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INFORMAL ADVISORY COMMITTEE ON THE BIOSAFETY CLEARING-HOUSE Eleventh meeting Online, 1-4 December 2020

REPORT ON THE BIOSAFETY CLEARING-HOUSE

INTRODUCTION

- 1. Article 20 of the Cartagena Protocol on Biosafety to the Convention on Biological Diversity establishes a Biosafety Clearing-House (BCH) "as part of the clearing-house mechanism under Article 18, paragraph 3, of the Convention, in order to: (a) facilitate the exchange of scientific, technical, environmental and legal information on, and experience with, living modified organisms; and (b) assist Parties to implement the Protocol".
- 2. In accordance with the modalities of operation of the BCH adopted in decision <u>BS-I/3</u>, the Executive Secretary is convening the eleventh meeting of the Informal Advisory Committee (IAC) to review the progress made since its tenth meeting.
- 3. The present document provides information on the operation of the BCH and its migration to the new platform in order to support the discussions of the Committee. Section I provides background information on the BCH migration and its status and an update on the steps forward, section II describes the activities and status of the current BCH, section III presents information on the collaboration with the United Nations Environment Programme-Global Environment Facility (UNEP-GEF) "Project for sustainable capacity building for effective participation in the Biosafety Clearing-House" (BCH III Project), and section IV provides information on the knowledge management component of the post-2020 process.

I. MIGRATION OF THE BIOSAFETY CLEARING-HOUSE

A. Background to the migration

- 4. At its eighth meeting (2016), in decision <u>CP-VIII/2</u>, the Conference of the Parties serving as the meeting of the Parties to the Protocol requested the Executive Secretary to, inter alia, carry out the full migration of the BCH to its new platform and to send to the BCH focal points a chronogram detailing the migration and follow-up processes.
- 5. Following the loss of a dedicated officer for the BCH through the 2016 functional review of the Secretariat, vacant positions in the Secretariat and competing priorities for the Secretariat's Information Technology Unit, only limited preparatory work on the migration was done in the 2017-2018 intersessional period. Due to the lack of progress, the eleventh meeting of the Informal Advisory Committee on the Biosafety Clearing-House which had been scheduled for June 2018 was cancelled, and no meeting of the BCH IAC was held during the intersessional period.
- 6. In decision <u>CP-9/2</u>, adopted at its ninth meeting (2018), the Conference of the Parties serving as the meeting of the Parties to the Protocol requested the Executive Secretary, as a matter of priority, to act upon the requests in decision CP-VIII/2 and, in particular and among other things, to (a) allocate adequate and specific resources, both human and financial, for the management, improvement and maintenance of

the BCH; and (b) complete the migration of the BCH to its new platform and to continue collaborating with other biosafety databases and platforms.

- 7. In parallel, efforts have been under way to better integrate work under the clearing-house mechanism, the Access and Benefit-sharing Clearing-House (ABS-CH) and the BCH. At its twelfth meeting (2014), in decision XII/2, the Conference of the Parties to the Convention on Biological Diversity requested the Executive Secretary to develop a web strategy to ensure that all information common or relevant to the clearing-house mechanism, the ABS-CH and the BCH, as well as other platforms developed under the Convention or any future similar developments, can be accessed centrally to avoid duplication of efforts.
- 8. In decision CP-VIII/2, the Conference of the Parties serving as the meeting of the Parties to the Protocol requested the Executive Secretary to develop joint modalities of operation between the clearing-house mechanism of the Convention, the BCH and the ABS-CH with a view to enhancing coherence in the implementation and operation of the common elements of all components of the central clearing-house mechanism of the Convention.
- 9. At its fourteenth meeting,¹ the Conference of the Parties noted the progress made with the implementation of the web strategy for the Convention and its Protocols and the development of national clearing-house mechanisms and endorsed the joint modalities of operation for the clearing-house mechanism of the Convention, the BCH and the ABS-CH prepared by the Executive Secretary with input from the informal advisory committees. The joint modalities were also endorsed by the Conference of the Parties serving as the meeting of the Parties to the Protocol in decision CP-9/2.
- 10. The purpose of the joint modalities of operation is to ensure consistency among the platforms and strengthen coherence and integration between the three main clearing-houses of the Secretariat, while preserving the specific functionalities of the clearing-houses under the Protocols and the Convention.
- 11. As a result, work on the migration of the BCH involves both designing and developing the new platform and trying to do so in a way that enhances coherence and integration among the CHM, the ABS-CH and the BCH.
- 12. The new BCH user interface has been developed to resemble, both in appearance and functionalities, the user interface of the ABS-CH with a view to ensuring coherence and integration between the clearing-houses. In fact, the BCH and ABS-CH now share the same back-end and front-end codebase.

B. Chronogram for the migration of the BCH

- 13. In response to the request in decision CP-VIII/2, paragraph 8(c), the Secretariat prepared a chronogram outlining the timeline for the migration of the BCH to its new platform and follow-up processes. The chronogram was shared with focal points for the Cartagena Protocol on Biosafety and the BCH through notification 2019-063² issued on 25 July 2019 and is available on the home page of the BCH at http://bch.cbd.int.
- 14. The chronogram divided the migration into a set of nine activities and presented an overview of the timeline for undertaking these activities. Table 1 below contains the chronogram as originally issued in July 2019 with an additional column presenting the current status for each activity. Further details are provided in the text below.

