



---

**CONVENTION ON  
BIOLOGICAL  
DIVERSITY**Distr.  
GENERALUNEP/CBD/BS/COP-MOP/2/INF/1  
30 March 2005

ORIGINAL: ENGLISH

---

**CONFERENCE OF THE PARTIES TO THE CONVENTION  
ON BIOLOGICAL DIVERSITY SERVING AS THE  
MEETING OF THE PARTIES TO THE CARTAGENA  
PROTOCOL ON BIOSAFETY**

Second meeting

Montreal, 30 May–3 June 2005

Item 5 of the provisional agenda\*

**INTERNAL REVIEW OF THE BIOSAFETY CLEARING-HOUSE***Note by the Executive Secretary*

1. The Executive Secretary is circulating herewith results from the internal review of the Biosafety Clearing-House undertaken by the Secretariat in accordance with paragraph 12 of decision BS-I/3, of the first meeting of the Conference of the Parties serving as the meeting of the Parties to the Protocol.
2. The review is based on a user survey undertaken by the Secretariat during August and September 2004, together with database statistics and website analytics compiled during the period 30 March 2004 to 29 March 2005 (following the launch of the operational phase of the Biosafety Clearing-House on 27 February 2004).
3. Overall, survey respondents were satisfied with the design of the Biosafety Clearing-House and the services received from the Secretariat. However, concerns were expressed regarding delays with provision of information to the Biosafety Clearing-House by Governments. Detailed findings are attached.
4. The results of this review are further discussed in a note by the Executive Secretary on operation and activities of the Biosafety Clearing-House (UNEP/CBD/BS/COP-MOP/2/3), where they served as input in the development of potential programme elements for inclusion in a multi-year programme of work for the Biosafety Clearing-House.

---

\* UNEP/CBD/BS/COP-MOP/2/1.

**BIOSAFETY CLEARING-HOUSE INTERNAL REVIEW  
FOR CONSIDERATION BY THE SECOND MEETING OF THE PARTIES TO THE  
PROTOCOL**

---

NOTE BY THE EXECUTIVE SECRETARY .....	1
I. EXECUTIVE SUMMARY .....	3
II. INTRODUCTION .....	3
A. Background information .....	3
B. Conduct of the review .....	4
1. Terms of reference .....	4
2. Available resources .....	4
3. Constraints .....	4
C. Biosafety Clearing-House Survey .....	5
1. Methodology .....	5
2. Participation .....	5
3. Survey structure .....	5
III. DETAILED FINDINGS OF THE REVIEW .....	5
A. Characterization of Biosafety Clearing-House Users .....	5
1. Web visitor trends .....	5
2. Survey respondents .....	6
3. Technological demographics .....	6
B. Structure and Design of the Biosafety Clearing-House .....	7
1. Overall satisfaction .....	7
2. Areas of dissatisfaction .....	8
3. Comparison with other mechanisms .....	9
4. Website navigation .....	9
C. Finding information in the Biosafety Clearing-House .....	10
1. Current Biosafety Clearing-House content .....	10
2. Most popular information types .....	13
3. Requests for new features .....	15
D. Registering information with the Biosafety Clearing-House .....	15
1. Management Centre .....	16
2. Simple nBCH Application .....	17
3. Interoperability .....	17
E. Other Biosafety Clearing-House information services .....	18
1. Current awareness service subscriptions .....	18
2. Online/e-mail conference .....	18
3. Discussion forums .....	19
4. News functions of the Biosafety Clearing-House .....	19
F. Use of Non-Internet or non-web options .....	19
G. Secretariat assistance .....	20
H. Proposed follow-up .....	21
IV. IMPLICATIONS FOR A MULTI-YEAR PROGRAMME OF WORK FOR THE BIOSAFETY CLEARING-HOUSE .....	21
Annex I .....	24
LIST OF COUNTRIES FROM WHICH SURVEY RESPONSES WERE RECEIVED .....	24
Annex II .....	25
STRUCTURE OF THE BCH SURVEY .....	25

Section II.....26  
OVERALL IMPRESSIONS AND USER EXPERIENCES WITH THE BCH..... 26

## I. EXECUTIVE SUMMARY

1. Users of the Biosafety Clearing-House were invited to participate in a survey carried out in August and September 2004, and 80 responses were received. Results of the survey, taken in conjunction with various analytical data relating to the database content and website usage covering the period 30 March 2004 to 29 March 2005, form the basis of the review of the Biosafety Clearing-House. Key findings from the review include:

- General level of user satisfaction
  - Most survey respondents considered the design of the Biosafety Clearing-House to be satisfactory or very satisfactory.
  - Most survey respondents were very satisfied with the assistance received from the Secretariat regarding the Biosafety Clearing-House.
  - Most survey respondents were satisfied with the options available to register information with the Biosafety Clearing-House.
- Use of the Central Portal
  - Users from the Government sector are generally more satisfied with the operation of the Biosafety Clearing-House than other sectors. For example, Government users are easily able to find information in the Biosafety Clearing-House; however, users from other sectors, such as industry and NGOs experience some difficulties in locating information.
- Information content and management
  - The greatest concern with the Biosafety Clearing-House is incomplete information, including delays experienced in Governments providing information, particularly that which the Protocol requires Parties to submit to the Biosafety Clearing-House.
  - Online help functions and documentation are important to Biosafety Clearing-House users and need to be maintained.
  - Flexibility of the Secretariat in modifying the central portal in response to user needs was greatly appreciated by survey respondents.
- Capacity-building and use of non-Internet or non-Web options
  - There are concerns regarding timely access to Biosafety Clearing-House information using the non-Internet options.
  - New Biosafety Clearing-House information services that are being introduced by the Secretariat are well-received, in particular the Current Awareness Service that sends email updates of new records registered with the Biosafety Clearing-House.
  - Many survey respondents would like to use the Biosafety Clearing-House to access a broader range of biosafety information.

## II. INTRODUCTION

### A. *Background information*

2. The Biosafety Clearing-House (BCH) was established in accordance with Article 20, paragraph 1, of the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, as part of the clearing-house mechanism under Article 18, paragraph 3, of the Convention, in order to (i) facilitate the exchange of information on, and experience with, living modified organisms, and (ii) to assist Parties to implement the Protocol.

3. Background information regarding the structure and development of the Biosafety Clearing-House prior to the launch of the fully operational phase on 27 February 2004 is available in the pre-sessional documentation prepared for the first meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety. Of particular relevance, document UNEP/CBD/BS/COP-MOP/1/5 contains a short introduction to the development of the Biosafety Clearing-House (section I); a status report of the progress in the implementation of the Biosafety Clearing-House (section II); and an update on activities undertaken to identify and address the capacity needs of countries to access and use the Biosafety Clearing-House (section IV). This document can be accessed via the website of the Convention at <http://www.biodiv.org/doc/meetings/bs/mop-01/official/mop-01-05-en.doc>.

## ***B. Conduct of the review***

### *1. Terms of reference*

4. In its decision BS-I/3, paragraph 12, the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety decided to review the implementation of the Biosafety Clearing-House at its second meeting, and requested the Executive Secretary to submit a progress report to that meeting, with a view to developing a longer-term programme of work for the Biosafety Clearing-House.

5. The purpose of this review, undertaken by the Secretariat, was to collect information that will assist the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety in its review of the implementation of the Biosafety Clearing-House, and to provide a basis for developing elements of a longer-term programme of work for the Biosafety Clearing-House.

### *2. Available resources*

6. The Secretariat conducted this review using the following resources:

- Results from a user survey conducted by the Secretariat during August and September 2004 (including responses received until 31 January 2005), analysed using SPSS 11 and SPSS 13.0 for Windows;
- Biosafety Clearing-House database statistics obtained through Microsoft OLAP (Online Analytical Processing) Services;
- Website analytics covering the period of 30 March 2004 to 29 March 2005, compiled through the use of WebTrends 7 log analyzer;
- Personal communication with Biosafety Clearing-House users.

7. Further information about the conduct of the survey is provided in section C below.

### *3. Constraints*

8. The review elicited views from existing users of the Biosafety Clearing-House, and focused primarily on the content and operations of the central portal of the Biosafety Clearing-House. Although the website makes information available in six languages of the United Nations, the survey was conducted in English only. In completing the survey, some Governments submitted a single questionnaire that combined the views of multiple users, while others submitted individual responses for each user.

9. Survey respondents were self-selecting, and certain users of the Biosafety Clearing-House may not have had an equal chance to participate; main areas where the results may show a bias exist in the intensity of Biosafety Clearing-House usage, and language of the users. Where relevant, survey responses were cross-tabulated against regional origin and/or user demographics to establish or discount any dependencies in the results.

10. The findings from this sample therefore provide an interesting range of responses that can be used to extract some larger themes and trends, rather than being a definitive characterization of attitudes and beliefs of all Biosafety Clearing-House users.

