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

Tenth meeting – Part II

Montreal, Canada, 7–19 December 2022

Agenda item 11

NEEDS ASSESSMENT SURVEY REPORT ON THE BIOSAFETY CLEARING-HOUSE

Note by the Executive Secretary

1. The Executive Secretary is circulating herewith, for the information of participants in the resumed session of the tenth meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety, a summary report of a needs assessment survey on the Biosafety Clearing-House (BCH) that was conducted in July 2020. This report was prepared by the United Nations Environment Programme with support from the Global Environment Facility (GEF) through the “Sustainable Capacity Building for Effective Participation in the Biosafety Clearing-House”, commonly known as the UNEP-GEF BCH III project.
2. The aim of the survey was to collect information on (a) immediate BCH and biosafety needs to guide and fine-tune the BCH III Project capacity-building interventions in light of the coronavirus disease (COVID-19) pandemic; and (b) implementation of the BCH and biosafety measures in general. The survey also gathered perspectives on what can be instituted at the national and global levels to generally enhance the knowledge, awareness, participation and sustainability of the BCH and biosafety over the longer term. The Secretariat distributed the survey via notification 2020-048¹ as well as through the “BCH on BCH Forum”.
3. The attached report is being circulated in the form and language in which it was received by the Secretariat.

¹ <https://www.cbd.int/doc/notifications/2020/ntf-2020-048-bch-en.pdf>, 7 July 2020.



UNEP - GEF PROJECT FOR SUSTAINABLE CAPACITY
BUILDING FOR EFFECTIVE PARTICIPATION IN THE BIOSAFETY
CLEARING HOUSE
(BCH III PROJECT)



NEEDS ASSESSMENT SURVEY REPORT

OCTOBER 2020



ACRONYMS

BCH	Biosafety Clearing House
CARICOM	Caribbean Community
COP-MOP	Conference of the Parties serving as the Meeting of the Parties
COVID-19	Corona Virus Disease 2019
CPB	Cartagena Protocol on Biosafety
CNA	Competent National Authority
FAO	Food and Agriculture Organization of the United Nations
FP	Focal Point
GEF	Global Environment Facility
GMO	Genetically Modified Organism
IICA	Inter-American Institution for Co-operation on Agriculture
IT	Information Technology
LAC	Latin America and the Caribbean
LMO	Living Modified Organism
MEA	Multilateral Environmental Agreements
NAU	National Authorized User
NBA	National Biosafety Authority
nBCH	National Biosafety Clearing House
NBF	National Biosafety Framework
NFPs	National Focal Points
N-KL SP	Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress
Q	Survey Question
RA	Regional Advisor
RAN	Regional Advisor Network, also Regional Advisors System
rBCH	Regional Biosafety Clearing house
SCBD	Secretariat of the Convention on Biological Diversity
SIDS	Small Island Developing States
SOPs	Standard Operating Procedures
SSFA	Small Scale Funding Agreement
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
VLE	Virtual Learning Environment

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EXECUTIVE SUMMARY

Over the period from July 1st to August 3rd, 2020, the UNEP-GEF BCH III project in collaboration with the Secretariat of the Convention on Biological Diversity (SCBD) executed a needs assessment survey to collect information and perspectives from parties to the CPB on: (i) Countries' relevant BCH and Biosafety capacity building needs, (ii) Implementation of BCH and Biosafety measures in general at national, regional and global levels, (iii) Measures that can be instituted to enhance the general knowledge, awareness, participation and sustainability of the BCH and Biosafety over the longer term at national, regional and global levels.

The survey was designed to collect both qualitative and quantitative data to identify gaps, capacity building needs and suggested interventions relevant to the BCH specifically and Biosafety in general. While it primarily involved multiple choice questions, it also included sections for parties to express their views in writing. Aiming to ensure broad participation from relevant Biosafety stakeholders that are knowledgeable of the current national and global biosafety situation, a notification was issued by the SCBD. This notification addressed Parties' CPB and BCH National Focal Points (NFPs), inviting them and other appropriate persons identified by them, to participate in the survey. Additionally, the BCH III project sent a written communication to its Virtual Learning Environment (VLE)¹ contact list that includes 1,673 international recipients who previously participated in the project's capacity building activities.

Responses were received from 250 respondents coming from 71 Countries [Africa (30), Asia (18), Europe (7), Latin America and the Caribbean (12) and Oceania/Pacific (4)] that are parties to the CPB. The survey showed an active participation of countries' National Focal Points. Indeed, 25.2% of respondents were either BCH or CPB NFPs (63 NFPs participated). Parties' responses gave a detailed picture of the current Biosafety situation at all levels, clearly highlighting gaps and weaknesses that need to be addressed. Among other things, Parties indicated that they are still encountering many challenges in fulfilling their information sharing obligations. 85.1% of respondents were of the view that additional global projects are needed to build capacity in the various CBD clearing house mechanisms, increase awareness, build on the gains of previous projects and enhance sustainability. Additionally, building capacity to conduct risk assessment, risk management and monitoring and identification of LMOs was found to be crucial to address weaknesses identified in those areas.

Several online and offline tools and approaches were suggested to be used for strengthening the identified gaps at the national, regional and global levels. Of these, the Regional Advisors' Network² was overwhelmingly appreciated by respondents. 86.8% of the survey participants confirmed that the system should be maintained and used to provide capacity building on other

¹The Virtual Learning Environment (VLE) provides users with access to a wide range of educational materials on the BCH. It houses information on public BCH training, national BCH training, webinars, and global and regional workshops. The site can be accessed via <https://bch3-vle.unep.org/>.

² The Regional Advisors' Network is the legacy of the first Global BCH Project which identified experts, with solid professional background and trained them to become regional resource persons on international environmental agreements, negotiations and training of trainers. These experts reside in their respective regions and as a multi-lingual, multi-cultural corps of trainers and consultants, possess a high level of cultural sensitivity, are able to advise and work with a wide range of stakeholders from different backgrounds, often in the local language, and they understand well the intricacies of inter-Governmental coordination and public consultation processes. They assisted and were included in the design of several Global UNEP-GEF projects including the different phases of the BCH projects and the projects for support for the preparation of national reports on implementation.

Multilateral Environmental Agreements (MEAs), as well in the context of global projects and to support countries in undertaking national activities and compliance reports.

Parties' detailed expectations regarding BCH and Biosafety capacity building requirements to enhance the Biosafety systems sustainability at all level were formulated in the form of actionable recommendations addressed to Governments, to the BCH III project management team and to the COP-MOP of the Cartagena Protocol.

1. BACKGROUND AND CONTEXT

Establishing and managing effective clearing house mechanisms is essential for client-orientated and successful implementation of Multilateral Environmental Agreements. Accordingly, Article 20, paragraph 1, of the Cartagena Protocol on Biosafety establishes the Biosafety Clearing House (BCH) as part of the Clearing-House Mechanism (CHM) of the Convention on Biological Diversity (CBD), to facilitate the exchange of scientific, technical and legal information on Living Modified Organisms (LMOs). Furthermore, it acts as a platform to share experiences with the use of LMOs and assists countries to implement the Cartagena Protocol.

Parties to the CPB are obliged to make certain categories of information available through the BCH. Additionally, relevant subsequent COP-MOP decisions set out specific requirements regarding the categories of information to be made available through the BCH. However, despite the availability of the Biosafety Clearing House, Parties have encountered many challenges in fulfilling their information sharing obligations. Hence, several projects, funded by the GEF, were designed to assist Parties to have a functional BCH system. In recognition of this, and the need to ensure compliance among Parties and full participation in the BCH, two previous projects, namely BCH I³ (2007-2009) and BCH II⁴ (2010-2012), were executed by the United Nations Environment Programme (UNEP), in GEF-eligible countries. Following these two projects, Parties still encountered many challenges in fulfilling their BCH-related obligations.

The BCH III project⁵ builds on the experiences of the two previous projects and seeks to “sustain the effective participation in the Biosafety Clearing House (BCH) of Parties to the Cartagena Protocol on Biosafety (CPB)”. It aims to ensure that: (i) Participating countries have established sustainable national procedures to gather information to put on the BCH, and (ii) Have the expertise to use, access and participate effectively in the BCH. This project aims at improving countries’ compliance to the Protocol while guaranteeing the safer use and handling of LMOs for enhanced global conservation of Biodiversity.

The BCH III project recognizes that “capacity-building needs vary from country to country”, and that still many countries do not have fully established and functional National Biosafety Frameworks (NBFs) in place that meet the requirements of the CPB. Acknowledging low levels of compliance and specific challenges posed by the COVID-19 pandemic, the BCH III project team deployed a needs assessment survey to better assist countries in meeting their international obligations and national needs. More specifically, the goal is to support countries with strategizing and identifying appropriate mechanisms to meet their project targets.

The main objective of the present report is to compile and synthesize information generated by the Needs Assessment Survey, provide a regional and global analysis of this information, and present conclusions and recommendations to the relevant stakeholders.

³ The first BCH Project entitled “Building Capacity for Effective Participation in the Biosafety Clearing House (BCH) of the Cartagena Protocol” was designed and executed as an “add-on project” to the National Biosafety Framework (NBF) Development Project.

⁴ The second BCH Project entitled “Continued enhancement of building capacity for effective participation in the BCH” was launched in response to these needs and demands, as articulated in Decision BS-IV/5 of COP/MOP-4.

⁵ The third BCH Project entitled “Project for Sustainable Capacity Building for Effective Participation in the Biosafety Clearing House” was launched in response to Parties request and needs articulated in Decision BS-V/5.

2. OBJECTIVES AND METHODOLOGY

In the execution of the needs assessment survey, a Survey Monkey questionnaire was developed ([Appendix I](#)) and used as a tool to collect, compile and synthesize information and perspectives on:

- 1) Countries immediate relevant BCH and Biosafety needs, in order to guide and fine-tune the BCH III project capacity building interventions especially during the COVID-19 pandemic,
- 2) Implementation of BCH and Biosafety measures in general at the national and regional levels, and
- 3) Measures that can be instituted to enhance the general knowledge, awareness, participation and sustainability of the BCH and Biosafety over the longer term at the national, regional and global levels.

Based on the objectives outlined above, the survey instrument was designed to collect both quantitative (e.g. number of countries with biosafety measures in place) and qualitative (e.g. experience of implementing BCH and Biosafety system) data from respondents. The survey involved multiple choice and written responses to key questions. It was composed of the four following sections:

- 1) Contact information [Q₁-Q₈],
- 2) Baseline information on the BCH and Biosafety [Q₉-Q₁₇],
- 3) Capacity building needs with emphasis on the BCH during COVID-19 [Q₁₈-Q₃₀],
- 4) Capacity building needs with emphasis on the BCH required for Biosafety systems sustainability [Q₃₁-Q₄₀].

In order to solicit a wide and specific range of feedback from BCH relevant stakeholders, invitations to participate in the survey were sent via-email ([Appendix II](#)), to the project's Virtual Learning Environment (VLE) contact list. This list primarily includes participants who attended various capacity building activities conducted within the context of the BCH III project at the national, regional and global levels. Stakeholders from non-BCH III project countries were also targeted, with the assistance of the Secretariat of the Convention on Biological Diversity (SCBD) for broader dissemination. The SCBD issued an official notification ([Appendix III](#)), specifically addressing Parties CPB and BCH National Focal Points (NFPs) inviting them or other appropriate persons identified by them, to participate in the survey.

Developed on Survey Monkey, the survey was conducted over the period from July 1st to August 3rd, 2020. To differentiate between the responses received from the persons on the VLE contact list and those who responded as a result of the SCBD, two web links were created, namely <https://www.surveymonkey.com/r/BCH-NeedsAssessment-1> and <https://www.surveymonkey.com/r/BCH-NeedsAssessment-2>, respectively. The responses received were then compiled for subsequent analysis.

3. MAIN FINDINGS

A total of 250 persons from 71 countries participated in the survey [Figure 1]: 219 persons from the VLE contact list and 31 persons who received the SCBD notification. The majority of responses came from Africa (52.8%), followed by Asia (22.0%), Latin America and the Caribbean (15.6%), Europe (6.8%) and Oceania/Pacific (2.8%) [Figure 2]. A more detailed breakdown of responses received can be found in [Appendix IV](#).