Table 1 Status of progress made against the chronogram

Month/year	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	Status as of 8
																		September 2020

¹ See decision <u>14/25</u>.

² https://www.cbd.int/doc/notifications/2019/ntf-2019-063-bs-en.pdf

		20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
		19	19	19	19	19	19	19	19	19	20	20	20	20	20	20	20	20	
1	Development																		70% completed
	of common																		
	formats																		
2	Development																		Development of
	of the search																		global search
	interface and																		function
	display of																		completed. Search sub-
	search results																		filters
																			implemented in
																			parallel with
																			common formats
3	Development																		Ongoing
	of the BCH																		Ongoing
	Training site																		
4	Migration of																		Completed
	the previous																		1
	four national																		
	reports																		
5	Testing																		Ongoing
	phase																		
6	Initial set of																		Ongoing
	statistical																		
	tools (Sort,																		
	Group, Table,																		
	Send, Print,																		
7	and Export)																		Onnaina
7	Migration of																		Ongoing
	existing plug- ins and other																		
	existing BCH																		
	applications																		
8	Development																		Ongoing
	of new record																		0.1501115
	functionalities																		
9	Migration of																		Not started
	online forums																		

- 15. The chronogram is based on two main assumptions:
- (a) That the information technology officers in the Secretariat will spend two days per week on the migration;
 - (b) That consultants can be engaged to assist with the work required.
- 16. On the first assumption, following issuance of the chronogram, information technology officers did work on the migration; however, the estimate of two days per week has proven to be too conservative and one information technology officer is now working on the migration nearly full time.
- 17. On the second assumption, through a cooperation agreement with the UNEP-GEF BCH III project (see section III below), funds were secured in February 2020 to engage a consultant to assist with the programming work involved in the migration, a recruitment process was undertaken, and the consultant began working in September 2020.
- 18. Accordingly, it has taken some time for the assumptions in the chronogram to be met.

19. The subsections that follow outline the work to-date on the different activities set out in the chronogram. An update on any further developments will be provided during the meeting of the Informal Advisory Committee.

1. Development and migration of common formats

- 20. The current BCH includes 20 common formats.³ The migration provided the opportunity for the common formats to be reviewed and revised to address developments under the Protocol and to improve consistency across the clearing-houses. Some revisions were minor, such as fixing formatting issues and updating reference links in footnotes. Others were more substantive and involved renaming of fields, adding/removing selection options, aligning with common formats of the ABS-CH, among other things. The text of the revised common formats will be made available as document CBD/CP/BCH-IAC/11/INF/1.
- 21. Good progress has been made in reviewing the common formats and implementing them on the new BCH platform. As described further below, the common formats are being tested as they become available online on the new platform. However, the final migration of all the changes will be performed when the new BCH platform is ready to go to final production. Table 2 provides an overview of the status of the common formats and more information on the most significant changes to the common formats is provided below.

Table 2 Status of revision of common formats and implementation on the new platform

Common format	Code	Revised content	Implementation and testing status as of 7 October 2020
National records			
National focal points	NFP	Minor change	Ongoing
Competent national authority	CNA	Yes	Completed
Supplementary Protocol competent authority	SPCA	New common format	Completed
National biosafety website or database	NDB	No change	Completed
Biosafety law, regulation, guidelines and agreements	LAW	Yes	Ongoing
Country's decision or any other communication	DEC	Yes	Ongoing
Submissions from Parties and other Governments		Yes and functionality changed (see below)	Ongoing
Risk assessment generated by a regulatory process	RA	Yes	Completed
Biosafety expert	EXP	Yes	Completed
Report on the assignment undertaken by the biosafety expert	EXPREP	N/A	Common format will not be migrated
Reference records			

³ These numbers do not include the common formats for national reports.

Common format	Code	Revised content	Implementation and testing status as of 7 October 2020
Biosafety Information Resource Centre ⁴	BIRC	Yes	Not started
Biosafety organization	ORG	Yes, and laboratories section made into separate common format	Completed
Laboratory for detection and identification of LMOs	LAB	Yes, and organizations section made into separate common format	Completed
Living modified organisms	LMO	Yes	Completed
Genetic element	GENE	Yes	Completed
Organism	ORGA	Yes	Completed
Risk assessment generated by an independent or non-regulatory process	IRA	Yes	Completed
Submissions from relevant organizations		Yes, and functionality changed (see below)	Ongoing
Capacity-building activities, projects and opportunities	CBA	Yes	Not started
Capacity-building needs assessment	CBNA	N/A	Common format will not be migrated
BCH News	BCHN	No change	Ongoing
Contacts – former "Contact Details", common to national and reference records	CON	Yes	Completed

22. The most significant changes to the common formats are as follows:

- (a) A new common format for registering a competent authority for the Nagoya Kuala Lumpur Supplementary Protocol on Liability and Redress has been created pursuant to decision <u>CP-9/15</u>, paragraph 6;
- (b) The common format on "Biosafety organization", including "Laboratory for detection and identification of LMOs" available on the current BCH, has been split into two separate common formats one on organizations and one on laboratories. This was done to enable the alignment of the "organizations" common format across the CHM, the ABS-CH and the BCH;
- (c) The common format on "Living modified organisms" was updated to include information on newer modification techniques, modified traits and LMO characteristics;
- (d) The common format on "Biosafety expert" has been streamlined as requested in decision CP-VIII/4;
- (e) The common format on "Report on the assignment undertaken by the biosafety expert" is not being migrated. This common format was developed as part of the roster of experts mechanism that