### **C. Biosafety Clearing-House Survey**

#### *1. Methodology*

11. A Biosafety Clearing-House questionnaire containing 26 questions was made available to users between 16 August and 17 September 2004. A notification inviting participation in the survey was sent directly by fax or email to all Biosafety Clearing-House and Cartagena Protocol National Focal Points (or CBD National Focal Points, where Protocol NFPs have not yet been designated), as well as being publicized on the Secretariat website. Additionally, a link was provided prominently on the home page of the BCH and a “pop-up” box was installed that was activated on the first visit of any user to the Biosafety Clearing-House home page during the survey period, which invited users to participate in the survey. Individual reminders were also sent on 9 September 2004 to all users who had registered for a Biosafety Clearing-House account by that date. The survey was made available online, as a downloadable PDF file, and as a MS Word document. An option was provided for surveys to be submitted anonymously, to encourage accurate reporting of experiences.

#### *2. Participation*

12. A total of 82 survey responses were received (see annex I for the list of countries from which survey responses were sent). In some cases, multiple responses were received from a single country; in other cases, organizations or institutions submitted a single survey combining multiple responses. As it was not always possible to determine whether a response was prepared by single or multiple users, each survey has been assessed as an individual unit. In this review, survey results are generally expressed through a percentage of respondents; however, where less than half of the participants responded to a particular question, the actual number of respondents has also been included in the results.

#### *3. Survey structure*

13. The Biosafety Clearing-House survey was structured in seven parts, namely:

- (i) An introduction, which provided a few paragraphs of background information regarding the BCH and the reasons for the survey;
- (ii) Overall impressions and user experiences with the Biosafety Clearing-House, which contained additional sections for those users that had registered information with the Biosafety Clearing-House;
- (iii) Biosafety Clearing-House Services, which addressed the types of information that could be found on the Biosafety Clearing-House;
- (iv) Non-Internet options, including capacity-building needs;
- (v) IT Environment;
- (vi) User demographics; and
- (vii) Additional information.

14. Each section also included space for respondents to provide comments, suggestions and further information. The full text of the survey is available in annex II.

### **III. DETAILED FINDINGS OF THE REVIEW**

15. This section describes the detailed findings of the review as they relate to: (a) characterization of Biosafety Clearing-House users; (b) Biosafety Clearing-House structure and design; (c) Finding information in the Biosafety Clearing-House; (d) Registering information with the Biosafety Clearing-House; (e) Biosafety Clearing-House information services; (f) use of non-Internet or non-web options; (g) Secretariat assistance; and (h) proposed follow-up.

#### **A. Characterization of Biosafety Clearing-House Users**

##### *1. Web visitor trends*

16. During the reporting period, the Biosafety Clearing-House received approximately 267 visits per day, with an average visit length of 18 minutes, and a median visit length of 3 minutes. Page views

steadily increased over this time, from 11,701 during April 2004 to 20,535 for the month of February 2005.

17. According to the website analytics, most visitors originated from North America (48 per cent), followed by Western Europe (17 per cent), Asia (15 per cent), Eastern Europe (4 per cent), Middle East (4 per cent), South America (3 per cent), Africa (3 per cent), Oceania (3 per cent), Small Island Developing States (2 per cent) and other countries making up the remaining 1 per cent. This information must be used carefully because it is based on Internet registration details (i.e. by looking up the visitor's IP address), and therefore may not always be an accurate identifier of the visitor's actual location. However, it is reasonable to conclude that the Biosafety Clearing-House website is visited more frequently by users located in the developed world.

## 2. *Survey respondents*

18. The regional distribution of the 82 survey responses received (annex I) was as follows: Western Europe and Others, 41 responses; Africa, 14 responses; Asia and the Pacific, 12 responses; Central and Eastern Europe, 8 responses; Latin America and the Caribbean, 7 responses. Most of the survey respondents were frequent users of the Biosafety Clearing-House (86 per cent visited once per month or more, including 32 per cent visiting more than once per week).

19. A comparison of the percentage geographic distribution of survey results with the website analytics suggests that the respondents were broadly representative of the wider population of Biosafety Clearing-House users (Table 1).

**Table 1: Comparison between regional location of survey respondents and website analytics for origin of user**

Geographical origin	% survey respondents	% website visits
Western Europe and Others	50	65
Asia and the Pacific	14	19
Africa	17	5
Central and Eastern Europe	10	5
Latin America and the Caribbean	9	6

20. Respondents were asked to categorize themselves according to their occupation or profession. After combining these responses according to broad overarching categories, <sup>1/</sup> these results can be used to provide a rough estimate of the primary demographic categorization of respondents at 52% Government; 24% industry; 10% NGOs and IGOs; 7% academic; and 6% other categories.

21. Most of the survey respondents were using the English version of the Biosafety Clearing-House website (93 per cent), followed by 24 per cent who used the French version, 8 per cent the Spanish version, 4 per cent the Russian, 1 per cent the Arabic and 1 per cent the Chinese version. Two survey respondents noted they did not use the Biosafety Clearing-House website. <sup>2/</sup>

## 3. *Technological demographics*

22. Technological demographics of survey respondents were varied, even by geographic region (table 2). Many users were accessing the Biosafety Clearing-House over a Local Area Network or

<sup>1/</sup> National/Federal Government officials + State/Local Government officials + national focal points + national authorized users + biosafety regulators = government; academic researchers + students = academic; where users indicated membership in multiple categories, the following hierarchy was applied for categorization purposes: government > industry / NGO > academic > other

<sup>2/</sup> Note that multiple responses were accepted to this question, so percentages do not total 100.

(LAN), but in a few regions, a significant proportion of Internet connections were still operating at 56k or less, such as Africa (70 per cent) and Asia and the Pacific (25 per cent).

**Table 2: Types of Internet connection for survey respondents**

Q.14 What sort of Internet connection do you have?

Access speed	Region (number of responses)					Percentage of total responses
	Africa	Asia and the Pacific	Central and Eastern Europe	Latin America and the Caribbean	Western Europe and Others	
LAN	2	6	4	2	24	<b>54</b>
Cable/DSL	0	1	2	2	5	<b>14</b>
56K	6	1	1	1	2	<b>16</b>
<33.6	3	2	0	0	0	<b>7</b>
ISDN	0	1	0	1	1	<b>4</b>
No net	0	1	0	0	0	<b>1</b>
Other	1	0	0	0	1	<b>3</b>

23. Most respondents were using Internet Explorer 5.5 or more as their primary browser (83 per cent), followed by Netscape 6.0 or more (11 per cent), Internet Explorer 5.0 or less (10 per cent); Safari (6 per cent), Opera (4 per cent) and a few users with others such as Mozilla and Camino. 3/

## **B. Structure and Design of the Biosafety Clearing-House**

### *1. Overall satisfaction*

24. Biosafety Clearing-House users were asked to rate their level of satisfaction when using the Central Portal of the Biosafety Clearing-House to find information (table 3). Overall, respondents considered the design of the Biosafety Clearing-House to be satisfactory or very satisfactory (82 per cent), with only a small number expressing dissatisfaction (5 per cent). A sample of comments is provided below:

- *“This is a well organized and useful site”*
- *“The Biosafety Clearing-House is very useful for obtaining biosafety information especially to small islands with limited available information”*
- *“The design and information on the Biosafety Clearing-House is very helpful in planning biosafety activities”*
- *“Each user can obtain very quickly the relevant ... information”*
- *“I find the Biosafety Clearing-House to be of great value and easy to use”*

25. Most users were happy with the relevance of information in the Biosafety Clearing-House, the loading speed and site performance and the appearance of the site (approximately 70 per cent satisfied or very satisfied; less than 10 per cent dissatisfied in these cases). Cross-tabulation of results reveals that dissatisfaction with loading speed and site performance was independent of user location, browser type

3/ Note that multiple responses were accepted to this question, so percentages do not total 100.

and speed of Internet connection, which suggests that the Biosafety Clearing-House generally meets local expectations in these respects.

26. Respondents appeared somewhat split regarding the ease of finding information and the usefulness of search results, with between 55 to 60 per cent believing this was satisfactory, and between 15 to 20 per cent recording dissatisfaction. Cross-tabulation of results on these questions revealed that user demographics significantly affected the satisfaction level in this area. Only one Government user expressed dissatisfaction with the Biosafety Clearing-House in these areas; the majority of the remaining “unsatisfactory” responses originated from NGO and Industry users. Frequency of use also had a direct relationship on satisfaction in this area, with the user satisfaction rating increasing as the Biosafety Clearing-House is accessed more frequently by the user. The main area where dissatisfaction was experienced more by non-Government users was in the categorization of information (and hence the ease in finding information).

27. This partiality is not surprising, given that the primary audience for the pilot phase of the Biosafety Clearing-House was “the Governments that will register and retrieve data from the system” (Second note from the Bureau, 10 October 2001), and that therefore the initial design depended heavily on an understanding of Protocol provisions and classifications. A principal role of the Biosafety Clearing-House remains as assisting Parties to implement the Protocol (Article 20.1(b) of the Protocol); however, now that the user base of the Biosafety Clearing-House is expanding, it may be time to review the structure to make it more user-friendly to people not so intimately familiar with the Protocol in order to better facilitate the exchange of information on, and experience with, living modified organisms (Article 20.1(a) of the Protocol).

