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WORKSHOP ON CAPACITY-BUILDING FOR RESEARCH AND INFORMATION EXCHANGE ON SOCIO-ECONOMIC IMPACTS OF LIVING MODIFIED ORGANISMS
New Delhi, 14-16 November 2011
Item 4 of the provisional agenda*

SYNTHESIS OF INFORMATION ON CAPACITY-BUILDING AND SOCIO-ECONOMIC CONSIDERATIONS

Note by the Executive Secretary

I. INTRODUCTION

1. In decision BS-V/3, the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety requested the Executive Secretary to convene a regionally-balanced workshop on capacity-building for research and information exchange on socio-economic impacts of living modified organisms (LMOs). One of the objectives of the workshop is the analysis of the capacity-building activities, needs and priorities regarding socio-economic considerations submitted to the Biosafety Clearing-House (BCH) by Parties and other Governments, and identification of options for cooperation in addressing those needs.

2. Information on capacity-building and socio-economic considerations has been gathered since 2009 from the following sources:

(a) Capacity-building needs and priorities as identified by Parties through the BCH;

(b) The online survey on the application of and experience in the use of socio-economic considerations in decision-making on living modified organisms;

(c) Submissions made in response to notification SCBD/BS/CG/KG/jh/74729 (2011-016) of 20 January 2011; and

(d) Postings during the online discussion groups and real-time conferences on socio-economic considerations.

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3. This document synthesizes the available information on capacity-building and socio-economic considerations. Section II presents a brief overview of previous and ongoing capacity-building activities on socio-economic considerations. Section III synthesizes information on capacity-building needs and priorities regarding socio-economic considerations derived from the capacity-building needs and priorities database in the BCH, submissions made in response to notification SCBD/BS/CG/KG/jh/74729 (2011-016) and interventions in the online discussion groups and the regional online real-time conferences on socio-economic considerations. Section IV presents views on how the capacity-building needs and priorities could be addressed and the main target groups for capacity-building. Section V contains questions that may help guide the discussions during the workshop and assist in the identification of options for cooperation in addressing capacity-building needs, as requested in decision BS-V/3.

II. PREVIOUS AND ONGOING CAPACITY-BUILDING ACTIVITIES REGARDING SOCIO-ECONOMIC CONSIDERATIONS IN DECISION-MAKING ON LIVING MODIFIED ORGANISMS

4. During the online discussion groups, some participants outlined capacity-building initiatives relating to socio-economic considerations in the context of the Biosafety Protocol that have been completed or are currently being implemented.

5. The representative of International Food Policy Research Institute (IFPRI) indicated that his organization, and specifically the Program for Biosafety Systems, has undertaken a number of capacity-building activities and gained hands on experience with biosafety risk assessments and socio-economic assessments in regulatory decision-making processes.[1] He provided a number of examples[2] of this experience:

(a) Training workshops, including on economic methods for assessors, and for regulators, policy makers, government officials and other stakeholders organized by the Regional Agricultural and Environment Initiatives Network-Africa (RAEIN-Africa);

(b) Targeted workshops and presentations on specific issues related to socio-economic considerations, cost of compliance with regulations and biosafety;

(c) Contributions to policy roundtables at the international, regional and national levels;

(d) Longer-term capacity-building including: (i) supporting the training of graduate and doctoral students from Uganda, Pakistan, the United States and elsewhere on economic approaches; and (ii) maintaining databases of the literature on the applied economic impacts of living modified organisms and applied economics related to biodiversity;[3]

[1] Many of the materials and activities can be found online: http://programs.ifpri.org/pbs/pbs.asp. IFPRI's experience with assessments and policy research is not restricted to LMOs. Information on these other aspects can be found on the organization's website: http://www.ifpri.org.

[2] A more detailed and comprehensive list of activities can be found in document UNEP/CBD/BS/CM-CB/7/INF/1 which compiles submissions on ongoing biosafety capacity-building projects and was prepared for the seventh Coordination Meeting for Governments and Organizations Implementing or Funding Biosafety Capacity-Building Activities. The document is available online: http://www.cbd.int/doc/meetings/bs/bscmcb-07/information/bscmcb-07-inf-01-en.pdf. Additional information is also available at: https://socioeconomicbiosafety.wordpress.com/2011/07/28/planned-and-ongoing-research-activities-at-ifpri-program-for-biosafety-systems/.