⁴ This format will be renamed "Biosafety Virtual Library Resource (BVLR)" so that it is in harmony with the ABS-CH.

was elaborated in the early years of the Protocol, even prior to its entry into force.⁵ Due to the lack of requests from Parties for support to use experts from the roster as well as the lack of voluntary funds to support the use of experts from the roster, only two records have been published in this category in the approximately 20 years since the roster of experts was first created. The two records will be archived on the web pages for the Cartagena Protocol;

- (f) The common format on 'Capacity-building needs assessment' will also not be migrated. This common format is based on the Framework and Action Plan for Capacity Building for the Effective Implementation of the Cartagena Protocol,⁶ which ends in 2020. A new capacity-building action plan for the Protocol is being developed for the post-2020 period and will be considered by the Conference of the Parties serving as the meeting of the Parties to the Protocol at its tenth meeting. The existing Capacity-Building Needs Assessment records will be archived on the web pages for the Cartagena Protocol (currently there are 38 such records);
- (g) The common format on 'Capacity-Building Activities, Projects and Opportunities' has been revised to better align it with the comparable common format on the ABS-CH.
- 23. As indicated above, a number of changes have been made to the common formats related to capacity-building. These changes are also being made in the context of wider ongoing processes including the development of the long-term strategic framework for capacity development as part of the post-2020 global biodiversity framework and the development of a new Capacity-Building Action Plan for the Cartagena Protocol and the Supplementary Protocol. As part of these processes, the Secretariat is exploring how best to collect and organize information on capacity-building across the Convention and the Protocols and further work on these aspects can be expected once the new plans and strategies have been adopted.
- 24. In addition to the above-mentioned changes to the common formats, there are also two changes to user roles. In the current BCH, BCH focal points and national authorized users can prepare drafts of national records and BCH focal points are responsible for publishing these records. In the new BCH, Cartagena Protocol national focal points will also be able to prepare drafts of national records. It will still be only BCH focal points who can publish national records.
- 25. The other change in user roles is to the 'Submissions' common format. In the current BCH, any user can publish records using the 'Submissions' common format and search for such records. This has created problems with the common format being used to publish information that should be made available using another common format, thus hampering the effectiveness of the BCH. For example, some Parties had used the 'Submissions' common format to publish decisions on LMOs. This information should be published using the 'Decisions' common format. Any information on decisions published as 'Submissions' will not be found when searching for decisions. In the new BCH, publication of records using the 'Submissions' common format will only be available to the Secretariat and will be used to organize and make available submissions received in response to notifications (see for example http://bch.cbd.int/protocol/post2020/submissions.shtml). All users will be able to search for records published using the 'Submissions' common format.

2. Development of the search interface and display of results

26. The current BCH provides different search interfaces designed for groups of similar common formats. In line with more modern state-of-the-art search interfaces, both the ABS-CH and the CHM have a single search interface which can be used to combine data from different common formats. The distinctiveness of the BCH, however, is the existence of more sub-categories of data in its common formats and the need to enable broad multi-level searching of this data, for example being able to search all

⁵ The roster of experts was first addressed in recommendation I/3 of the first meeting of the Intergovernmental Committee for the Cartagena Protocol on Biosafety, which was held in December 2000.

⁶ Adopted in decision BS-VI/3.

Decisions on a specific *LMO* for *intentional introduction into the environment*. This multilevel search does not exist in the ABS-CH or the CHM.

- 27. To date, a new *Search* interface has been developed that follows the same format (front-end) and back-end as the *Search* interface in the ABS-CH. The multi-level search function to enable more detailed searches within the categories of data in the common formats is being implemented in the form of sub-filters. These sub-filters are developed alongside the implementation of the common formats on the new platform and are being tested as new common formats become available.
 - 3. Development of the training site of the Biosafety Clearing-House
- 28. In the early years of the BCH, the Secretariat developed a way to allow users to fully operate on the BCH in a "training mode" (also known as a *sand box*) without any impact on the real data. In other words, BCH users could practice and test publishing different types of information in the BCH without these records appearing as official records. This application has proven extremely useful in conducting training on the BCH and has been highly praised by all trained BCH users. This feature is partially available for the new BCH and can be accessed at https://bch-demo.cbd.int/. Currently, it allows training on some of the common formats for national records. The training site currently mirrors the beta (preview) site of the new BCH.

4. Migration of national reports

- 29. In decision <u>CP-9/5</u>, the Conference of the Parties serving as the meeting of the Parties to the Protocol adopted the reporting format for the fourth national report on the implementation of the Cartagena Protocol on Biosafety. The fourth national reports were due on 1 October 2019.
- 30. Developing the common format for the fourth national report on the current BCH would have required its eventual migration, resulting in double work. Instead, a beta or preview version of the new BCH was created and the common format for the fourth national reports was developed there. The preview site is available at: https://beta.bch.cbd.int/.
- 31. Through notification 2019-055, issued on 25 June 2019, the Secretariat announced the launch of the online version of the reporting format through the preview site of the new BCH. The Secretariat invited Parties and other Governments to submit their fourth national report using the new preview site which had also been translated into all six official languages of the United Nations.
- 32. In addition, all the data from the four previous national reports (submitted between 2005 and 2015: interim, first, second and third) and the *Survey on Indicators* (2014) have also been migrated to the preview site along. As a result, all references to national reports in the current BCH will open the preview site. Submission of third national reports is still possible on the old BCH but they are searchable in the new preview BCH site only.
- 33. The Report Analyzer tool has also been migrated to the preview site. New features were added to the Report Analyser tool such as the possibility to compare answers to questions in the fourth national report with the answers to the equivalent questions in the second national report, as well as aggregation by Parties, non-Parties, and the ability to export and print data. This was necessary to enable the analysis for the fourth assessment and review of the Protocol and final evaluation of the Strategic Plan (see section II).
- 34. The preview site of the BCH is separate from the development (test) site. The preview site will eventually be combined with the new BCH platform once development of the new platform is completed and the rest of data from the current BCH is also migrated.