- *“it is relatively easy to find information in the Biosafety Clearing-House if you are an informed user (i.e. familiar with the requirements of the Protocol re the Biosafety Clearing-House) and the information is in the Biosafety Clearing-House”*
- *“very usable for users who have knowledge of the Biosafety Clearing-House; however, local users who are not directly involved with the negotiations...could experience difficulties in interpreting the information”*
- *“The first few times I used the database I was not able to easily find the information I was interested in, but with regular use it becomes obvious”*

## 2. Areas of dissatisfaction

28. The area of the Biosafety Clearing-House that caused the most dissatisfaction was the completeness of information in the Biosafety Clearing-House (37 per cent dissatisfied), with variety and timely availability of information also causing some concern (20 per cent and 24 per cent dissatisfied, respectively). Governments expressed particular concerns with the paucity of information regarding risk assessments and decisions on environmental releases. A few respondents noted the importance of including decisions taken prior to the entry into force of the Protocol, in order to gain a complete picture from the Biosafety Clearing-House. Although in some cases it is difficult to know what information is missing (as information comes from Governments and is not sourced by the Secretariat), it is clear that much information is not being provided in a timely manner to the Biosafety Clearing-House.

- *“Limited really useful information to date (e.g. on decisions and declarations)”*
- *“No data on non-commercial events for deliberate release into the environment”*
- *“Lack of use and hence information-sharing by persons in the region”*
- *“Most of my concerns with timely availability of information on the Biosafety Clearing-House and completeness are the result of countries not posting the required information rather than with the Biosafety Clearing-House structure itself.”*
- *“No information in AIA – is it possible?”*

29. The information that is contained in the Biosafety Clearing-House is discussed further in Section 3(c)(i) below.

**Table 3: Percentage of survey respondents satisfied / dissatisfied with the Biosafety Clearing-House**

Q.1: In general, how satisfied are you when using the Central Portal of the BCH to find information?  
Scale: 1 = Very Satisfied / 2 = Satisfied / 3 = Neutral / 4 = Unsatisfied / 5 = Very Unsatisfied

	1-VS	2-S	3-N	4-U	5-VU
<b>Overall design</b> of the BCH	19	63	13	5	0
<b>First use</b> experience of the BCH	13	48	25	14	0
<b>Relevance</b> of information in the BCH	29	40	21	7	4
<b>Completeness</b> of information in the BCH	11	32	20	23	14
<b>Variety</b> of information in the BCH	12	33	35	17	3
<b>Timely availability</b> of information in the BCH	15	29	32	16	8
Ease of <b>finding information</b> in the BCH	12	44	24	17	4
<b>Usefulness</b> of search results	15	43	28	12	3
<b>Organization</b> of search results	15	54	25	5	1
Speed of <b>loading the page</b>	22	50	22	6	0
Reliability of <b>site performance</b>	16	57	21	6	0
<b>Style and appearance</b> of the website	26	49	19	5	1
<b>Online help</b> functions	13	33	44	7	3
Availability of information in <b>languages</b>	19	26	35	12	9
Quality of <b>translation</b>	8	27	52	8	4

### 3. Comparison with other mechanisms

30. Despite any problems experienced with the Biosafety Clearing-House, in general respondents seemed happy with the operation of the Biosafety Clearing-House in comparison with other information-exchange mechanisms that were available: 66 per cent believed the Biosafety Clearing-House to be better than other existing mechanisms, 23 per cent that it was about the same, and only 12 per cent that it was somewhat worse (none thought that it was much worse).

31. Other biosafety information-exchange mechanisms that were used by the respondents included: national websites (such as USDA and Canadian Government websites), regional websites (such as the EC information-exchange databases SNIFF JRC and OECD databases), IGO websites (such as ICGEB and FAO), NGO information sites (such as RAFI), specialized sites (such as Agbios), and a variety of trade publications and news alerts.

### 4. Website navigation

32. With regard to navigation of the Biosafety Clearing-House Central Portal website, 86 per cent found that most or all of the menu bar made sense, with the remainder experiencing difficulties in finding information.

33. One of the respondents noted that the navigation bar is very useful as it provides a visible “proxy site map”, but that some of the first level buttons on the navigation bar seem to be at too high a level of aggregation. Specific suggestions were received to improve usability for users who are less familiar with

the Protocol requirements, such as raising the second order buttons and highlighting access to other types of information such as the resources section and the global search option.

34. Two respondents also suggested “lightening” the home page, replacing some of the detailed information with more general information on the site, who it is intended for, and a brief overview of what you can find or do with it. Another respondent suggested including additional shortcuts to find information, such as a geographical information system (GIS) interface.

35. Suggestions were also received regarding improvements for the common formats, such as including a “date of decision” field; and allowing users to more easily report additional information, such as “general description of the LMO”, or permit numbers that might be relevant to field trials, if they wish to do so.

36. Cosmetic changes are not difficult for the Secretariat to implement, and would be expected to improve the usability of the Central Portal. Structural changes to the common formats could also improve usability, but need to be backwards compatible with existing interoperable information systems. Nevertheless, consideration must also be given to the ongoing training and capacity-building efforts being undertaken regarding use of the Biosafety Clearing-House, and how such ongoing improvements can be sustainably integrated into these activities, without restricting the flexibility of the Biosafety Clearing-House to be responsive to requests for improvements.

### ***C. Finding information in the Biosafety Clearing-House***

#### ***1. Current Biosafety Clearing-House content***

37. Currently, the total number of records in the Biosafety Clearing-House is almost 6800 (table 4). The number of records registered in the Biosafety Clearing-House by Governments varies widely by region and information type (table 5). Most Government-registered records are related to decisions under Article 11.1 of the Protocol (LMOs to be used for food, for feed or for processing) and most of these originate in developed countries, which accounts for the disparity of results in this information category. Nine risk assessments and no decisions under the Advance Informed Agreement procedure (LMOs for intentional introduction into the environment) and have been registered with the Biosafety Clearing-House (although it is known that more of such information exists).

*Table 4: Number of records in the Biosafety Clearing-House (at 29 March 2005)*

Category of information	Number of countries represented	Number of records in database
National focal points	1944 <sup>4</sup>	307
Competent National authorities	88	186
National biosafety websites and databases	27	40
<b>Total records for national contacts</b>		<b>533</b>
National laws	51	151
Bilateral, multilateral and regional agreements	4	24
<b>Total records for laws &amp; regulations</b>		<b>177</b>
Decisions under AIA (introduction into the environment)	0	0
Decisions under Article 11.1 (LMO-FFPs)	12	349
Other decisions and declarations	6	22
<b>Total records for decisions and declarations</b>		<b>371</b>
<b>Total records for risk assessments</b>	2	<b>9</b>
<b>Total records for unique identification</b>	(OECD records)	<b>66</b>
Capacity-building opportunities database	(organizations)	57
Capacity-building projects database	(organizations)	111
Capacity needs and priorities database	51	52
<b>Total records for capacity-building activities</b>		<b>220</b>
Roster of experts members	69	558
Reports on expert assignments	0	0
<b>Total records for roster of experts</b>		<b>517</b>
Relevant sites and tools	(SCBD records)	121
Bibliographic information	(ICGEB records)	4736
<b>Total records for other resources</b>		<b>4857</b>
<b>TOTAL NUMBER OF RECORDS</b>		<b>6791</b>

<sup>4/</sup> This number includes countries which have only a CBD National Focal Point, as the Secretariat provides this contact information in the absence of the Protocol Focal Point for the purpose of communication under the Protocol.

**Table 5: Regional distribution of government records in the Biosafety Clearing-House**

Region (# countries in region)	Type of record				Total
	Contact details	Decisions & declarations	Laws	Roster of experts	
Africa (54)	114	8	12	163	297
Asia and the Pacific (52)	104	39	8	134	285
Central and Eastern Europe (23)	75	4	34	92	205
Latin America and the Caribbean (33)	80	46	34	68	228
Western Europe and Others <sup>5/</sup> (33)	160	283	89	101	633
Grand Total	533	380	177	558	

38. The large number of records in the decisions and declarations category mostly represents decisions under Article 11.1 (i.e. LMOs for food, feed and for processing) that are sourced through interoperability with the OECD’s BioTrack products database, the United States Regulatory Agencies Unified Biotechnology Website and the Swiss Biosafety Clearing-House.

39. Several survey respondents made specific comments related to inconsistencies in data across countries for currently registered information, and noted the value of appointing a “central body” to review the categorization of data in the Biosafety Clearing-House that is made by individual Governments, as it appears that some Governments are misinterpreting what types of information should be included in which categories. Providing additional assistance during the data entry process of what information is expected in each category was also suggested as a solution.

