Yes	Yes	Yes	No
103.	Norway	Yes	Yes	Yes	Yes

ID	Country	CBD Party	CHM NFP	CHM E-mail	CHM Web site
104.	Oman	Yes	Yes	No	No
105.	Pakistan	Yes	Yes	Yes	No
106.	Panama	Yes	Yes	Yes	No
107.	Paraguay	Yes	Yes	Yes	No
108.	Peru	Yes	Yes	Yes	Yes
109.	Philippines	Yes	Yes	Yes	Yes
110.	Poland	Yes	Yes	Yes	Yes
111.	Qatar	Yes	Yes	Yes	Yes
112.	Republic of Korea	Yes	Yes	Yes	Yes
113.	Republic of Moldova	Yes	Yes	Yes	Yes
114.	Romania	Yes	Yes	Yes	No
115.	Russian Federation	Yes	Yes	Yes	Yes
116.	Saint Lucia	Yes	Yes	Yes	Yes
117.	San Marino	Yes	Yes	Yes	No
118.	Sao Tome and Principe	Yes	Yes	No	No
119.	Senegal	Yes	Yes	No	Yes
120.	Seychelles	Yes	Yes	Yes	No
121.	Sierra Leone	Yes	Yes	Yes	No
122.	Singapore	Yes	Yes	Yes	No
123.	Slovak Republic	Yes	Yes	No	Yes
124.	Slovenia	Yes	Yes	Yes	Yes
125.	Solomon Islands	Yes	Yes	Yes	No
126.	South Africa	Yes	Yes	Yes	No
127.	Spain	Yes	Yes	Yes	Yes
128.	Sri Lanka	Yes	Yes	No	No
129.	Sudan	Yes	Yes	Yes	No
130.	Suriname	Yes	Yes	Yes	No
131.	Swaziland	Yes	Yes	Yes	No
132.	Sweden	Yes	Yes	Yes	Yes
133.	Switzerland	Yes	Yes	Yes	Yes
134.	Thailand	No	Yes	Yes	No
135.	The Netherlands	Yes	Yes	Yes	Yes
136.	Togo	Yes	Yes	Yes	No
137.	Trinidad and Tobago	Yes	Yes	Yes	Yes
138.	Tunisia	Yes	Yes	Yes	No
139.	Turkmenistan	Yes	Yes	Yes	No
140.	Uganda	Yes	Yes	Yes	No
141.	Ukraine	Yes	Yes	Yes	No
142.	United Kingdom	Yes	Yes	Yes	Yes
143.	United States of America	No	Yes	Yes	Yes
144.	Uruguay	Yes	Yes	Yes	Yes
145.	Uzbekistan	Yes	Yes	No	No
146.	Vanuatu	Yes	Yes	No	No
147.	Venezuela	Yes	Yes	Yes	Yes
148.	Vietnam	Yes	Yes	Yes	No
149.	Yemen	Yes	Yes	Yes	No
150.	Zimbabwe	Yes	Yes	Yes	No
	TOTAL	148 (*)	149 (**)	133	62

(*) United States of America and Thailand are not parties of Convention
(**) Greece has not nominated an official NFP yet, though contact person is operational

Appendix 2. Survey questionnaire form

Basic information

Country:	....
CHM National Focal Point:	....
Organization	....
Tel. / Fax:	....	E-mail:	....
Person responsible for CHM:	....
Organization	....
Tel. / Fax:	....	E-mail:	....
CHM web site URL:	....	**Date of completion**	.. / ... / ..

Part I: Current status of the CHM at national level

	yes	no	in the process of establishment
1. Has your country established a functioning CHM?	☐	☐	☐

	starting	duration	funding source
2. If your answer is "in the process of establishment", please provide information on the activity/project underway.	.... /	.... months	....