5. Testing phase

35. The testing of the new BCH platform started in March 2020 and is performed on the development site at: https://bch.cbddev.xyz/. The testing is carried out internally within the Secretariat and externally through the "BCH on BCH Forum". All CPB and BCH focal points, National Authorized Users, BCH-IAC members and UNEP-GEF Regional Advisors have been subscribed to the "BCH on BCH Forum". The

testing process was explained through notification <u>2020-039</u>, which also invited others to express their interest in participating in the testing and as a result, a number of additional organizations and indigenous peoples and local communities are also now registered in the Forum and receiving the messages with the test assignments.

- 36. Participation in the testing has also been positive. To date, 63 Parties covering the five United Nations regions have participated in the testing although not all Parties respond to each of the test assignments. A number of non-Parties and organizations have also participated in the testing.
- 37. The testing is performed on a step-by-step basis, meaning that records and features are being tested as they become available. Test assignments are distributed via the "BCH on BCH Forum" every two weeks (approximately), depending on the status of the development of new features. In general, testing began with the simplest record types and features and is progressing to more complex formats and features as they are developed and become functional. The testing involves testing of the core functions of the BCH *submitting* information and *searching* for information, including both national and reference records as well as other enhanced features which function differently from the current BCH, such as inline record creation, workflow process, country profiles and others.
- 38. After the test assignments are sent, users provide feedback on whether they are able to complete the assignment, what they like or don't like about the changes, suggestions for improvement, and any problems they experienced. The comments and suggestions made by users are compiled by the Secretariat. The easiest ones are addressed immediately. For example, several users provided feedback on the usefulness of being able to search by record ID on the current BCH to be. In response to the feedback, the feature was further enhanced in the new platform with the aim to maintain its user-friendly functionality similar to the current BCH. Other examples of feedback that has been addressed quickly include technical glitches identified through the testing such as bugs in the new platform and issues that arise when accessing the platform from different browsers. More complicated suggestions will be considered and, as appropriate, implemented as development of the platform becomes more advanced.
- 39. To date, the results of the testing process show the following:
- (a) Overall, there is a very positive feedback from users regarding the feel, look and user-friendliness of the new system;
 - (b) Users appreciate the test assignments and gradual introduction into the new system;
- (c) Users appreciate the help materials (PDF files and videos) created by the Secretariat to help with the testing of the new platform as well as navigating through various new features.
- 40. Once the external testing is completed and the necessary changes made, another round of 'in-house' testing by the Secretariat will be needed to identify and fix bugs and ensure that the new platform is functioning correctly before it can move to the final production stage.

6. Development of statistical tools

41. The current BCH platform includes the possibility to present search results in different ways including in the form of a world map or tables.⁷ These existing tools will be extended to a larger set of search results in the new BCH, such as the possibility to *Sort*, *Group*, *Table view*, *Matrix*, *Send*, *Print*, and *Export* all results from the search interface. These features are under development and testing. As a part of this activity, the *Country Profiles* section is already available on the development site.

7. Migration of existing plug-ins and other existing BCH applications

42. The other BCH-based applications active on the current BCH will also be migrated to the new platform. Work on two of these is already complete:

² Although the function to display search results on a world map is not currently working.

- (a) LMO quick-links function which automatically creates a small image file containing the trade name, unique identifier and a barcode or QR code for each LMO registered in the BCH. The quick-links can be included in trade documents to provide easy access to official information in the BCH;
- (b) Integration with CropLife International's *BioTradeStatus* database. This is a plug-in that enables the comparison of decisions on LMOs published in the BCH with decisions on the BioTradeStatus database maintained by CropLife International at http://www.biotradestatus.com.

Other plug-ins still to be migrated include the Hermes and Ajax plug-in applications. These were developed by the Secretariat to facilitate building national biosafety clearing-houses by allowing countries to display autonomously their own BCH data on different internet-based application such as national websites and/or databases.

8. Development of new record functionalities

- 43. At its tenth meeting, held in April 2016, the BCH IAC had made a number of recommendations to the Secretariat for the development of new functions for some types of records, such as implementation of an expiry date or a requirement for re-confirmation after a certain amount of time has passed, or the ability to see changes to a record over time (the recommendations are contained in annex II of document UNEP/CBD/BS/BCH-IAC/10/2.)
- 44. In decision CP-VIII/2, the Executive Secretary was requested to continue making improvements to the central portal of the BCH, following up on the recommendations from the tenth meeting of the Informal Advisory Committee. With the pending migration of the BCH, however, limited action was taken to make changes to the current platform. Paragraph 5(c) of decision CP-9/2 reiterated the request to the Executive Secretary from decision CP-VIII/2 and the recommendations from the tenth meeting of the Informal Advisory Committee are now being considered as part of the migration. A summary of the progress made in the implementation of these recommendations is presented in annex I to this document.