[3] bEcon: http://www.ifpri.org/publication/becon and BIOCONSERV: http://www.ifpri.org/publication/bioconserv.

(e) Providing technical support to RAEIN-Africa and the University of Pretoria in the development of a roadmap/guideline for socio-economic issues for Southern African Development Countries;

(f) Development of training materials and elements of best practice for economic and social assessors on methods, issues, decision-making rules and experiences accumulated over time; and

(g) Ongoing social and economic assessments of potential and actual agricultural living modied organisms in developing countries.

6. A representative from Norway noted that the biosafety course at the Genøk – Centre for Biosafety (located in Tromsø, Norway) has included social and ethical issues in its programme. Genøk has been carrying out capacity-building projects related to gene technology and gene modification in developing countries since 2003.[4]

7. A representative from Mexico noted that the Sociology Department of the Metropolitan Autonomous University gave a course on socio-economic methods for a delegation from Colombia.

8. Information submitted by RAEIN-Africa indicated that the organization has supported a number of initiatives aimed at enhancing capacity for assessing socio-economic impacts of genetically modified organisms (GMOs).[5] These include: (i) in-country studies to improve the understanding of socio-economic issues that would need to be considered in the adoption of genetic modification technologies; (ii) a training workshop on socio-economic considerations in biosafety held in February 2010; and (iii) the development of a guideline for the assessment of socio-economic impacts of GMOs.

9. The capacity-building activities, projects and opportunities database in the BCH includes additional information on capacity-building activities related to socio-economic considerations. The following paragraphs summarize a selection of these activities and projects.

10. In 2005, the World Resources Institute, under its project on "Implementing the Biosafety Protocol", produced a discussion paper entitled "Integrating Socio-economic Considerations into Biosafety Decisions: The role of public participation", based on case-studies carried out in Asia.[6] The paper highlights some socio-economic issues arising from modern biotechnology and outlines principles and tools that countries could use to decide how to integrate socio-economic considerations into biosafety policies, regulations and decisions. It also outlines some research methodologies that could be applied to assess the social and economic impacts of modern agricultural biotechnology. Finally, it discusses some public-participation mechanisms that could encourage the inclusion of socio-economic considerations in decision-making.

11. From 2004 to 2008, the International Service for National Agricultural Research coordinated a research project entitled "Participatory Assessment of Social and Economic Impacts of Biotechnology". The project was carried out in conjunction with Virginia State University, the University of Tennessee, North Carolina State University and the International Rice Research Institute. The objective of the project was to provide policy makers and the general public with information on the benefits, costs, risks and tradeoffs associated with the use of products arising from biotechnology. Research on socio-economic impacts of genetically modified organisms was carried out in the United States, Bangladesh and the Philippines and resulted in a number of papers and presentations.

[4] See http://www.genok.com/courses for more information.

[5] See: http://bch.cbd.int/cms/ui/collaboration/download/download.aspx?id=466.

[6] See: http://bch.biodiv.org/database/attachedfile.aspx?id=955.

12. The African Biosafety Network of Expertise (ABNE) has been established within the context of the New Partnership for Africa's Development (NEPAD). ABNE is a continent-wide Africa-based initiative to provide expertise and networking facilities for biotechnology and biosafety. The scope of its activities includes socio-economic considerations and the Network aims to provide information and technical support to regulators to enable them rationalize the costs and benefits of modern biotechnology, and to provide guidance on implementing regulations through the adoption of best practices in evidence-based decision-making.

13. In March 2010, the European Committee for Standardization and the Italian National Agency for New Technologies, Energy and Sustainable Economic Development organized a workshop on "GMO Asynchronous and Asymmetric Approvals: Bringing Lasting Solutions to Identified Problems". Among the questions addressed by the workshop were the following: how are European regulatory and accreditation bodies handling "asynchronous/asymmetric approval" and "low-level presence" of new genetically modified crops? Are European farmers and livestock producers effectively facing the predicted effects and economic impacts regarding the implications of GMO policy in the European Union? Can Smart Standardization provide lasting solutions to the identified problems?