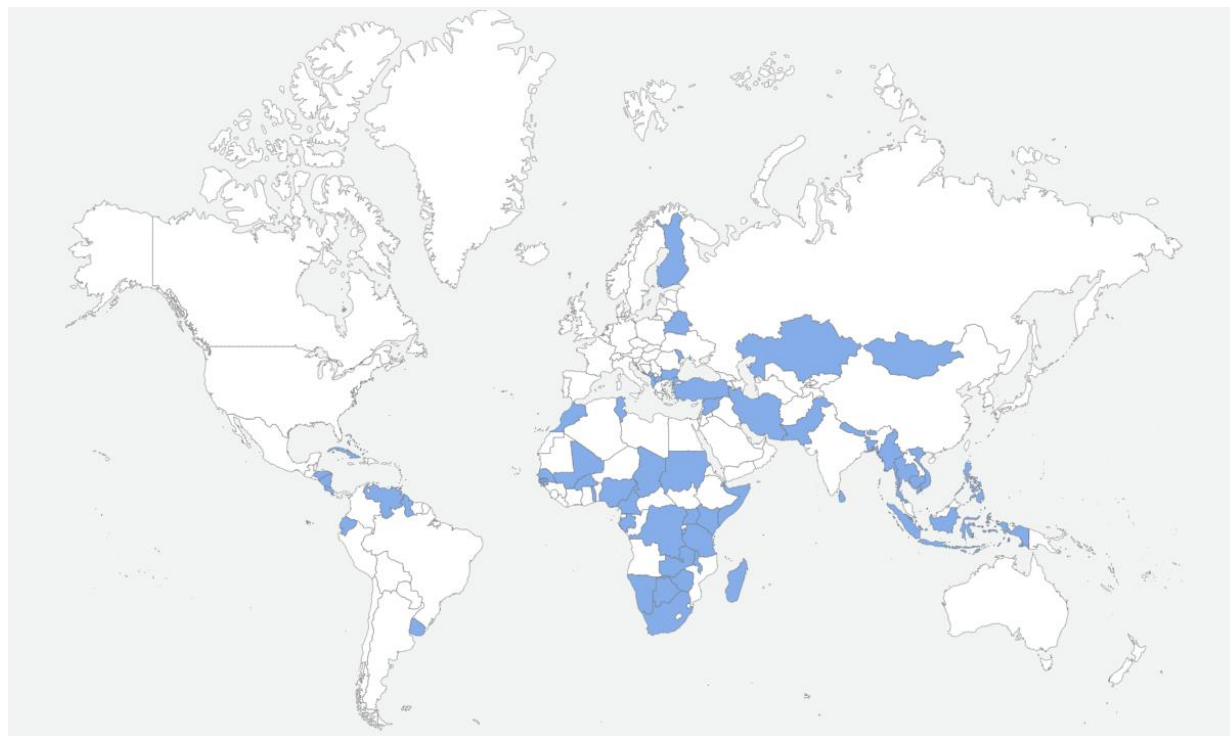


Figure 1. Map highlighting the countries that participated in the survey [Q7]

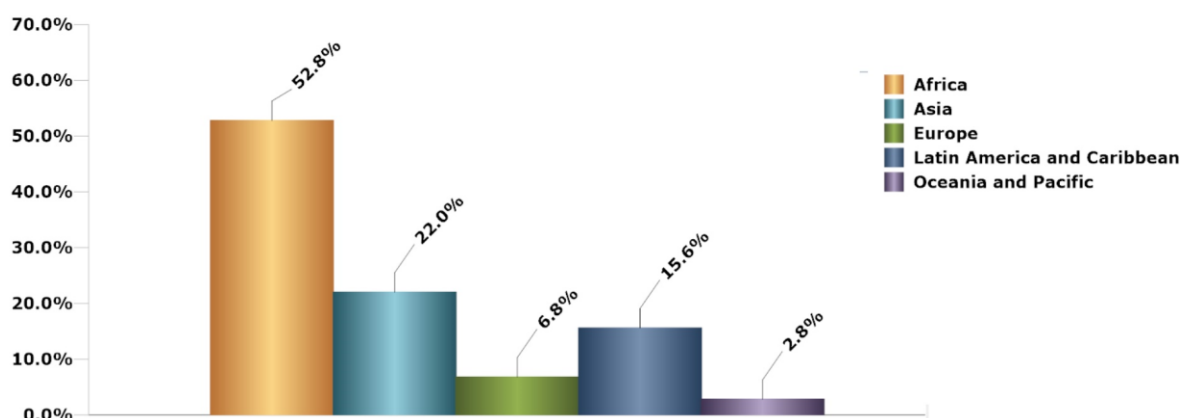


Figure 2. Breakdown of respondents by region

3.1 PROFILE OF RESPONDENTS

The survey showed an active participation of countries National Focal Points: 25.2% of respondents were either BCH or CBD NFPs (63 NFPs participated) [Q₈]. The careful examination of participants' profile, extracted from the survey section on contact information, revealed that respondents came from a wide cross section of job categories, ranging from Directors of institutions, to researchers, university lecturers, Biosafety staff, BCH RAs, to name a few [Q₅]. A comprehensive listing of the occupations stated can be found in [Appendix V](#). In terms of the organizations represented, these too [Q₆] were just as diverse as the job titles of respondents. International organizations such as FAO, IICA, UNDP, UNEP, for example were listed, as were Regulatory Authorities, Government Ministries, National Biosafety Authorities, and Bureau of Standards. A summary of the major organizations/institutions that participated in the survey can be found in [Appendix VI](#).

3.2 BASELINE INFORMATION ON THE BCH AND BIOSAFETY

A total of 71 countries participated in the survey [Q₇] of which 46 (64.8%) are BCH III project countries. While 203 participants were from the project countries, only 47 participants were from non-BCH III project countries [Q₉].

Table 1: Summary overview on survey participation [Q₉]

Region		N° of Participating Countries	N° of Respondents
AFRICA	BCH III project	21	121
	Non-BCH III project	9	11
	Total	30	132
ASIA	BCH III project	11	31
	Non-BCH III project	7	24
	Total	18	55
EUROPE	BCH III project	4	14
	Non-BCH III project	3	3
	Total	7	17
LATIN AMERICA / CARIBBEAN	BCH III project	6	31
	Non-BCH III project	6	8
	Total	12	39
OCEANIA/ PACIFIC	BCH III project	3	5
	Non-BCH III project	1	2
	Total	4	7
Grand Total		71	250

Check [Appendix IV](#) for more details.

The implementation status of the BCH III project⁶ in countries that participated in the survey is summarized in the table below:

⁶ This was primarily based on the responses received from participants [Q₁₀], yet it was amended to reflect the current status of the project implementation as of October 2020.

Table 2: Summary overview of national BCH III project implementation in participating countries surveyed

	Africa	Asia	Europe	Latin America / Caribbean	Oceania/ Pacific
All workshops completed	Burundi, Côte d'Ivoire, Congo, Gabon, Guinea Bissau, Kenya, Malawi, Mali, Namibia, South Africa, Uganda, Zambia, Zimbabwe.	Kazakhstan	Belarus	Grenada, Uruguay, Nicaragua	Solomon Islands
One workshop outstanding	Botswana, Gambia (The), Djibouti.	Maldives Turkey, Mongolia.	–	–	–
Two workshops outstanding	Seychelles, Rwanda, Tanzania, Cameroon.	Tajikistan,	Albania	Bahamas, Barbados	–
No workshops conducted	–	Bangladesh, Pakistan, Sri Lanka	–	–	–
Not implementing the project at national level	Morocco	Myanmar, Indonesia, Thailand	Montenegro, North Macedonia	Trinidad and Tobago	Niue Island, Samoa

Box 1 indicates the main areas where the BCH III project contributed to improving BCH systems [Q11]. Of the 64 persons who responded to this question, the majority of them considered capacity building in the efficient management of the BCH (including the ability to organize national workshops) the most important gain observed. Capacity-building was primarily mentioned by respondents from Burundi, Gabon, Guinea Bissau, Namibia, Kenya, Seychelles (Africa), Turkey (Asia), Solomon Islands (Oceania/Pacific). Many respondents valued the awareness and understanding of the BCH in terms of the tools available and the information contained therein, as noted by Malawi, Namibia and Zambia (Africa), Bahamas (LAC).

Box 1: Main areas where the BCH III project contributed to improving BCH systems in participating countries [Q11].

1. Capacity building in the efficient management of the BCH (reporting, monitoring and evaluation)/workshop organization
2. Better understanding/awareness of the BCH
3. Portal created/improving the existing portal
4. Improvement in knowledge
5. Better understanding of roles and responsibilities (NFPs and CNAs)
6. Better relationship between the BCH FP, the NAU and stakeholders
7. Improved data status.

With respect to ongoing Biosafety capacity building activities [Q₁₂], 76 out of 139 respondents (54.7%)⁷ confirmed having an active Biosafety project. Check [Appendix VII](#) for more details.

When asked to specify the nature of the currently ongoing Biosafety projects [Q₁₃], 14 out of 71 respondents (19.7%) indicated that this related to capacity building on the BCH within the context of the BCH III project. Respondents were from Botswana, Cameroon, Gabon, Guinea Bissau, Côte d'Ivoire (Africa), Cambodia, and Turkey (Asia) and Bahamas and Trinidad and Tobago (Latin America and the Caribbean).

Box 2: Nature of ongoing Biosafety capacity building projects [Q₁₃]

1. Capacity building on the BCH
2. Building capacity to implement the NBF to comply with all the CPB international obligations these include detection of LMOs, monitoring and surveillance, detection of adverse effects, socio-economic considerations in the decision-making process
3. LMOs detection to support biosafety decision-making
4. Lab capacity building for the detection, identification and monitoring of GMOs
5. Development of contained and confined field guidelines.

107 out of 139 respondents, 107 (77.0%) believed that there, indeed should be collaboration between ongoing Biosafety projects and the BCH III project [Q₁₄]. 15 out of the 86 responses (17.4%), felt that this collaboration should entail greater interaction between the projects with respect to areas closely related to the BCH such as LMO detection and identification, risk assessment, risk management, and socio-economic considerations [Q₁₅]. This was considered important by respondents from Burundi, Botswana, Uganda, Tanzania, Zambia and Djibouti (Africa), Bhutan, Philippines and Mongolia (Asia), North Macedonia (Europe), Bahamas, Grenada and Venezuela (Latin America and the Caribbean) and Solomon Islands (Oceania/Pacific).

Other collaboration aspects mentioned by respondents included raising awareness of all stakeholders, including decision-makers and the sharing of Biosafety information (10.7%), involvement of BCH experts and advisors in capacity building activities organized by national authorities (1.2%), and implementation of a new project to strengthen capacity, enhance decision-making and sensitize the public (1.2%).

With regards to previously undertaken Biosafety projects [Q₁₆], 92 persons out of 139 who responded to this question (66.2%) indicated that previous Biosafety projects or phases of the BCH project had been executed. [Appendix VII](#) lists some of the Biosafety and BCH projects identified by the 64 respondents to this question on project specifics. Major projects reported on are shown in [Figure 3](#).

⁷ Respondents from the following countries reported currently having Biosafety relevant projects: Burkina Faso, Cameroon, Congo, Côte d'Ivoire, Djibouti, Gabon, Gambia, Guinea Bissau, Kenya, Malawi, Mali, Nigeria, Rwanda, Somalia, South Africa, Tanzania, Tunisia, Togo, Zambia, Zimbabwe (Africa); Bangladesh, Bhutan, Cambodia, Indonesia, Iran, Maldives, Mongolia, Myanmar, Pakistan, Syria, Tajikistan, Thailand, Turkey (Asia); Albania, Belarus, Montenegro (Europe); Grenada, Nicaragua (Latin America and the Caribbean); Niue Island, Tonga (Oceania/Pacific) [underlined are BCH III project countries].

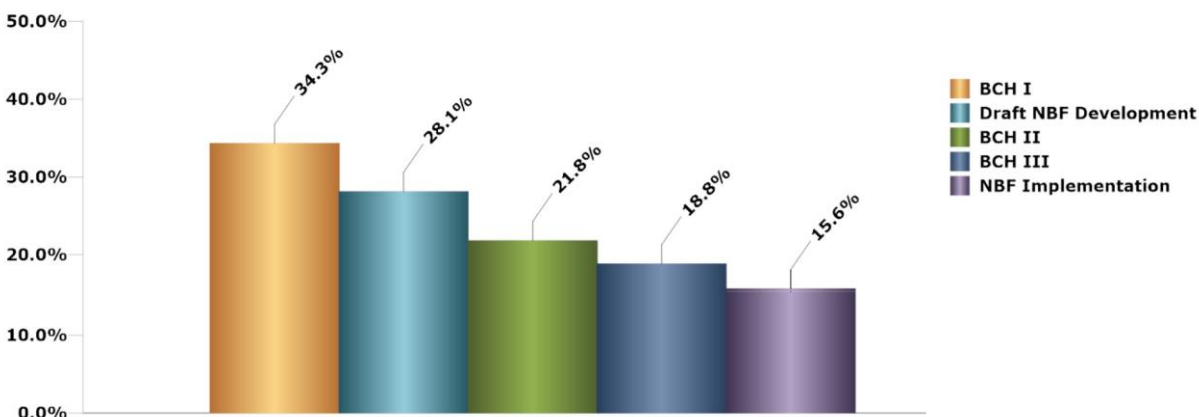


Figure 3. Major Biosafety projects identified [Q16]

3.3 CAPACITY BUILDING NEEDS WITH EMPHASIS ON THE BCH DURING COVID-19

Prior to determining the nature of the capacity building needs that countries have during the COVID-19 pandemic, the survey sought to first ascertain the impact of any measures put in place on the execution of the project at the national level as well as active Biosafety relevant capacity building projects [Q18]. 113 out of 117 respondents (96.6%) indicated that their Governments had instituted measures to stem the spread of COVID-19. [Figure 4](#) provides an insight into some of the measures that were deployed [Q19]. The three main COVID-19 restrictions mentioned by respondents were related to the number of persons at public gathering (96.5%), border closure (92.1%), and stay at home orders (86.0%).

