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

Fourth meeting  
Bonn, 12-16 May 2008  
Item 6 of the provisional agenda\*

### STATUS OF CAPACITY-BUILDING ACTIVITIES

#### *Report on the use of indicators in monitoring the implementation of the Action Plan for Building Capacities for Effective Implementation of the Protocol and proposals for their further development*

*Note by the Executive Secretary*

#### I. INTRODUCTION

1. At its first meeting, the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety (COP-MOP), adopted, in decision BS-1/5, a preliminary set of indicators for monitoring implementation of the Action Plan for Building Capacities for Effective Implementation of the Protocol. In paragraphs 27 and 28 of that decision, Parties, other Governments, and relevant organizations were invited to use the indicators, as appropriate, to monitor their biosafety capacity-building initiatives and submit to the Executive Secretary their experiences in using the indicators. In paragraph 29 of the decision, the Executive Secretary was requested to prepare, for consideration at the fourth meeting, a report on the operational experience in the use of the preliminary indicators and make proposals for their further development and improvement, on the basis of submissions from Parties, other Governments and relevant organizations.

2. In August 2007, the Executive Secretary issued a notification reminding Parties, other Governments, and relevant organizations to submit their experiences in using the preliminary set of indicators by 15 October 2007. By that deadline, the Secretariat had received two responses, from Cambodia and the United Kingdom of Great Britain and Northern Ireland, but both indicated that they had no experience to share. In November 2007, another reminder was issued but no additional responses were received.

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3. In February 2008, the Executive Secretary convened the fifth meeting of the Liaison Group on Capacity-Building for Biosafety to, *inter alia*, assist the Secretariat in preparing proposals for further development of the preliminary set of indicators, taking into account the updated Action Plan for Building Capacities for Effective Implementation of the Protocol, which was adopted in decision BS-III/3.

4. The present note is prepared based on the review of available project reports, relevant literature and the recommendations of the Liaison Group. Section II of the note provides a brief report on the use of the preliminary set of indicators and section III describes the experiences and lessons learned from relevant organizations which might be useful in informing the process of developing and using indicators for monitoring the implementation of the updated Action Plan for Building Capacities for the Effective Implementation of the Protocol. Section IV presents proposals for improvement of the preliminary indicators and their use, taking into account the recommendations of the fifth meeting of the Liaison Group on Capacity-Building. <sup>2/</sup> A revised set of indicators, which includes indicators for the new elements in the updated Action Plan, is presented in the annex.

5. The Parties to the Protocol may wish to consider the information provided in the present note and provide guidance on further actions to facilitate improved use of indicators for monitoring and evaluating the implementation of the Updated Action Plan for Building Capacities for the Effective Implementation of the Protocol.

## **II. REPORT ON THE USE OF THE PRELIMINARY SET OF INDICATORS FOR MONITORING THE ACTION PLAN FOR BUILDING CAPACITIES FOR THE EFFECTIVE IMPLEMENTATION OF THE PROTOCOL**

6. In paragraph 28 of decision BS-I/5, the COP-MOP invited Parties, other Governments, and relevant organizations to submit to the Executive Secretary their experiences in using the preliminary set of indicators. However, as mentioned above, no submissions indicating experience gained in using the indicators were received. Accordingly, the Secretariat reviewed documents such as the first national reports, national biosafety frameworks and some biosafety project reports to identify any relevant experiences and lessons learned.

7. According to available information, some countries and organizations have attempted to develop and apply indicators for biosafety initiatives that are closely related to those in the preliminary set developed by the Parties to the Protocol. For example, the national biosafety framework of the Republic of Benin contains indicators for measuring progress towards achieving the various stated objectives.<sup>3/</sup> The national biosafety framework of Costa Rica also outlines criteria and indicators of capacities that need to be built under the different components of the framework.

8. Organizations, such as the United Nations Environment Programme –Global Environment Facility (UNEP-GEF) and the World Bank-GEF, have also incorporated indicators drawn from the preliminary set of indicators adopted by the COP-MOP in their stocktaking activities and in the monitoring and evaluation of their biosafety projects. For example, indicators are specified in most of the GEF-funded biosafety projects to facilitate the monitoring and evaluation of the projects' performance and progress. Some of them are explicitly capacity-building indicators related to those adopted in

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<sup>2/</sup> The report of the fifth meeting of the Liaison Group for Capacity-Building in Biosafety is made available at the present meeting as information document (UNEP/CBD/BS/COP-MOP/4/INF/8).

<sup>3/</sup> Copies of the NBFs can be accessed at:  
<http://www.unep.org/biosafety/National%20Biosafety%20frameworks.aspx>

decision BS-I/5. Furthermore, the GEF Strategy for Financing Biosafety (GEF/C.30/8/Rev.1) incorporates the preliminary set of indicators in addition to the other specified programme level indicators in its monitoring plan. <sup>4/</sup>

9. Overall, however, there is limited information regarding the use of the preliminary set of indicators by Parties and other Governments. Accordingly, it is difficult to fully determine the usefulness of the current set of indicators. In this regard, the COP-MOP may wish to repeat its invitation to Parties, other Governments and relevant organizations to submit to the Executive Secretary their experience in using the preliminary set of indicators and request the Executive Secretary to prepare a synthesis report for consideration by the fifth meeting of the Parties.