3. If your answer is "yes" or "in process" to question **1**, briefly describe your country's capacities up to date. Add new records if needed.	yes	no	in process (estimated date of completion)
a CHM National Focal Points other than CBD National Focal Point	☐	☐	☐ (..... / .....)
b CHM web site	☐	☐	☐ (..... / .....)
c CHM available on CD-ROM	☐	☐	☐ (..... / .....)
d CHM Steering Group / Committee	☐	☐	☐ (..... / .....)
e Focal points (contact persons) for specific themes used by CHM	☐	☐	☐ (..... / .....)
f Regional CHM branches within the country	☐	☐	☐ (..... / .....)
g Roster of government nominated experts in various areas of biodiversity	☐	☐	☐ (..... / .....)
h Roster of independent consultants in various areas of biodiversity	☐	☐	☐ (..... / .....)
i Roster/database of biodiversity-related NGOs	☐	☐	☐ (..... / .....)
j [other] ...	☐	☐	☐ (..... / .....)

4. If your answer is "yes" to question **3e**, provide the thematic area the focal point(s)/contact person(s) has (have) been designated to:					
Access and Benefit Sharing	☐	Ecosystems	☐	Marine and Coastal Biodiversity	☐
Agricultural Biodiversity	☐	Environmental Law	☐	Mountain Biodiversity	☐
Alien and Invasive Species	☐	Forest Biodiversity	☐	Protected Areas	☐
Biodiversity Indicators	☐	Taxonomy	☐	Public Education and Awareness	☐
Biosafety	☐	Impact Assessment	☐	Sustainable Tourism	☐
Capacity Building	☐	Incentive Measures	☐	Sustainable Use	☐
Dry and Sub-humid Lands	☐	Inland Water	☐	Traditional Knowledge	☐
[other area] please specify	1		2		

5. If your answer is "yes" or "in process" to question **3f** please briefly describe the organizational and functional structure of local CHM branches in the space below.

6. Please briefly describe capacities of national biodiversity network in your country. Add new records if needed.	yes	no	in process (estimated date of completion)
a Biodiversity-related archives/collections (in non-electronic format)	☐	☐	☐ (..... / .....)
b Biodiversity Information Systems (databases, map libraries, etc)	☐	☐	☐ (..... / .....)
c Local network of main biodiversity-related information holder institutions within the country	☐	☐	☐ (..... / .....)
d Developed indicators for biodiversity conservation and sustainable use	☐	☐	☐ (..... / .....)
e Developed indicators for biodiversity management and policy	☐	☐	☐ (..... / .....)
f [other] …	☐	☐	☐ (..... / .....)

7. If your answer is "yes" or "in process" to question **6a**, please provide brief information on the three main non-electronic archives/collections in the following format:

field (flora, fauna....)	level (species, habitats, genes....)	format (reference books, maps...)	institution

8. If your answer is "yes" or "in process" to question **6b** please estimate the approximate number of developed Biodiversity Information Systems (BIS)

less than 3 ☐	3-5 ☐	5-10 ☐	10-20 ☐	more then 20 ☐

Please provide brief information on the three main BIS-s in the following format:

field	format	year of creation	availability on CD
			☐
			☐

9. Is your country currently involved in any **national level** activity/ project on technical and scientific cooperation, capacity building or/and information exchange within the country?	yes	in process of formulation	no
	☐	☐	☐

10. If your answer is "yes" or "in the process of formulation" to question **9**, please provide the information on three major national level activities/projects the CHM is involved in.

	Title	Dates from … to ….	Local administrations involved	Public organisations / NGOs involved
1				
2				
3				

11. Have you used (or considered using) the CHM start-up tool-kit for the CHM establishment?

☐ We have used it and it ….	☐ was effective	☐ could be better	☐ was not useful
☐ We have not used it due to ….	☐ unawareness	☐ availability of own capacities	
☐ We are planning to use it			
☐ We are not planning to use it, because….	[state your reason]		

12. Please rank the current status of your country with regard to CHM goals	very high	high	medium	low	very low	not at all
Scientific and Technical Cooperation	☐	☐	☐	☐	☐	☐
Information Exchange	☐	☐	☐	☐	☐	☐
Network Development	☐	☐	☐	☐	☐	☐