- *“Do you differentiate commercial approval from trial approvals or are they all going into the AIA category?”*
- *“...Mistakes have been introduced in the BCH. For instance, MON-ØØ81Ø-6 is approved in Europe for deliberate release and marketing but appears in the BCH as only authorized for food, feed and processing.”*
- *“The BCH should also register LMOs approved before the entry into force of the Protocol.”*
- *“The types of data to be registered, and where each type shows up in the database and searching is not well documented.”*
- *“I found mainly commercial information and it seems that all have been entered as belonging to Article 11 although I believe some belongs to AIA category (although predating the entry into force of the Protocol).”*
- *“The most important thing at this point is that the Secretariat works with governments that post information in the wrong places (or do not understand the nature of the requested information) in a timely fashion so that others are not confused or misled by these errors and misunderstandings.”*

40. In many cases, it can be difficult to determine whether a lack of records in a particular category results from a lack of data (i.e. no such information exists), or if the information has not yet been reported to the Biosafety Clearing-House. However, there are certain categories of information which may be used to give an indication in this regard. No later than the date of entry into force for it, each Party is

<sup>5/</sup> Includes records registered with the BCH on a government’s behalf through the OECD product database

required to provide the Secretariat with the national focal point designated for liaison on its behalf with the Secretariat, and its competent national authority or authorities, for the Secretariat to make available through the Biosafety Clearing-House (Article 19). Each Party is also required to make available, inter alia, any existing laws, regulations and guidelines for implementation of the Protocol, as well as information required by the Parties for the advance informed agreement procedure (Article 20.3(a)), although no specific time-frame is established in the Protocol for provision of this information. Therefore it can be reasonably assumed that each Party should have made this information available to the Biosafety Clearing-House.

41. As the statistics reported in table 6 reveal, approximately 80 per cent of Parties have nominated a national focal point for the Protocol, 61 per cent of Parties have nominated a competent national authority or authorities, and 34 per cent of Parties have registered a law, regulation, guideline or summary of existing regulatory system.

42. Given the level of dissatisfaction expressed among survey respondents regarding the amount of information that is registered with the Biosafety Clearing-House, it is crucial that mechanisms for encouraging Governments to make available relevant information in a timely manner be determined.

**Table 6: Regional distribution of Parties reporting required information to the Biosafety Clearing-House**

Region (# Parties in region)	# Parties reporting for type of record		
	Protocol Focal Point	Competent National Authority	Laws, Regulations and Guidelines
Africa (32)	25	20	8
Asia and the Pacific (28)	21	13	2
Central and Eastern Europe (16)	14	11	12
Latin America and the Caribbean (22)	17	11	5
Western Europe and Others (20)	17	17	13
Total (118)	94	72	40

## 2. Most popular information types

43. The survey also addressed questions regarding the main purpose for which respondents use the Biosafety Clearing-House (table 7) and which types or categories of information were of greatest interest (table 8). These rankings are broadly supported by visit patterns to the Biosafety Clearing-House website.

44. The majority of respondents used the Biosafety Clearing-House to access scientific, technical, environmental and legal information on, and experience with, living modified organisms (74 per cent), as a general resource for biosafety information (65 per cent), and to find out which LMOs have been released in a particular area (52 per cent). In addition to popular Protocol-related information such as decisions and declarations, risk assessments and contact details, a significant number of users were interested in the LMOs database, including the registry of unique identifiers (70 per cent) and capacity-building activities (63 per cent).

**Table 7: Percentage of survey respondents using the Biosafety Clearing-House for a particular purpose**

Q.3: For what purposes do you usually use the BCH?<sup>6/</sup>

%	Purpose of use
74	To access scientific, technical, environmental and legal information on, and experience with, living modified organisms
65	As a general resource for a broad range of biosafety information (including other relevant websites, organizations, bibliographic records, etc.)
52	To find out which LMOs have been released in a particular area
51	To look for updates to earlier information
48	To learn about available capacity-building activities
42	To assist your government or institution to fulfill obligations under the Protocol
32	Professional development
28	To access the roster of experts
29	As a tool for academic research
28	To find a link to something else
12	Other (not specified)

**Table 8: Percentage of survey respondents interested in using information types**

Q.3: What types of information that are available in the BCH are you most interested in using?<sup>7/</sup>

%	Type of information
81	Decisions and declarations
76	Risk assessments
70	Living modified organisms (including the registry of unique identifiers)
67	National contact information (including National Focal Points, Competent National Authorities, etc.)
63	Capacity-building activities
56	Discussion forums
50	Roster of biosafety experts
32	Biosafety news items
21	Laws and regulations

<sup>6/</sup> Note that multiple responses were accepted to this question, so percentages do not total 100.

<sup>7/</sup> Note that multiple responses were accepted to this question, so percentages do not total 100.

45. Although one respondent indicated that the purpose of the unique identifier database (UID) was unclear:

- *“Is the UID supposed to be a listing of UIDs to be used as a reference for developers, so they can correctly assigned a UID to a new product, or is the UID table supposed to be a cross reference between the decision tables? ... We would recommend dropping product description fields from the product information from the UID tables as this data is reported by countries within each decision.”*

46. Cross-tabulated results reveal that this database is especially popular with developing country Governments. Almost all Governments in non-WEOG countries are interested in accessing information on unique identifiers through the Biosafety Clearing-House (85 per cent), while only half of WEOG Governments have an interest in doing so (56 per cent). It is likely that this difference is due in part to the OECD member countries accessing this information directly through the source database maintained by the OECD Secretariat.

### 3. *Requests for new features*

47. In keeping with the large number of respondents who use the Biosafety Clearing-House as a general resource for biosafety information (65 per cent), several responses to the question about possible new or expanded sections of the Biosafety Clearing-House included requests for access to a broader range of biosafety information, particularly from developing countries who may have limited access to such information.

- *“I am most interested in a broad range of biosafety information”*
- *“More biosafety research information should be made available”*
- *“Peer-reviewed scientific research, etc”*
- *“An overall section on general information about LVMs or GMOs*
- *“...[Interested in a] broad range of biosafety information that can be useful to implement the protocol”*

48. It is worth noting that the Secretariat is at present developing a Biosafety Information Resource Centre in accordance with decision BS-I/5, para.18 and annex IV, of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety. The Resource Centre is intended to incorporate a broader range of information sources than it is presently possible to do through the Biosafety Clearing-House resources database (which is essentially a list of weblinks) and the biosafety bibliography (which is populated through the ICGEB biosafety databases). The Resource Centre will be a “virtual library” consisting of catalogues of information, scientific data and resource materials relevant to biosafety capacity-building, categorized using the Biosafety Clearing-House controlled vocabulary, and could therefore conceivably be linked to other types of records within the Biosafety Clearing-House if desired.

#### ***D. Registering information with the Biosafety Clearing-House***

49. About half of the survey respondents had registered (or planned to register) information with the Biosafety Clearing-House, using either the Management Centre (43 per cent), the simple nBCH application (24 per cent) or interoperability mechanisms (17 per cent). This percentage break-down is not a reflection of actual information registration patterns for the Biosafety Clearing-House, where the vast majority of countries use the management centre, and only three countries (Canada, Switzerland, and United States of America) and two IGOs (OECD and ICGEB) regularly report information through interoperability with the Biosafety Clearing-House. Two countries (Belgium and Niger) have registered information using the simple nBCH, and a number of other countries have carried out tests to upload data using the Biosafety Clearing-House training database.

1. *Management Centre*

50. The majority of users were satisfied with the design and use of the Biosafety Clearing-House management centre (table 9), although several noted that more online help functions could be provided. The level of satisfaction was directly related to the frequency of use of the Biosafety Clearing-House, so it was clear that operation of the management centre became easier with familiarity.

51. Many respondents noted that they were very satisfied with the management centre:

- “Management centre is very well done – super easy to use”
- “The system is very user-friendly”
- “Very satisfied with this section”.

52. Concerns expressed in the comments section reflected a lack of documentation for certain features (such as methods of adding multilingual information, explanations of user roles in the validation process, location of records in the database once registered) and a lack of funding and material assistance from the Secretariat to establish national Biosafety Clearing-House components (because the Secretariat is not a funding body, such requests are forwarded to the financial mechanism).

**Table 9: Percentage of survey respondents satisfied / dissatisfied with the Management Centre of the Biosafety Clearing-House**

Q.2(i): Please comment on your satisfaction with the following elements when using the Management Center to register information with the Central Portal. Scale: 1 = Very Satisfied / 2 = Satisfied / 3 = Neutral / 4 = Unsatisfied / 5 = Very Unsatisfied

NB: between 20-32 responses received on each section of this question.

	1-VS	2-S	3-N	4-U	5-VU
	Percentage responses (actual # responses)				
<b>Overall design</b> of the Management Centre	25% (8)	56% (18)	9% (3)	6% (2)	3% (1)
<b>First use</b> experience of the Management Centre	23% (7)	37% (11)	33% (10)	3% (1)	3% (1)
<b>Style and appearance</b> of the Management Centre	22% (7)	50% (16)	22% (7)	3% (1)	3% (1)
Ease of <b>registering new information</b>	31% (9)	48% (14)	7% (2)	7% (2)	7% (2)
Ease of <b>managing existing information</b>	28% (8)	48% (14)	10% (3)	7% (2)	7% (2)
Operation of the <b>record validation</b> process	39% (10)	35% (9)	23% (6)	0	4% (1)
<b>Online help</b> functions	25% (5)	35% (7)	25% (5)	5% (1)	10% (2)
<b>Support and assistance</b> provided by the Secretariat	54% (13)	29% (7)	8% (2)	4% (1)	4% (1)

## 2. Simple nBCH Application

53. The majority of users were generally satisfied with the simple nBCH option (Table 10), although there were some concerns about the difficulties of managing information in the system. One response noted that needing to enter recurrent information (such as contact details) would be annoying in the long-term. A suggestion was made to expand the functionality of the simple BCH in order to create an import-export facility that would allow users to download records from the Central Portal BCH to a local server to enable them to be accessed through the simple nBCH when not connected to the Internet.