### III. EXPERIENCES AND LESSONS LEARNED IN THE DEVELOPMENT AND USE OF INDICATORS FOR MONITORING AND EVALUATION OF CAPACITY-BUILDING INITIATIVES

10. In recent years, a number of Governments, organizations and donors have embarked on developing indicators for monitoring and evaluating capacity-building and other similar processes. Organizations that have gained experience in this regard include the Global Environment Facility (GEF), United Nations Development Programme (UNDP), the UN Food and Agricultural Organization (FAO), the Commission on Sustainable Development (CSD), and the United National Framework Convention on Climate Change (UNFCCC). The experiences and lessons learned from those institutions and processes, which might be useful in informing the process of developing and using indicators for monitoring the implementation of the Action Plan for Building Capacities for the Effective Implementation of the Protocol, are described below.

#### A. *The Global Environment Facility (GEF)*

11. The GEF is one of the main organizations supporting capacity-building efforts in developing countries and countries with economies in transition. Support is provided through medium- and full-sized projects or some enabling activities. Most capacity-building activities are often funded as components of bigger projects and as such they are often not monitored or evaluated exclusively. In November 2003, the GEF Council approved the GEF Strategic Approach to Enhance Capacity Building (GEF/C.22/8) to provide adequate support for capacity-building projects with clearly identified indicators of progress and achievement. The Council also requested the GEF Secretariat, in collaboration with the Implementing Agencies and the GEF Evaluation Office to, *inter alia*, develop targets and indicators for measuring results and impacts of capacity-building activities. <sup>5/</sup> In this regard, the GEF is currently developing a Capacity Development Monitoring and Evaluation (M&E) Framework for monitoring all GEF-supported capacity-building activities.

12. The draft framework includes five capacity results and several capacity-building indicators, which will form the basis for measuring changes in GEF-supported capacity-building at the project and programme levels. <sup>6/</sup> The framework also provides a useful tool for countries to assess existing capacities, establish capacity baselines/benchmarks, identify capacity gaps, and establish clear linkages between capacity-building activities, outcomes and impacts within a programme or project context. A

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<sup>4/</sup> The GEF biosafety strategy can be assessed at: <http://www.gefweb.org/interior.aspx?id=17168>

<sup>5/</sup> Available at: [http://www.gefweb.org/interior.aspx?id=266&ekmense=c580fa7b\\_48\\_136\\_btlink](http://www.gefweb.org/interior.aspx?id=266&ekmense=c580fa7b_48_136_btlink)

<sup>6/</sup> The five strategic areas related to capacity to: (a) conceptualize and formulate policies, legislation, strategies and programmes; (b) implement policies, legislation, strategies and programmes; (c) engage and build consensus among all stakeholders; (d) mobilize information and knowledge; and (e) capacity to monitor, evaluate, report and learn.

scorecard approach has been proposed within the M&E framework whereby appropriate indicators and their corresponding ratings will be used to measure the change in capacity.

13. Furthermore, the GEF Monitoring and Evaluation Policy developed in 2006 requires all GEF projects to have adequate monitoring and evaluations plans with clear indicators to track progress towards achieving the stated outcomes and to determine the relevance, impact, effectiveness, efficiency, and sustainability of the GEF interventions. The GEF has also developed indicators for all the Focal Area Strategies and Strategic Programmes for the fourth GEF replenishment period, GEF-4 (GEF/C.31/10). <sup>7/</sup> Some of the indicators for Strategic Programme 6 (Building capacity for the implementation of the Cartagena Protocol on Biosafety) in the Biodiversity Focal Area Strategy and Strategic Programme are closely related to those in the preliminary set of indicators adopted by the Parties to the Protocol in decision BS-I/5, annex V.

14. In general, the GEF has accumulated valuable experience in developing and using of indicators for the monitoring and evaluation of capacity-building activities. Some of the lessons learned from its work include the following:

(a) It is crucial to establish a baseline in order to monitor capacity-building. Information collected through the National Capacity Self-Assessments (NCSAs) and the stocktaking assessments proposed under the GEF Strategy for Financing Biosafety Activities, would provide data for establishing such a baseline.

(b) It is important to identify and develop capacity indicators during the project initiation or conceptualization stage within the frameworks used to formulate GEF programmes and projects, such as the Logical Framework Analysis (LFA) or the results-based management (RBM) frameworks.

(c) Indicators should be kept at the bare minimum to limit the reporting burden. The use of too many indicators could make the results unwieldy and difficult to interpret or even lead to false interpretations of project success or failure. A manageable set of indicators should be selected and monitored over time.