13. Please estimate your country's progress towards the main CHM goals over the next few years	significant improvement	slight improvement	stay the same	slight decline	significant decline
Scientific and Technical Cooperation	☐	☐	☐	☐	☐
Information Exchange	☐	☐	☐	☐	☐
Network Development	☐	☐	☐	☐	☐

Part II: CHM Web-site

14. Please provide the information about the contents of your country's CHM web-site by completing the table below. Does the web-site contain:	yes	yes (link to CBD web site)	yes (link to another site)	no
a Text of the convention in UN language	☐	☐	☐	☐
b Text of the convention translated into national language	☐	☐	☐	☐
c COP decisions	☐	☐	☐	☐
d SBSTTA recommendations	☐	☐	☐	☐
e First National Report in UN language	☐	☐	☐	☐
f First National Report in national language	☐	☐	☐	☐
g Second National Report in UN language	☐	☐	☐	☐
h Second National Report in national language	☐	☐	☐	☐
i National Biodiversity Strategy and Action Plan	☐	☐	☐	☐
j "State of the Environment" or similar reports	☐		☐	☐
k Other National Environmental Action Plans	☐		☐	☐
l Sectoral Strategies and Action Plans	☐		☐	☐
m Roster/database of national experts on biodiversity	☐		☐	☐
If "yes" are they categorised by areas of expertise?	☐			☐
n Database of biodiversity related NGOs	☐		☐	☐
If "yes" are they categorised by areas of activities?	☐			☐
o Integrated Biodiversity Information Systems	☐		☐	☐
p Map libraries	☐		☐	☐
q Glossary of biodiversity-related terms in UN language	☐	☐	☐	☐
r Glossary of biodiversity-related terms in national language	☐		☐	☐
s Biodiversity related legislative acts	☐		☐	☐
t Biodiversity related policy documents	☐		☐	☐
u List of biodiversity related information-holder institutions	☐		☐	☐
v List of donor institutions (local/regional/international)	☐	☐	☐	☐
w List of meetings / calendar of events	☐	☐	☐	☐
x Past/on going/intended research on biodiversity in country	☐		☐	☐
y News / hotline section (updated on regular basis)	☐	☐	☐	☐
z Forum for discussion	☐			☐

15. If your answer is "yes" to question 14 l, please specify the sector of consideration

Agriculture	☐	Energy	☐	Health care	☐
Forestry	☐	Extracting industry	☐	Tourism and Recreation	☐
Fisheries	☐	Chemical industry	☐	Urban planning/construction	☐
Transport	☐	Other Industry	☐	[other]	☐

16. If your answer is "yes" or "in process" to question 14o, please indicate the number of Biodiversity Information Systems already integrated into the CHM web site

less than 3	☐	3-5	☐	5-10	☐	10-20	☐	more then 20	☐

Please provide brief information on the three main BIS-s in the following format:

integrated information system	year of creation	periodicity of updating	search engine?	metadata used
			☐	
			☐	
			☐	

17. If your answer is "yes" to question 14p, please briefly describe the properties of the maps available. Add more records if needed

maps	format/scale	GIS compatible?	software required	year of creation
		☐		
		☐		

18. If your answer is "yes" to question **14s**, please specify the information available	downloadable	link to other web site	available in native language	available in UN language
All main biodiversity-related laws	☐	☐	☐	☐
National regulations, directives	☐	☐	☐	☐
Local authorities directives	☐	☐	☐	☐

19. Does your country participate in IUCN Environmental Law Information System (ELIS) ?	yes ☐	in process of involvement ☐	no ☐

20. If your answer is "yes" to question **14t**, please specify area the policy documents are available in. Add new fields, if appropriate.	Download-able	link to other web site	Available in native language	Available in UN language
Wildlife / Protected area management	☐	☐	☐	☐
Land use / landscape planning	☐	☐	☐	☐
Genetic resources management	☐	☐	☐	☐
Species level activities	☐	☐	☐	☐
Habitat level activities	☐	☐	☐	☐
Ecosystem level activities	☐	☐	☐	☐
[other]	☐	☐	☐	☐