**Table 10: Percentage of survey respondents satisfied / dissatisfied with the simple national BCH application**

Q.2(ii): Please comment on your satisfaction with the following elements when using the simple nBCH to register information with the Central Portal. Scale: 1 = Very Satisfied / 2 = Satisfied / 3 = Neutral / 4 = Unsatisfied / 5 = Very Unsatisfied

NB: between 14 to 17 responses received on each section of this question.

	1-VS	2-S	3-N	4-U	5-VU
	Percentage responses (actual # responses)				
<b>Overall design</b> of the simple national BCH application	30% (5)	53% (9)	6% (1)	6% (1)	6% (1)
<b>First use</b> experience of the simple national BCH application	13% (2)	44% (7)	31% (5)	6% (1)	6% (1)
<b>Style and appearance</b> of the simple national BCH application	6% (1)	56% (9)	31% (5)	0	6% (1)
Ease of <b>registering new information</b>	24% (4)	47% (8)	24% (4)	0	6% (1)
Ease of <b>managing existing information</b>	7% (1)	60% (9)	13% (2)	13% (2)	7% (1)
Ease of managing information <b>at a local level</b> (i.e. off-line / before uploading information)	7% (1)	64% (9)	14% (2)	14% (2)	0
<b>Online help</b> functions	0	50% (7)	43% (6)	0	7% (1)
<b>Support and assistance</b> provided by the Secretariat	27% (4)	53% (8)	13% (2)	0	7% (1)

## 3. Interoperability

54. Respondents indicated which of the interoperability mechanisms they had used: sending records using the BCH web service (36 per cent); sending records through the simple nBCH (27 per cent); and crawling / BCH downloading regularly XML records from a website (crawling) (18 per cent). Users of this service seemed generally satisfied with the options available to them (table 11).

**Table 11: Percentage of survey respondents satisfied / dissatisfied with Interoperability mechanisms**

Q.2(iii): Please comment on your satisfaction with the following elements when using the simple interoperability to register information with the Central Portal. Scale: 1 = Very Satisfied / 2 = Satisfied / 3 = Neutral / 4 = Unsatisfied / 5 = Very Unsatisfied

NB: between 9 to 10 responses received on each section of this question

	1-VS	2-S	3-N	4-U	5-VU
	Percentage responses (actual # responses)				
<b>Range of choice</b> of the interoperability mechanisms	33% (3)	67% (6)	0	0	0
Ease of <b>registering new information</b>	0	89% (8)	11% (1)	0	0
Ease of <b>managing existing information</b>	0	78% (7)	22% (2)	0	0
<b>Support and assistance</b> provided by the Secretariat	20% (2)	60% (6)	20% (2)	0	0

### *E. Other Biosafety Clearing-House information services*

#### *1. Current awareness service subscriptions*

55. On 1 July 2004, the Secretariat launched a Current Awareness Service that allows users to receive regular updates summarizing new information that has been added to the Biosafety Clearing-House, sent directly to users by email (or to a specified fax number). The categories of information to be included in the summaries and the frequency of their delivery are individually customizable to the user. Biosafety Clearing-House National Focal Points are automatically subscribed to the service, while other users must elect to receive the notices. Currently, 123 users are subscribed to the Current Awareness Service to receive email notifications, and one user is subscribed by fax.

56. Although the current awareness service was not addressed in the survey, a number of respondents added specific comments on its usefulness, and the Secretariat has received several direct communications that indicate this service is widely read and valued.

#### *2. Online/e-mail conference*

57. In the interest of examining the use of online forums to further promote biosafety information-sharing, the Biosafety Clearing-House hosted its first online conference on “biosafety considerations in the use of genetically modified organisms for management of animal populations” from 18 October to 15 November 2004. A total of 495 participants registered for the conference from 104 countries, including 247 participants from developing countries and countries with economies in transition, and 228 participants from developed countries (20 participants did not specify their country of origin).

58. The conference was web-based and threaded; however, by default all users were registered to also track the conference by e-mail. It was also possible to participate in the conference exclusively through email (and approximately 25 per cent users did so), or to register a fax number to receive a daily digest of posts by fax (one user registered for this option).

### 3. *Discussion forums*

59. The Secretariat opened the Discussion Forums section of the Biosafety Clearing-House in November 2003. The main topics of the general discussion forums include a “Getting Started” forum for Biosafety Clearing-House novices; a user-support forum, intended mainly for national focal points or regulators experiencing difficulties in using the Biosafety Clearing-House; a feature requests forum to request improvements; a capacity-building forum to discuss biosafety capacity-building needs; and an un-moderated “test” forum to allow users to test the forum system. The two technical discussion forums are related to interoperability, which allows users to share solutions to technical problems; and the Simple National Biosafety Clearing-House Application to discuss issues related to the nBCH software tool.

60. Although fully functional, the forums have not proved particularly popular (1,245 users have contributed 98 posts, with the bulk of these made in the “test” forum during training workshops), but they do continue to receive very occasional posts. The most read forums are the capacity-building forum and the interoperability forum. Interestingly, 56 per cent of survey respondents indicated that they were interested in using the discussion forums in future (table 8), which suggests that this feature may still be a useful tool if forums are targeted appropriately.

### 4. *News functions of the Biosafety Clearing-House*

61. In August 2004, a feature was added that allowed registered national focal points of the Biosafety Clearing-House to submit their own national (or regional) biosafety news to be featured on the Biosafety Clearing-House. This feature was intended to allow governments to ensure that their information is circulated widely to all users of the Biosafety Clearing-House (Biosafety Clearing-House News is also available as a RSS feed). Although a notification in this regard was sent by the Secretariat to all national focal points, no Government has yet taken advantage of this feature.

### *F. Use of Non-Internet or non-web options*

62. Biosafety Clearing-House users were requested to indicate current usage of non-Internet options to access the Biosafety Clearing-House, as well as future plans to make use of these options (table 12). The majority of respondents are using the web-based Central Portal to access the Biosafety Clearing-House (71 per cent); however, approximately 10 per cent are searching for information on the CD-ROM versions of the Biosafety Clearing-House (the most recent version was released in February 2004). Of the survey respondents, 12 per cent are storing local information on the simple nBCH application, and 7 per cent reported that they were uploading this information to the Central Portal (however, only two records on the “live” Biosafety Clearing-House have been uploaded through this mechanism, although several countries have been testing the system with the training database). A small number of users are making use of printed summaries of information (such as the compendium of the roster of experts that is circulated annually in accordance with decision BS-I/4 of the Conference of the Parties serving as the Meeting of the Parties to the Protocol on Biosafety).

**Table 12: Percentage of survey respondents using or planning to use non-Internet options to access and use the BCH <sup>8/</sup>**

Q.10: Which of the following non-Internet options have you used?

Q.11: If you will continue to use, or plan to make use of non-Internet options, which of the following options would you be likely to use in the future?

Capacity-building option	% use currently	% will use in future
Searching for BCH information on CD-ROM	11	20
Storing local information via the simple nBCH application developed by the Secretariat	12	11
Uploading information via the simple nBCH application developed by the Secretariat	7	12
Searching printed summaries of information on the BCH (e.g. roster of experts compendium)	9	7
Accessing a regional or national help desk	6	7
None – I am happy using the Internet-based BCH options	71	68
None – I would have used these non-Internet options, but I didn't know they were available	5	N/a

63. Respondents from developing country regions all expressed concerns with the speed and expense of accessing information through the Internet, although most of these respondents indicated that they will continue to use the Internet-based options regardless:

- *“Internet connection is unreliable as well as very slow.”*
- *“Internet connection is available but expensive.”*
- *“When there is no Internet connection at the office, I have to access the Internet through a public Internet café, but I have to pay by my pocket.”*
- *“Internet connection is too slow, unreliable and therefore forced to use public Internet café that now becomes expensive.”*

64. Respondents noted that the CD-ROM and nBCH applications were very useful in regions that did not have good Internet connectivity, but they expressed particular (and well-founded) concerns regarding timeliness of accessing information through these mechanisms. In view of the expected growth of users of the CD-ROM option (11 per cent currently using it; 20 per cent plan to use it in future), ways and means to improve this option to meet the needs of users with respect to timely availability of information should be explored:

- *“I would prefer to use the CD-ROM option, but I do not think that the information that we get will be as new as online system”.*

#### G. Secretariat assistance

65. Half of the survey respondents addressed the section on the assistance they had received from the Secretariat (table 13). Respondents were generally very satisfied with the assistance from the Secretariat; the one complaint noted was to do with a lack of financial assistance (which the Secretariat is unable to provide). Many respondents specifically mentioned their appreciation of the responsiveness of the Secretariat to suggestions for improvement.

<sup>8/</sup> Note that multiple responses were accepted to this question, so percentages do not total 100.

