Effective participation in the Biosafety Clearing House: Participation options and impediments to information provision

An academic report prepared by
Ms. Aarti Gupta, Assistant Professor, Wageningen University for
the UNEP-GEF BCH Project

May 2008

ACRONYMS

BCH	Biosafety Clearing House
BCH NFP	Biosafety Clearing House National Focal Point
CBD	Convention on Biological Diversity
CFP	Cartagena Focal Point
COP	Conference of the Parties
CPB	Cartagena Protocol on Biosafety
LMOs	Living modified organisms
MOP	Meeting of the Parties
MoUs	Memoranda of Understanding
NBF	National Biosafety Framework
RAs	Regional Advisors (of the BCH Project)
SCBD	Secretariat of the Convention on Biological Diversity

I.   INTRODUCTION

The Cartagena Protocol on Biosafety (CPB) entered into force on September 11, 2003 following its ratification by the requisite 50 countries. As of April 2008, 147 countries are Parties to the CPB[1]. Countries that have ratified the CPB are obliged to provide specific types of information to the Biosafety Clearing House (BCH), an internet-based global clearing house for biosafety information-sharing, established by Article 20 of the CPB[2].

This report discusses how countries are choosing to participate in the BCH and the constraints they face in providing information to the BCH Central Portal. Many developing country Parties to the CPB have been involved in the UNEP-GEF *Project for Building Capacity for Effective Participation in the Biosafety Clearing House of the Cartagena Protocol* (henceforth BCH Project) to help them participate effectively in the BCH. While a key aim of the BCH Project is to raise awareness of the BCH in participating countries, an aim which it is achieving, significant gaps remain in the information available on the BCH Central Portal. Given the central importance of the BCH to effective implementation of the Cartagena Protocol, it is timely and important to analyze how countries are choosing to participate in the BCH and the constraints that they might face in providing information to the BCH.

Section II of this report discusses how countries are choosing to participate in the BCH and Section III addresses constraints to information provision. The report is based upon the information provided by countries in the Memoranda of Understanding (MoUs) signed with the BCH Project; responses to a questionnaire about effective participation in the BCH filled-in by participants in a Sub-Regional Workshop held in Egypt in March 2008; additional input from BCH Project Regional Advisors, and background documents of the SCBD, BCH Project and CBD COP-MOP as relevant (see bibliography for a complete list of sources used).

II.   WAYS TO PARTICIPATE IN THE BCH

As part of its mandate, the BCH Project informs countries about a variety of options through which they can participate in the BCH and provide information to the BCH Central Portal. Countries select an option at the time of the signing of a Memorandum of Understanding (MoU) with the BCH Project, which is then implemented with assistance from the Project, as necessary. These options for participation, explained in the BCH Project brochure (UNEP-GEF Projects, Undated, pp. 8) are as follows:

---

[1] *Cartagena Protocol on Biosafety, Status of Ratification and Entry into Force*. Convention of Biological Diversity website (http://www.cbd.int/biosafety/signinglist.shtml?sts=sign). Last accessed April 17, 2008.
[2] UNEP-GEF Biosafety Projects, BCH Capacity Building Project Brochure, Box 1: Text from the Cartagena Protocol, Article 20 - Information Sharing and the Biosafety Clearing-House, pp. 6.

1. **Direct input option:**   **Entering data directly onto the BCH Central Portal**
2. **Non-internet option:**   **Sending information by post, fax, email or CD-Rom to SCBD**
3. **Pull option:**   **BCH Central Portal crawls data from country web server**
4. **Push option:**   **Data is pushed from country web server to BCH Central Portal**

These options are not necessarily mutually exclusive. Countries can choose to pursue more than one option simultaneously, or to provide some data via one means and the remainder via another. However, each option varies in the infrastructural, technological and human resources required to sustain it in the long run[3]. If so, the options that countries choose affect their ability to participate effectively in the BCH.

This section of the report provides an overview of which of the above options countries have chosen and why, as outlined in their MoUs (Section II.1); and discusses if countries have switched from one option to another, and why they have done so (Section II.2).

II.1. Options selected by countries

An analysis of ninety-one (91) MoUs signed between Parties to the Protocol and the BCH Project reveals that a majority of these countries have selected Option 1 (Direct Input to the BCH Central Portal) as their preferred way to provide information to the BCH. Of the 91 country MoUs analyzed for this report, 58 chose Option 1 as their preferred means of participation in the BCH. The remaining 33 countries chose either Options 3 or 4 (the more technologically advanced options), with some of these 33 countries also selecting Option 1 as an interim measure until the more advanced option was developed and made functional[4].

Table 1 and 2 present a detailed breakdown of country choices and reasons for their selected option. As can be seen from these tables, there are various reasons why countries have chosen the options that they have, and these reasons vary, depending upon the option selected.

Countries selecting Option 1:

The 58 countries selecting Option 1 and the reasons that they offer for doing so, are laid down in Table 1. Eight main reasons can be distilled from the justifications presented in the MoUs. These 8 reasons, one or more of which are offered by countries in selecting Option 1, include:

---

[3] UNEP-GEF Projects, BCH Project Brochure, Undated: pp. 8 and 22.