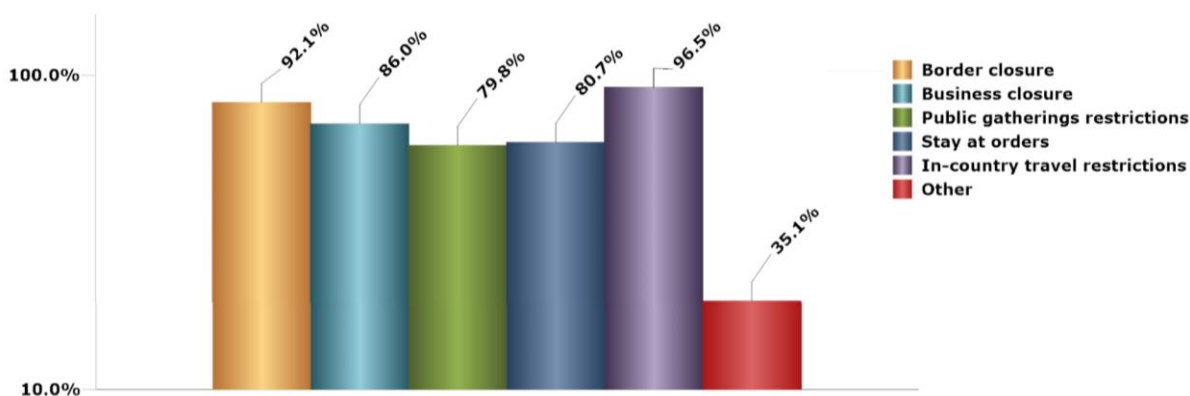


Figure 4. COVID-19 measures deployed [Q19]

Additional measures as reported on under ‘other’ by 40 respondents are shown in [Table 3](#) [Q20]. Chief among these was the use of masks, social distancing, quarantine of suspected cases and hand washing (57.5%), followed by reduced work schedules/remote work (12.5%).

Table 3: Additional measures that were put in place to reduce the spread of COVID-19 pandemic [Q20]

Measure	Percent (%)
Use of masks, social distancing, quarantine of suspected cases and hand washing	57.5
Reduced work schedules/remote work	12.5
Closing schools, places of worship and beaches	10.0
Reduced numbers in public transport	10.0
Daily briefings on the status of the pandemic	5.0
Providing financial and other assistance	2.5
State of emergency	2.5

Concerning the impact of the applied measure on conducting Biosafety or BCH activities [Q21], 84 out of 117 respondents (71.8%) reported that the measures implemented had a negative effect while 33 (28.2%) indicated that there was no impact. Countries reporting that the measures disrupted the conduct of Biosafety or BCH national activities ([Figure 6](#)) included:

Africa: Botswana*, Burkina Faso, Cameroon*, Djibouti*, Gabon*, Gambia*, Guinea-Bissau*, Kenya*, Malawi*, Mali*, Namibia*, Nigeria, Rwanda*, Seychelles*, Somalia, South Africa*, Tanzania*, Tunisia, Zambia*, Zimbabwe*,

Asia: Bangladesh*, Bhutan, Cambodia, Maldives*, Mongolia*, Myanmar*, Nepal, Pakistan*, Syria, Tajikistan*, Thailand*, Turkey*,

Europe: Albania*, Belarus*,

Latin America and the Caribbean: Bahamas*, Barbados*, Grenada*, Costa Rica, Ecuador, Honduras, Nicaragua*, Uruguay*,

Oceania/Pacific: Niue Island*, Solomon Islands*, Tonga.

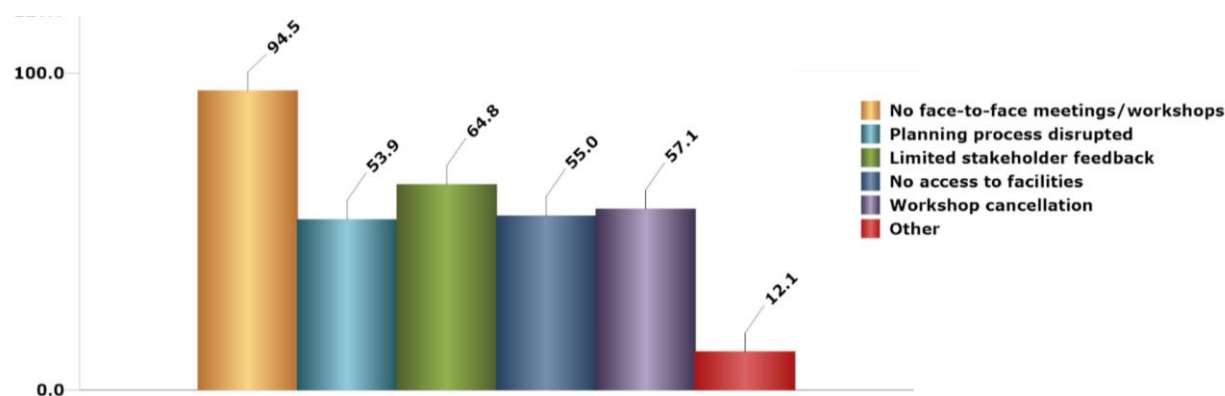


Figure 5. Impact of COVID-19 measures on Biosafety and BCH National Activities [Q21]

Additional negative impacts on conducting national Biosafety and BCH capacity building activities, identified by 11 out of 117 respondents (9.4%) included [Q21]: 1) Inability to undertake Biosafety work-related travel (9.1%), 2) Inability to order equipment (9.1%), 3) Restrictions on the activities of Biosafety staff (9.1%), 4) Poor internet connection and high costs (9.1%), and 5) Inability to test the new BCH platform (9.1%).

Concerning the increased interest in Biosafety [Q22], 80 out of 117 respondents (68.4%) indicated that the COVID-19 pandemic has had positive effects on Biosafety in their countries/regions as follows:

Africa: Burkina Faso, Cameroon*, Djibouti*, Gabon*, Gambia*, Guinea Bissau*, Kenya*, Malawi*, Mali*, Namibia*, Nigeria, Rwanda*, Seychelles*, Somalia, South Africa*, Tanzania*, Togo, Tunisia, Zambia*, Zimbabwe*,

Asia: Bangladesh*, Bhutan, Cambodia, Maldives*, Mongolia*, Myanmar*, Nepal, Pakistan*, Syria, Tajikistan*, Thailand*, Turkey*,

Europe: Albania*, Belarus*,

Latin America and the Caribbean: Bahamas*, Barbados*, Costa Rica, Ecuador, Grenada*, Honduras, Nicaragua*,

Oceania/Pacific: Niue Island*, Solomon Islands*, Tonga.

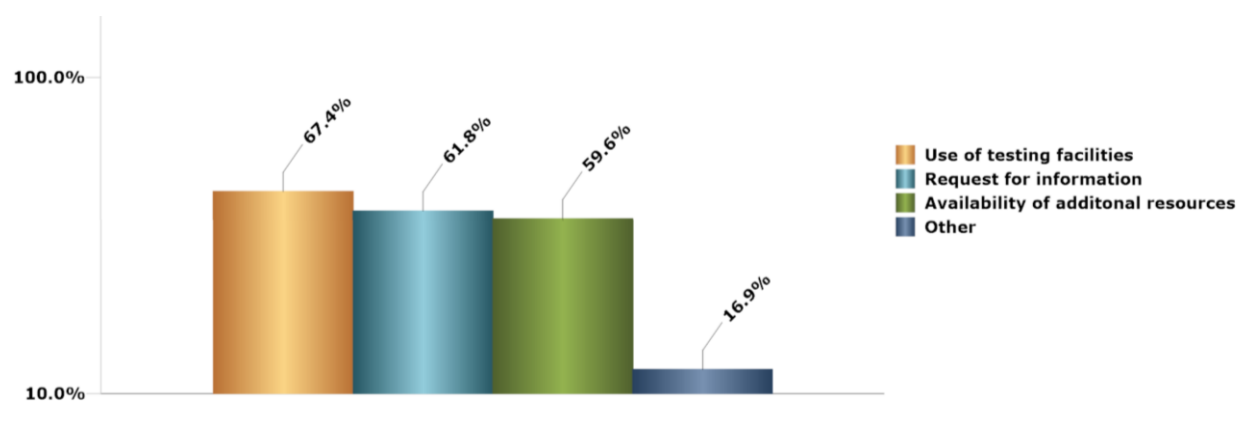


Figure 6. Biosafety areas of increased interest [Q23]

A total of 89 respondents acknowledged an increased interest in Biosafety areas. As can be seen from Figure 6 [Q23], 60 of them (67.4%) noted an increased interest in the use of Biosafety laboratory facilities for testing, 55 respondents (61.8%) an increased interest in requests for information on Biosafety regulations, and 53 (59.6%) an increased interest in availability of additional resources. Other areas of interest were reported by 15 respondents (16.9%) in the category ‘other’ and are summarized in [Box 3](#).

Box 3: Additional areas of interest in Biosafety [Q23]

1. Adoption of preventive measures to reduce the impact of future catastrophic events
2. Control of border trade
3. Getting more information on zoonotic diseases
4. Importance of building capacity relating to risk management and biosecurity
5. Increased consciousness about where products are imported from
6. Increased interest in biosafety regulations relating to the conduct of trials
7. Raising awareness on the need to improve biosafety measures in general
8. Request for approval for large scale GM maize production

For 72 respondents out of 117 (61.5%), there are specific BCH capacity building needs that can be addressed during the pandemic [Q24]. Based on further details provided by 67 respondents, [Table 4](#) presents the top 4 most relevant needs identified per country. As can be seen from Table

3 [Q₂₅], the online delivery of training was the most important need identified by 22.4% of respondents.

Table 4: Short-term BCH capacity-building needs identified during the COVID-19 pandemic [Q₂₅]

Capacity building needs	Main Countries	Percent (%)
1. Development of an e-learning portal on the BCH/provision of online resources to sustain training remotely to effectively conduct online BCH training and hosting of meetings/virtual BCH courses	Africa: Cameroon, Uganda, Rwanda, Malawi, Namibia, Kenya and Nigeria; Asia: Turkey; Latin America and the Caribbean: Barbados, Costa Rica, Trinidad and Tobago and Uruguay	22.4
2. Capacity building on national BCH web page development/new BCH platform/provision of ICT infrastructure	Africa: Burundi and Botswana; Asia: Turkey; Latin America and the Caribbean: Venezuela, Ecuador, Honduras	10.4
3. Capacity building for lab technicians, border security personnel, key stakeholders, members of the National Coordinating Committee in the development and use of the BCH	Africa: Guinea Bissau and Burundi; Asia: Philippines; Latin America and the Caribbean: Bahamas	11.9
4. Technical training for stakeholders involved in the implementation of the CPB	Africa: Guinea Bissau and Seychelles	4.5
Other areas identified included funding for online facilities, training and internet, Capacity enhancement of FPs, registering experts, providing FPs with videoconferencing systems and strengthening information exchange		

In terms of the assistance required from the BCH III project in order to achieve the needs outlined in Table 3 [Q₂₆], key areas included the conduct of mentored e-learning courses on the VLE for 77.6% of respondents (83 out of 107 respondents), followed by live webinars on pertinent topics for 74.8% (80 out of 107 respondents). (See [Figure 7](#)).

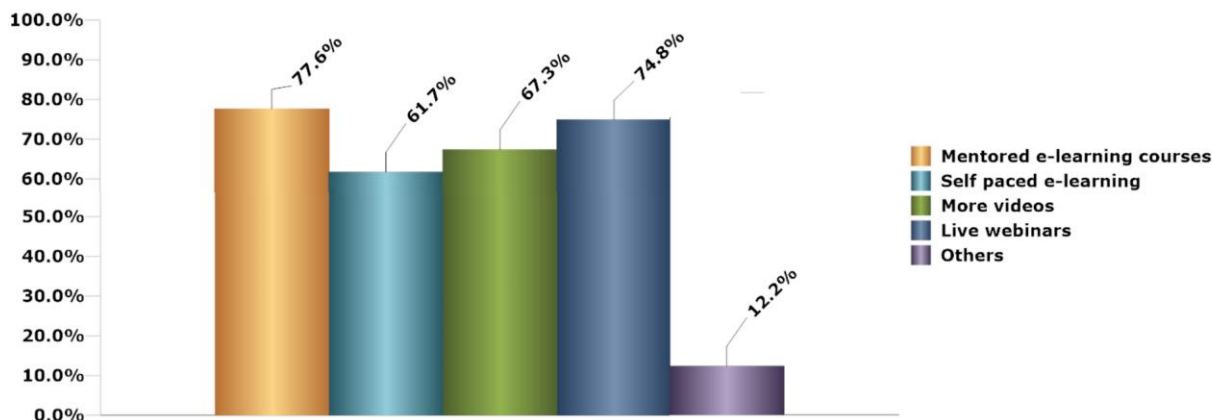


Figure 7. Key areas where assistance is required to meet capacity building needs during COVID-19 Period [Q26]

A breakdown of the countries/regions requesting the assistance to meet capacity building needs is given in [Appendix VIII](#).