#### ***B. The United Nations Development Programme (UNDP)***

15. Since the early 1990s, the United Nations Development Programme (UNDP) has been the lead UN agency in formulating and promoting a conceptual framework for capacity assessment and development through its Capacity Development Group (CDG). In January 2000, UNDP in partnership with the GEF Secretariat launched the Capacity Development Initiative (CDI), which among other things supported the assessment of capacity-building needs of developing countries and countries with economies in transition, resulting in regional assessment reports and an Assessment of Capacity Development in the GEF Portfolio. In 2003, the UNDP-GEF Monitoring & Evaluation unit also prepared a Capacity Development Indicators Resource Kit (Resource Kit No. 4). <sup>8/</sup> The resource kit describes the dimensions, levels and core functions of capacity development. It also outlines the criteria that could be considered in selecting capacity development indicators and methods and approaches. Indicators were developed for 11 core capacity development functions clustered into 5 Strategic Areas of Support.

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<sup>7/</sup> See: <http://www.gefweb.org/interior.aspx?id=84>

<sup>8/</sup> The resource kit is available at: [http://www.undp.org/gef/undp-gef\\_monitoring\\_evaluation/sub\\_undp-gef\\_monitoring\\_evaluation\\_documents/CapDevIndicator%20Resource%20Kit\\_Nov03\\_Final.doc](http://www.undp.org/gef/undp-gef_monitoring_evaluation/sub_undp-gef_monitoring_evaluation_documents/CapDevIndicator%20Resource%20Kit_Nov03_Final.doc)

16. Some of the lessons learned from the UNDP with respect to the development and application of capacity development indicators include the following:

(a) Monitoring changes in capacity requires a somewhat different approach from the conventional project approach used in the logical framework analysis.

(b) The capacity development indicator framework needs to present qualitative information while also quantitatively measuring the change processes.

(c) It is crucial to adopt clear concrete indicators. If the indicator variables are ambiguous, different practitioners might assess and rate them differently, which could lead to inconsistent results and conclusions.

(d) The availability of data for and the potential costs of gathering data, in terms of financial resources and time should be taken into account in selecting or developing capacity-building indicators. It is important to ensure that the monitoring of capacity-building is achievable with minimal costs, and in such a way that the outputs help improve capacity-building without creating undue burden for reporting.

### **C. *The Food and Agricultural Organization of the United Nations (FAO)***

17. The FAO is in the process of developing indicators for measuring the impact of capacity-building activities in the field of food safety and quality. In July 2007, a draft set of indicators was produced in a document entitled "Evaluating the Impact of Capacity Building Activities in the field of Food Quality and Safety: Design of an evaluation scorecard and indicators".<sup>9/</sup> The document contains a set of generic indicators, which could assist countries to develop specific national or project-level indicators. It also provides a broad insight into the issues and variables describing the kinds of capacity that could be measured by the indicators attributed to them. The document also highlights key lessons learned regarding the development and use of indicators based on the review of relevant literature (including project reports and technical documents) and insights from FAO staff and experts involved in capacity-building projects. These include the following:

(a) It is impossible to develop an exhaustive list of capacity-building indicators that can be directly applied to all projects because of the diversity of situations in which projects are conducted. Thus, while a generic set of indicators may be very useful as a guideline for evaluation, indicators need to be tailored to specific situations.

(b) Because of the dynamic and non-linear character of capacity-building, whereby capacity outcomes cannot be directly attributed to a specific activity or program, the inter-linkages between input, output, outcome and impact should be carefully considered when developing indicators for assessing or monitoring capacity-building initiatives.

(c) When developing or selecting capacity indicators, it is advisable to be clear about specific capacity development objectives and the activities to be undertaken.

(d) It is important to keep indicator definitions simple and comprehensible so that they can be easily interpreted and/or translated into action by relevant stakeholders.

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<sup>9/</sup> See: <http://www.fao.org/ag/agn/agns/files/CBIndicatorPaper.pdf>

**D. Experiences and lessons learned from the Commission on Sustainable Development (CSD)**

18. The Commission on Sustainable Development (CSD) has since the 1992 Earth Summit been involved in developing indicators of sustainable development. Chapter 40 of Agenda 21 recognizes the important role that indicators can play in helping countries make informed decisions concerning sustainable development. It calls for the harmonization of efforts to develop sustainable development indicators at the national, regional and global levels. In 1995, the Commission on Sustainable Development approved a Work Programme on Indicators of Sustainable Development, which was revised in 2001 and 2006.<sup>10/</sup> The main objective of the work programme was to make indicators of sustainable development accessible to decision-makers at the national level, by defining them, elucidating their methodologies and providing training and other capacity-building activities.

19. In 2001, the CSD produced a document entitled “Indicators of Sustainable Development: Guidelines and Methodologies”, which describes, *inter alia*, the CSD approach to the development of indicators of sustainable development for use in decision-making processes at national level.<sup>11/</sup> It contains, *inter alia*, guidance on how the CSD indicators can be utilized by countries in the development or revision of national indicator sets. The CSD also developed a framework and a core set of indicators and related methodology sheets which were made available to member countries, as reference material, to assist them in developing or reviewing their indicators to measure progress towards nationally defined goals for sustainable development. The first two sets of CSD Indicators of Sustainable Development were developed between 1994 and 2001, and the third revised set was finalized in 2006. It contains 96 indicators, including a subset of 50 core indicators.