III. CAPACITY-BUILDING NEEDS AND PRIORITIES

14. A number of capacity-building needs and priorities regarding socio-economic considerations have been identified through the survey on socio-economic considerations, the capacity-building needs and priorities database in the Biosafety Clearing-House and interventions during the online discussion groups and regional online real-time conferences on socio-economic considerations.

A. Survey on the application of and experience in the use of socio-economic considerations in decision-making on living modified organisms

15. In 2007, the Division of Global Environment Facility Coordination of the United Nations Environment Programme (UNEP), with funding from the Department for International Development of the United Kingdom, undertook a scoping exercise on socio-economic considerations in biosafety decision-making. The work included a survey to gather information on countries' experience with socio-economic considerations, which was conducted in cooperation with the Secretariat of the Convention on Biological Diversity. The survey was conducted over the Internet from 14 October 2009 to 13 November 2009 in English, French and Spanish. A total of 578 respondents from 154 countries completed the survey.

16. The survey included a number of questions concerning capacity-building and socio-economic considerations. Respondents ranked "lack of capacity" as the second most important reason why socio-economic considerations were not taken into account in their country's decision-making process on living modified organisms, after "lack of mechanisms" for doing so. The respondents ranked the following as the top ten socio-economic assessment areas in which capacity-building was required: food security; impacts on market access and trade; macroeconomic impacts; impacts on the conservation and sustainable use of biodiversity; coexistence of living modified organisms with conventional and organic agriculture; compliance with biosafety measures (including institutional costs); health-related impacts; impact on indigenous and local communities; microeconomic impacts; and Farmers' Rights (e.g., control of seeds).

17. More information on the survey may be found in the summary report on the survey, prepared for the fifth meeting of the Parties (UNEP/CBD/BS/COP-MOP/5/INF/10). The document has been made available as an information document for this workshop.

B. Capacity-building needs and priorities database in the Biosafety Clearing-House

18. A common format was developed allowing countries to assess their capacity-building needs and make this information available through the capacity-building needs and priorities database in the BCH (http://bch.cbd.int/database/activities/).[7] A search of the database locates 15 records from the following Parties that identified socio-economic considerations as one of their capacity-building needs and priorities: Benin, Bolivia, Croatia, Dominican Republic, Egypt, Latvia, Malaysia, Mexico, Niger, Nigeria, Poland, Republic of Moldova, Saint Lucia, Togo and Venezuela. Three of the 15 Parties – Benin, Niger and the Republic of Moldova – identified socio-economic considerations as a broad area for capacity-building but did not select any specific needs and priorities on this subject. For the others, the table below presents the six specific needs and priorities related to socio-economic considerations that are contained in the common format and lists the countries that identified each area as a need or priority. Further details on some countries follow below.

Table 1. Specific capacity-building needs and priorities as identified by different countries

Training in legal, social and economic fields relevant to biosafety	○ Croatia ○ Egypt ○ Mexico ○ Nigeria ○ Saint Lucia ○ Togo
Training in socio-economic considerations relating to living modified organisms (LMOs)	○ Bolivia ○ Croatia ○ Egypt ○ Latvia ○ Mexico ○ Nigeria ○ Saint Lucia ○ Togo ○ Venezuela
Training in cost/benefit analysis as part of the risk management strategy	○ Croatia ○ Latvia ○ Nigeria ○ Togo
National system for taking into account socio-economic considerations in decision-making regarding LMOs	○ Bolivia ○ Croatia ○ Dominican Republic ○ Egypt ○ Mexico ○ Nigeria ○ Togo
Guidance on taking into account socio-economic considerations in decision-making concerning LMOs	○ Croatia ○ Egypt ○ Malaysia ○ Mexico ○ Nigeria ○ Poland

[7] The common format includes a list of 15 broad areas, one of which is socio-economic considerations. This category contains six specific needs and priorities (see table 1). Countries are advised to select their most critical needs from the list and then indicate the extent to which each need has been addressed; the preferred means for assistance to address the need; and the major target groups.