Other areas of assistance required to meet capacity building needs (under ‘Other’ in [Q26] and [Figure 7](#)) included the provision of financial assistance to sensitize stakeholders and purchase equipment (38.5%), hosting workshops, both face-to-face and Training of Trainers, to learn and share experiences (30.7%), internships in advanced BCH countries (7.7%), and even a mission to inform village women and girls about the BCH (7.7%).

Of the 117 persons who responded to the question on whether any specific Biosafety topics should be covered by capacity building during this pandemic [Q27], 35 respondents (29.9%) from the following countries⁸ indicated ‘yes’:

Africa: Burkina Faso, Cameroon*, Djibouti*, Gabon*, Gambia*, Guinea Bissau*, Kenya*, Malawi*, Mali*, Rwanda*, Tanzania*, Zimbabwe*,

Asia: Bhutan, Mongolia*, Maldives*, Tajikistan*, Thailand*, Turkey*,

Europe: Albania*, Belarus*,

Latin America and the Caribbean: Grenada*, Nicaragua*

Oceania/Pacific: Tonga.

The main topics identified by respondents as being crucial for BCH capacity building and for immediate intervention during the COVID-19 period [Q28] are contained in [Box 4](#) in order of priority. Awareness and importance of the BCH was a critical topic for a majority of respondents from countries such as Trinidad and Tobago*, Burundi*, and the Philippines.

Box 4: Specific topics for consideration in capacity building during the pandemic [Q29]

1. Awareness of the BCH and its importance
2. Environmental risks related to COVID-19
3. The new BCH platform
4. Information on BCH I, II and III projects

⁸ BCH III project countries are marked with asterisk.

5. Training of Trainers on the BCH
6. National BCH platform establishment
7. BCH repository tools
8. The Virtual Learning Environment (VLE)
9. Biosafety in general
10. Border control on imported materials
11. Strengthening BCH capacity
12. Integration of the BCH in key sectors (including capacity building of decision-makers)
13. Sharing of best practices on the BCH.

Of the 103 respondents who responded to the question on the provision of additional support by the BCH III project during the pandemic [Q₂₉], 47 (45.6%) from the following countries/regions responded with 'yes':

Africa: Burkina Faso, Cameroon*, Djibouti*, Gambia*, Guinea Bissau*, Kenya*, Malawi*, Nigeria, Rwanda*, Seychelles*, Somalia, South Africa*, Tanzania*, Togo, Tunisia, Zambia*, Zimbabwe*,

Asia: Bangladesh*, Cambodia, Maldives*, Myanmar*, Pakistan*, Syria, Thailand*, Turkey*

Europe: Albania*,

Latin America and the Caribbean: Bahamas*, Grenada*, Nicaragua*,

Oceania/Pacific: Niue Island*, Solomon Islands*, Tonga*.

For the 42 persons who responded on the type of support needed [Q₃₀], the focus was on the provision of financial support for areas such as trainings, meetings, strategy development and facilities. Countries for which this was important included Namibia*, North Macedonia*, Rwanda*, South Africa, Uruguay* and Zimbabwe*. For Botswana*, Burundi*, Malawi*, and Tanzania*, raising awareness on the BCH was key.

Box 5: Additional areas of support required by the BCH III project during the pandemic [Q₃₀]

1. Financial (training, facilities, meetings, strategy development)
2. Awareness raising, sensitization and public education on the BCH
3. E-learning materials on lab testing, risk assessment, public information on COVID/access to videos and useful tools for covering specific topics
4. Establishment of a regional BCH portal
5. Development of more training materials in French
6. Meetings and travel
7. Training of FPs and NAUs on the new BCH
8. Webinar on effective BCH management in the face of COVID
9. Promotion of information sharing and collaboration at the regional and sub-regional levels
10. Development of a virtual meeting platform that is easy to use.

3.4 CAPACITY BUILDING NEEDS WITH EMPHASIS ON THE BCH REQUIRED FOR THE SUSTAINABILITY OF BIOSAFETY SYSTEMS

The survey revealed that 54 out of 114 respondents (47.4%) acknowledged the need for further BCH capacity building via the introduction of new topics or development of training materials [Q₃₁]. In terms of topics [Q₃₂], linking the BCH to key Biosafety aspects was an important topic for countries such as Turkey* and Ecuador. For 6.1% of respondents, training materials to

sensitize stakeholders, and increase their awareness of the BCH were vital. Other suggestions raised included [Q32]:

- 1) More information on the new functions of the BCH and BCH management, development of national SCBD/BCH interface and interoperability between national BCH and Central Portal, faster storage of information on the BCH, enhanced IT and methodology and technical communication, availability of off-line BCH modules, BCH user manuals and eBooks.
- 2) Focus on cross-cutting topics such as BCH and risk assessment, LMO detection and identification (but also national guidelines, application review, product sampling and labelling, gene editing risk assessment, laboratory equipment control), socio-economic considerations, targeted training for decision-makers (including inter-institutional meetings on the BCH), public awareness and participation (including documentaries), communication techniques and IT, technical advisory services, further collaboration with local scientists and incentives such as certifications.
- 3) Biosafety in the context of COVID-19 including software for conducting online workshops, webinars and meetings.

Of the 114 respondents, 108 (97.4%) [Q33], confirmed that there is insufficient national knowledge and awareness of the BCH and Biosafety at the national level. These 108 respondents highlighted several aspects that could be improved [Q33] ([Figure 8](#)):

- 1) 88% (95 respondents) of them thought that regular sessions for key stakeholders are needed,
- 2) 81% (87 respondents) indicated that it was necessary to develop a communication strategy, and
- 3) 80% (86 respondents) believed that hosting specific sessions targeting decision-makers would be beneficial.

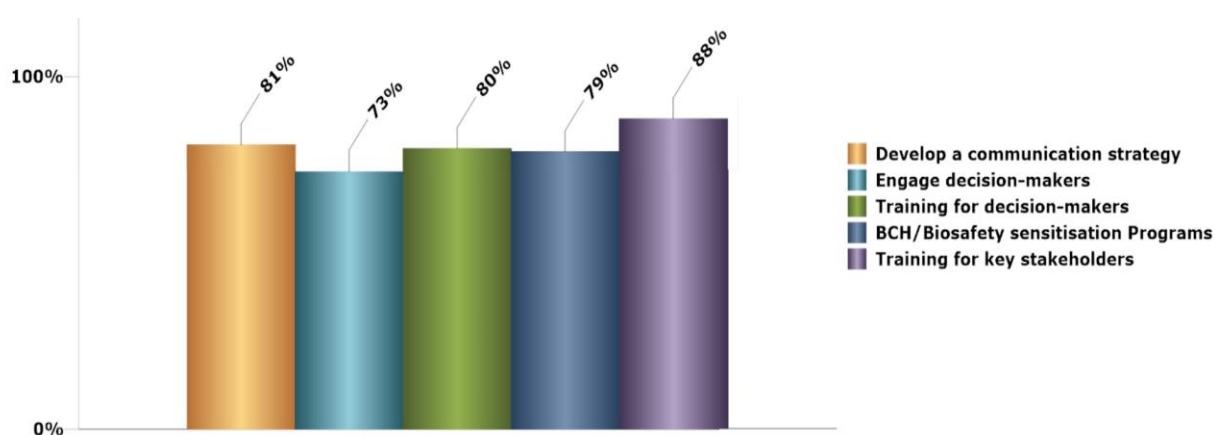


Figure 8. Aspects identified for improving BCH and Biosafety Knowledge [Q33]

[Box 6](#) highlights other aspects identified for improving BCH and Biosafety knowledge and awareness in order of priority. Public awareness was identified as the most important area.

Box 6: Additional aspects for improving BCH and Biosafety knowledge and awareness in order of priority [Q33]

1. Public awareness
2. Collaborative programs
3. Training of trainers/institutional enhancement
4. Financial mobilization
5. Increased need for detection and monitoring facilities of GMOs and harmonization of facilities
6. Communication strategy and sensitization program for religious leaders
7. Integration of the subject matter into the postgraduate curriculum
8. Training by the UN and other organizations on the sustainability of the BCH and other biosafety-related subjects.

Of the 114 respondents to the question on whether an established system for collecting information at the country level exists [Q35], only 51 respondents (44.7%) confirmed the existence of such system.

Respondents provided suggestions on how the BCH III project could assist where no functional established system for information collection at the national level exists [Q36]. The main form of assistance required relates to training of persons involved in the collection of information so that they can become *au fait* with what is required. This was important for respondents from Botswana*, Burundi*, Macedonia*, Malawi*, Trinidad and Tobago*, Turkey* and Zimbabwe*. The next major area regarded as essential by Burundi*, Malawi*, and Trinidad and Tobago* was the development of a manual and guidelines and strengthening the information collection system. Suggestions for interventions are summarized in [Box 7](#).

Box 7: Main areas in which BCH III project assistance was deemed needed [Q36]

1. Training for persons involved in the collection of information/strengthen capacity for collecting information to be published on the BCH
2. Develop a manual/strengthen system for information collection/guideline and SOP development
3. Creating a digital library
4. Creating a standard system to share information
5. In-country database and monitoring system
6. Training on reporting obligations on the BCH portal and functionality.

Respondents believed that gaps still need to be addressed [Q37], [Figure 9](#), in 3 main Biosafety areas: 1) Public education and outreach (91.2%, 104 of 114 respondents), 2) Capacity-building in support of Biosafety management (84.2%, 96 respondents), and 3) Legislative, administrative and regulatory agenda (76.3%, 87 respondents). Other relevant responses included lack of knowledge on COP/MOP procedures and protocols and the absence of a platform for sharing good practices.

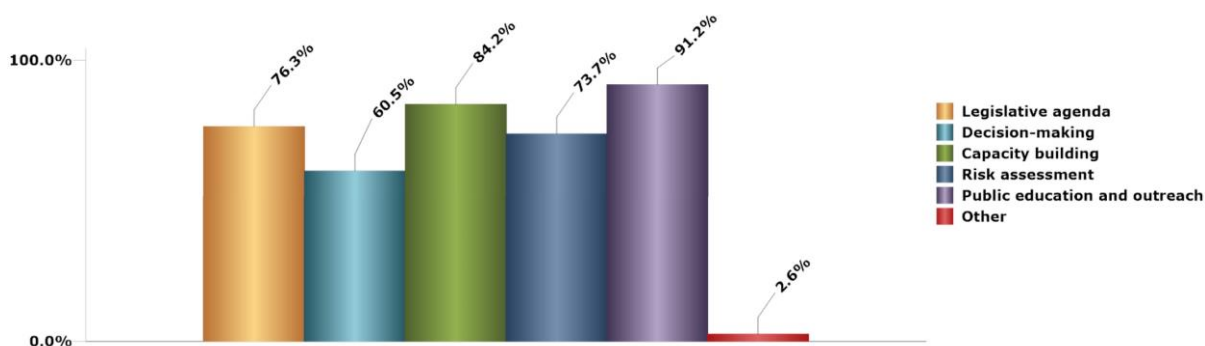


Figure 9. Biosafety gaps to be addressed [Q38]

All 82 respondents (100.0%) [Q38] indicated that the gaps shown in [Figure 9](#) could be addressed at the national level only. For 67 respondents (81.7%), this should be done both at the national and regional levels. For most of respondents, matters relating to the legislative agenda are of critical importance at the national level, followed by the conduct of public education and awareness campaigns. At the regional level, networking is regarded as key by majority of respondents, along with capacity building. Additional gaps were identified at the regional level related to the absence of regional networks, a need for harmonization of activities and work plans to address the transboundary movement of LMOs, and the absence of a communication and information sharing strategy. [Appendix IX](#) outlines the identified gaps that should be specifically addressed at the national and regional levels.

Out of 114 respondents, 97 (85.1%) indicated that additional global Biodiversity projects were needed to assist countries in building integrated capacity in the use of the various CBD clearing houses [Q39]. Of these 97 participants who believed additional projects were needed, 71 provided explanations on the main reasons (see [Table 5](#)).

Table 5: Main reasons why additional global Biosafety projects are needed as indicated by survey participants [Q39]

Reason	Percent (%)
Help build capacity	29.5
Assist in increasing awareness among decision-makers and key stakeholders	12.7
Global sharing of experiences and effective use of the BCH	8.5
Monitor and strengthen gains made under previous projects	4.2
Improve technical knowledge on CHM/BCH/ABS-CH	2.8
Assist in upgrading to the new BCH platform	1.4
Support for implementation	1.4
Sustainability	1.4
Other	38.1

As indicated in [Table 5](#), the two main explanations advanced for having additional projects were to assist in building capacity (29.5% or 42 out of 71 respondents) and enhancing awareness (12.7% or 9 out of 71 respondents). The support for additional global projects came from the following countries/regions:

Africa: Botswana*, Burkina Faso, Cameroon*, Cote d'Ivoire*, Djibouti*, Gabon*, Gambia*, Guinea Bissau*, Kenya*, Malawi*, Mali*, Namibia*, Nigeria, Rwanda*, Seychelles*, Somalia, South Africa*, Tanzania*, Togo, Tunisia, Uganda*, Zambia*, Zimbabwe*,

Asia: Bangladesh, Bhutan*, Cambodia, Maldives*, Mongolia*, Myanmar*, Nepal, Pakistan*, Philippines, Syria, Thailand*, Turkey*,

Europe: Albania*,

Latin America and the Caribbean: Bahamas*, Barbados*, Ecuador, Costa Rica, Grenada*, Nicaragua*, Uruguay*, Venezuela,

Oceania/Pacific: Niue Island*, Solomon Islands*, Tonga.