[4] It should be noted that this section provides a snapshot overview of the options initially selected by countries in their MoUs, and does not reflect changed circumstances subsequent to signing of MoUs. Section II.2 briefly considers why some countries have formally switched options subsequent to signing of their MoUs.

1. It is in line with the country's current level of infrastructure /internet connectivity/ technical resources
2. It is easy to use and is accompanied by a simple user guide, thus reducing the need for highly qualified and expensive IT personnel
3. It is fully supported by the SCBD hence does not entail maintenance, security or back-up costs
4. It does not require domestic web-linked databases or a permanent high-speed internet connection
5. It allows efficient and immediate compliance with a country's CPB obligations
6. It is adequate for now, given that the biosafety information to be entered is limited
7. It is a temporary selection until a more advanced option becomes feasible/necessary
8. It can be combined with donor or SCBD software or applications, which may help a country fulfill additional national objectives for biosafety information sharing

From the 8 reasons listed above, it appears that there are *two main (and somewhat distinct) rationales* underpinning country selection of Option 1. The first, reflected in reasons 1-4, and embraced by a majority of countries selecting Option 1, is that it is the only viable option, technologically and financially, at the present time and for the near future. Thus, for countries offering reasons 1-4 for their choice, the rationale is that it does not call for expensive investments and can be sustained beyond the life of the BCH Project. These countries
choose Option 1 because it is technically simple, easy to use, with no need for additional or long term costly investments (human or financial), or for development and maintenance of domestic biosafety databases and national web servers. As Table 1 reveals, the majority of countries selecting Option 1 offer this particular combination of reasons for doing so.

The second main rationale to select Option 1, reflected in reasons 5-7 of the 8 listed above, is offered by fewer countries, including some that may have the technological capacity to select a more advanced option. This second rationale is that a more advanced option is not necessary at this stage, even if it might be technologically feasible. This is partly because of the limited biosafety information to be provided to the BCH currently. For countries offering reasons 5-7, Option 1 is a practical, efficient and sufficient way to meet CPB obligations for the moment, even if the infrastructure or capacity for Options 3 or 4 were to be available[5].

---

[5] It is nonetheless interesting to note that, of the 58 countries selecting Option 1, only 8 explicitly state that they do so because biosafety information is limited. This is striking because on-going analyses of constraints facing countries in providing information to the BCH (see Section III) reveal that one key constraint is that much biosafety information simply does not exist at the moment.

Finally, reason 8 above refers to the possibility to combine selection of Option 1 with donor or SCBD software applications, which can facilitate participation in the BCH in various ways. At earlier stages of the BCH Project, a number of donor applications (developed by Switzerland, Canada and the United States) were offered to countries in combination with Option 1[6]. These have now been supplemented by applications from the SCBD, which permit countries to select Option 1, while simultaneously also having a national biosafety website.

A dilemma for countries selecting Option 1 at earlier stages of the BCH Project was the desire to have a national biosafety website, which would contain the same data as that entered into the BCH Central Portal (without having to enter it twice) and additional information relevant to a domestic context and in the local language. For countries wanting such a national biosafety website, choosing Option 1 seemed to foreclose this possibility, since it requires only direct input of data into the BCH Central Portal and does not need domestic biosafety databases or national servers. As discussed below, this may have led some countries to select Options 3 and 4 as the only means by which to have a national biosafety website, even if these options were not technologically or administratively feasible for a country at the time.

This situation has changed, however, since development of two applications, Hermes and Ajax Plug-In, by the SCBD that go hand-in-hand with Option 1, and permit a country to have a national biosafety webpage without domestic web-linked databases or national servers, and without having to input information twice. Both Hermes and Ajax work not by pulling or pushing country data from a national database/server to the BCH Central Portal (as do Options 3 and 4) but by enabling the flow of data in the opposite direction – i.e. they permit the construction of simple country webpages which can display (and automatically update) the data that a country has already directly entered into the BCH Central Portal[7].

In contrast to the earlier situation where selecting Option 1 implied foregoing a national website, a key reason now to select Option 1 for countries signing MoUs recently is the possibility to have a national website, while retaining the other advantages (low maintenance, low cost and sustainability) of Option 1. This changing context is now influencing country choices.

---

[6] For details of the Canadian, US and Swiss software applications and how they can help countries to participate in the BCH, see UNEP-GEF Biosafety Projects, *BCH Capacity Building Brochure* [undated], pp. 15-16.
[7] Detailed information about Hermes and Ajax Plug-In, including user guides, is available on the BCH website under the title "Solutions for National Participation". Available at: http://bch.cbd.int/resources/solutions/

Table 1: Country Participation in the BCH: Choosing Option 1 (Direct Input to the BCH Central Portal)