	○ Saint Lucia ○ Togo
Mechanisms for cooperation on research on socio-economic impacts of LMOs	○ Croatia ○ Egypt ○ Mexico ○ Nigeria ○ Poland ○ Togo

19. In addition to choosing two of the six specific needs and priorities on socio-economic considerations in the common format for the capacity-building needs and priorities assessment, Bolivia added two other needs related to socio-economics, namely:

(a) System to assess ecological and socio-economic impacts in centres of origin and genetic diversity; and

(b) Tools and methodologies for ecological and socio-economic risk assessment interface.

20. Bolivia also commented that it did not believe that the specific capacity-building need on "Training in cost/benefit analysis as part of the risk management strategy" was in line with the scope and objective of the Protocol as the Protocol does not address cost-benefit analysis.

21. The Dominican Republic did not identify socio-economic considerations as one of the broad areas where it needs capacity[8] but it did select "national system for taking into account socio-economic considerations in decision-making regarding LMOs" as one of its specific needs and priorities.

22. In its submission, Mexico identified the following needs:

(a) Carry out a complete assessment of the impact of genetically modified crops in Mexico, over a specific period (proposal 1996-2010). This would seek to collect information from different public and private institutions regarding developments in the adoption of the technology, taking into account the comparative examination of changes in agricultural practices and the economic, social and ecological dividends;

(b) Further development of infrastructure and human capacity for the integration and systematization of information generated in the country regarding the economic and social impacts of biotechnology use;

(c) To increase capacity to carry out assessments of the socio-economic effects of the use of genetically modified mosquitoes for the control of dengue in tropical zones in Mexico versus conventional methods of insecticide use, and also consider the possible expansion of the impact area of this disease due to climate change;

(d) Have realistic prospects with regard to the agro-biotechnological and commercial development of genetically modified varieties in crops of strategic importance to the country. The objective is to compile updated information on different agro-biotechnology development projects of strategic crops on a technical, economic-financial and social level. This would assist in creating precise and accessible indicators to encourage the affiliation of scientific-technological, productive and financial organizations so as to consolidate viable options for the development of these crops;

[8] This is possible because selecting "institutional capacity" as one of the broad areas in which capacity is needed also brings up "national system for taking into account socio-economic considerations in decision-making regarding LMOs" in the list of specific needs and priorities.

(e) To strengthen capacity to carry out comparative estimates of the agricultural, forest and fishing production systems, etc., using genetically modified organisms as opposed to conventional systems insofar as they contribute to the mitigation of and adaptation to climate change and what potential effect this contribution has on the society as a whole;

(f) To strengthen capacity for the development of comparative studies of the economics of ecosystem services that incorporate real costs (or benefits) of different production systems, so as to have elements to encourage sustainability and reduce carbon emissions;

(g) Identification of potential production niches and regional value chains to improve the supply of national oilseed. Based on information compiled regarding the cultivation of genetically modified soybean and canola, one could establish a useful framework to facilitate the responsible adoption of this technology, keeping in mind marketing, agronomic and socio-economic aspects;

(h) To strengthen capacity regarding the creation and evaluation of public policy that achieves a balance between precaution and innovation and considers the protection of biological diversity in terms of the environment, employment, social development, importance for indigenous and local communities, as well as low-carbon growth;

(i) Capacity for the creation of interdisciplinary studies to carry out *ex ante* analyses and methodological guides;

(j) Meetings where developers may exchange information on the impact of genetically modified organisms on the sustainable development of diversity; and

(k) Exchange of information with the private sector regarding advances in the detection and monitoring of genetically modified organisms.

23. In its submission, Niger indicated that the development and implementation of its national biosafety framework, including socio-economic considerations, must take into account the lack of qualified human, material and financial resources, which require significant support.

24. In its capacity-building needs and priorities assessment, Poland stated that the collection and exchange of relevant information on socio-economic implications related to the marketing of living modified organisms, including socio-economic benefits and risks, are still relatively low and thus need strengthening.