20. Some of the main lessons learned from the CSD process include the following:

(a) It is impossible to define a set of indicators that are universally applicable because of the variation of issues, factors and circumstances in different countries. However, it is important to identify a core set of indicators to be monitored by all countries to facilitate comparative analysis of progress made towards achieving sustainable goals across countries.

(b) Using the CSD indicators as basis for national indicators of sustainable development has also assisted countries in monitoring national implementation of their international commitments. The indicators have proved be useful, for example, in measuring the outcome of policies towards achieving sustainable development goals. However, they are not suited for measuring the implementation of specific actions contained in the major agreements on sustainable development.

(c) Countries need to adopt and adapt CSD indicators that are appropriate to their national conditions. A major advantage for countries doing so is the opportunity to learn from the expertise, experience and perspective of a broad range of actors. For indicators that are used to measure international commitments such as the Millennium Development Goals (MDGs), international comparability is essential.

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<sup>10/</sup> See details at: <http://www.un.org/esa/sustdev/natlinfo/indicators/isd.htm>

<sup>11/</sup> See: <http://www.un.org/esa/sustdev/natlinfo/indicators/guidelines.pdf>

**E. The United Nations Framework Convention on Climate Change (UNFCCC)**

21. The United Nations Framework Convention on Climate Change (UNFCCC) is also engaged in the process of developing indicators for capacity-building. In its note to the 12th meeting of the Subsidiary Body for Implementation held in May 2004 (FCCC/SBI/2004/9, annex III), the UNFCCC Secretariat proposed capacity-building indicators for climate change relating to the strategic areas of GEF support in capacity-building, as outlined in the UNDP-GEF resource kit. The indicators were linked to the needs outlined in the UNFCCC capacity-building framework. <sup>12/</sup>

22. In November 2007, the UNFCCC Secretariat organized an expert workshop on monitoring and evaluating capacity-building activities in Antigua and Barbuda. <sup>13/</sup> The workshop focused on the experiences of Parties in capacity-building and the experiences of intergovernmental organizations and other bodies in monitoring and evaluating capacity-building. It discussed, *inter alia*, approaches to monitoring and evaluating capacity-building activities and enhancement of the effectiveness of capacity-building through sharing experiences, lessons learned and best practices on the use of results of monitoring and evaluation. Some of the general observations and lessons highlighted during the expert workshop include the following:

(a) Collecting accurate information regarding activities supported by different donors and organizations is a major challenge in monitoring and evaluating capacity-building initiatives at the national level. There is a need to ensure that all capacity-building activities are properly registered with the designated national coordinating body.

(b) Output and outcome performance indicators should be chosen and used carefully to ensure that the data collected are useful for making appropriate decisions and improvements to the implementation of the projects.

(c) Monitoring and evaluating capacity-building is most cost-effective when it is linked with, or builds upon existing assessments of broader development activities.

(d) A lack of capacity to develop and use indicators is one of the main obstacles to monitoring capacity development. It is important to train individuals in indicator development, data collection and analysis for monitoring purposes and in the use of information generated through analyses of the indicators.

**F. Lessons learned from other processes**

23. A number of other processes and documents provide guidance and lessons learned which might assist Parties in developing and using indicators for monitoring the implementation of the Action Plan for Building Capacities for the Effective Implementation of the Protocol. For example, a Guide to Monitoring and Evaluation of Capacity-Building Interventions in the Health Sector in Developing Countries, produced in 2003 for an organization known as "MEASURE", describes a 6-step approach to developing a capacity-building M&E plan and outlines a number of capacity measurement techniques

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<sup>12/</sup> See: [http://maindb.unfccc.int/library/view\\_pdf.pl?url=http://unfccc.int/resource/docs/2004/sbi/09.pdf](http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/2004/sbi/09.pdf)

<sup>13/</sup> The workshop report is available at:  
[http://unfccc.int/cooperation\\_and\\_support/capacity\\_building/items/4080.php](http://unfccc.int/cooperation_and_support/capacity_building/items/4080.php)

and approaches.<sup>14/</sup> It also highlights the following key lessons learned from a variety of capacity development experiences:

(a) Lesson 1: Indicators should reflect an understanding of the change in capacity-development. The choice of capacity indicators should foster the overall strategy of enhancing capacity and improving performance and should be done alongside the design of capacity-building interventions.

(b) Lesson 2: Capacity indicators should capture organizational and behavioural change as well as material and technical change and should reflect the essence of these changes. For example they indicate why and how people and organizations change, what brings about lasting change, and why change in certain values and practices makes a difference.

(c) Lesson 3: In planning capacity-building M&E, it is important to monitor not only the change in capacity but also key performance variables and the environmental factors that influence the changes (or lack of change) in capacity and performance.

(d) Lesson 4: Indicators should be designed to promote ownership of the capacity-building process. In this regard, it is important to keep indicator definitions simple and relevant to the local needs to encourage widespread use of the indicators.

(e) Lesson 5: The results of indicator-based capacity-building M&E should be interpreted wisely as capacity development is context specific and often influenced by a wide array of variables. The credibility and usefulness of indicators in M&E of capacity-building very much depend how they are developed, measured and used. There is a need to balance subjective measures with a range of objective indicators and data-gathering strategies and to use multiple prioritized indicators to provide greater insights into the capacity status.