	Country name	In line with current infrastructure / internet/ technical resources	Easy to use, simple user guide, highly qualified IT personnel not required	Fully supported by SCBD, no maintenance, security, backup costs	No need for web-linked databases or permanent high-speed internet	Allows efficient and immediate compliance with CPB obligations	Adequate for now because biosafety information is limited	Temporary selection until advanced option is feasible / necessary	Possible to combine with donor/SCBD software packages
1	Benin	X	X				X		
2	Cape Verde	X	X	X					
3	Central African Republic	X	X	X					
4	Chad, Republic of	X	X	X					
5	Comoros, Union of	X	X	X				If possible	
6	Congo, Republic of	X							
7	Costa Rica	X	X			X		X	**X (Canada)**
8	Czech Republic						X		
9	Djibouti, Republic of	X	X		X				
10	Dominican Republic								**X (Hermes)**
11	Egypt	X	X			X			
12	El Salvador							X	
13	Eritrea, State of	X	X	X	X				
14	Gabon, Republic of	X	X	X					
15	Gambia, Republic of	X	X	X	X				
16	Guatemala								**X (Canada)**
17	Guinea, Republic of	X							
18	Guyana, Republic of	X	X						**X (Canada)**
19	Haiti, Republic of	X	X	X					
20	Honduras	X							
21	Jamaica	X				X			**X (Ajax)**
22	Jordan					X		If possible	

	Country name	In line with current infrastructure / internet/ technical resources	Easy to use, simple user guide, highly qualified IT personnel not required	Fully supported by SCBD, no maintenance, security, backup costs	No need for web-linked databases or permanent high-speed internet	Allows efficient and immediate compliance with CPB obligations	Adequate for now because biosafety information is limited	Temporary selection until advanced option is feasible / necessary	Possible to combine with donor/SCBD software packages
23	Kiribati, Republic of	X	X	X					
24	Kyrgyzstan	X							
25	Lao PDR	X							
26	Latvia	X		X		X	X		**X (Hermes)**
27	Lesotho	X	X		X				
28	Liberia	X	X		X				
29	Libya	X	X	X	X				
30	Macedonia, Republic of	X				X			
31	Madagascar	X	X	X				X	
32	Malawi	X							
33	Mali	X							
34	Mauritania	X	X		X				
35	Mozambique	X	X	X					
36	Nicaragua					X			
37	Niger	X	X	X	X				
38	Nigeria	X	X		X				
39	Panama, Republic of	X							
40	Paraguay	X						A future goal	
41	Rwanda	X	X		X				
42	Samoa	X	X				X		**X (Canada)**
43	Sao Tome and Principe	X	X	X					
44	Senegal	X	X	X					
45	Seychelles, Republic						X	If needed	

	Country name	In line with current infrastructure / internet/ technical resources	Easy to use, simple user guide, highly qualified IT personnel not required	Fully supported by SCBD, no maintenance, security, backup costs	No need for web-linked databases or permanent high-speed internet	Allows efficient and immediate compliance with CPB obligations	Adequate for now because biosafety information is limited	Temporary selection until advanced option is feasible / necessary	Possible to combine with donor/SCBD software packages
	of								
46	Sierre Leone	X	X		X				
47	Slovenia					X		X	
48	St. Kitts and Nevis					X			X (Hermes)
49	Sudan	X	X		X		X		
50	Swaziland	X	X		X				
51	Syrian Arab Republic								X (Ajax)
52	Tanzania, United Republic of		X	X	X				
53	Togo	X				X			
54	Tonga	X	X						
55	Uruguay						X		X (Hermes or Ajax)
56	Venezuela		X	X					
57	Yemen, Republic of	X					X		
58	Zimbabwe	X							
	TOTAL	**45**	**32**	**18**	**14**	**10**	**8**	**8**	**10**

Source: Compiled by author from country MoUs signed with the BCH Project

As noted above, the context for country choices for participation in the BCH is changing since development of Ajax Plug-In and Hermes by the SCBD. However, it remains useful to analyze the reasons provided by countries in their MoUs originally for selecting Options 3 and 4 as their preferred means of participation in the BCH.

Table 2 provides a detailed breakdown of the reasons given by countries for choosing Options 3 or 4. As with Option 1, a number of different reasons can be distilled from the MoUs, a combination of which are offered by countries to justify their selection. Analysis of the MoUs reveals 8 main reasons that countries offer for choosing Option 3 or 4. These 8 reasons include:

1. Adequate infrastructure / internet connectivity exists
2. Adequate technical and human resources exist
3. National server is already running
4. Biosafety/biodiversity databases (online or offline) exist
5. Some required infrastructure exists, some planned (also with BCH project assistance)
6. Adequate infrastructure does not exist but would like to develop it
7. Want to have a national portal/website in own language
8. Want to have a national website for domestic audience / in-country use

In considering these eight reasons, it would appear that, as with Option 1, there are *two main and somewhat distinct rationales* driving country choices of Options 3 or 4. The first rationale, reflected in reasons 1- 4 above, is that a country is technically advanced, capable of implementing the selected option and already has necessary components in place, such as a biosafety database and a national server. This can be summed up as the argument that countries are choosing Option 3 or 4 because it is <u>technologically attainable</u> for them.