C. Online discussion groups and regional online real-time conferences on socio-economic considerations

25. Two of the guiding questions during the online discussion groups specifically addressed capacity-building. Participants were asked what are the main capacity-building needs of countries regarding: (i) the assessment of socio-economic considerations; and (ii) the evaluation of assessments and their integration into a decision on the import of a living modified organism. Some participants also identified capacity-building needs during the regional online real-time conferences.

26. The capacity-building needs that were identified fall into three broad categories:

(a) Capacity to devise appropriate and feasible administrative and regulatory mechanisms, including:

(i) Identifying objectives for socio-economic assessments;

(ii) Identifying relevant parameters or criteria to be assessed in order to achieve these objectives;

(iii) Determining the relationship between socio-economic considerations and risk assessment;

(iv) Understanding the relationship between other international obligations and socio-economic considerations under the Biosafety Protocol;

(b) Capacity to undertake socio-economic assessments, including:

(i) Collecting and analysing evidence;

(ii) Applying assessment methodologies through development of human and technical capacities;

(c) Capacity-building to promote public awareness, education and participation concerning socio-economic considerations in the context of applications and decision-making for living modified organisms.

27. A number of participants agreed that the first priority for capacity-building should be in developing conceptual clarity regarding socio-economic considerations in decision-making. This would include developing a clearer idea about the objectives, scope, impact dimensions, criteria and normative baselines for this issue. Once these have been established, it would then be possible to turn to capacity-building for methodologies for assessing socio-economic impacts.

28. A representative of Norway noted that it takes time to build expertise on socio-economic methods and assessments and therefore it is important to have a system in place that secures the knowledge transfer in the case of rotation of personnel. She described Norway's biotechnology advisory board,[9] whose mandate includes providing advice to the Norwegian authorities on sustainability, societal utility and other ethical aspects. Norway is of the view that this is a good approach to build up competence. The advisory board has a broad range of members including some with specific expertise on biotechnology, medicine, law and ethics and others representing the general public, which raises awareness of the social component of the use of modern biotechnology.

29. The representative of the Global Industry Coalition pointed out that the investment in capacity-building to evaluate the impacts of new approaches to improve agricultural productivity and environmental sustainability is at the expense of investment in the development of the same new technologies to be assessed.

30. A representative of India stated that the capacity-building needs of the countries would depend on the parameters used for the analysis of socio-economic considerations.

IV. ADDRESSING CAPACITY-BUILDING NEEDS AND PRIORITIES REGARDING SOCIO-ECONOMIC CONSIDERATIONS

A. How the needs and priorities could be addressed

31. During the online discussion groups, participants were asked to express their views on how the capacity-building needs and priorities identified could be addressed, taking into account the overall capacity-building framework for biosafety. Some means for addressing capacity-building needs were also

[9] See http://www.bion.no/english/.

raised during the regional online real-time conferences. The possible means for addressing capacity-building needs regarding socio-economic considerations that were identified were as follows:

(a) Documenting case-studies and sharing countries' experiences with socio-economic considerations both in the context of decision-making on living modified organisms and in other fields, including:

(i) Sharing information on experiences, methodologies and best practices through workshops and web-based tools such as online discussions,

(ii) Establishing regional and international cooperation for sharing experience, including best practices and lessons learned;

(b) Developing quantitative and qualitative methodologies for *ex ante* and *ex post* assessments of both social and economic impacts of living modified organisms;

(c) Furthering the collection of data and local generation of knowledge, including:

(i) Understanding the value and roles of biodiversity and existing livelihood practices to local people;

(ii) Conducting studies that are not limited to the farm scale but that take into account whole sectors of production;

(d) Building up mechanisms for public awareness, public participation and participatory approaches, including:

(i) Developing material adapted to the local forms of communication and processes of knowledge generation;

(ii) Fostering inter- and multidisciplinary dialogue that considers knowledge and information from different sources beyond the purely scientific or academic;

(e) Training and courses on socio-economic methods and assessment to develop and improve expertise in conducting socio-economic assessments;

(f) Financial resources to conduct and evaluate socio-economic assessments;

(g) Analysing the intertwined nature of ecological and socio-economic impacts;

(h) Sharing experiences in capacity-building on socio-economic considerations in environmental regulation in general and biosafety in particular.