21. If your answer is "yes" or "in process" to question **14u**, is there an established mail network/listserv among those organizations?	yes ☐	in process of creation ☐	no ☐

22. If your answer is "yes" to question **14x**, please specify the information available through the CHM web site. Add new fields, if appropriate.	Brief info/ abstracts	Detailed info/ links to other web sites	Available in native language	Available in UN language
Completed research at national level for the last 10 years	☐	☐	☐	☐
Completed research at international level (last 10 years)	☐	☐	☐	☐
Current research at national level	☐	☐	☐	☐
Current research at international level	☐	☐	☐	☐
Project proposals for future research at national level	☐	☐	☐	☐
Project proposals for future research at international level	☐	☐	☐	☐

23. Does your CHM web page incorporate search engine? If yes, provide the approx. number of documents covered by engine	yes ☐	#	in process of creation ☐	no ☐

24. What metadata do you use for the your CHM web-page?	....

25. Please estimate the time required to assess the CBD web site from your CHM home page	Several seconds ☐	Less than a min ☐	1-3 min ☐	3-5 min ☐	More than 5 min ☐

26. How often is your CHM web page being updated?	....

27. How is the information being added to or updated in the CHM web page?	by anybody who make a request ☐	by web administrator only ☐	by a team of experts with access ☐

28. Do you use web statistics in the CHM site?	yes ☐	in process of creation ☐	no ☐

29. If "yes" please provide the following information:
Monthly average hits (total number of files being accessed in a month period)   ...
Monthly average number of visitors   from your country ...   from abroad ...   origin unknown   ...
Monthly average page views (number of pages accessed – only html files) ....
Three most visited pages?   1. ....
2. .... 3. ....

Part III: Cooperation

30. Please estimate the extent of involvement of your CHM in the technical and scientific co-operation by the following activities.	high	medium	low	Approx. number
Bilateral cooperation / transboundary projects	☐	☐	☐	
Multilateral cooperation / regional projects	☐	☐	☐	
Case studies	☐	☐	☐	
Capacity building activities/projects	☐	☐	☐	
Technical partnership initiatives	☐	☐	☐	
International initiatives	☐	☐	☐	

31. Please list three main bilateral (or transboundary) co-operation projects/activities your country is involved in through the CHM.

	Project/activity	Starting date	Ending date	Partner country
1				
2				
3				

32. Please provide information on three main **regional / international level** activity / project on technical and scientific cooperation, capacity building or/and information exchange your country currently involved in through the CHM.

	Title	Dates from … to ….	Reg.	Int.	Countries / organizations involved
1			☐	☐	
2			☐	☐	
3			☐	☐	

33. Does your country participate in any of the following international initiatives? If "yes", give brief description in the comments column stating the status of participation, dates and perspectives

Initiative	Yes	No	Comments (form, dates, outputs)
Global Invasive Species Program	☐	☐	
Global Taxonomy Initiative	☐	☐	
NatureServe	☐	☐	
Biodiversity Action Network (BIONET)	☐	☐	
Center for Conservation Biology Network	☐	☐	
Development Gateway portal	☐	☐	
DIVERSITAS	☐	☐	
EarthTrends	☐	☐	
ELDIS	☐	☐	
Envirolink Network.com	☐	☐	
Global Biodiversity Forum	☐	☐	
Global Biodiversity Information Facility	☐	☐	
Global Plant Checklist	☐	☐	
International Biodiversity Observation Year	☐	☐	
Integrated Taxonomic Information System	☐	☐	
UNESCO Man and the Biosphere Program	☐	☐	
Sustainable Alternatives Networks	☐	☐	
System-wide Information Network for Genetic Resources	☐	☐	
Species 2000	☐	☐	
Tree of Life	☐	☐	
The Species Analyst	☐	☐	
UNEP.Net - Environment Network	☐	☐	
North American Biodiversity Information Network	☐	☐	
Inter-American Biodiversity Information Network	☐	☐	
Commonwealth Knowledge Network	☐	☐	