Some countries that fall within this category have participated in a UNEP-GEF NBF Development Project (e.g, Sri Lanka), which included development of a national biosafety database and a website. These countries feel technologically equipped to select options 3 or 4 as a result. Yet mere existence of a database or a webserver may not be sufficient for implementation of Options 3 and 4, as country experiences are suggesting. This raises the question of whether countries which have developed these components are able to maintain them in the long run and/or whether existence of these components is sufficient cause to select Options 3 and 4.

A second, somewhat different, rationale offered for choosing Options 3 or 4 is that countries do not currently have the technological capacity to implement

---

[8] This section does not distinguish between countries choosing Option 3 versus Option 4 because the justifications offered by countries for these choices are similar. Both options are technologically advanced – they differ insofar as with Option 3 the data is pulled by the Central Portal and with Option 4 the data is pushed by a national webserver.

these options but <u>would like to develop the infrastructure and technical expertise</u> to do so. Thus, a second group of countries selecting Option 3 or 4 appear to do so not because they already have the capacity but because they see it as an opportunity to update infrastructure and technical skills, partly also in order to have a national website for domestic use and in the local language. While this latter reason seems to be an important one, the analysis of MoUs (particularly the 33 MoUs of countries selecting Options 3 or 4), reveals that only a limited number of countries actually make explicit reference to the desire for a national website. It remains possible, nonetheless, that this is a key reason for country choices. This can become clearer by assessing if countries are switching options – now that they can have a national website with Option 1 – and the reasons they give for doing so.

Table 2: Country Participation in the BCH: Choosing Options 3 (Pull) and 4 (Push)

	Country name	Option chosen	Adequate internet connectivity / infrastructure exists	Adequate technical / human resources exist	National server already running	Biosafety/ biodiversity database(s) exist	Some required infrastructure exists, some planned	Adequate infrastructure does not exist but want to develop	Want national portal/site in own language	Want national site for domestic audience/ in-country use
1	Albania, Republic of	4	X	X		X				
2	Antigua and Barbuda	3			X					
3	Armenia	4	X	X					X	
4	Bahamas*	1, 4					X			
5	Bangladesh	4					X			
6	Belarus	3	X	X	X	X				
7	Botswana*	1, 3			X		X			
8	Brazil	4	X		X	X				
9	Burkina Faso*	1,3	X	X						
10	Burundi	3	X	X		X				
11	Cambodia	3				X		X		
12	Côte d'Ivoire	3					X			
13	Democratic Republic of Congo	3						X		
14	Ecuador	3	X							
15	Estonia	3	X	X					X	
16	Ethiopia*	1,3						X		
17	Ghana	3				X				**X**
18	Indonesia	3						X	X	**X**
19	Lithuania	4	X	X	X	X				
20	Maldives	4	X	X		X				
21	Mauritius*	1, 3					If need arises			
22	Moldova	4							X	
23	Mongolia	3								**X**
24	Nepal*	1, 4					X			

[12]

	Country name	Option chosen	Adequate internet connectivity / infrastructure exists	Adequate technical / human resources exist	National server already running	Biosafety/ biodiversity database(s) exist	Some required infrastructure exists, some planned	Adequate infrastructure does not exist but want to develop	Want national portal/site in own language	Want national site for domestic audience/ in-country use
25	Philippines	4	X			X				
26	Saint Lucia	3			X					
27	Saint Vincent and the Grenadines*	1, 4	X	X						
28	Slovakia	3	X	X	X					
29	Sri Lanka	3				X	X			
30	Tajikistan, Republic of	3	X	X						X
31	Tunisia	3					X			
32	Vietnam	4	X	X	X	X				
33	Zambia	4	X	X						X
	TOTAL		16	13	8	11	8	4	4	5

Source: Compiled by author from country MoUs signed with the BCH Project

Note: For countries marked with a **star** *, i.e. those selecting Option 1 and a more advanced option (3 or 4), only the reasons for choosing the more advanced options are marked above. These countries chose option 1 as a starting point until the advanced option could be developed.

So in sum, countries selecting Options 3 and 4 are driven either by the rationale that they are <u>already equipped to implement such an option</u>, or by the rationale that the BCH Project provides <u>an opportunity to develop the means</u> to do so. If so, it is useful to consider whether countries selecting options 3 and 4 for both these reasons have been able to implement them, or whether they have had to switch to a technologically simpler option. This is discussed further below.

II.2. Switching between options

Countries that have selected a particular option in their MoUs still retain the possibility to switch to a different one. This section analyses briefly whether countries have switched options, why they have done so, and the implications for effective participation in the BCH.

Table 3 lists countries that have switched options and their reasons for doing so. The table does not include all countries switching options. It is illustrative rather than comprehensive, particularly given the evolving situation with regard to country choices, with many countries now implementing selected options or considering alternatives.

The examples in Table 3 can nonetheless reveal certain trends:

First, countries that are switching options are not confined to any one region alone – instead countries from Africa, Asia, the Caribbean, Central and Eastern Europe and Latin America are all switching options.

Second, both technologically advanced countries, and those countries that had hoped to develop infrastructural capacity through selection of Options 3 or 4, are switching to the simpler Option 1.

Third, most countries switching options are switching away from Options 3 and 4 and selecting Option 1 coupled with one of the two SCBD applications, Ajax Plug-In or Hermes, with the majority selecting Hermes.