The final survey question asked whether the Regional Advisor Network (RAN) should be used to facilitate training on other multilateral environmental agreements (MEAs) [Q40]. 99 out of 114 respondents, (86.8%) confirmed that it should be used for this purpose, of which 58 respondents provided explanations on their response. Results presented in [Table 6](#) show the most relevant feedback expressed by 55 of those who advocated for the use of the system. The main reason mentioned by respondents in favor of using the RAS was the training experience of the RAs (31.0%), followed by RAs geographic proximity, familiarity with the local context and cost effectiveness (8.6%).

Table 6: Main Reasons for using the Regional Advisor Network to facilitate training on other Multilateral Environmental Agreements [Q40]

Reason	Percent (%)
To ensure proper monitoring of training/provide professional training/facilitate a better understanding of the system/effective technical assistance/efficient system	31.0
More cost effective/localized (easily accessible geographically)/familiar with the local context	8.6
Multilateral agreements have similar structures and the RAs are familiar with them/knowledgeable	5.2
Facilitate exchange of ideas and expertise/experience sharing	3.4
Ensure uniformity/proper co-ordination and dissemination of information	3.4
Provide support where there is limited capacity locally	3.4
Other	45.0

Countries/regions showing support for the involvement of RAs in training on other MEAs included:

Africa: Botswana*, Burkina Faso, Cameroon*, Cote d'Ivoire*, Djibouti*, Gambia*, Guinea Bissau*, Kenya*, Malawi*, Mali*, Namibia*, Nigeria, Rwanda*, Seychelles*, Somalia, South Africa*, Tanzania*, Tunisia, Uganda*, Zambia*, Zimbabwe*,

Asia: Bangladesh*, Bhutan, Cambodia, Maldives*, Mongolia*, Myanmar*, Nepal, Pakistan*, Philippines, Syria, Thailand*, Turkey*,

Europe: Albania*,

Latin America and the Caribbean: Bahamas*, Barbados*, Costa Rica, Ecuador, Grenada*, Honduras, Nicaragua*, Trinidad and Tobago*, Uruguay*, Venezuela

Oceania/Pacific: Niue Island*, Solomon Islands*, Tonga.

4. ANALYSIS OF FINDINGS

The feedback received was useful in painting an overall picture of the expectations regarding BCH capacity building needs during COVID-19, and capacity building requirements to enhance BCH and Biosafety sustainability over the long term. The approach used to target National Focal Points and relevant BCH stakeholders proved to be successful in getting focused information on actual needs and concrete recommendations based on identified gaps at all levels. Parties are still encountering many challenges in fulfilling their information sharing obligations. Consequently, several years after the entry into force of the Cartagena Protocol, the information available on the BCH central portal, while steadily increasing, remains limited. Additionally, parties are not making the outmost benefit of using the information available on the BCH in supporting their decisions on LMOs and in building their national Biosafety systems. This signals the need for strategic and catalytic action to increase countries participation in the BCH.

4.1 BASELINE INFORMATION ON THE BCH AND BIOSAFETY

As per the information provided in Section 3.2, a total of 15 countries in Africa (13), Asia (1) and Oceania/Pacific (1) reported that the BCH III project training workshops had been completed at the national level. In terms of implementation status, 6 countries indicated that one workshop was outstanding 6 noted that 2 workshops were outstanding, and 13 stated that no workshops had been conducted.

As indicated in [Box 1](#), clear benefits have been derived by countries that have implemented the project at the national level. Chief among these is capacity building in the efficient management of the BCH as indicated by countries such as Burundi, Gabon, Guinea Bissau, Kenya, Namibia, Seychelles (Africa), Turkey (Asia), Solomon Islands (Oceania/Pacific). Another impact identified by Malawi, Namibia and Zambia (Africa), Costa Rica, Bahamas (LAC), is improved awareness and understanding of the BCH with respect to the information contained therein, and the tools available. It was also reported that the work done within the context of the BCH III project also led to the NFPs having a better understanding of their roles and responsibilities (Zambia), in addition to having a better relationship with stakeholders (Gabon). These are aspects that will certainly augur well for the institutionalization of the BCH at the national level.

Countries in all regions reported that they are involved in ongoing Biosafety projects, with Africa reporting the largest number of countries. In terms of the nature of such projects, capacity building on the BCH within the context of the BCH III project was identified by Botswana, Cameroon, Gabon, Guinea Bissau, Côte d'Ivoire (Africa), Cambodia, and Turkey (Asia) and Bahamas and Trinidad and Tobago (LAC), as the main type of activity. Respondents overwhelmingly acknowledged the importance of collaboration between the BCHIII project and ongoing Biosafety projects (107 respondents out of 139 or 77.0%). The synergy between the two areas has always been underscored, as was the case for example with the “Regional Project for Implementing National Biosafety Frameworks in the Caribbean Sub-Region”, in which linkages to the BCHII global project were established. In terms of the way such collaboration is envisaged, it was felt that this could be in areas closely related to the BCH such as LMO detection and identification, risk assessment, risk management, and socio-economic considerations. This was considered important for 6 countries in Africa, 3 in Asia, 1 in Europe, 3 in LAC, and 1 in Oceania/Pacific. Other aspects included raising awareness of all stakeholders

(decision-makers) and the sharing of Biosafety information, involvement of BCH experts and advisors in capacity building activities and implementation of a new project to strengthen capacity, enhance decision-making and sensitize the public. Overview on previous and undergoing Biosafety projects in the survey participating countries is outlined in [\(Appendix VII\)](#).

4.2 CAPACITY BUILDING NEEDS WITH EMPHASIS ON THE BCH DURING COVID-19

Specifically, as it relates to the capacity building needs on the BCH during COVID-19, the findings showed that there is a direct link between the measures put in place ([Figure 5](#)), and the ability of countries to undertake their Biosafety and BCH national activities. Prime among these was the inability of countries to conduct training workshops ([Figure 6](#)), particularly in the face-to-face mode (86 out of 91 respondents or 94.5%). This proved to be problematic for 21 countries in Africa, 12 in Asia, 2 in Europe, 8 in LAC and 3 in Oceania/Pacific. Consequently, online delivery of trainings was the major capacity building need identified by Cameroon, Uganda, Rwanda, Malawi, Namibia, Kenya and Nigeria (Africa), Turkey (Asia), Barbados, Costa Rica, Trinidad and Tobago and Uruguay (LAC). Financial assistance to sensitize stakeholders and purchase equipment was regarded as an essential type of support required to meet capacity building needs during the pandemic.

While delivery of online courses, has been gaining momentum over time, the restrictions imposed by the pandemic have resulted in a greater need to assiduously develop and implement online training tools and resources. Across the globe, the pandemic has seen a move away from the blended mode of instruction to one that fully embraces virtual learning among many tertiary level institutions. In all regions, countries expressed an interest in receiving assistance from the project to meet their capacity building needs during the pandemic (see [Table 4](#)). As reported on in Section 3.3, the importance of the VLE as a valuable resource to facilitate online learning was highlighted by 77.6% of respondents (83 respondents out of 107) or ([Figure 8](#)), from 44 countries, i.e. 21 in Africa, 11 in Asia, 1 in Europe, 9 in LAC and 2 in Oceania/Pacific.

Live webinars were ranked second by 74.8% of respondents (80 respondents out of 107) and identified as an option for 21 countries in Africa, 10 in Asia, 1 in Europe, 9 in LAC and 2 in Oceania/Pacific. With respect to more videos on topics, 67.3% of respondents (68 out of 107) from 19 countries in Africa, 8 in Asia, 1 in Europe, 9 in LAC and 1 in Oceania/Pacific believed it to be useful. Finally, 67.3% (68 out of 107 respondents) - from 18 countries in Africa, 5 in Asia, 1 in Europe, 7 in LAC and 1 in Oceania/Pacific - underlined the importance of self-paced e-learning. This feedback coincides with discussions already being initiated among BCH RAs regarding the greater use and sustainability of the VLE as a capacity building medium. It would therefore be important that such dialogue is continued in keeping with the goal of ensuring the longevity of the VLE, as outlined by the BCH III project.

Countries also noted that there was increased interest in Biosafety as a result of the COVID-19 pandemic. This was the case for 80 out of 117 respondents (68.4%) from 44 countries (20 countries in Africa, 12 in Asia, 2 in Europe, 7 in LAC and 3 in Oceania/Pacific). Such interest related to the use of Biosafety laboratory facilities for testing (67.4%) and for information on biosafety regulations (61.8%). With respect to the use of laboratory facilities for testing, for countries with limited infrastructure, the pandemic amplified deficiencies in testing capabilities and has therefore underscored the need for enhancing capacity so that future Biosecurity and

Biosafety risks can be effectively dealt with in the future. In keeping with this, respondents also identified aspects relating to bio-risk management and biosecurity, general improvement in Biosafety measures, and control of border trade as additional areas of interest. As will be discussed in a subsequent section, the issue of border control vis à vis the regulation of the transboundary movement of LMOs, is considered a gap with respect to biosafety confronting some countries.

Specific topics covered during the pandemic such as awareness, environmental risks related to Covid-19, the new BCH platform was essential for 23 countries⁹. Despite the work being done within the context of the current BCH project, the major topic identified by countries such as Trinidad and Tobago, Burundi and the Philippines was awareness and importance of the BCH (Box 4), an indication that more work is required in this area. Interest was also expressed in other matters such as environmental risks related to COVID-19, the new BCH platform and strengthening BCH capacity (Box 5). These suggestions serve to provide the project management team with insights into the types of topics that could be used for the hosting of webinars as part of the project's capacity building drive.

While it was generally felt that no additional assistance was required from the project at this time (54.4% or 56 respondents out of 103), 32 countries¹⁰ would welcome further financial assistance, awareness activities, and the development of materials for non-English speakers. Specifically, as it relates to the type of support, here too, financial assistance for training, meetings, facilities and strategy development was highlighted by countries such as Namibia, Macedonia, Rwanda South Africa, Uruguay, and Zimbabwe as a priority. As noted above, the feasibility of such requests can only be determined by the project management team. For Botswana, Burundi, Malawi and Tanzania, raising awareness on the BCH was key. Other topics of note include the development of materials for non-English speakers. While the project encompasses targets such as the establishment of interactive e-learning environments comprising courses and webinars in the six UN languages, the production of outreach materials in these languages to facilitate an even greater appreciation for, and understanding of the BCH and its role across a wider spectrum, could be considered.

4.3 CAPACITY BUILDING NEEDS WITH EMPHASIS ON THE BCH REQUIRED FOR BIOSAFETY SYSTEMS SUSTAINABILITY

Respondents acknowledged the need for further BCH capacity building, with the introduction of new topics or training materials and a strong focus on Biosafety awareness and communication strategy. For countries, such as Ecuador and Turkey, linking the BCH to key Biosafety aspects was important. Countries, including Burundi and Macedonia highlighted the need for training materials to sensitize stakeholders and increasing their awareness of the BCH. The relative significance assigned to the awareness element is further demonstrated by the fact that despite all the various projects and interventions that have been implemented, the view is held that there is

⁹ Burkina Faso, Cameroon, Djibouti, Gabon, Gambia, Guinea Bissau, Kenya, Malawi, Mali, Rwanda, Tanzania, Zimbabwe (Africa); Bhutan, Mongolia, Maldives, Tajikistan, Thailand, Turkey (Asia); Albania, Belarus (Europe); Grenada, Nicaragua (LAC); and Tonga (Oceania/Pacific).

¹⁰ Burkina Faso, Cameroon, Djibouti, Gambia, Guinea Bissau, Kenya, Malawi, Nigeria, Rwanda, Seychelles, Somalia, South Africa, Tanzania, Togo, Tunisia, Zambia, Zimbabwe (Africa); Bangladesh, Cambodia, Maldives, Myanmar, Pakistan, Syria, Thailand, Turkey (Asia); Albania (Europe); Bahamas, Grenada, Nicaragua (LAC); Niue Island, Solomon Islands, Tonga (Oceania/Pacific).

still not sufficient knowledge and awareness of the BCH and biosafety at the national level (93.0% or 106 out of 114 respondents). This emphasizes the importance of developing a communication strategy with appropriate messaging to reach stakeholders at all levels. As shown in [Figure 9](#), respondents believed that there is a need for improving BCH and Biosafety knowledge and awareness. The conduct of regular training for key stakeholders was considered the most critical (88.0%), followed by the development of a communication strategy (80.6%). Very often, when projects fall behind in the delivery of outputs and are constrained by time, awareness building can be overlooked. The communication strategy therefore becomes vital.