9. Migration of forums for online discussions

45. Thematic portals and online forums have been widely used in response to requests by the Conferences of the Parties serving as the meetings of the Parties to the Protocol. How best to migrate the portals and forums is in the initial planning stages and being considered alongside the re-design of the CBD website.

10. Web pages on the substantive areas of work under the Protocol

46. At the moment, the web pages describing the work under the different substantive areas of the Protocol are accessed via a section of the BCH entitled *The Protocol* (available at http://bch.cbd.int/protocol). These web pages will not be part of the migration. Instead, they will be reintegrated with the CBD web pages in line with the web strategy.⁸

11. Development of help pages for the new Biosafety Clearing-House

47. The current BCH Help Pages section is available through a platform external to the BCH. This platform was developed by the UNEP-GEF BCH II Project on the basis of all the work produced under the UNEP-GEF BCH I and II series of activities. It also provides access to tutorial and videos developed by the Secretariat in all six languages of the United Nations. The Help section is largely based on screenshots related to each BCH operation and so it will become immediately obsolete with the finalization of the migration. The Secretariat is cooperating with the UNEP BCH III Project in the development of help functions for the new BCH platform (see section III below).

C. Conclusion

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⁸ Decision XII/2.

- 48. As can be seen from the overview above, a great deal of work has been done towards migrating the BCH to its new platform. At the same time, however, a great deal of work remains to be done.
- 49. The chronogram had foreseen that the migration would be completed by June 2020; this has not been possible due to a number of factors including delays in fulfilling the assumptions in the chronogram; loss of institutional memory on the BCH in the Secretariat as well as loss of dedicated human resources; and the added complexity of undertaking the migration in a way that enhances coherence and integration among the CHM, the ABS-CH and the BCH.
- 50. The Secretariat is committed to completing the migration prior to the tenth meeting of the Conference of the Parties serving as the meeting of the Parties to the Protocol. Work will continue according to the activities set out in the chronogram and further information on the next steps will be provided during the meeting of the Informal Advisory Committee in the light of the status of the migration at that time.
- 51. The Informal Advisory Committee will be invited to provide its feedback on the progress made on the migration to date.

II. STATUS OF THE CURRENT BIOSAFETY CLEARING-HOUSE

- 52. While the new platform for the BCH is under development, the BCH continues to operate on its current platform (http://bch.cbd.int/) and it remains a key tool for information-sharing, capacity-building and facilitating the implementation of the Cartagena Protocol on Biosafety.
- 53. The Secretariat continues to manage the BCH daily and monitor the accuracy and completeness of records by urging Parties to ensure that the necessary information is available on the BCH (e.g. summaries of risk assessments to accompany records on decisions on introduction into the environment) and that BCH records are kept up-to-date (e.g. national focal points, national points of contact and competent national authorities). The Secretariat also reviews and validates some categories of records for publication on the BCH (e.g. records on LMOs, genes and organisms; and capacity-building initiatives and activities). The Secretariat continues to address a number of requests from Parties and general public for technical advice and assistance related to the management of records in the BCH.
- 54. In addition, work by the Compliance Committee has contributed greatly to ensuring the accuracy, completeness and consistency of records in the BCH. In accordance with the Committee's cyclical organization of work, the Committee periodically reviews the consistency between information in national reports and on the BCH and the completeness of information on the BCH as part of Parties' obligation to make mandatory information available to the BCH under the requirements of the Protocol. When inconsistent or incomplete information is identified, the Committee initiates follow-up actions with the Parties concerned usually either by requesting the Secretariat to communicate with the Party or by the Chair of the Committee sending a letter. The work by the Committee in reviewing completeness and consistency has resulted in improving information in the BCH, especially the publication of records on risk assessments and on measures for implementation of the Protocol.
- 55. The BCH was considered in the analysis for the fourth assessment and review of the Protocol and the final evaluation of the Strategic Plan for the Protocol (2011-2020). Some key findings from this process are presented in annex II below and the full analysis is available as document CBD/SBI/3/3/Add.1. The document will be considered by the Subsidiary Body on Implementation at its third meeting which is expected to recommend a draft decision for consideration by the Conference of the Parties serving as the meeting of the Parties to the Protocol at its tenth meeting.
- 56. Over the period since the tenth meeting of the Informal Advisory Committee (2016), the number of records published in the BCH has increased, particularly in the categories of risk assessments, decisions and the Biosafety Information Resource Centre. The following table shows a summary of all the records that are published on the BCH as of 7 October 2020.

Table 3. Number of records published in the BCH as of October	2020
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Record type	Total records as of 7 October 2020
National records	
National Contacts (CPB and BCH focal points, emergency	347
measures contacts under Article 17)	347
Competent National Authorities	403
Laws and Regulations	1082
Country's Decisions and other Communications	2551
Risk Assessments	2474
Experts	197
National websites and databases	147
Total:	7201
Reference records	
LMOs	807
Genes	738
Organisms	245
Capacity-building activities, projects and opportunities	420
Capacity-building needs and priorities	38
The BCH Virtual Library:	
-Publications in Biosafety Information Resource Centre (BIRC)	1530
-Records in Scientific Bibliographic Database on Biosafety (Bibliosafety)9	9496
Total:	13,274
Total of all records:	20,475

57. Apart from being an important repository of information, the BCH has also continued to be a widely used tool for online forums and discussions on such topics as risk assessment, detection and identification, socioeconomic considerations, synthetic biology. In addition, new online forums were established on the BCH relating to the post-2020 implementation plan, and public participation, education and awareness. The former "BCH on BCH Forum" has also been re-instated and has been crucial to carrying out widespread testing of the new BCH platform.