24. A policy paper prepared by Peter Morgan for the Canadian International Development Agency (CIDA) on the design and use of capacity development indicators discusses the challenges of designing and using capacity indicators compared to the conventional approaches to indicator development.<sup>15/</sup> It describes some operational guidelines for the design and management of capacity development indicators and provides some examples of such indicators. It puts forward the following suggestions:

(a) To be useful, capacity development indicators should be simple to use and easy to comprehend. At the same time, they should not be too simplistic or too vague to lose their diagnostic value, relevance and credibility. Effort should be made to develop indicators that are relevant, appropriate and credible.

(b) Indicators also need to be designed with their substantive purpose, audience and time sequence in mind. They should encourage field managers to use information to shape strategy and process with respect to capacity development.

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<sup>14/</sup> LaFond, Anne and Brown, Lianne (2003). A Guide to Monitoring and Evaluation of Capacity-Building Interventions in the Health Sector in Developing Countries. MEASURE Evaluation Manual Series, No. 7. Carolina Population Center, University of North Carolina at Chapel Hill: [http://media.shs.net/globalaids/Field\\_Officer\\_Orientation\\_2004/Module6-BuildingCapacity/GuidetoMEofCapacityBuildingInterventions.pdf](http://media.shs.net/globalaids/Field_Officer_Orientation_2004/Module6-BuildingCapacity/GuidetoMEofCapacityBuildingInterventions.pdf)

<sup>15/</sup> A copy of the document can be accessed at: <http://www.oecd.org/dataoecd/34/37/1919953.pdf>



(c) The development of indicators should emphasize country ownership and commitment. Every effort should be made to get local staff to design the indicators themselves as part of a broader programme of capacity development.

(d) Capacity development indicators must be accompanied by judgment, intuition and common sense from all stakeholders.

(e) When developing or selecting indicators, attention should be given to the cost, time and logistics required to collect and analyze the necessary data in order make them useful.

#### **IV. PROPOSALS TO PROMOTE FURTHER DEVELOPMENT AND USE OF THE PRELIMINARY SET OF INDICATORS**

25. In accordance with paragraph 29 of decision BS-I/5, the Executive Secretary is presenting below, for the consideration of the present meeting, proposals for further development and improvement of the preliminary set of indicators. The proposals are drawn principally from the recommendations of the fifth meeting of the Liaison Group on Capacity-Building for Biosafety, which was held 14-15 February 2008 in New Delhi and from the experiences and lessons learned from relevant organizations and processes. A revised set of indicators is presented in the annex to the present note.

##### ***A. Further development of the preliminary set of indicators***

26. In its report, the Liaison Group on Capacity-Building for Biosafety observed that the main problem regarding the preliminary set of indicators adopted by the Parties to the Protocol at their first meeting is not so much with the structure or quality of the existing indicators. It was noted that the preliminary indicators are still relevant for both national and global level capacity-building monitoring efforts. However, it was noted that the current preliminary set of indicators covered the elements of the old Action Plan. In view of the fact that the Parties adopted an updated Action Plan in decision BS-III/3, which includes additional elements, it was recommended that indicators be developed for those elements as well. Accordingly the revised set of indicators contained in the annex includes indicators for the following additional elements:

- (a) Socio-economic considerations;
- (b) Implementation of the documentation requirements under Article 18.2 of the Protocol;
- (c) Handling of confidential information;
- (d) Addressing unintentional and/or illegal transboundary movements of living modified organisms;
- (e) Scientific biosafety research relating to living modified organisms; and
- (f) Taking into account risks to human health.

27. Another proposed revision to the preliminary set of indicators is the inclusion of a scale, which would enable users to rate the status or level of existing capacity against the different indicators. The following rating levels are proposed: 0 (zero or non-existent); 1 (low or somewhat in place); 2 (medium or partially in place); 3 (high or mostly in place); and 4 (very high or fully in place). The column marked

“NA” would be used in cases where there are no data or where the information is insufficient to characterize the level of existing capacity.

### ***B. Mechanisms for using the indicators***

28. The Liaison Group on Capacity-Building for Biosafety observed that the main problem lies with the fact that the preliminary set of indicators have not been widely used by Parties. In this regard it was suggested that emphasis should be put on developing mechanisms to enable Parties to effectively utilize the indicators. There are different possible options through which indicators could be used in monitoring and evaluating the implementation of the capacity-building Action Plan. Examples could include the following:

(a) Option 1 – Global-level monitoring based on the national reports: Under this option, Parties would use the set of indicators developed by the COP-MOP to assess and report on their efforts in building capacities for the effective implementation of the Protocol and the progress made in this regard through their national reports. This information contained in the national reports would then be compiled and synthesized by the Executive Secretary for consideration by the Parties to the Protocol. To facilitate this process, the set of indicators would need to be incorporated into the format for the national reports. The indicators would also need to characterize core capacity-building variables that could be monitored across different countries. It would also be important to include a scale or scorecard so that Parties can rate their capacity levels or progress against different indicators. This option would encourage systematic use of the set of indicators by all Parties and facilitate global-level monitoring of progress in building capacities for the effective implementation of the Protocol.