While the BCH is fundamentally an information management system, which can only be effective if it is populated with data by countries, the majority of respondents believe that systems to facilitate the collection of information for the BCH were either not existing or not effective in their respective country. Only 51 respondents out of 114 (44.7%) indicated the existence of systems. When such systems do not actually exist, project management could opt to assist countries in the development of these procedures. Continue and strengthen capacity building among individuals who have been designated to be part of the information collection process was the main area requiring assistance. Yet another suggestion involved the development of a manual, or even a framework system for collecting information.

For 104 of 114 respondents (91.2%), main gaps are in the area of Biosafety public education and outreach ([Figure 10](#)), followed by capacity building in support of Biosafety management (84.2% or 96 respondents), and legislative, administrative and regulatory agenda (76.3% or 87 respondents). These findings once more reiterate the importance of ensuring that capacity is built at both the national and regional levels and ensuring that stakeholders are provided with relevant information to enhance their awareness. For example, while respondents from Burundi agree that the gaps outlined in [Appendix IX](#) should all be addressed at the national level, they also indicated that specific regional gaps such as the legislative, administrative and regulatory agenda, and capacity building should also be considered. The following countries/regions identified additional gaps, which should be specifically addressed at the regional level:

- 1) Insufficient regional communication and exchange of information and knowledge access (Botswana, Rwanda-Africa; Bahamas, Grenada, Costa Rica, Uruguay-LAC),
- 2) Absence of a regional network (Côte d'Ivoire, Malawi, Mali, Nigeria, Rwanda, Tanzania, Zimbabwe-Africa; Bahamas-LAC),
- 3) Insufficient collaboration/communication (Botswana, Gabon, Somalia, South Africa, Uganda- Africa; Ecuador-LAC),
- 4) Lack of harmonization and coordination of policies/laws/standards/work plans (Burundi, Kenya- Africa; Macedonia-Europe; Trinidad and Tobago, Uruguay-LAC),
- 5) Insufficient capacity building, testing and traceability (Kenya-Africa; Philippines-Asia; Uruguay-LAC),
- 6) Insufficient border control capacity [regulation of transboundary movement of LMOs (Turkey, Mongolia-Asia; Niue Island-Oceania/Pacific).

The adoption of a regional approach is particularly useful for Small Island Developing States (SIDS) in the Caribbean and the Oceania/Pacific region. Very often, the requisite skills and capacities do not reside in the individual countries so that harmonization of efforts becomes key in allowing access to a wider pool of resources to enhance existing systems at the national level,

with a view to increasing the overall efficiency of Biosafety management. Common regional positions also mean that SIDS can have a greater say in the decision-making process at COP-MOPs, by bringing to the issues, which could impact the implementation of items proposed. The establishment of regional BCHs can assist in addressing constraints relating to the exchange of information and knowledge and access, as well as support networking activities.

The survey revealed that most respondents (97 of 114 respondents or 85.1%) are of the view that additional global projects are needed to build capacity in the various CBD clearing houses mechanisms, increased awareness, enhanced sustainability, and building on the gains of previous projects. Support for further projects came from 23 countries in Africa, 12 in Asia, 1 in Europe, 8 in LAC and 3 in Oceania/Pacific. Respondents from many countries such as Botswana, Gabon, Kenya, Malawi, and Turkey were in favor of additional global projects. Major reasons cited for this position related to: 1) Staff changes and the accompanying lack of continuity (i.e. loss of institutional memory), 2) Difficulties associated with the failure to institutionalize agreements to which countries have already acceded, and 3) A change in priorities by Governments during the pandemic, resulting in reduced or even no funding to undertake activities. This position acknowledges the realities faced by countries when implementing projects. In addition to building on the gains as noted above, new projects should learn from experiences of past projects as a means of guaranteeing greater success.

As it relates to the Regional Advisor Network (RAN), which is fundamental to the BCH capacity building, there is great support for expanding this expertise to facilitate training on other MEAs (86.8% of respondents). Countries/regions favoring this included: Botswana, Burkina Faso, Cameroon, Cote d'Ivoire, Djibouti, Gambia, Guinea Bissau, Kenya, Malawi, Mali, Namibia, Nigeria, Rwanda, Seychelles, Somalia, South Africa, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe (Africa); Bangladesh, Bhutan, Cambodia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Syria, Thailand, Turkey (Asia); Albania (Europe); Bahamas, Barbados, Costa Rica, Ecuador, Grenada, Honduras, Nicaragua, Trinidad and Tobago, Uruguay, Venezuela (LAC); and Niue Island, Solomon Islands, Tonga (Oceania/Pacific). The main reasons cited for the support shown ranged from the efficiency of the system already in place, to the provision of professional training by the RAs. Another advantage lies in the fact that the individuals are familiar with the local context and the utilization of their services can be more cost effective as compared to the 'importation' of experts. In view of this, it would be important that the necessary steps be taken to ensure continuity of the system in tandem with the VLE as it has been directly linked to the sustainability of the BCH and other MEAs sharing mechanisms.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The following sections provide a summary of the key conclusions drawn from the survey analysis, including: Conclusions on the BCH III project (5.1.1), Conclusions on specific measures to support BCH III project during COVID-19 (5.1.2), and General conclusions on the Biosafety Clearing House mechanisms and the Biosafety sector (5.1.3).

5.1.1 CONCLUSIONS ON THE BCH III PROJECT

While respondents confirmed that the BCH III project has provided valuable resources and improved management of the BCH, they believed that additional online resources, a communication and outreach strategy, and expertise and sustainability of the Regional Advisors Network need to be developed.

Conclusions on BCH III Project Results Achieved. Respondents indicated that capacity building activities – more specifically for the 16 countries who have completed all activities¹¹ – resulted in better understanding and awareness of the BCH, as well as in its more efficient management. Respondents across countries acknowledged the importance of continued capacity building: The project’s Virtual Learning Environment (VLE) and Regional Advisors (RAs)’ expertise have both been critical resources in that regard.

Conclusions on BCH III Project Needs to be Addressed.

- 1) In the short to medium-term, respondents expect BCH III project management to focus on supporting countries who have not completed all project activities and developing online training materials on new topics via the VLE and live webinars. Project management should keep in mind that some countries must be provided further assistance on how to access these online BCH III resources. Additionally, for countries where BCH information collection systems are nascent or non-existent, the project management should also consider formulating recommendations for the establishment of such systems.
- 2) In the medium to long-term, three critical needs must be addressed: The development of Communication and Outreach strategy and materials (in the six UN languages), the enhancement of the Regional Advisors group’s expertise (through live webinar trainings), and the institutionalization of the RA system and the VLE beyond project end.
- 3) In the long-term, replicability and sustainability should be ensured by scaling the BCH III RA system to other projects supporting the implementation of multilateral environmental agreements and capitalizing on synergies between the BCH III and other ongoing Biosafety projects.

5.1.2 CONCLUSIONS ON MEASURES TO SUPPORT THE BCH III PROJECT DURING COVID-19

Respondents identified the provision of BCH III e-learning courses on the VLE, and support for the organization of online trainings as major needs to be addressed during this period.

Conclusions on BCH III Project Opportunities during COVID-19. While the ongoing COVID-19 pandemic has impacted the execution of the BCH III project – especially at national level – the present needs assessment survey has been instrumental in obtaining valuable

¹¹ See Table 2.

information from countries and paving the way forward. It will notably allow project management – in close collaboration with RAs and project countries – to focus on capacity building needs and topics identified by respondents and disseminate more widely the use of the VLE platforms through mentored e-learning courses and webinars. Noting that the COVID-19 pandemic disrupted the execution of Biosafety and BCH project activities at national level, respondents from 44 countries¹² requested mentored e-learning courses, while respondents from 13 countries¹³ indicated the need for further support in conducting remote online capacity-building trainings. In addition, respondents from 4 countries¹⁴ indicated that awareness and the importance of the BCH new platform should be addressed during the pandemic. Finally, the provision of additional financial assistance was mentioned by a few countries. BCH III project management should first identify and prioritize topics for which further training activities were required by respondents, secondly avail trainings accordingly, and then assess whether financial assistance requests are relevant and can be answered.

5.1.3 GENERAL CONCLUSIONS ON THE BCH AND BIOSAFETY SECTOR

Respondents indicated that more global BCH and Biosafety projects such as BCH III are needed but should be accompanied by increased synergies and communication between such projects.

General conclusions on BCH and Biosafety Needs to be Addressed (beyond BCH III project).

1) At global level, respondents believe that additional global institutional support and projects are required to enhance capacity-building, decision-making and public awareness on the various CBD mechanisms. New global projects must capitalize on the gains and lessons learnt from previous projects, to enhance sustainability at global level. Collaboration with other global projects should be an integral part of any new global Biosafety and BCH projects, especially when it comes to LMO detection and identification, risk assessment, risk management and socio-economic considerations, and the sharing of biosafety information. More global campaigns are also required to increase knowledge and awareness on Biosafety and the BCH. Finally, harmonization of global and regional policies, laws, standards and work plans are considered essential by respondents from Africa, Eastern and Central Europe and LAC.

2) At regional level, respondents identified common regional gaps that need to be addressed: Communication, exchange of information and knowledge access, collaboration/communication, harmonization and co-ordination of policies/laws/standards/work plans, capacity building, testing and traceability, and border control capacity. In that respect, regional networks are perceived as an adequate solution, especially by respondents from Africa and LAC regions.

3) At national level, respondents recognized that insufficient knowledge and awareness remain a major barrier: Respondents from 21 countries believed that there was no established information collecting system in place for the BCH¹⁵, even when such a system was already in place in their country. Other gaps to be addressed at national level included public education and outreach,¹⁶

¹² Total of 44 countries: 21 countries in Africa, 11 in Asia, 1 in Europe, 9 in LAC and 2 in Oceania/Pacific.

¹³ Total of 13 countries: 7 countries in Africa (Cameroon, Kenya, Malawi, Namibia, Nigeria, Rwanda and Uganda), 1 country in Asia (Turkey), 4 countries in LAC (Barbados, Costa Rica, Trinidad and Tobago and Uruguay).

¹⁴ Total of 4 countries: Trinidad and Tobago, Burundi and the Philippines.

¹⁵ Total of 21 countries: 12 countries from Africa, 2 from Asia, 1 from LAC and 1 from Oceania/Pacific.

¹⁶ Gaps identified by respondents from all regions.

capacity-building for LMO risk-assessment, LMO legislative agenda and decision-making,¹⁷ and the training of persons involved in the collection of information for publication on the BCH.¹⁸

5.2 ACTIONABLE RECOMMENDATIONS

These actionable recommendations chart the way forward to assist countries in fulfilling their obligations to the BCH under the CPB. They include: Recommendations to Governments (5.2.1), Recommendations to the BCH III project management team (5.2.2), and Recommendations to the CPB COP-MOP (5.2.3).

5.2.1 RECOMMENDATIONS TO GOVERNMENTS

Governments from countries who have not yet implemented the project should actively engage with BCH III project management, while champion countries are encouraged to take the lead in BCH advocacy at the regional level and during COP-MOPs, and raise awareness, support synergies between projects, and promote regional networks and policy harmonization.

Recommendations to countries on BCH III project.

- 1) Countries with early-stage or non-existent collection information system for the BCH are encouraged to request for guidance from BCH III project management on how to set up and maintain such a system.
- 2) Countries who have endorsed the project but are lagging in implementation should consider engaging actively with UNEP project management and the RAs. These countries will benefit from tailored support and advice and relevant online resources adapted to the COVID-19 context.
- 2) Champion countries who have implemented or are currently implementing the BCH III Project could further advocate on closing legislative, administrative and regulatory gaps at both national and regional levels. Synergies between the BCH III project and other ongoing Biosafety projects should be identified and leveraged, e.g. opportunities to host joint online capacity-building activities at national and regional levels during COVID-19.

Recommendations to countries on BCH and Biosafety (beyond the BCH III project).

- 1) Countries could advocate for new global and regional BCH and Biosafety projects. Countries must advocate at the COP-MOPs for new global and regional projects in Biosafety and the BCH.
- 2) Countries could raise stakeholder awareness. Countries should continue to undertake public education and outreach programs to raise stakeholder awareness on the importance of the BCH (including the new BCH platform) and Biosafety.
- 3) Countries could encourage the development of regional networks and policy harmonization. Strengthening regional networks is also considered important, especially for African and LAC countries. They acknowledged that regional networks facilitate communication, exchange of information, knowledge-sharing, and bridging gaps on BCH and Biosafety matters. Besides, regional networks tend to strengthen country positions on the global agenda. Engaging policy-makers dialogue on the need for harmonization in the context of regional institutions should also be pursued, more particularly for Eastern and Central European, African and LAC countries.

¹⁷ *Ibid.*

¹⁸ Respondents from 7 countries indicated this particular gap: Botswana, Burundi, Macedonia, Malawi, Turkey, Trinidad and Tobago and Zimbabwe.

5.5.2 RECOMMENDATIONS TO BCH III PROJECT MANAGEMENT TEAM

While the project management team should focus on countries currently implementing BCH III activities, supporting them with the organization of online workshop activities and availing new e-learning courses, they should also continue to strengthen the RAs system and develop a Communication Strategy.

Recommendations to project management on how to support BCH III implementation.