- “The CBD Secretariat has done a fantastic job with the development of the BCH and I appreciate that everyone is always open to input”
- “Secretariat response has been very good to any request for help whether made by phone or email”
- “Secretariat has been very open to ... feedback and has been very responsive in accommodating input or suggestions wherever feasible.”
- “The Secretariat ... has been very responsive to suggestions and concerns.”
- “Always interested in continuing the excellent working relations we have had to date with the Secretariat”
- “Very pleased with both the speed and usefulness of the information provided”
- “Keep up the good work”

**Table 13: Survey respondents’ satisfaction with Secretariat assistance**

Q.7: If you have contacted the Secretariat for assistance, how satisfactorily were your problems resolved?

	1-VS	2-S	3-N	4-U	5-VU
	Percentage responses (actual # responses)				
<b>Overall quality</b> of the assistance	46% (19)	34% (14)	17% (7)	0	3% (1)
<b>Timeliness</b> of the response	45% (18)	25% (10)	25% (10)	3% (1)	3% (1)
<b>Clarity</b> of the response	53% (21)	30% (12)	15% (6)	0	3% (1)
<b>Usefulness</b> of information provided	51% (20)	28% (11)	15% (6)	3% (1)	3% (1)
<b>Technical competence</b> of the assistance	55% (22)	28% (11)	15% (6)	0	3% (1)

#### *H. Proposed follow-up*

66. Several respondents commented that the survey was seen to be a very useful way of eliciting responses and it could be useful to repeat the survey at a later date to compare against this baseline data.

- “Congratulations on your initiative to undertake this survey”
- “I hope the questionnaire should be coming quite often so that any emerging issue can be addressed promptly”

#### **IV. IMPLICATIONS FOR A MULTI-YEAR PROGRAMME OF WORK FOR THE BIOSAFETY CLEARING-HOUSE**

67. This section examines some of the key findings of the review in further detail, with a view to assisting in determining elements for a longer-term programme of work for the Biosafety Clearing-House. Draft recommendations for a multi-year programme of work arising from the results of this review are discussed in document on the elements of a longer-term programme of work for the Biosafety Clearing-House (UNEP/CBD/BS/BCH-IAC/1/4).

##### **General level of user satisfaction**

- Most respondents considered the design of the Biosafety Clearing-House to be satisfactory or very satisfactory.

- *Most survey respondents were very satisfied with the assistance received from the Secretariat regarding the Biosafety Clearing-House.*
- *Most survey respondents were satisfied with the options available to register information with the Biosafety Clearing-House.*

68. The Secretariat should endeavor to continue to maintain the Biosafety Clearing-House services taking into account the feedback received from the users of the Biosafety Clearing-House.

#### ***Structure and function of the Central Portal***

- *Government users are able to easily find information in the Biosafety Clearing-House; however, users from other sectors, such as industry and NGOs experience some difficulties in locating information.*

69. Without making major changes to the design and use of the Central Portal, the structure of the Biosafety Clearing-House should be reviewed with a view to making it more intuitive to find and register information. Several individual survey responses included specific suggestions in this regard that will be reviewed by the Secretariat to find common areas for improvement.

70. Particular areas that may be targeted for improvement include the aggregation of information through the navigation bar, the amount of information on the home page, search functionality, and improvements to the common formats for reporting information.

#### ***Information content and management***

- *The greatest concern with the Biosafety Clearing-House is incomplete information, including delays experienced in Governments providing information, particularly that which the Protocol requires Parties to submit to the Biosafety Clearing-House.*

71. Mechanisms to encourage Governments to provide relevant information to the Biosafety Clearing-House in a timely manner must be elaborated and implemented. A number of capacity-building activities are being undertaken in this regard, but this will not address the lack of information being reported from developed countries.

72. Many documents have been produced that outline the categories of information that should be provided to the Biosafety Clearing-House, and the Protocol clearly stipulates certain time-limits that must be met for reporting certain categories of information. Some of this information could be made more visible on the Biosafety Clearing-House itself, to assist Governments in providing appropriate data. User documentation and online help functions could be reviewed and updated to provide more assistance during the data entry process of what information is expected in each category (more intuitive categorization of information, as discussed above, may also help in this regard). In addition, the Secretariat could be requested to take a more active role in reviewing the categorization of information in the Biosafety Clearing-House databases.

- *Flexibility of the Secretariat in modifying the central portal in response to user needs was greatly appreciated by survey respondents.*
- *Online help functions and documentation are important to Biosafety Clearing-House users and need to be maintained.*

73. Biosafety Clearing-House users are generally very appreciative of the Secretariat's flexibility in responding to suggestions, and there is no question that the design of the Biosafety Clearing-House benefits greatly from implementing these suggested improvements. However, the Secretariat does not currently have the resources to create and maintain sophisticated documentation and online help facilities in response to persistent changes.

74. Without restricting the flexibility of the Biosafety Clearing-House to be responsive to requests for improvements, consideration must also be given to the ongoing training and capacity-building efforts

being undertaken by external agencies, and how such ongoing improvements can be sustainably incorporated into training packages produced by these activities.

***Capacity-building and non-Internet accessibility***

- *New Biosafety Clearing-House information services that are being introduced by the Secretariat are well-received, in particular the Current Awareness Service that sends email updates of new records registered with the Biosafety Clearing-House.*

75. Information services that are targeted to specific users should continue to be examined by the Secretariat, and implemented where time and resources allow. In particular, services that make use of email functionality may be more cost-effective in areas where web access is very expensive.

- *There are concerns regarding timely access to Biosafety Clearing-House information using the non-Internet options.*

76. The feasibility of expanding the functionality of the simple Biosafety Clearing-House to allow users to download records from the Central Portal of the Biosafety Clearing-House to a local server could be further examined. It may also be beneficial to circulate CD-ROM versions of the contents of the Central Portal more frequently to those users without good access to the website. However, resources to undertake these activities would need to be secured.

***Sharing information on and experience with LMOs***

- *Many survey respondents would like to use the Biosafety Clearing-House to access a broader range of biosafety information.*

77. The Secretariat should continue to develop the Biosafety Information Resource Centre. Governments and interested organizations and institutions should also be encouraged to provide information to this facility, to enable Biosafety Clearing-House users to access a broad range of biosafety information, and to establish links to the Resource Centre on their own national websites.

***Further review***

78. The Biosafety Clearing-House survey yielded many useful and interesting results that may contribute to future development and improvement of the Biosafety Clearing-House. It would be beneficial to consider undertaking a future survey in order to compare the impacts of the improvements that have been elicited throughout the current process.

*Annex I*

**LIST OF COUNTRIES FROM WHICH SURVEY RESPONSES WERE RECEIVED**

<b>Country of origin</b>	<b># responses</b>	<b>Country of origin</b>	<b># responses</b>
Australia	3	Mexico	1
Bahamas	1	Namibia	1
Bangladesh	1	Netherlands	3
Barbados	2	Niger	1
Belarus	1	Nigeria	1
Belgium	4	Niue	1
Bhutan	1	Norway	1
Bulgaria	1	Philippines	1
Burkina Faso		Poland	1
Canada	3	Portugal	1
China	1	Republic of Moldova	1
Colombia	1	Saint Lucia	1
Comoros	1	Senegal	1
DPR Korea	1	Slovakia	2
Denmark	1	Spain	1
Ecuador	1	Sri Lanka	1
Egypt	1	Sudan	1
Ethiopia	1	Swaziland	1
Finland	1	Sweden	1
France	5	Switzerland	2
Germany	1	Tajikistan	1
Ghana	1	Thailand	1
Greece	1	Togo	1
India	1	Tonga	1
Italy	2	United Kingdom	2
Japan	1	United Republic of Tanzania	1
Kenya	1	United States of America	8
Latvia	1	Viet Nam	1
Malaysia	1	<b>TOTAL</b>	<b>82</b>

*Annex II*

**STRUCTURE OF THE BCH SURVEY**

Dear Biosafety Clearing-House User:

As you may know, the Secretariat is in the process of preparing a longer-term programme of work for the operation of the Biosafety Clearing-House (BCH). We would like to seek your views to assist us in this task. The attached questionnaire has been prepared for this purpose. It contains 26 questions and it has been designed to allow you to complete it very quickly by selecting the most appropriate answer option provided for each question. However, there are several opportunities to provide additional comments, and we would encourage you to provide this additional information where possible, as it will be very valuable to the Secretariat in designing future improvements to the BCH.

We would like all BCH users, or potential BCH users, to assist us in providing information through the questionnaire, so please feel free to make copies and distribute it widely among your colleagues. The questionnaire is available in hard-copy or electronically from the Secretariat, or via the BCH website address: <http://bch.biodiv.org/survey.aspx>, where it can be downloaded as a PDF or MS Word document, or completed on-line.

Thank you for taking the time to share with us your experiences in using the BCH. We sincerely appreciate your honest opinion, and will take your input into consideration for future design of the BCH. The information that you provide will also be considered by the Conference of the Parties serving as the meeting of the Parties to the Protocol at its second meeting during its review of the operation of the BCH.