(b) Option 2 – National-level benchmarking and monitoring: Under this option, Parties and organizations would use the set of indicators developed by the COP-MOP to assess and track their capacity-building activities and initiatives in terms of progress towards achieving the desired national capacity levels and the performance of those initiatives. At the outset, they would use indicators in stocktaking assessment to establish baselines for the different capacity-building variables. Periodically, they would then assess and track, using the indicators, the progress made against the established baseline and benchmark positions. The indicators could also assist Parties to determine actions needed to achieve desired capacity and set appropriate targets and timelines.

(c) Option 3 - Comprehensive evaluation: Under this option, Parties and organizations would periodically use the indicators to evaluate their different capacity-building activities and submit the evaluation reports to the Secretariat. The evaluation could be undertaken by local experts/professional evaluators or specialized agencies. The information from the different submissions would then be collated to establish the global picture of the capacity-building status and trends.

### ***C. Establishing baselines and benchmarks***

29. The Liaison Group observed that in order to effectively monitor the progress in building capacities for the effective implementation of the Protocol, it is important to determine the current status of capacities in different countries and establish the baseline at both the national and international levels. Such baselines are lacking at present. In this regard, it was recommended that countries should be requested to undertake stocktaking assessments or compile information collected under different assessment processes to establish their capacity-building baselines and benchmarks for different biosafety capacity-building elements against which progress would be monitored. In this regard, the COP-MOP may wish to request Parties and other Governments to engage in this process. They should be

encouraged to use, where applicable, the information collected under relevant assessment processes, including the following:

(a) Stocktaking exercises carried out as part of the UNEP-GEF global project on development of national biosafety frameworks to collect information and data on the current status of biosafety and biotechnology within the country, including human and institutional resources;

(b) National Capacity Self-Assessments carried out under the UNDP-GEF Capacity Development Initiative (CDI);

(c) Stocktaking assessments proposed under the GEF Strategy for Financing Biosafety Activities; and

(d) National needs assessments being carried out within the context of the Bali Strategic Plan for Technology Support and Capacity Building.

#### ***D. Other measures***

30. The Liaison Group also made the following specific recommendations to improve the use of the indicators:

(a) The set of indicators should be integrated into the national reporting process under the Protocol. In this regard, the Executive Secretary should be requested to incorporate the preliminary set of indicators in the format for the national reports;

(b) Parties and relevant organizations should be invited to use the indicators in the design, monitoring and evaluation of their biosafety projects and activities and also in the development of other relevant policies and programs such as sustainable development strategies;

(c) Parties should integrate, wherever possible and appropriate, the preliminary set of indicators into existing national evaluation systems;

(d) The COP guidance to financial mechanism should include a request to GEF to ensure that the indicators used in biosafety projects are aligned, as much as possible, with the set of indicators adopted by COP-MOP;

(e) Parties and relevant organizations should be invited once again to submit to the Executive Secretary their experiences and lessons learned in the use of the capacity-building indicators;

(f) The Executive Secretary should be requested to further develop the set of indicators taking into account the updated Action Plan for Building Capacities for the Effective Implementation of the Protocol.

### **V. CONCLUSIONS AND RECOMMENDATIONS**

31. The adoption of the preliminary set of indicators by the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety at its first meeting represents one of the few systematic efforts at the international level to monitor capacity-building across countries. The preliminary set provides an important framework for assisting the COP-MOP to assess and track, over a period of time, the status and trends in capacity-building for the effective implementation of the Protocol

at the national and international level. It also provides a useful checklist that could assist individual Parties, other Governments and relevant organizations to develop their own indicators. However, experience in developing and using indicators for monitoring and evaluating capacity-building in biosafety is still limited. There is a need to gather more information on existing experiences and lessons learned in this regard, to build the capacities of Governments and to adopt measures to foster the development and effective use of the indicators to monitor and evaluate progress made in building capacities for the effective implementation of the Protocol. In this regard, the COP-MOP in its decision on capacity-building may wish to:

(a) *Approve* the revised set of indicators for monitoring the updated Action Plan for Building Capacities for the Effective Implementation of the Protocol annexed to this decision;

(b) *Invite* Parties, other Governments and relevant organizations to use the revised set of indicators in the design, monitoring and evaluation of their biosafety projects, policies and programmes and submit to the Executive Secretary, at least six months before the fifth meeting of the Parties, information on their experiences with and lessons learned from the use of the revised set of indicators;

(c) *Invite also* Parties, other Governments and relevant organizations to take into account, when selecting or using indicators for monitoring their capacity-building initiatives, the experiences and lessons learned from relevant processes, including those described in the note by the Executive Secretary (UNEP/CBD/BS/COP-MOP/4/4/Add.1);

(d) *Request* Parties and other Governments to undertake stocktaking assessments or compile information collected under relevant assessment processes to establish their capacity-building baselines and benchmarks and communicate this information to the Executive Secretary;

(e) *Invite* the Global Environment Facility (GEF) to take into account the revised set of indicators in its work relating to the implementation of its Strategy for Financing Biosafety Activities, its Results-Based Management Framework and its proposed indicator framework for monitoring capacity development;