- 1) The BCH III project team should support countries who lack basic BCH frameworks, such as collection information systems for publication on the BCH, by making recommendations to correct this situation. Webinars can be developed for example, targeting NFPs and other persons involved in the process.
- 2) BCH III project team must support countries with outstanding BCH III workshops and avail new e-learning capacity-building courses. This can be done by encouraging them to hold virtual workshops or find alternative solutions, given existing traveling and social gathering constraints due to COVID-19. New mentored e-learning courses should be designed and made available as soon as possible on the VLE, alongside with the organization of live webinars on new relevant topics proposed by respondents.

Recommendations to project management on how to strengthen the Regional Advisors Network.

- 1) BCH III project team should continue encouraging the use of the RA system and VLE resources by countries for the conduct of their national BCH and Biosafety training activities.
- 2) BCH III project team should enhance capacity building and certification of RAs, to increase the visibility of the Regional Advisors Network (RAN) and solidify the position of its members as trainers in matters relating to the BCH and potentially to other MEAs.
- 3) BCH III project team is invited to develop a Communication Strategy, involving the production of outreach materials in the 6 UN languages. The aim is to advise on the best approaches to be adopted to inform stakeholders at all levels on BCH and Biosafety.

5.2.3 RECOMMENDATIONS TO CPB COP-MOP

Recommendation to call upon GEF to continue providing support for new global and regional BCH and Biosafety projects. In light of the overwhelming support demonstrated by countries in all regions for additional global and regional projects to enhance capacity in the various CBD clearing houses and build on the gains from previous undertakings, GEF should be called upon to continue providing support for new global and regional projects developed to fulfil this need.

Recommendation to call upon UNEP to institutionalize and scale the RA system in a way to ensure its sustainability and extend its use to provide capacity building support on other MEAs. UNEP should be called upon to take steps to institutionalize the RA system as a means of ensuring its longevity and sustainability after the BCHIII project end. UNEP should further be called to scale the Regional Advisors Network (RAN) in providing capacity building training on other MEAs and in supporting global projects.

Recommendation to call for the organization of Global Campaigns on Biosafety and the BCH. Global campaigns are required to educate stakeholders on the importance of the BCH (and Biosafety) in light of the fact that, despite the interventions of the BCH III project, awareness was considered as major area of improvement by respondents in the context of the COVID-19 pandemic.

6. APPENDICES

APPENDIX I: SURVEY INSTRUMENT

Survey to assess the needs of BCH III project countries during the COVID-19 pandemic

A: CONTACT INFORMATION

1. Full Name:

2. E-mail:

3. Mobile number (please include country code):

4. Please check as appropriate if the mobile number is linked with:

- ☐ WhatsApp
- ☐ Viber
- ☐ Telegram

5. Current Position:

* 6. Name of organization:

7. Country:

8. Are you a CPB/BCH focal point?

- ☐ Yes
- ☐ No

B: BASELINE INFORMATION ON BCH AND BIOSAFETY

9. Is your country participating in the BCH III project?

- ☐ Yes
- ☐ No

10. If yes, please choose what describes better the status of the project implementation at the national level:

- ☐ No national workshops have been executed
- ☐ One national workshop is outstanding
- ☐ All workshops have been conducted and the project is complete

Other (please specify):

11. In countries where the BCH III project has been completed, please briefly indicate in what way the project has improved the existing BCH system.

12. Is your country currently involved in a biosafety capacity building project?

- ☐ Yes
- ☐ No

13. If yes, please briefly specify the nature of the project.

14. Do you believe that there can be a collaboration between any ongoing biosafety projects and the BCH III project?

- ☐ Yes
- ☐ No

15. If yes, in what way do you envisage this? Please specify:

16. Have any biosafety projects been previously undertaken in your country, including previous phases of the BCH project?

- ☐ Yes
- ☐ No

17. If yes, please indicate the project title, start date and end date.

Project No. 1 – title

Project No.1 - start date

Project No.1 - end date

Project No. 2 – title

Project No. 2 - start date

Project No. 2 - end date	
Project No. 3 - title	
Project No. 3 - start date	
Project No. 3 - end date	
Project No. 4 - title	
Project No. 4 - start date	
Project No. 4 - end date	
Project No. 5 – title	
Project No. 5 - start date	
Project No. 5 - end date	

C: CAPACITY BUILDING NEEDS WITH EMPHASIS ON THE BCH DURING COVID-19

18. Were any measures instituted by your Government to reduce the spread of COVID-19?

- ☐ Yes
☐ No

19. If yes, please indicate what these are/were (several answers can apply)

- ☐ Border closure
☐ Stay at home orders
☐ Closure of non-essential businesses
☐ Restrictions on in-country travel
☐ Restrictions on the number of persons at public gatherings
☐ Other (please specify):

--

20. Have these measures had an impact on the conduct of Biosafety or BCH national activities?

- ☐ Yes
☐ No

21. If yes, what have been the main impacts? (several answers can apply)

- ☐ Inability to have face-to-face meetings and workshops
☐ Lack of access to facilities to host virtual meetings and workshops
☐ Disruptions in the workshop planning process

- ☐ Workshops cancelled due to priority being given to other areas/activities
- ☐ Limited feedback from stakeholders regarding willingness to participate in virtual workshops

☐ Other (please specify):

22. Has the COVID-19 pandemic increased interest in Biosafety in your country?

☐ Yes

☐ No

23. If yes, what form has this interest taken? (several answers can apply)

☐ Requests for information on Biosafety regulations

☐ Use of Biosafety laboratory facilities for testing

☐ Availability of additional human or financial resources

☐ Other (please specify)

24. Are there any specific BCH capacity-building needs that could be addressed during the pandemic?

☐ Yes

☐ No

25. If yes, please list these in order of priority.

a

b

c

d

e

26. What assistance would you require from the BCH III project to meet the above-stated capacity-building needs during this period? (Several answers can apply).

☐ Mentored e-learning courses on the VLE

☐ Self-paced e-learning courses

☐ More videos on topics

☐ Live webinars on pertinent topics

☐ Other (please specify):

27. Are there any specific topics that you wish to see covered at this time?

- ☐ Yes
☐ No

28. If yes, please give an indication of what these are (in the order of priority)

- a
b
c
d
e

29. Apart from capacity building assistance mentioned in Question 26, are there any other areas in which the project can provide support to you at this time?

- ☐ Yes
☐ No

30. If yes, please indicate the type of support required, and the areas in which this is needed.

- a
b
c
d
e

D: CAPACITY BUILDING NEEDS WITH EMPHASIS ON THE BCH REQUIRED FOR BIOSAFETY SYSTEMS SUSTAINABILITY

31. In addition to the priority areas identified in Question 28, are there any new topics OR types of training materials that you believe should be included in future BCH capacity-building activities?

- ☐ Yes
☐ No

32. If yes, please indicate what these are:

- a
b
c

d

e

33. Do you believe that there is sufficient knowledge and awareness of the BCH and Biosafety at the national level?

- ☐ Yes
- ☐ No

34. If no, what do you think can be done to improve this? (several answers can apply)

- ☐ Develop a communication strategy
- ☐ Engage decision-makers at the policy level
- ☐ Host training sessions to specifically target decision-makers
- ☐ Undertake a BCH/biosafety sensitization program
- ☐ Have regular training sessions for key stakeholders
- ☐ Other (please specify):

35. Does your country have an established system for collecting BCH information?

- ☐ Yes
- ☐ No
- ☐ Do not know

36. If no or do not know, please indicate how the project can assist:

a

b

c

d

e

37. In which of the following areas do you believe gaps still need to be addressed as it relates specifically to biosafety? (Several answers can apply).

- ☐ Legislative, administrative and regulatory agenda
- ☐ Decision-making
- ☐ Capacity building in support of biosafety management
- ☐ Risk assessment
- ☐ Public education and outreach

☐ Other (please specify):

38. Please give an indication of the gaps you believe should be addressed at (a) the national level and (b) the regional level.

a. National level:

b. Regional level:

39. Do you think additional global projects are needed to assist countries in building capacity in the use of the various CBD clearing houses (i.e. CHM/BCH/ABS-CH)?

☐ Yes

☐ No

Please explain why:

40. Should the Regional Advisor System be used to facilitate training on other multilateral agreements?

☐ Yes

☐ No

Please explain why:

Thank you!!

APPENDIX II: VLE E-MAIL NOTIFICATION

The United Nations Environment Programme is currently implementing the “UNEP-GEF Project for Sustainable Capacity Building for Effective Participation in the BCH (BCH III)”, which aims to ensure (i) that participating countries have established sustainable national procedures to gather information to put on the BCH, and (ii) that they have the expertise to use, access and participate efficiently to the BCH. This will ultimately improve countries’ compliance to the Protocol while ensuring a safer use and handling of LMOs for enhanced global conservation of biodiversity.

Due to the ongoing COVID-19 pandemic, it has become necessary for us to develop and implement strategies to assist countries in meeting their BCH obligations under the Cartagena Protocol on Biosafety and the Supplementary Protocol on Liability and Redress.

In this connection, the project would like to invite the national focal points of the Cartagena Protocol and/or the Biosafety Clearing House, and any other relevant persons identified by the national focal points, to participate in a survey intended to collect information on: a) immediate relevant BCH and biosafety needs to guide and fine-tune the BCH III project capacity building interventions in the context of the COVID-19 pandemic; and b) implementation of BCH and biosafety measures in general. Your responses will greatly assist us in determining what can be instituted at the national, regional and global levels to generally enhance the knowledge, awareness, participation and sustainability of the BCH and biosafety over the longer term.

The survey can be accessed online in English by clicking on the following link:

<https://www.surveymonkey.com/r/BCH-NeedsAssessment-1>

We look forward to, and greatly appreciate your participation. Please note that deadline date for the submission of your responses is **Friday 17 July 2020**.

Best regards,

Rami Abdel Malik

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Ref.: SCBD/CPU/DC/KG/MA/AB/88985

7 July 2020

NOTIFICATION

Needs Assessment Survey in the context of the Global Biosafety Clearing-House (BCH) Capacity-Building Project

Dear Madam/Sir,

The United Nations Environment Programme is currently implementing a project funded by the Global Environment Facility on "Sustainable Capacity Building for Effective Participation in the BCH", commonly known as the BCH III project.

The project is conducting a survey to collect information on: a) immediate relevant BCH and biosafety needs to guide and fine-tune the BCH III project capacity-building interventions in light of the COVID-19 pandemic; and b) implementation of the BCH and biosafety measures in general. The survey will also gather perspectives on what can be instituted at the national and global levels to generally enhance the knowledge, awareness, participation and sustainability of the BCH and biosafety over the longer term.

As part of the collaboration between the Secretariat and the BCH III project, I am pleased to invite you to complete the survey and to share it with other colleagues in your Government who may also wish to take part in it.

The survey can be accessed online in English at: <https://www.surveymonkey.com/r/BCH-NeedsAssessment-2>. I encourage you to complete the survey as soon as possible but no later than 17 July 2020.

Please accept, Madam/Sir, the assurances of my highest consideration.

Elizabeth Marama Mrema
Executive Secretary

To: Cartagena Protocol National Focal Points and BCH National Focal Points of developing country
Parties and Parties with economies in transition



Convention on
Biological Diversity

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APPENDIX IV: OVERVIEW ON RESPONSES RECEIVED

Participating 'BCH III Countries'	No. respondents	Participating 'non-BCH III Countries'19	No. respondents
AFRICA			
Botswana	11	Burkina Faso	1
Burundi	5	Chad	1
Cameroon	5	Madagascar	1
Congo	2	Nigeria	2
Côte d'Ivoire	6	Senegal	1
Djibouti	2	Somalia	1
Gabon	7	Sudan	1
Gambia	6	Togo	1
Guinea Bissau	5	Tunisia	2
Kenya	7		
Malawi	7		
Mali	3		
Morocco	1		
Namibia	3		
Rwanda	15		
Seychelles	2		
South Africa	7		
Tanzania	5		
Uganda	7		
Zambia	5		
Zimbabwe	10		
Σ	21	9	11
ASIA			
Bangladesh	1	Bhutan	15
Indonesia	1	Cambodia	1
Kazakhstan	3	Iran	1
Maldives	3	Nepal	1
Mongolia	4	Philippines	3
Myanmar	1	Vietnam	2
Pakistan	1	Syria	1
Sri Lanka	2		
Tajikistan	2		
Thailand	1		
Turkey	12		
Σ	11	7	24
OCEANIA/PACIFIC			
Niue Island	1	Tonga	2
Samoa	1		
Solomon Islands	3		
Σ	3	1	2
EUROPE			
Albania	8	Bulgaria	1
Belarus	4	Finland	1
Montenegro	1	Moldova	1
North Macedonia	1		
Σ	4	3	3
LATIN AMERICA AND CARIBBEAN			
Bahamas	7	Costa Rica	1
Barbados	2	Cuba	1

Grenada		9	Ecuador		2
Nicaragua		4	Guyana		2
Trinidad and Tobago		3	Honduras		1
Uruguay		6	Venezuela		1
Σ	6	31	6		8
Grand Total	46	203		25	47