III. COLLABORATION WITH THE UNITED NATIONS ENVIRONMENT PROGRAMME – GLOBAL ENVIRONMENT FACILITY BIOSAFETY CLEARING-HOUSE III CAPACITY-BUILDING PROJECT

58. The Secretariat is undertaking a number of collaborative activities with UNEP-BCH III project, including in response to decision CP-9/2 whereby the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol requested the Executive Secretary to facilitate the development, in collaboration with UNEP through the BCH III Project, of training materials, including online training, based on the new platform and user interface.

⁹ The *Bibliosafety* database was hosted and maintained by the International Centre for Genetic Engineering and Biotechnology (ICGEB). Recently, ICGEB stopped maintaining *Bibliosafety* so these records will not be migrated to the new platform and "The BCH Virtual Library" will include the BIRC records only.

 $^{^{10}\} https://bch.cbd.int/protocol/post2020/ForumImplementationPlan.shtml$

¹¹ https://bch.cbd.int/onlineconferences/portal art23/pa main.shtml

- 59. A BCH Training Workshop was co-organized by the Secretariat and UNEP-GEF BCH III Project and held on 24 November 2018 on the margins of the ninth meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol in Sharm El-Sheikh, Egypt. At that event, the Secretariat made a presentation on the new BCH platform and the migration process. It is anticipated that a similar workshop will be held on the margins of the tenth meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol.
- 60. The project is also providing funds to enable the Secretariat to hire a Web Development Consultant in order to support the information technology team of the Secretariat in work on the migration. As referred to in paragraph 17 above, the consultant began working in September 2020.
- 61. Furthermore, the project is also providing funds to enable the Secretariat to recruit an expert consultant to review the user interface (UI) and user experience (UX) of the clearing-houses. The objective of this work will be to identify 'pain points' with the current design of the platforms that hinders their effectiveness. A second phase of the work will involve implementing the design recommendations to improve the consistency of common operations across the clearing-houses and make the platforms more intuitive and user-friendly. It will also include the development of help and documentation for the clearing-houses.
- 62. A representative of the UNEP-BCH III project will be invited to make a presentation during the meeting of the Informal Advisory Committee to provide an update on activities under the project.

IV. POST-2020 PROCESSES AND THE BIOSAFETY CLEARING-HOUSE

- 63. Through decisions adopted at the fourteenth meeting of the Conference of the Parties and the ninth meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol, a number of processes are underway to develop plans and strategies for the post-2020 period.
- 64. In decision 14/25, the Conference of the Parties requested the Executive Secretary to develop, in consultation with the informal advisory committees to the clearing-house mechanism, the BCH and the ABS-CH, a knowledge management component as a part of the preparatory process for the post-2020 global biodiversity framework, and it is intended to, inter alia, guide future developments of the clearing-house mechanism, the ABS-CH and the BCH.
- 65. To allow Parties to the Convention and the Protocols, as well as relevant stakeholders, to share ideas and inputs on the draft elements of the knowledge management component prepared in consultation with the Informal Advisory Committee to the Clearing-House Mechanism, an "Online Discussion Forum on the Preparation of the Knowledge Management Component of the Post-2020 Global Biodiversity Framework" was held from 24 to 28 August 2020. 12 Members of the Informal Advisory Committee on the Biosafety Clearing-House were also encouraged to take part in this forum.
- 66. The draft knowledge management component of the global biodiversity framework will be submitted for consideration by the Subsidiary Body on Implementation at its third meeting.¹³ It is expected that the Subsidiary Body on Implementation will make a recommendation for consideration by the Conference of the Parties at its fifteenth meeting.
- 67. The members of the Informal Advisory Committee may wish to exchange views on the draft of the knowledge management component of the post-2020 global biodiversity framework.
- 68. In decisions CP-9/7 and CP-9/3, the Conference of the Parties serving as the meeting of the Parties to the Protocol decided to develop an implementation plan for the Protocol as well as a capacity-building action plan. Through a consultative process that included the submission of views, online discussions and input from the Liaison Group on the Cartagena Protocol, drafts of the implementation plan and

¹² Notification: https://www.cbd.int/doc/notifications/2020/ntf-2020-060-km-en.pdf, the web page for the discussions was https://www.cbd.int/km/discussion-forum/.

¹³ See documents CBD/SBI/3/8 and CBD/SBI/3/8/Add.1

capacity-building action plan have been developed and will be considered by the Subsidiary Body on Implementation at its third meeting. The document containing the draft plans will be made available for the information of the Informal Advisory Committee (CBD/SBI/3/18) and the Secretariat will provide information on how the Biosafety Clearing-House has been addressed in the draft plans.