(f) *Request* the Executive Secretary to prepare a synthesis report on the experiences with and lessons learned from the use of the revised set of indicators on the basis of the submissions by Parties, other Governments and relevant organization;

(g) *Request* the Executive Secretary to convene a meeting of experts before its fifth meeting to further develop the indicators for monitoring the updated Action Plan, taking into account the experiences of Parties, other Governments and relevant organization with the use of the revised indicators and elaborate guidelines to assist Parties to use the indicators effectively;

(h) *Request* the Executive Secretary to organize, in collaboration with relevant organizations, training activities for Parties and other Governments to enhance their knowledge and skills in the development and use of biosafety capacity-building indicators;

(i) *Request* the Executive Secretary to incorporate the revised set of indicators into the format for the national reports.

*Annex*

**A REVISED SET OF INDICATORS FOR MONITORING IMPLEMENTATION OF  
THE ACTION PLAN FOR BUILDING CAPACITIES FOR THE EFFECTIVE  
IMPLEMENTATION OF THE PROTOCOL**

1. The set of indicators presented below is intended for use in tracking the overall progress in implementing the Action Plan, encompassing the overall cumulative contribution of different capacity building projects and other activities. The indicators are not intended for use in measuring the results of specific individual capacity-building projects. Such indicators would need to be developed on a case-specific basis.

2. In the set of indicators outlined below, four main types can be identified, namely: “indicators of existence”, “indicators of status”, “indicators of change” and “indicators of progress towards an endpoint”. The first type includes indicators that show whether something exists or not (i.e. yes/no), such as existence of laws and regulations. Status indicators include actual values/ levels of a given parameter, either quantitatively (e.g. number of people, percentage of people) or qualitatively (e.g., low/medium/high). The “indicators of change” show variation in the level of a given parameter, either increase/decrease or positive/negative. Indicators of change are measured in comparison to a starting point in time or in terms of progress towards an endpoint. In some cases, the measurement may be quantitative (e.g. change in number of staff), and in other cases it may be qualitative (e.g. change in level of satisfaction). They may also show overall trends or pattern of change.

3. The table below contains indicators that could be used for monitoring capacity at the global and national or project levels (outlined in columns 1 and 2). The last columns could be used to indicate the status or level of capacity-building for the corresponding indicator. It could be rated at five levels namely: zero or non-existent (0); low or somewhat in place (1); medium or partially in place (2); high or mostly in place (3); very high or fully in place (4). The column marked “NA” would be used in cases where there are no data or where the information is insufficient to characterize the level of existing capacity. In summary, the following rating criteria could be used:

NA	Not applicable or insufficient information to assess
0	Zero or non-existent (0%)
1	Low or somewhat in place (<50%)
2	Medium or partially in place (51-75%)
3	High or Mostly in place (76-100%)
4	Very high or fully in place (100%)

<i>Global level indicators (based on Action Plan elements)</i>	<i>National or project level indicators</i>	<i>Capacity Level or Status</i>					
		<i>NA</i>	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<b><i>A. Improved institutional capacity</i></b>							
<b><i>(i) Effective legislative and policy frameworks in place</i></b>	1. a) Existence of biosafety frameworks (e.g. policies, laws and regulations) b) Level of harmonization of national biosafety frameworks with other national policy frameworks and programmes c) Level of consistency of national biosafety frameworks with the Protocol d) Level of stakeholder satisfaction with the national biosafety frameworks						
<b><i>(ii) Appropriate administrative frameworks in place</i></b>	2. a) Existence of clearly defined institutional mechanisms for administering biosafety, including designation of competent national authorities and responsibilities among agencies b) Change in the quantity and quality of staffing in national institutions dealing with biosafety c) Percentage of notifications handled and decisions taken within the timeframes specified in the Protocol d) Existence of systems for managing biosafety records and for maintaining institutional memory e) Existence of mechanisms for inter-institutional coordination (e.g. steering committees or intranets), and change in the level of activity of such mechanisms						
<b><i>(iii) Improved technical, scientific, and telecommunications infrastructures</i></b>	3. a) Change in the quantity and reliability of office equipment and facilities in institutions dealing with biosafety b) Number and variety of facilities (e.g. laboratories) available for biosafety research work c) Change in the level of reliability of telecommunication infrastructure						
<b><i>(iv) Enhanced funding and resource management</i></b>	4. a) Amount of funding for biosafety activities received or provided b) Percentage of funding for biosafety coming from national budgetary allocation c) Rate at which resources earmarked for biosafety are used for the intended activities and in a cost-effective manner						