APPENDIX V: POSITIONS HELD BY RESPONDENTS

- Advisors (including RAs)
- Agricultural Engineers
- Agricultural Health and Food Safety Specialists
- Biodiversity Officer/Specialist
- Biosafety staff
- Biotechnology Analyst/Manager
- Communications Officer
- Customs & Excise Officer
- Directors (Institutions and Government Departments)
- Entomologist
- Environmental Officers
- Epidemiologist
- Focal Points (CPB and BCH)
- Food Safety Specialist
- Forestry Officer
- Gender Specialist
- Lecturers/Professors
- Patent Examiner
- Programs Managers/Officers
- Project Coordinator/Manager
- Regulatory and Quarantine Officer
- Researchers (agriculture, biotechnology/Scientific Officer
- Senior Researcher
- Standards Officer
- Students
- Teacher
- Veterinary Assistant
- Wildlife Conservation Officer

APPENDIX VI: ORGANIZATIONS/INSTITUTIONS

- Agriculture/Agribusiness Associations
- Bureau of Standards
- Customs & Excise
- Environment Departments/Centers/Agencies
- FAO
- Government Ministries (Environment, Industry and Commerce, Agriculture, Health, Fisheries and Marine Resources, Higher Education, Trade, Tourism)
- IICA
- Ministerial Departments (Agricultural Research, Environment, Forestry, Parks and Wildlife Management, Marine Resources, Livestock Sciences)
- National Biosafety Authorities
- National Centers (Dairy, Science and Technology)
- Non-governmental Organization
- Patent and Trademark Office
- Plant Inspectorate
- Plant Quarantine
- Private sector (seed, company, electricity generation, organic farm, feed manufacturer)
- Regulatory Authority (Agriculture and Food)
- Research and Development Institutions (Biotechnology, Agriculture, Forestry, Seed)
- Secondary School
- UNDP
- UNEP
- UNEP-GEF BCH-III Project
- Universities/Colleges

APPENDIX VII: BIOSAFETY AND BCH PROJECTS

Respondents from the following countries reported currently having ongoing relevant Biosafety projects [Q12]: Burkina Faso, Cameroon*, Congo*, Côte d'Ivoire*, Djibouti*, Gabon*, Gambia*, Guinea Bissau*, Kenya*, Malawi*, Mali, Nigeria, Rwanda*, Somalia, South Africa*, Tanzania*, Tunisia, Togo, Zambia*, Zimbabwe* (**Africa**); Bangladesh*, Bhutan, Cambodia, Indonesia, Iran, Maldives*, Mongolia*, Myanmar*, Pakistan*, Syria, Tajikistan*, Thailand, Turkey* (**Asia**); Albania*, Belarus*, Montenegro (**Europe**); Grenada*, Nicaragua* (**Latin America and the Caribbean**); Niue Island*, Tonga* (**Oceania/Pacific**).

BIOSAFETY PROJECTS IN PARTICIPATING COUNTRIES AS REFLECTED ON THE GEF PROJECTS DATABASE:

GEF Capacity Building funded projects											Additional Projects
Regions / Countries	Pilot project	NBF-Dev	NBF-Imp Demo)	NBF-imp	BCH-I	BCH-II	BCH-III	Thematic Projects	Regional Projects		
AFRICA											
Botswana		x			x		x			- GMOs and Public Awareness Participation project	
Burkina Faso		x			x	X			Imp-WAfr		
Burundi		x			x		x				
Cameroon	x		x	x			x				
Chad		x			x	X					
Congo		x			x		x				
Côte d'Ivoire		x			x		x				
Djibouti		x			x		x				
Gabon		x			x		x				
Gambia (the)		x			x		x				
Guinea-Bissau		x			x		x				
Kenya	x		x				x			- Insect Resistance Maize for Africa Bt Cotton Gypsophila - Virus Resistant Cassava for Africa	
Madagascar		x		x	x	X		MCP-LT			

Malawi	x			x	x	MCP-LT		Integrated Implementation of the Cartagena Protocol on Biosafety and the Convention on Biological Diversity at National Level
Mali		x		x	x		Imp-WAfr	
Morocco		x		x	x			
Namibia	x		x	x				
Nigeria		x		x	x	X		
Rwanda		x		x	x			
Senegal		x		x	x	X	Imp-WAfr	
Seychelles		x		x	x			
Somalia								
South Africa					x			
South Sudan								
Sudan		x		x	x	X		
Tanzania, United Republic of		x		X	x			
Togo		x		x	x	X	Imp-WAfr	
Tunisia	x			X	x	X		
Uganda	x		x					
Zambia	x			x	x			
Zimbabwe		x			x			
ASIA								
Bangladesh		x		X	x	x		
Bhutan		x		X	x	X		
Cambodia		x		X	x	X	x	
Indonesia		x		X	x			
Iran, Islamic Republic of		x		X	x			
Kazakhstan		x			x	x		

Maldives	x		x	x			
Mongolia	x	X	x	x			
Myanmar	x		x	x			
Nepal	x		x				
Pakistan	x		x	x			
Philippines	x		x	x			
Sri Lanka	x		x	x			
Syrian Arab Republic	x	X	x	x			
Tajikistan	x	X	x	x			
Thailand	x		x	x			
Turkey	x	X	x	x			
Viet Nam	x	X	x	x			
OCEANIA/ PACIFIC							
Niue	x			x			
Samoa	x		x	x			
Solomon Islands	x			x			
Tonga	x		x	x			
EUROPE							
Albania	x	X	x	x			
Belarus	x		x	x			
Bulgaria	x	x					
North Macedonia	x	X	x	x			
Moldova, Republic of	x	X	x	x			Capacity-building to Promote Integrated Implementation of the Cartagena Protocol on Biosafety and the Convention on Biological Diversity

Montenegro	x		x	x			
LATIN AMERICA AND CARIBBEAN							
Bahamas	x		x	x		Imp-Car	
Barbados	x		x			Imp-Car	
Costa Rica	x		X	x	x	LAM-PubAw LAM-Compl	
Cuba	x		x	x	x		Creation of Additional Biosafety Capacities that Lead to A Full Implementation of the Cartagena Protocol on Biosafety in Cuba
Ecuador	x		x	x	x		
Grenada	x		x			Imp-Car	
Guyana	x		x	x		Imp-Car	
Honduras	x		x	x			
Nicaragua	x		x		x		
Trinidad and Tobago	x		x		x	Imp-Car	
Uruguay	x		x				- Refresher Training for NBRC on New and Emerging Technologies such as Risk Assessment and Risk Management for LMOs - Project to Detect Insect Non-Target in Maize
Venezuela	x		x	x	x		

Note: The exact name of the GEF funded projects are the following:

1. Pilot Biosafety Enabling Activity (Pilot project, 1998-2000);
2. Development of National Biosafety Frameworks (NBF-Dev, 2001-2007);
3. Support to the Implementation of the National Biosafety Frameworks (NBF-Imp-Demo, 2002-2006);
4. Support to the Implementation of the National Biosafety Frameworks (NBF-Imp, 2002-ongoing);
5. Building Capacity for Effective Participation in the Biosafety Clearing House BCH (BCH-I, 2004-2008);
6. UNEP-GEF Project for Continued Enhancement of Building Capacity for Effective Participation in the BCH (BCH-II, 2010-2012);

7. Regional projects:

- West African Regional Biosafety Program (Imp-WAfr, 2007-2012);
- Latin-America: Communication and Public Awareness Capacity-Building for Compliance with the Cartagena Protocol on Biosafety (LAM-PubAw, 2008-2011);
- Latin America: Multi-country Capacity-building for Compliance with the Cartagena Protocol on Biosafety (LAM-Compl, 2008-2011).

APPENDIX VIII. REQUIRED ASSISTANCE DURING COVID-19 PERIOD

BREAKDOWN OF THE COUNTRIES/REGIONS REQUESTING THE ASSISTANCE TO MEET CAPACITY BUILDING NEEDS DURING COVID-19 PERIOD

	Africa	Asia	Europe	Latin America / Caribbean	Oceania / Pacific
1. Mentored e-learning courses on the VLE	Botswana, Burundi, Cameroon, Côte d'Ivoire, Djibouti, Gabon, Kenya, Malawi, Mali, Namibia, Nigeria, Rwanda, Seychelles, Somalia, South Africa, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.	Bangladesh, Cambodia, Kazakhstan, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Syria, Turkey.	North Macedonia	Bahamas, Barbados, Costa Rica, Ecuador, Grenada, Honduras, Trinidad and Tobago, Uruguay, Venezuela.	Niue Island, Solomon Islands
2. Self-paced e-learning	Botswana, Burundi, Cameroon, Côte d'Ivoire, Djibouti, Gabon, Kenya, Malawi, Mali, Namibia, Nigeria, Rwanda, Seychelles, South Africa, Tanzania, Uganda, Zambia, Zimbabwe.	Kazakhstan, Mongolia, Nepal, Philippines, Turkey.	North Macedonia	Bahamas, Barbados, Ecuador, Honduras, Trinidad and Tobago, Uruguay, Venezuela.	Niue Island, Solomon Islands.
3. More videos on topics	Botswana, Burundi, Cameroon, Côte d'Ivoire, Djibouti, Gabon, Gambia, Kenya, Malawi, Mali, Namibia, Nigeria, Rwanda, Seychelles, South Africa, Tanzania, Uganda, Zambia, Zimbabwe.	Cambodia, Kazakhstan, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Turkey.	North Macedonia	Bahamas, Barbados, Costa Rica, Ecuador, Grenada, Honduras, Trinidad and Tobago, Uruguay, Venezuela.	Solomon Islands
4. Live webinars	Botswana, Burundi, Cameroon, Côte d'Ivoire, Djibouti, Gabon, Gambia, Kenya, Malawi, Mali, Namibia, Nigeria, Rwanda, Seychelles, South Africa, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.	Bangladesh, Cambodia, Kazakhstan, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Turkey.	North Macedonia	Bahamas, Barbados, Costa Rica, Ecuador, Grenada, Honduras, Trinidad and Tobago, Uruguay, Venezuela.	Niue Island, Solomon Islands

APPENDIX IX. IDENTIFIED GAPS TO BE ADDRESSED AT THE NATIONAL AND REGIONAL LEVELS [Q₃₈]

Gaps	To be addressed at national level		To be addressed at Regional level	
	Relative Weight ²⁰	Main countries	Relative Weight	Main countries
1. Legislative, administrative and regulatory agenda	35	Africa: Botswana*, Burundi*, Gabon*, Malawi*, Namibia*, Kenya*; Asia: Mongolia, Turkey, Philippines, Kazakhstan; Latin America and the Caribbean: Honduras, Uruguay*, Costa Rica, Grenada*, Barbados*	6	Africa: Botswana*, Burundi*, Namibia*; Asia: Turkey* Oceania/Pacific: Solomon Islands*
2. Decision-making, coordination and commitment	12	Africa: Botswana*, Burundi*, Côte d'Ivoire*, Rwanda; Asia: Turkey*; Latin America and the Caribbean: Barbados*	3	Africa: Malawi*
3. Capacity building	11	Africa: Botswana*, Burundi*, Malawi*, Mali*, Tanzania*; Asia: Turkey*; Latin America and the Caribbean: Trinidad and Tobago*	6	Africa: Burundi*, Malawi*, Tanzania*, Kenya*; Latin America and the Caribbean: Honduras, Uruguay*
4. Risk assessment	7	Africa: Burundi, Nigeria, Tunisia; Asia: Pakistan, Turkey; Latin America and the Caribbean: Trinidad and Tobago	3	Africa: Côte d'Ivoire*
5. Public awareness, education and outreach	25	Africa: Burundi*, Kenya*, Malawi*, Namibia*, Nigeria, Seychelles*, Somalia, Tanzania*, Zambia*, Zimbabwe*; Europe: Macedonia*; Latin America and the Caribbean: Barbados*, Trinidad and Tobago*, Bahamas* Oceania/Pacific: Solomon Islands*	11	Africa: Namibia*, Tunisia, Namibia*; Asia: Nepal
6. Insufficient regional communication and exchange of information and knowledge access	–	–	7	Africa: Botswana*, Rwanda*; Latin America and the Caribbean: Bahamas*, Costa Rica, Grenada*, Uruguay*
7. Absence / creation of a regional network	–	–	8	Africa: Côte d'Ivoire*, Malawi*, Mali*, Nigeria, Rwanda*, Tanzania*, Zimbabwe*; Latin America and the Caribbean: Bahamas*
8. Insufficient collaboration/communication	–	–	9	Africa: Botswana*, Gabon*, Somalia, South Africa*, Uganda*; Latin America and the Caribbean: Ecuador
9. Lack of harmonization and	–	–	7	Africa: Burundi*, Kenya*; Europe:

²⁰ Number of supports received by respondents (some respondent chose more than one answer)

co-ordination of policies/ laws/ standards/ work plans				Macedonia*; Latin America and the Caribbean: Trinidad and Tobago*, Uruguay*
10. Insufficient capacity building, testing and traceability	–	–	4	Africa: Kenya*; Asia: Philippines; Latin America and the Caribbean: Uruguay*
11. Insufficient agreements on border control capacity (regulation of transboundary movement of LMOs)	–	–	4	Asia: Mongolia*, Turkey*; Oceania/Pacific: Niue Island*