Annex I

RECOMMENDATIONS FROM THE TENTH MEETING OF THE INFORMAL ADVISORY COMMITTEE ON THE BIOSAFETY CLEARING-HOUSE AND ACTIONS TAKEN BY THE SECRETARIAT

Recommendations from tenth meeting of BCH-IAC	Actions taken/Status
(a) Gather information on the type of user accessing the BCH and the frequency with which users revisit the site, for example, by targeting randomly selected users in order to customize pages (e.g. by offering different dimensions/depth of content to different users) and enable targeted outreach on specific thematic areas with the goal being to enlarge the user community of the BCH.	This will be considered in the new BCH platform.
(b) Improve search engines so that the drop-down filters (for example modified traits and type of recipient organism) display only the options for which records are available.	Since sub-filters in BCH are more complex than in the other clearing houses and because of the intricacy of the changes from the old BCH to the new platform, the drop-down filters are being implemented as in old BCH for now, showing all options.
(c) Monitor queries and keyword searches in the BCH in order to improve the display of information.	The search in new BCH is more advanced and has more features, including searching by keywords. In the process of testing the new site, the Secretariat receives suggestions from users that are being implemented. This aspect will also be considered more in depth when the new BCH is ready.
(d) Enable the search of decisions by outcome (i.e. "approved", "approved with conditions", "prohibited", or "withdrawn") as well as a further breakdown by type of decision (i.e. "food", "feed", and "processing") and provide a brief summary of the search results (for example, count of countries and conditions).	The following sub-filters for searching Decisions will be implemented in the new BCH: "approved", "approved with conditions", "prohibited", and the other options from field 16 of the current offline version of the common format. breakdown by type of decision (by "food", "feed", and "processing" from field 13 in current offline common format). as for "brief summary of the search results (for example, count of countries and conditions)" – this is to be considered when final search is implemented and when the new BCH is ready.

Recommendations from tenth meeting of BCH-IAC	Actions taken/Status		
(e) Provide geographic representation, such as maps, to the "List of Parties" page as well as search outputs, as appropriate, including the combination of different search filters, for example countries that have approved a particular living modified organism (LMO).	The geographical representation in the form of a map is available on the home page of the new BCH.		
(f) Improve strategies to make the general public more aware of the BCH by, for example, preparing a short flyer to be sent electronically to new users (as well as hardcopy format dissemination) illustrating an overview of the main features of the BCH and further raising awareness about the BCH via social media, for example Twitter, Facebook, and YouTube.	This will be considered in future through collaboration with UNEP-GEF BCH III Project.		
(g) Prepare a package of awareness materials which can be easily accessed by BCH users not directly involved in biosafety (for example, customs officials, academic researchers, etc.) and, to respond to their needs, provide basic filtering tools to analyze data in the BCH.	This is related to point (f) above.		
(h) Create the following tick boxes, in the common format for submission of decisions and risk assessments generated by a regulatory process in order to facilitate the submission of such records to the databases of the Food and Agriculture Organization of the United Nations (FAO) and the Organization for Economic Co-operation and Development (OECD):	These suggestions will be taken into account in the review of the "Country's Decisions" common format.		
Is this decision/risk assessment related to an LMO for commercial use?			
• If "yes", is this submission related to food safety?			
 If "yes", was it conducted in accordance with the Codex Alimentarius Guideline for the Conduct of Food Safety Assessment of Foods Derived from Recombinant-DNA plants? 			
 If "yes", should this submission be forwarded to the FAO focal point for its possible inclusion in the GM Food Platform? 			
• If "yes", should this submission be forwarded to the OECD Secretariat for its possible inclusion in the BioTrack Product Database?			
(i) Collaborate with LMO developers to assign provisional unique identifiers (UIs), in accordance with OECD guidelines, to commercialized LMOs for which UIs have not yet been assigned, including, on a pilot basis, LM animals and microorganisms.	In progress.		

Recommendations from tenth meeting of BCH-IAC	Actions taken/Status
(j) Consider ways of assigning provisional UIs to LMO events which are not approved for commercial use and that have been detected by countries and reported through the BCH in the context of Articles 17 or 25;	In progress.
(k) Improve the exchange of information on ongoing and future training activities, including the creation of a graphic and interactive calendar where capacity-building activities and their accompanying documentation can be registered, including lists of participants.	This is currently ongoing and linked to the migration of the portals. Lists of participants are currently available on the respective portals in current BCH.
(I) Create a searchable list of experts registered in the BCH with the option to filter them by categories such as the groups of experts (for example, Roster of Biosafety Experts, Online Forum on Risk Assessment and Risk Management, Ad Hoc Technical Expert Group (AHTEG) on Risk Assessment and Risk Management, Online Forum on Synthetic Biology, etc.), region, areas of expertise, etc., and develop tools to facilitate the matching of funds to identified biosafety needs.	To be considered at a later stage after progress has been made with the migration of portals and online forums.
(m) Migrate the BCH to the new platform as soon as possible but before end of 2017 to enable testing by the BCH-IAC before its face-to-face meeting in 2018 and develop mock-ups before the end of 2016 for review by the BCH-IAC.	Migration and testing are ongoing. Current plan is to launch the new BCH website in 2021 before CP MOP-10.
(n) Update the BCH tutorials and other help materials once the migration to the new platform has taken place, including their translation into all of the official languages of the United Nations.	Training materials will be prepared with support from the UNEP-GEF BCH III Project once key aspects of the migration are finished.
	The translation of common formats and the new platform and later training materials will be done as soon as feasible.
(o) Collaborate with the European GMO Initiative for a Unified Database System (Euginius; http://www.euginius.eu), JRC, FAO, and OECD in order to harmonize the terms related to modified traits among the databases.	In progress on this. See also (h) above.
(p) Add a search function for decisions and risk assessments by expiry date.	Most common formats in the current BCH have a field entitled "Timeframe for confirmation or updating of information" with the following explanation: "Please note that this category of information requires confirmation or updating after one year from the date of submission. After the deadline you will be asked to confirm or update the record within 3 months. After this period, if no confirmation has been