Yours sincerely

Hamdallah Zedan  
Executive Secretary

**Further information**

If you have any comments or questions about this survey, please contact:  
Kirsty Galloway McLean  
Scientific and Technical Information Officer, Biosafety  
393 Rue St-Jacques, Suite 300  
Montreal QC H2Y-1N9  
Canada  
Email: [kirsty.mclean@biodiv.org](mailto:kirsty.mclean@biodiv.org)  
Tel: +1 (514) 287-7039

***Please return completed questionnaires before Friday, 17 September 2004 to:***

***CBD Secretariat***  
393 rue St-Jacques, Suite 300, Montreal QC H2Y-1N9, Canada  
Tel: +1 (514) 288-2220; Fax: +1 (514) 287-7039; email: [bch@biodiv.org](mailto:bch@biodiv.org)

*Section I*

**INTRODUCTION**

1. The Biosafety Clearing-House (BCH) is an information exchange mechanism established by the Cartagena Protocol on Biosafety to assist Parties to implement its provisions and to facilitate sharing of information on, and experience with, living modified organisms (LMOs). Information in the BCH is available through the central portal (available at <http://bch.biodiv.org>), and is provided by national governments and other partners. This questionnaire should be filled out by anyone who has used (or plans to use) the Biosafety Clearing-House, and the results will be collated for use in preparing a longer-term programme of work for the Biosafety Clearing-House.

*Section II*

**OVERALL IMPRESSIONS AND USER EXPERIENCES WITH THE BCH**

**Q. 1:** *In general, how satisfied are you when using the Central Portal of the BCH to find information? A list of elements is supplied below for your consideration, but please feel free to expand on your answers, or add any other matters that are important to you in the comments section.*

Scale: 1 = Very Satisfied / 2 = Satisfied / 3 = Neutral / 4 = Unsatisfied / 5 = Very Unsatisfied / 6 = Not applicable/Don't know

	<b>1-VS</b>	<b>2-S</b>	<b>3-N</b>	<b>4-U</b>	<b>5-VU</b>	<b>6-NA</b>
<b>Overall design</b> of the BCH						
<b>First use</b> experience of the BCH						
<b>Relevance</b> of information in the BCH						
<b>Completeness</b> of information in the BCH						
<b>Variety</b> of information in the BCH						
<b>Timely availability</b> of information in the BCH						
Ease of <b>finding information</b> in the BCH						
<b>Usefulness</b> of search results						
<b>Organization</b> of search results						
Speed of <b>loading the page</b>						
Reliability of <b>site performance</b>						
<b>Style and appearance</b> of the website						
<b>Online help</b> functions						
Availability of information in <b>languages</b>						
Quality of <b>translation</b>						

*Comments (for example, please explain why you are particularly satisfied or unsatisfied with certain elements):*

**Q. 2:** If you have had an opportunity to **register information with the BCH** (this would usually apply only to National Focal Points and other registered users), please let us know your experiences with using the registration functions of the BCH with which you have experience. Other respondents, please continue to Question 3. (Please select all answers that apply.)

- |  |  |
|--|--|
|  | I have used (or plan to use) the online Management Centre to register information with the BCH (please answer section (i) below)         |
|  | I have used (or plan to use) the simple national BCH application to register information with the BCH (please answer section (ii) below) |
|  | I have used (or plan to use) interoperability mechanisms to register information with the BCH (please answer section (iii) below)        |
|  | I do not register information with the BCH (please continue to Question 3 below)   |

**Section (i)**

**MANAGEMENT CENTRE**

Please comment on your satisfaction with the following elements when using the Management Center to register information with the Central Portal:

Scale: 1 = Very Satisfied / 2 = Satisfied / 3 = Neutral / 4 = Unsatisfied /  
5 = Very Unsatisfied / 6 = Not applicable/Don't know

	1-VS	2-S	3-N	4-U	5-VU	6-NA
<b>Overall design</b> of the Management Centre						
<b>First use</b> experience of the Management Centre						
<b>Style and appearance</b> of the Management Centre						
Ease of <b>registering new information</b>						
Ease of <b>managing existing information</b>						
Operation of the <b>record validation</b> process						
<b>Online help</b> functions						
<b>Support and assistance</b> provided by the Secretariat						

Comments (for example, please let us know what you would improve about this method of registering information):

---



---



---

**Section (ii)**

***SIMPLE NATIONAL BCH APPLICATION***

Please comment on your satisfaction with the following elements when using the simple national BCH application to register information with the Central Portal:

Scale: 1 = Very Satisfied / 2 = Satisfied / 3 = Neutral / 4 = Unsatisfied /  
5 = Very Unsatisfied / 6 = Not applicable/Don't know

	1-VS	2-S	3-N	4-U	5-VU	6-NA
<b>Overall design</b> of the simple national BCH application						
<b>First use</b> experience of the simple national BCH application						
<b>Style and appearance</b> of the simple national BCH application						
Ease of <b>registering new information</b>						
Ease of <b>managing existing information</b>						
Ease of managing information <b>at a local level</b> (i.e. off-line / before uploading information)						
<b>Online help</b> functions						
<b>Support and assistance</b> provided by the Secretariat						

*Comments (for example, please let us know what you would improve about this method of registering information):*

---



---



---

***Section (iii)***

**INTEROPERABILITY MECHANISMS**

(a) What is your **preferred mechanism** for interoperability?

- I prefer the BCH to download regularly XML records from my site (crawling)
- I prefer to send the records using the BCH Web Service
- I prefer to send records from the simple national BCH application
- I don't know / not applicable
- Other (please specify): ...

(b) What **database platform** do you use (or plan to use)?

<input type="checkbox"/>	Microsoft Access (JET)
<input type="checkbox"/>	Microsoft SQL
<input type="checkbox"/>	MySQL
<input type="checkbox"/>	Oracle
<input type="checkbox"/>	PostgreSQL
<input type="checkbox"/>	I don't know / not applicable
<input type="checkbox"/>	Other (please specify): ...

(c) Which **web development platform** do you use?

<input type="checkbox"/>	Java/JSP/J2EE
<input type="checkbox"/>	Microsoft ASP.NET
<input type="checkbox"/>	Microsoft IIS (ASP)
<input type="checkbox"/>	PHP
<input type="checkbox"/>	Zope
<input type="checkbox"/>	I don't know / not applicable
<input type="checkbox"/>	Other (please specify): ...

(d) Please comment on your satisfaction with the following elements when using interoperability mechanisms to register information with the Central Portal:

Scale: 1 = Very Satisfied / 2 = Satisfied / 3 = Neutral / 4 = Unsatisfied /  
5 = Very Unsatisfied / 6 = Not applicable/Don't know

	1-VS	2-S	3-N	4-U	5-VU	6-NA
<b>Range of choice</b> of the interoperability mechanisms						
Ease of <b>registering new information</b>						
Ease of <b>managing existing information</b>						
<b>Support and assistance</b> provided by the Secretariat						

*Comments (for example, please let us know what you would improve about this method of registering information):*

---



---



---

**Section III**  
**BCH SERVICES**

**Q. 3:** For **what purposes** do you usually use the BCH? (Please select all answers that apply.)

- |  |  |
|--|--|
|  | To access scientific, technical, environmental and legal information on, and experience with, living modified organisms                          |
|  | To assist your Government or institution to fulfill obligations under the Protocol   |
|  | To find out which LMOs have been released in a particular area   |
|  | To learn about available capacity-building activities  |
|  | To access the roster of experts  |
|  | As a tool for academic research  |
|  | As a general resource for a broad range of biosafety information (including other relevant websites, organizations, bibliographic records, etc.) |
|  | To look for updates to earlier information   |
|  | Professional development   |
|  | To find a link to something else   |
|  | Other (please specify): ...  |

*Comments (for example, what is particularly helpful for your purposes, or what could be improved):*

---



---



---

**Q. 4:** What types of information available through the BCH are you **most interested** in using? (Please select all answers that apply.)

- |  |  |
|--|--|
|  | National contact information (including National Focal Points, Competent National Authorities, etc.) |
|  | Laws and regulations   |
|  | Decisions and declarations   |
|  | Risk assessments   |
|  | Living modified organisms (including the registry of unique identifiers)                             |
|  | Capacity-building activities   |
|  | Roster of biosafety experts  |
|  | Biosafety news items   |
|  | Discussion forums  |
|  | Other (please specify): ...  |

*Comments:* \_\_\_\_\_

---



---

**Q. 5:** Does the **organization of information through the menu** of items on the home page make sense to you?

- Yes, it makes complete sense to me
- Yes, most of it makes sense to me
- No, only some of it makes sense to me
- No, I find it very difficult to find information
- I don't know

*Comments (for example, if you have experienced difficulties in finding information, what would you change about the menu to make it easier to find information):*

---



---



---

**Q. 6:** Have you experienced any **problems finding information** in the BCH?

- Yes
- No
- I don't know / I have not searched for information in the BCH

*Comments (for example, list any problems you encountered, such as having to try several searches to get the information you were looking for):*

---



---



---

**Q. 7:** If you have **contacted the Secretariat** for assistance, how satisfactorily were your problems resolved?

Scale: 1 = Very Satisfied / 2 = Satisfied / 3 = Neutral / 4 = Unsatisfied /  
5 = Very Unsatisfied / 6 = Not applicable/Don't know

	1-VS	2-S	3-N	4-U	5-VU	6-NA
<b>Overall quality</b> of the assistance						
<b>Timeliness</b> of the response						
<b>Clarity</b> of the response						
<b>Usefulness</b> of information provided						
<b>Technical competence</b> of the assistance						

*Comments (for example, please explain why you are particularly satisfied or unsatisfied with the assistance you received):*

---



---



---

**Q. 8:** *Are there any specific sections of the BCH for which you would like to **propose an improvement**?*

No

Yes – please give details...