34. Please estimate the extent of your country's cooperation in the framework of the other biodiversity-related conventions in terms of main CHM goals	high	medium	poor	no cooperation
a). Convention on International Trade in Endangered Species of Wild Fauna and Flora(CITES)				
Scientific and Technical Cooperation	☐	☐	☐	☐
Information Exchange	☐	☐	☐	☐
Network Development	☐	☐	☐	☐
b) Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar)				
Scientific and Technical Cooperation	☐	☐	☐	☐
Information Exchange	☐	☐	☐	☐
Network Development	☐	☐	☐	☐
c) Convention Concerning the World Cultural and Natural Heritage (WHC)				
Scientific and Technical Cooperation	☐	☐	☐	☐
Information Exchange	☐	☐	☐	☐
Network Development	☐	☐	☐	☐
d) Convention on Migratory Species of Wild Animals (CMS)				
Scientific and Technical Cooperation	☐	☐	☐	☐
Information Exchange	☐	☐	☐	☐
Network Development	☐	☐	☐	☐

35. How often do you personally communicate with other CHM National Focal Points?

I do not communicate ☐	Less than once a month ☐	Less than once a week ☐	Several times a week, as needed ☐	More frequent communication ☐

Please mention the form of contacts:

Tel/Fax ☐   E-mail ☐   Mutual visits ☐   Regional meetings workshops ☐   CBD meetings ☐

36. How often do you personally refer to the other CHM national web sites?

Never ☐	Less than once a month ☐	Less than once a week ☐	Several times a week, as needed ☐	More frequently ☐

Please mention the three most frequently visited CHM web-sites:

1
2
3

37. Please estimate the extent of your country's experience sharing with other national CHMs.	high	medium	poor	none
	☐	☐	☐	☐

38. In the space below please state the actions your country's CHM is currently taking to increase the cooperation, including all the above mentioned spheres.

Part IV: CHM Development

39. What are the three main intended projects/activities of the CHM development in your country?

	Project/activity	Starting date	Ending date	Status (funded, approved, proposed)	Donor
1					
2					
3					

40. List, if any, the three main bilateral/multilateral projects/activities, intended to be carried out in future in the framework of your country's CHM.

	Project/activity	Starting date	Ending date	Current status	Donor	Partner country/ organisation
1						
2						
3						

41. Prioritize the list below in terms of main needs of your country towards CHM development. Put the numbers starting with 1 for the most priority measure (0 = no priority). Add measures if needed.

Financial assistance		Data collection and management methodologies		Training	
Monitoring techniques		Promoting cooperation at national level		Technology	
Capacity building		Promoting cooperation at international level		[other]	

42. In the space below please describe the main priority actions needed to be undertaken for further CHM development in your country.

1	
2	
3	

43. If you have chosen "technology" as one of the priorities in question 41, please specify the three key equipment / devices needed and the objectives.

	technology	quantity	specifications	objectives
1				
2				
3				

44. If you have chosen "training" as one of the priorities in question 41, please specify the kind of training needed.

Web page creation	☐	Specialised CHM training	☐	Technology transfer	☐
Data management	☐	Training of CHM trainers	☐	[other]	☐
Information exchange	☐	GIS and mapping technologies	☐	[other]	☐

45. What are the main future developments with regard to national CHM web page?

Creating the web page	☐	Adding more links to web pages	☐	Translating contents	☐
Putting the web page on-line	☐	Incorporation of databases	☐	Increasing interactivity	☐
Adding more information	☐	Adding information systems	☐	Publishing CHM CDs	☐
Adding search engine	☐	Development of metadatabases	☐	[other]	☐

46. If you ticked any of the boxes in question 45, please provide more details in the space below, on the nature of data to add/change/develop and intended deadlines. Add records if needed.

	activity	Already started	intended to start in	intended deadline for completion	any constraints/ comments
1		☐			
2		☐			
3		☐			