<i>Global level indicators (based on Action Plan elements)</i>	<i>National or project level indicators</i>	<i>Capacity Level or Status</i>					
		<i>NA</i>	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>(v) Enhanced mechanisms for follow-up, monitoring and assessment</i>	5. a) Existence of national mechanisms for monitoring and reporting of implementation of the Protocol o)						
<i>B. Improved human resources capacity development and training</i>	6. a) Number of national experts trained in diverse specialized biosafety-related fields b) Frequency at which local experts are used in undertaking or reviewing risk assessments and other activities relating to the implementation of the Protocol c) Frequency at which expertise from the roster of experts is accessible whenever required by countries						
<i>C. Improved capacity for risk assessment and other scientific and technical expertise</i>	7. a) Amount of biosafety research and proportion of risk assessments carried out locally b) Frequency at which local expertise is used in undertaking or reviewing risk assessments						
<i>D. Improved capacity in risk management</i>	8. a) Existence of risk-management strategies for LMOs with identified risks b) Rate at which risk-management strategies and measures developed to prevent or mitigate identified risks are actually implemented						
<i>E. Improved public awareness, participation and education in biosafety at all levels</i>	9. a) Change in level of public awareness of the Protocol b) Change in the number, scope and variety of measures taken to promote awareness of the biosafety and the Protocol c) Rate of involvement of relevant stakeholders in decision-making and in the development and implementation of national biodiversity frameworks d) Change in frequency of public access to relevant biosafety information, including through the Biosafety Clearing-House						

<i>Global level indicators (based on Action Plan elements)</i>	<i>National or project level indicators</i>	<i>Capacity Level or Status</i>					
		<i>NA</i>	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<b><i>F. Improved information exchange and data management including full participation in the Biosafety Clearing-House</i></b>	10. a) Change in level of exchange of relevant biosafety data and information						
	b) Extent to which information required under the Protocol is provided to the Biosafety Clearing-House						
	c) Existence of national systems for data management and information exchange						
	d) Existence of appropriate national infrastructure and capability to access the Biosafety Clearing-House						
	e) Degree to which the Biosafety Clearing-House responds to the information needs of different stakeholders						
	f) Level of stakeholder satisfaction with the Biosafety Clearing-House (including its accessibility, user-friendliness and content)						
	g) Change in number, frequency and regional distribution of Governments and organizations accessing and retrieving information from the Biosafety Clearing-House						
	h) Change in number and regional distribution of Governments and organizations contributing information to the Biosafety Clearing-House						
<b><i>G. Increased scientific, technical and institutional collaboration at subregional, regional and international levels</i></b>	11. a) Existence of various mechanisms for regional and international collaboration in biosafety						
	b) Change in number of bilateral and multilateral collaborative initiatives in biosafety underway						
	c) Change in level of participation in regional and international collaborative mechanisms and initiatives						
	d) Existence of, and level of participation in, regional/ subregional advisory mechanisms and centers of excellence						
	e) Existence of regional and subregional websites and databases						
	f) Existence of mechanisms for regional and sub-regional coordination and harmonization of biosafety regulatory frameworks						
	g) Existence of, and level of participation in, mechanisms for promoting south-south cooperation in biosafety issues						
	h) Change in amount and availability of international technical guidance for implementation of the Protocol						
	i) Existence of mechanisms for promoting common approaches						



<i>Global level indicators (based on Action Plan elements)</i>	<i>National or project level indicators</i>	<i>Capacity Level or Status</i>					
		<i>NA</i>	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>H. Improved access to and transfer of technology and know-how</i>	12. a) Existence of enabling frameworks for technology transfer b) Change in number of relevant technologies transferred						
<i>I. Improved identification of LMO shipments as required by the Protocol</i>	13. a) Existence of national measures for identification of LMO shipments b) Change in level of use of modern LMO identification techniques c) Change in level of effectiveness of identification systems and measures in ensuring safe handling, transport and packaging of LMOs						
<i>J. Socio-economic considerations effectively addressed in decision making regarding LMOs</i>	14. a) Extent to which consideration of socio-economic impacts are enforced by domestic law or regulations b) Extent to which socio-economic issues are taken into consideration in decision-making regarding LMOs c) Existence of methodology and frameworks for defining and evaluating socio-economic considerations d) Level of local expertise on socio-economic issues						
<i>K. Documentation requirements under Article 18.2 of the Protocol fulfilled</i>	15. a) Change in level of development of national LMO documentation systems b) Level of adherence to the identification requirements in the documentation accompanying LMO shipments c) Level of ability of Customs officials to enforce LMO documentation requirements						
<i>L. Confidential information effectively and appropriately handled</i>	16. a) Existence of mechanisms to handle confidential information b) Level of training of competent national authorities to handle confidential information						
<i>M. Unintentional and/or illegal transboundary movements of LMOs effectively addressed</i>	17. a) Existence of national data management system for easy and timely access lists of approved LMOs b) Level of vigilance of the national border control systems						

<i>Global level indicators (based on Action Plan elements)</i>	<i>National or project level indicators</i>	<i>Capacity Level or Status</i>
<i>N. Increased scientific biosafety research relating to LMOs</i>	18. a) Change in number of national biosafety research initiatives b) Number of national scientists involved in biosafety research c) Number of biosafety research articles published in peer-reviewed journals d) Change in the level of funding for scientific biosafety research e) Percentage of biosafety research funded from national budgetary allocation	
<i>O. Risks to human health effectively taken into account in decision making regarding LMOs</i>	19. a) Extent to which assessment of impacts of LMOs on human health is enforced by domestic law or regulations b) Extent to which impacts on human health are taken into consideration in decision-making regarding LMOs	

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