---

---

---

---

---

---

---

**Q. 9:** *Is there any **new section** that you would like to propose for consideration in the BCH?*

No

Yes – please give details...

---

---

---

---

---

---

---

*Section IV*  
**NON-INTERNET OPTIONS**

**Q. 10:** Which of the following **non-Internet options** have you used? (Please select all answers that apply.)

- |                          |  |
|--------------------------|--|
| <input type="checkbox"/> | Searching for BCH information on CD-ROM  |
| <input type="checkbox"/> | Storing local information via the simple nBCH application developed by the Secretariat     |
| <input type="checkbox"/> | Uploading information via the simple nBCH application developed by the Secretariat         |
| <input type="checkbox"/> | Searching printed summaries of information on the BCH (e.g. roster of experts compendium)  |
| <input type="checkbox"/> | Accessing a regional or national help desk   |
| <input type="checkbox"/> | None – I would have used these non-Internet options, but I didn't know they were available |
| <input type="checkbox"/> | None – I am happy using the Internet-based BCH options                                     |
| <input type="checkbox"/> | Other (please specify): ...  |

*Comments (for example, do you use non-Internet options mainly to search for information, or to upload information to the databases):*

---

---

---

**Q. 11:** If you will continue to use, or plan to make use of non-Internet options, which of the following options would you be **likely to use in the future?** (Please select all answers that apply.)

- |                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Searching for BCH information on CD-ROM   |
| <input type="checkbox"/> | Storing local information via the simple nBCH database developed by the Secretariat       |
| <input type="checkbox"/> | Uploading information via the simple nBCH database developed by the Secretariat           |
| <input type="checkbox"/> | Searching printed summaries of information on the BCH (e.g. roster of experts compendium) |
| <input type="checkbox"/> | Accessing a regional or national help desk  |
| <input type="checkbox"/> | None – I will be using the Internet-based BCH options                                     |
| <input type="checkbox"/> | Other (please specify): ...   |

*Comments (for example, please list any other options that might be useful, or explain why certain options would not work for you):*

---

---

---

*Section V*  
**IT ENVIRONMENT**

**Q. 12:** Which **Web browsers** do you use? (Please select all answers that apply.)

<input type="checkbox"/>	Internet Explorer 5.5 or more
<input type="checkbox"/>	Internet Explorer 5.0 or less
<input type="checkbox"/>	Netscape 6.0 or more
<input type="checkbox"/>	Netscape 4.0 or less
<input type="checkbox"/>	Safari
<input type="checkbox"/>	Opera
<input type="checkbox"/>	I have no web browser
<input type="checkbox"/>	I don't know
<input type="checkbox"/>	Other (please specify): ...

**Q. 13:** What sort of **Internet connection** do you have? (Please select all answers that apply.)

<input type="checkbox"/>	Fast and reliable Internet connection
<input type="checkbox"/>	Slow, but reliable Internet connection
<input type="checkbox"/>	Unreliable Internet connection
<input type="checkbox"/>	Internet is easily accessible through the office
<input type="checkbox"/>	Internet is available through the office, but access is restricted (e.g. shared with other people)
<input type="checkbox"/>	Internet is available at home
<input type="checkbox"/>	I have no Internet connection, but regularly access the Internet through a public Internet café (or equivalent)
<input type="checkbox"/>	I have no access to Internet
<input type="checkbox"/>	Other (please specify): ...

*Comments (for example, is your Internet connection available but too expensive to use regularly):*

---

---

---

**Q. 14:** What is your **access speed** to the Internet?

<input type="checkbox"/>	33.6 or less
<input type="checkbox"/>	56K
<input type="checkbox"/>	Cable / DSL
<input type="checkbox"/>	ISDN
<input type="checkbox"/>	LAN (office, high speed)
<input type="checkbox"/>	I have no Internet connection
<input type="checkbox"/>	I don't know
<input type="checkbox"/>	Other (please specify): ...

**Section VI**

**USER DEMOGRAPHICS**

**Q. 15:** **Occupation / profession** – please check all that apply:

<input type="checkbox"/>	National/Federal Government Official
<input type="checkbox"/>	State/Province/Local Government Official
<input type="checkbox"/>	BCH National Focal Point
<input type="checkbox"/>	BCH National Authorised User
<input type="checkbox"/>	BCH Institutional Focal Point
<input type="checkbox"/>	Biosafety regulator
<input type="checkbox"/>	Program Manager
<input type="checkbox"/>	Clerical/Secretarial officer
<input type="checkbox"/>	IT Professional
<input type="checkbox"/>	Capacity-building organization
<input type="checkbox"/>	Member of Inter-governmental organization
<input type="checkbox"/>	Member of non-governmental organization
<input type="checkbox"/>	Industry representative
<input type="checkbox"/>	Academic researcher
<input type="checkbox"/>	Student
<input type="checkbox"/>	Other (please specify): ...

**Q. 16: How experienced** would you say you are as an Internet user?

<input type="checkbox"/>	Expert
<input type="checkbox"/>	Good
<input type="checkbox"/>	Novice

**Q. 17: How long is it since you last used the BCH website?**

<input type="checkbox"/>	Under 1 month
<input type="checkbox"/>	1 to 6 months
<input type="checkbox"/>	6 months to 1 year
<input type="checkbox"/>	1 to 3 years
<input type="checkbox"/>	I do not use the BCH website

**Q. 18: How often** do you usually access the BCH website?

<input type="checkbox"/>	Once a week or more often
<input type="checkbox"/>	2 to 3 times a month
<input type="checkbox"/>	About once a month
<input type="checkbox"/>	Every 2-3 months
<input type="checkbox"/>	A few times a year
<input type="checkbox"/>	Once a year or less often
<input type="checkbox"/>	I do not use the BCH website

**Q. 19: Using which language versions** do you usually access the BCH website? (Please select all answers that apply.)

<input type="checkbox"/>	English
<input type="checkbox"/>	French
<input type="checkbox"/>	Spanish
<input type="checkbox"/>	Arabic
<input type="checkbox"/>	Russian
<input type="checkbox"/>	Chinese
<input type="checkbox"/>	I do not use the BCH website

**Q. 20:** Do you use **other** biosafety information-sharing mechanisms?

<input type="checkbox"/>	No
<input type="checkbox"/>	Yes

If yes, please list: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q. 21:** Compared to other information-exchange mechanisms that are available, would you say that the BCH is...

<input type="checkbox"/>	Much better
<input type="checkbox"/>	Somewhat better
<input type="checkbox"/>	About the same
<input type="checkbox"/>	Somewhat worse
<input type="checkbox"/>	Much worse
<input type="checkbox"/>	Don't know or never used others

Comments (for example, what additional features do other mechanisms offer that would be useful in the BCH):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q. 22:** How did you **first learn** about the BCH?

<input type="checkbox"/>	During an official meeting on the Protocol (e.g. ICCP or COP/MOP)
<input type="checkbox"/>	Via a Secretariat notification
<input type="checkbox"/>	Through a co-worker or word of mouth
<input type="checkbox"/>	I followed a link on the CBD website
<input type="checkbox"/>	I followed a link on another site
<input type="checkbox"/>	Internet search engine
<input type="checkbox"/>	I had not heard of it before today
<input type="checkbox"/>	Other - ...

Comments (for example, was it difficult to find the website address for the BCH):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q. 23:** Do you have a national or institutional **biosafety database**?

<input type="checkbox"/>	No
<input type="checkbox"/>	Yes
<input type="checkbox"/>	I don't know

Please provide web address if available via Internet: ...

---

Please advise if you would like the Secretariat to contact you about partnership opportunities with the BCH: ...

---

---

**Q. 24:** From **which country** do you usually access the BCH?

Please specify: ...

---

**Q. 25:** What are your **contact details**? (Optional)

Name:

Address:

Telephone:

Email:

Please indicate if you would like the Secretariat to follow up with you on any of the items in this questionnaire: ...

---

### *Section VII*

#### **ADDITIONAL INFORMATION**

**Q. 26:** If you have **additional comments** for us about your experience with the BCH that have not been addressed in the survey, please provide them below.

Comments:

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

Thank you for your feedback.

**Reminder: Please return completed questionnaires before Friday, 17 September 2004 to:**

***CBD Secretariat***

393 rue St-Jacques, Suite 300, Montreal QC H2Y-1N9, Canada  
Tel: +1 (514) 288-2220; Fax: +1 (514) 287-7039; email: [bch@biodiv.org](mailto:bch@biodiv.org)

-----