Recommendations from tenth meeting of BCH-IAC	Actions taken/Status
	received, the record will be marked as "Not Confirmed". In practice, however, this feature is not operational in the current BCH. The feature will be implemented for a number of common formats in the new BCH.
(q) List the contact details of BCH-IAC participants in alphabetical order rather than categorized by countries or organizations.	This will be taken into consideration in new BCH when developing the new portal.

Annex II

SOME KEY FINDINGS CONCERNING THE BIOSAFETY CLEARING-HOUSE FROM THE FOURTH ASSESSMENT AND REVIEW OF THE PROTOCOL AND FINAL EVALUATION OF THE STRATEGIC PLAN FOR THE PROTOCOL (2011-2020)

- 1. Article 35 of the Protocol requires the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol to undertake a periodic evaluation of the effectiveness of the Protocol. In decision CP-9/6, the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol decided that the fourth assessment and review of the Protocol would be combined with the final evaluation of the Strategic Plan and it requested the Executive Secretary to analyse and synthesize information on the implementation of the Protocol. The requested analysis has been prepared and is available as document CBD/SBI/3/3/Add.1. A summary of progress is provided in document CBD/SBI/3/3. Both documents are to be considered by the Subsidiary Body on Implementation at its third meeting.
- 2. The information below is drawn from these two documents.
- 3. Overall, the analysis showed a positive trend in progress towards the operational objectives of the Strategic Plan for the Protocol related to the BCH and information sharing. The number of submissions to the BCH has seen a large increase and more than doubled since the baseline. More specifically, the number of submissions of national records to the BCH from developing countries and countries with economies in transition increased from 1,445 measured on 1 January 2012, to 4,438 on 1 January 2020. At the baseline, submissions from developing countries and economies in transition constituted 51 per cent of all submissions. This had increased to 66 per cent by 1 January 2020, which represents a rise in the rate of submission of national records by developing countries and economies in transition by 15 per cent.
- 4. The number of decisions¹⁵ published in the BCH increased by 177 per cent since the baseline. In terms of completeness of information, the ratio between risk assessment reports and the number of decisions on LMOs in the BCH has increased from 79 per cent (514 risk assessments to 650 decisions) in January 2012; and 92 per cent (1,198 risk assessments to 1,299 decisions) in January 2016; to 96 per cent (2,055 risk assessments to 2,134 decisions) in January 2020. This is a 17 per cent increase from the baseline. From this information, it can be seen that not only has the ratio of risk assessments to decisions in the BCH improved significantly from the baseline but this improvement is on the basis of the much larger number of decisions now published in the BCH.
- 5. Along similar lines, an increasing proportion of Parties that have conducted risk assessments are publishing this information on the BCH. In their fourth national reports, 55 per cent of Parties (or 51 Parties) reported that summaries of risk assessments or environmental reviews of LMOs generated by regulatory processes and relevant information regarding products thereof were available. Of these, 69 per cent (35 Parties) reported that the information had been submitted to the BCH, an increase of 19 per cent.
- 6. The number of countries that had published biosafety-related laws or regulations in the BCH increased by 4 per cent (with 163 countries having submitted biosafety laws or regulations). The number of countries having registered national focal points for the Protocol and national focal points for the BCH increased to almost 100 per cent. A notable increase was in the number of countries having registered their point of contact for receiving notifications under Article 17 (+31 per cent).

¹⁴ The baseline was established by the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol through decision BS-VI/15. The baseline comprises information from the second national reports, the BCH and a dedicated survey (carried out in 2013) to gather information corresponding to indicators in the Strategic Plan for the Cartagena Protocol on Biosafety that could not be obtained from the second national reports or though other existing mechanisms. For more information on the methodology used for conducting the fourth assessment and review of the Protocol and final evaluation of the Strategic Plan, see section II of document CBD/SBI/3/3/Add.1.

¹⁵ For this purpose, decisions regarding transboundary movement of LMOs for intentional introduction into the environment (under Article 10 of the Protocol) and decisions related to import or domestic use of LMOs for direct use as food or feed, or for processing (under Article 11 of the Protocol, or under the domestic framework) were considered.

- 7. Increases were reported in the amount of traffic to the BCH since the baseline. The amount of traffic (annual average across the reporting periods) in the BCH by users from developing countries and countries with economies in transition increased from 65,327 visits and 39,275 unique visitors annually to 106,996 visits and 68,832 unique visitors annually, representing a large increase of 64 per cent in the number of visits and 75 per cent in the number of unique visitors from developing countries and countries with economies in transition. Furthermore, the number of referrals from social networks to the BCH increased by 160 per cent from the baseline, attributable mainly to Facebook.
- 8. The BCH has become a more widely used tool for online discussions, which was visible both by an increase in the number of online forums established on the BCH (relating to the post-2020 implementation plan; public participation, education and awareness; and synthetic biology), the number of Parties having registered participants to online forums and the number of participants in online forums.