Fourth, the reasons provided for switching options are quite specific. These include:
- realization of how <u>costly</u> development and maintenance of option 3 or 4 is;
- <u>lack of human resources</u> to ensure maintenance and sustainability of option 3 or 4;
- realization that, even if technologically feasible and the capacity exists, there is <u>no real need</u> for a nationally developed application, given available alternatives;
- Availability of <u>SCBD applications Ajax and Hermes</u> that can be coupled with Option 1 to ensure that countries can have their own national biosafety website.

In conclusion, countries involved in the BCH Project are now implementing their selected option or have switched to alternative ways to participate in the BCH. The goal is to provide various categories of biosafety-relevant information to the BCH Central Portal. Yet what is the status of information provision to the BCH? Is timely and adequate information being provided by Parties? The next section addresses the spectrum of constraints that countries may face in providing information to the BCH, which can go beyond their chosen method of participation.

Table 3: Countries switching options: some examples

	Country	Switch between options	Reasons
Caribbean			
1	Antigua and Barbuda	Option 3 to Option 1	
2	Bahamas	Options 1 and 4 to Option 1 only	**Considering combining either Ajax or Hermes with their implementation of Option 1**
3	Guyana	Option 1 with Canadian application to Option 1 with Hermes	
4	St. Lucia	Option 3 to Option 1 with Hermes	
Latin America (LAM)			
7	Brazil	Option 4 to Option 1 with Ajax	**Despite having the technological capacity, a cost-benefit calculation does not support development, maintenance and evolution of a national application**
6	Costa Rica	Option 4 to Option 1 with Hermes	**Realization of the extensive resources required and technological complexity of Option 3, as well as lack of real need for a nationally developed application**
5	Ecuador	Option 3 to Option 1 with Hermes	**Realization of the extensive resources required and technological complexity of Option 3, as well as lack of real need for a nationally developed application**
8	Peru	Option 4 to Option 1 with Hermes	**Realization of the extensive resources required and technological complexity of Option 3, as well as lack of real need for a nationally developed application**
Africa			
9	Burundi	Option 3 to Option 1 with Hermes	**Lack of adequate financial resources to implement Option 3**
10	Côte d'Ivoire	Option 3 to Option 1 with Hermes	**Lack of adequate human resources – still interested in upgrading to Option 3 when feasible**
11	Democratic Republic of Congo	Option 3 to Option 1 with Hermes	**Changed political circumstances caused planned technological upgrades not to go through**
12	Tunisia	Option 3 to Option 1 with Hermes	**Lack of financial resources – still interested in moving to option 3 when it becomes feasible**
13	Zambia	Option 4 to Option 1 with Hermes	**Realization of full scope of technical and financial means required for option 4 resulted in a (perhaps temporary) move to Option 1, Option 4 to be reconsidered again later**
CEE and Asia			
14	Albania	Option 4 to Option 1 with Hermes	**The switch followed a BCH project workshop introducing SCBD tools Hermes**

	Country	Switch between options	Reasons
			and Ajax, and realization of the high financial costs of trying to implement Option 4
15	Armenia	Option 4 to Option 1 with Hermes	The switch followed a BCH project workshop introducing SCBD tools Hermes and Ajax, and realization of the high financial costs of trying to implement Option 4
16	Bangladesh	Option 4 to Option 1 with Hermes	The switch followed a BCH project workshop introducing SCBD tools Hermes and Ajax, and realization of the high financial costs of trying to implement Option 4
17	Estonia	Option 3 to Option 1 with Ajax	The switch followed a BCH project workshop introducing SCBD tools Hermes and Ajax, and realization of the high financial costs of trying to implement Option 3
18	**Mongolia**	**Option 3 to Option 1 with Hermes**	**The switch followed a BCH project workshop introducing SCBD tools Hermes and Ajax, and realization of the high financial costs of trying to implement Option 3**

Source: Regional advisor and BCH Project staff records

III. IMPEDIMENTS TO THE PROVISION OF INFORMATION TO THE BCH

The impediments facing countries in providing information to the BCH is a matter of ongoing concern to Parties to the Cartagena Protocol, as reflected in COP-MOP decisions of the last two years. This is because, although the Cartagena Protocol on Biosafety has been in force for almost 5 years now, the information available on the BCH Central Portal remains limited. An analysis of the first national reports on implementation of the Cartagena Protocol, as well as a detailed survey of BCH users undertaken by the SCBD, reveal the nature and extent of the gaps in the information available on the BCH Central Portal. These analyses and survey suggest that, at the global level, "only 28% of the information required under the Protocol is reported to exist and to have been provided to the Biosafety Clearing House" (CBD 2008a:3).

As noted in summary documents produced by the SCBD (CBD 2008a, 2008b, 2008c) a range of factors can prevent timely and adequate provision of information to the BCH. These factors, listed by countries in their national reports, include "poor internet connectivity; slow response time from stakeholders; insufficient financial and human resources; lack of coordination among different departments; and insufficient public participation."(CBD 2008b:9).