47. Is there a strategy for CHM development in your country?			yes ☐	in process of preparation ☐	no ☐
If "yes", please describe its availability	available on the web page ☐	limited availability ☐	available on request ☐	for internal use only ☐	other (please specify)

48. Is there any project proposal on CHM development in your country at present?			yes ☐	in process of preparation ☐	no ☐
If "yes", please describe its availability	available on the web page ☐	limited availability ☐	available on request ☐	for internal use only ☐	other (please specify)

49. Please prioritize the list below in terms of main needs for the development of CHM structures and organization in your country. Put the numbers starting with 1 for the most priority action (0 = no priority). Add actions if needed.

Creation of national CHM management team		Organization of seminars/workshops on CHM	
Facilitating contacts with Secretariat		Facilitating contacts with other national CHMs	
Designation of thematic focal points		Designation of regional focal points	
Establishment of local CHM branches		[other]	

50. Are there any innovative approaches (specialised tools) used in CHM development by your country? If yes please provide more detailed information in the space below.	yes ☐	no ☐

Additional Comments

If you have any other comments that you feel are appropriate, or on the questionnaire, please note them here

THANK YOU FOR COMPLETING THE QUESTIONNAIRE

Appendix 3. List of Parties represented in the survey

Armenia	Egypt	Mongolia
Australia	Estonia	New Zealand
Austria	Fiji	Peru
Bahamas	Finland	Poland
Belgium	France	Russian Federation
Bolivia	Germany	Saint Lucia
Burkina Faso	Greece	Sierra Leone
Burundi	Hungary	Slovenia
Canada	Indonesia	Spain
Chad	Iran (Islamic Republic of)	Sweden
China	Israel	Switzerland
Czech Republic	Jamaica	Thailand
Democratic Republic of Congo	Latvia	United Kingdom
Denmark	Mali	United States of America
Dominican Republic	Mauritania	Venezuela

Appendix 4
List of CHM NFP's e-mail addresses with delivery failure as of July 2003

	Party	CHM E-mail
1.	Comoros	comun@undp.org
2.	Eritrea	depenvt@tse.com.er
3.	Ethiopia	biod_et@ptelecom.net.et
4.	Gabon	jbmebiame@internetgabon.com
5.	Kazakhstan	komles@nature.kz
6.	Nepal	mfsc@singdbr.mos.com.np
7.	Pakistan	munirchaudhary@hotmail.com
8.	Turkmenistan	timchik@biodiv-tm.org
9.	Uganda	info@nemaug.org
10.	Yemen	epc@y.net.ye

Appendix 5 List of documents considered while preparing the report

- Handbook of the Convention on Biological Diversity, 2nd edition, 2003, (updated to include the outcome of the sixth meeting of the Conference of Parties)
- CHM-related COP decisions (I/3; II/3; III/4; IV/2; V/14 with Annex 1 and 2; VI/18), SBSTTA recommendations (II/6; III/6; V/2) and IAC Meeting recommendations
- Reports from 4 Regional Workshops on CHM (Colombia, Hungary, Malaysia, Kenya)
- Reports from Expert meetings (Italy, July 1998; Germany Sep 2001; Canada, Feb 2002)
- Report of the Africa regional Meeting on the CHM (Kenya, 2003)
- Report of the Ad-Hoc technical expert group on traditional knowledge and CHM (2003)
- CHM Strategic Plan and Matrix of Work
- CHM Long Term Programme of Work 1999-2004
- Independent Review of the CHM Pilot Phase Final Report
- CHM and Interoperability of National Nodes. Paper by Environment Canada
- Scientific and Technical Co-operation and CHM (UNEP/CBD/COP/6/INF/18)
- Analysis on CHM (UNEP/CBD/COP/6/INF/10)
- Progress Report on the Mechanisms for Implementation (UNEP/CBD/COP/6/13)
- CHM: Concept and Challenges (UNEP-WCMC paper)
- Survey responses from 45 Parties
- Personal communications during the SBSTTA 8 meeting in Montreal (March, 2003)