This report discusses such constraints further, based on responses to a questionnaire on "impediments to information provision" filled-in by participants at a Sub-Regional Workshop of the BCH Project in Egypt in March 2008. On this occasion, seven parallel workshops were held during a two-week period, providing an opportunity for feedback from numerous BCH focal points. The questionnaire was not designed for large-scale quantitative analysis, but to provide qualitative insights and possible examples relating to information constraints.

As the list of constraints mentioned above reveal, there can be *different kinds of impediments* to providing information to the BCH. Impediments can be related to technical hurdles, to bureaucratic-administrative hurdles, to political constraints, or to "information-related" aspects, including whether certain information exists. This report analyzes constraints to information provision according to these four categories, based upon responses to the questionnaire. The sections below discuss (a) technical constraints (III.1); (b) bureaucratic-administrative constraints (III.2); (c) political/policy constraints (III.3); and (d) information-related constraints (III.4). These categories are not mutually exclusive – a particular impediment can be placed in more than one category. Nor is the list exhaustive, other constraints not noted here might be present. Nonetheless, discussing constraints via these four categories allows for an in-depth look into why information is not being provided to the BCH.

In the sections below, a representative sample of respondent comments provided in the questionnaire is presented for each of these four categories.

III.1. Technical constraints

Technical constraints to provision of information can relate to: infrastructure; internet connectivity; lack of technical know-how; and/or lack of skilled personnel to input information into BCH. It can also relate to the technical option selected by the country for BCH participation.

As noted by questionnaire respondents, technical constraints to information provision include:
- Infrastructure related:
    - Lack of appropriate ICT equipment
    - Power source inadequate
    - Computers purchased for BCH are being used for other government business
    - National infrastructure specific to BCH does not exist
- Internet connectivity related:
    - Internet cost per month is high (3)
    - Lack of stable internet connection generally / in BCH task force institutions (3)
    - Slow and unreliable internet connection (3)
- Lack of skilled and trained personnel
    - No information technology specialist within National Competent Authority (NCA)
    - No dedicated technical personnel specially for BCH
    - Staff trained for BCH move to other institutions
    - Few people are able to summarize the information as required by the BCH
    - Lack of skilled personnel to input data into BCH because it is a new area
    - Trained persons lose knowledge because system is not operational, so do not use it

As seen from the list above, while all issues highlighted are important, the impediment most often mentioned in this category was lack of skilled personnel, for the variety of reasons noted above.

Given such constraints, respondents were also asked what actions could be taken to overcome technical constraints, and who should take action. Some sample responses are noted below. Not all respondents provided this information, so the list is illustrative. Suggestions included:
- Appoint a dedicated IT manager responsible for BCH – action needed by a country's NCA.

- Replace copper-based LANs with optical fiber connections – action needed by government
- Develop a sustainable budget source by mainstreaming the BCH budget into a national budget system – action needed by NCA
- Organize training for inputting information into the BCH and authorize more than one person to provide data to BCH – action needed by NCA and UNEP-GEF

III.2. Administrative-bureaucratic constraints

Administrative-bureaucratic constraints can include a lack of coordination among relevant government departments; unclear delineation and division of responsibilities regarding BCH; or lack of coordination between the Cartagena Protocol Focal Point and the BCH focal point.

As noted by questionnaire respondents, administrative-bureaucratic constraints to information provision include:
- Lack of coordination among government departments:
  o Some institutions do not want to be involved with this activity
  o Participating institutions have many other projects currently ongoing
  o Every ministry wants to be the only one responsible for inputting BCH data
  o Changes in bureaucracy and personnel cause delays
  o National biosafety framework meetings often exclude BCH
  o Different ministries house the two focal points (Cartagena Protocol / BCH FP)
  o Each government department operates autonomously
  o Coordination between relevant departments is slow – it needs to be faster
  o Inadequate sharing of information because policies do not mainstream biosafety
  o Some government departments are not aware of their responsibilities

- Other aspects
  o Lack of clarity about responsibility for BCH – competing for ownership of project
  o BCH focal point nominated only recently
  o Only one person has access to BCH data inputting
  o Some institutions seem interested in diverting use of equipment provided for BCH
  o Not enough time devoted to BCH, since it is not the main activity for the concerned departments

As seen from the list above, by far the most important administrative impediment highlighted by respondents was the lack of coordination across government departments, for reasons noted above

Related to such constraints, below are sample responses to the questions: <u>What actions could be taken to overcome administrative-bureaucratic constraints and who should take action</u>?

Suggestions included:

- Review and harmonize sectoral policies in order to mainstream biosafety – action needed by country's environmental affairs department
- Both focal points (Cartagena Protocol and BCH FP) should be in the same Ministry
- More than one person should have responsibility for the BCH and this should be at the technical rather than administrative level
- Appoint an IT manager to follow BCH update issues – action needed by BCH Focal Point
- Should have detailed Terms of Reference (TORs) for staff responsible for BCH
- Create an interdepartmental body for better coordination

III.3. Political/policy constraints

Political / policy constraints can include: lack of priority or support for biosafety / BCH nationally; lack of public awareness about existence and importance of BCH, lack of stakeholder involvement

As noted by questionnaire respondents, <u>political constraints to information provision include</u>:

- Lack of public awareness of biosafety and BCH – this was the aspect that received mention from a large number of respondents. In various formulations, respondents suggested that:
  - o Since biosafety is a new issue, level of general awareness about it is very low (5)
  - o There is lack of public awareness or stakeholder involvement (7)
  - o Limited resources make it difficult to create adequate levels of awareness
  - o Most of the work undertaken by CNA does not reach the public domain
- Lack of stakeholder involvement
  - o Only limited (technical) stakeholders are currently involved, need to bring in other stakeholders, including media and the public
  - o Many stakeholders do not understand the issue (2)
  - o Few stakeholders have been trained through the national workshops
- Lack of national-level interest in biosafety and the BCH
  - o Because of limited action in this field, government is not interested
  - o Cartagena Protocol not yet ratified / has only recently entered into force
  - o Lack of interest is related to lack of understanding of what BCH is
  - o Passing of biosafety law has experienced a lot of opposition
  - o Biosafety is a very new topic and biosafety regulation is yet to be implemented
  - o The issue of biosafety has become political

For this category, although a variety of constraints were highlighted, the aspects most often mentioned were limited public awareness and stakeholder involvement in biosafety issues / BCH.

Related to such constraints, below are sample responses to the questions: What actions could be taken to overcome political/policy constraints, and who should take action?

- Provide funding for public awareness exercises – action needed by UNEP-GEF project and BCH Focal Point
- Create more public awareness about biosafety issues – action needed by government, NGOs, media
- Government needs to be more committed

III.4. Information-related constraints

Information related constraints can include: information does not exist; lack of knowledge about what information is to be provided: information exists but is hard to find; information exists in a form difficult to provide to the BCH (for example, because it is in a non-UN language)

As noted by questionnaire respondents, information-related constraints include:

- Information does not exist
  - Since the NBF has just been developed, information is still not adequate
  - There is no biosafety law, so information generation has not started fully
  - No decisions relating to LMOs yet
  - There are limited activities in the field of biosafety
  - No work has been done nationally yet to generate biosafety information
  - Content for BCH input still has to be developed
- Information exists but is hard to find
  - Information hard to access because of time constraints due to staff workload
  - Lack of cooperation between government departments in exchanging information
  - Information is not cleared for publication
  - Some information cannot be released because it is classified
  - More people need to know about BCH in order to submit any information they have
- Information exists but in a form difficult to provide to BCH
  - Information exists in non-UN language
  - Information mostly exists as hard copies and is hard to access
  - Information is in technical language and not direct
  - Information hard to access because held on diskettes or because higher versions of applications fail to recognize other file formats

o   Information developed without the BCH requirements in mind, so far

While the range of concerns highlighted above are important, the impediment most often mentioned by respondents for this category was that relevant biosafety information simply did not exist. This was because of the lack of national action or decisions on LMOs, or lack of a biosafety law, or because a country had not yet ratified the Cartagena Protocol. Another key impediment was that information that did exist was in a form difficult to input into the BCH (because of language, or its non-electronic format, or outdated technical format etc.).

Related to such constraints, below are sample responses to the questions: What actions could be taken to overcome information-related constraints, and who should take action?

Suggestions included:
- Sensitize all stakeholders about the importance of sending information to the BCH focal point – action needed by BCH focal point
- Information should be available in an electronic format – action needed by BCH task force institutions
- Put in place a framework for collecting and clearing information for publication

III.5. The one main constraint

The questionnaire also asked respondents to highlight the one most important constraint (out of all the various possibilities) preventing adequate information provision to the BCH. A representative sample of answers is presented here, reflecting impediments in all four categories discussed above.

The one most important constraint mentioned by respondents included, for example:
- Lack of a dedicated IT manager solely for the BCH
- Lack of capacity – funds for capacity building needed
- Lack of internal coordination between government departments
- Lack of understanding about the importance of BCH
- Lack of interest in and training about BCH
- Lack of public awareness and stakeholder education
- Lack of a framework for collecting and clearing information for publication
- Lack of appropriate information gathering and exchange policies

III.6. What is already working well?

Finally, and in order to conclude on an optimistic note, the questionnaire asked countries to list what was working well. Countries listed the following aspects as working well for them:
- General

- o Communication with BCH secretariat (i.e. SCBD)
- o UNEP-GEF support
- o Regional Advisor support
- o National website
- o Project working well now but there will be challenges when it ends
- Technical issues
  - o Good and reliable internet connection
  - o Technical side is working well
  - o Selected BCH option for participation is working very well
- Administrative-bureaucratic
  - o Good will of people involved
  - o Dedicated staff
  - o Good working relationship between country CNA and BCH FP
  - o BCH Focal Point has been appointed
- Political / policy issues
  - o Government support exists – government recognizes potential of BCH
  - o Local NGOs involved and willing to participate
  - o Political will exists
- Information-related
  - o Basic country data has been entered onto the BCH Central Portal

Based upon the responses above, it is revealing that what is working well for countries can vary greatly across the technical, administrative, political and information-related spectrum of issues.

IV. CONCLUSION

This report has identified the ways in which countries are participating in the Cartagena Protocol's Biosafety Clearing House, and some constraints they face in providing information to the BCH. With more than 90 MoUs signed with the UNEP-GEF BCH Capacity Building project, each of which specifies the manner in which a country will participate in the BCH, the basic groundwork has been laid. Nonetheless, the above analysis suggests that many countries are still at the early stages of implementing their selected option for BCH participation, and that significant impediments remain in the ability of countries to provide information to the BCH Central Portal.

The analysis here also reveals that these impediments are not simply a matter of inadequate capacity or technical expertise. Instead, constraints can be related as much to policy contexts and competing priorities as to technical and infrastructural issues. Furthermore, an important constraint, regardless of political priorities or technical difficulties, is that much required biosafety information simply does not exist in many countries at the present time.

Related to this, the analysis also suggests that general interest in and priority for biosafety issues and the BCH varies across countries and can be quite low, given

that biosafety is a new issue and there are few national decisions/actions around LMOs. As seen from this study, public awareness exercises or stakeholder participation are often mentioned by countries as ways to overcome a lack of interest or awareness. Such aspects are currently outside the scope of the present UNEP-GEF BCH capacity building project but it remains a question how they could be included in the future.

More generally, the analysis here suggests that, going beyond designing public participation or awareness exercises, the key challenge for future capacity building projects will be achieving a good balance between the emphasis placed on *meeting obligations to the BCH* versus *deriving benefits from it*. The focus of capacity building projects to date has been to introduce the BCH to countries and enable their participation in it, as a way to meet their obligations for information sharing as Parties to the Cartagena Protocol on Biosafety. Yet, given low priority or awareness of biosafety issues and limited LMO-related activity or biosafety information in many countries, an explicit focus on *the benefits of the BCH for countries at this early stage* is also desirable. The analysis here suggests that countries are not likely to prioritize information provision to the BCH or to invest scarce human and financial resources in it (especially beyond the BCH project), if it is not clear how they benefit from the BCH. If so, further analysis of constraints to information provision faced by developing country Parties should go hand-in-hand with further analysis of current users of BCH information, in order to gain more insight into the varied constituencies the BCH is serving, and why it is worth the effort for all countries to prioritize providing information to it.

V. BIBLIOGRAPHY

<u>Note</u>: This report is based upon information contained in the Memoranda of Understanding (MoUs) signed by countries with the BCH Project, as well as responses to a questionnaire about effective participation in the BCH filled-in by participants in a Sub-Regional Workshop held in Egypt in March 2008. Some additional feedback from BCH Project Regional Advisors was also received.

<u>Additional documents relevant for this study</u>:

CBD [Convention on Biological Diversity] 2006. *Summary Outcomes of the Meeting of the Biosafety Clearing House Informal Advisory Committee*. Geneva, 23-24 November. UNEP/CBD/BS/BCH-IAC/2/3

CBD [Convention on Biological Diversity] 2007. *Summary Outcomes of the Third Meeting of the Informal Advisory Committee of the Biosafety Clearing House*. Montreal, Canada, 4-5 October. UNEP/CBD/BS/BCH-IAC/3/2

CBD [Convention on Biological Diversity] 2008a. *Monitoring and Reporting Under the Protocol (Article 33): Analysis of information contained in the first national reports*. Note by the Executive Secretary. UNEP/CBD/BS/COP-MOP/4/13, 4 February.

CBD [Convention on Biological Diversity] 2008b. *Operation and Activities of the Biosafety Clearing House*. Note by the Executive Secretary. UNEP/CBD/BS/COP-MOP/4/3, 29 February.

CBD [Convention on Biological Diversity] 2008c. *Report of the 2007 Survey of Biosafety Clearing-House Users*. Note by the Executive Secretary. UNEP/CBD/BS/COP-MOP/4/INF/20, 3 March.

UNEP-GEF Biosafety Projects. [Undated]. *Building Capacity for Effective Participation in the Biosafety Clearing-house (BCH) of the Cartagena Protocol on Biosafety*. BCH Project Brochure. UNEP-GEF Biosafety Unit, Geneva, Switzerland.

UNEP-GEF BCH Project. 2004. *Report of the Consultation of Regional Scientists and Technical Experts on UNEP-GEF Project for Capacity Building for the Biosafety Clearing-House (BCH)*. December 13 -14, Geneva, Switzerland.

UNEP-GEF BCH Project. 2005. *Operational Handbook for Participating in the UNEP-GEF Project for Effective Participation in the Biosafety Clearing House (BCH)*. BCH Project, Geneva, Switzerland. August, Version 2.0.

UNEP-GEF BCH Project. 2007a. *First Meeting of the BCH Regional Advisors: Meeting Report*. New Delhi, India. 23-28 April.

UNEP-GEF BCH Project. 2007b. *A User's Guide to the Central Portal of the Biosafety Clearing House. Information-sharing obligations on Becoming a Party to the Protocol*. Training Materials, BCH Project, Geneva, Switzerland. July.

UNEP-GEF BCH Project. 2007c. *Bi-Annual BCH Project Status Report*. July. Geneva.