(i) Developing guidelines, training modules or a toolkit elaborating:

(i) Considerations in setting objectives for socio-economic assessments;

(ii) Approaches to including socio-economic considerations in a regulatory framework and in decision-making on living modified organisms;

(iii) Possible elements of socio-economic considerations and criteria that could assist in determining which socio-economic considerations to include in the decision-making frameworks;

(iv) The monitoring of socio-economic aspects following the import of a living modified organism.

32. The representative of IFPRI noted that capacity-building related to socio-economic considerations is no different from capacity-building in other areas. He described it as a matter of building the proper capacities to ensure competency in performing evaluation tasks and for the audience to understand the issues and limitations of such assessments.

33. The representative of Bolivia expressed the view that when discussing socio-economic capacity-building needs, there is a rush to move to methods for socio-economic assessments. She stated that the first priority is to define "what" to assess. After that, the discussion on methods of assessment will be more useful.

34. The representative of Bolivia also expressed the view that capacity-building needs on socio-economic considerations may be addressed, along with other questions raised through this process, with the establishment of an ad hoc technical experts group that includes actors from different sectors.

35. The representative of IFPRI provided some general comments regarding capacity-building. He expressed the following views:

(a) Capacity-building must be a response to a careful evaluation of the human, financial and technical capacities in a country;

(b) In order for capacity-building to be effective, it must be based on the current status and level of experience of a country:

(i) There is little sense in developing capacity for conducting socio-economic studies in a country that is only able to carry out confined field trials, a regulatory step which is unlikely to require a socio-economic assessment;

(ii) From the experience of his organization, introducing regulatory issues prematurely before countries have been exposed to all the potential issues and consequences from a proposed regulatory structure introduces a lot of confusion;

(iii) Creating capacity prematurely may lead to a waste of resources when there is no demand for such services;

(c) If a country is ready to deal with socio-economics, it should handle the issue in a systematic manner once it becomes a need, usually when there is an application pending;

(d) The necessary capacity for implementation of socio-economic assessments must respond to the policy and political decision of what will be required for the assessment. Different capacities will be necessary in a country that only requires a relatively narrow economic assessment (such as impacts on trade or financial impact incurred by farmers) versus a country that requires broader social and economic assessments;

(e) Providing an integrated and systematic approach to capacity-building usually works best. This implies a sustained and medium- to long-term effort to build assessment capacity if required; and

(f) When socio-economic assessments are required as part of decision-making, there will likely be a learning curve that will have its own set of implications in terms of cost and resources.

36. In the survey on the application of and experience in the use of socio-economic considerations in decision-making on living modified organisms (see paras. 15-17 above), a majority of respondents (84%) indicated that a methodology guide or toolkit would be a useful document to assist countries in taking socio-economic considerations into account in their decision-making concerning living modified organisms. Many respondents mentioned the following as the most important elements that should be

included in such a guide: cost-effectiveness assessment; macroeconomic impact assessment; cultural and ethical assessment; property rights assessment; community-impact analysis; benefit-cost assessment; and economic risk assessment.

B. Main target groups for capacity-building on socio-economic considerations

37. During the online discussion groups, participants were also asked to express their views on the main target groups for capacity-building on socio-economic considerations (e.g. policy-makers, decision-makers, regulators, technical personnel such as risk or impact assessors, other professionals, interest groups, etc.). A number of participants identified regulators, policy makers and decision makers as a key target group for capacity-building on socio-economic considerations. Reasons for this included:

(a) Regulators will be responsible for developing regulatory frameworks to incorporate socio-economic considerations in decision-making on living modified organisms. They need to understand this area in order to be able to create rules that are transparent, predictable, functional and feasible. Doing so will involve stakeholder consultations, setting objectives and balancing the elements that may need to be taken into account;

(b) Decision makers need to identify the data and assessment categories related to socio-economic considerations they require for making decisions, taking into account the regional, national and local situation.

38. Other target groups for capacity-building on socio-economic considerations that were identified were: technical personnel (practitioners and assessors from different disciplinary backgrounds), corporate actors, extension workers, communities, farmers and the general public.

39. The representative of Bolivia noted that the general public is not a uniform group and so it will be important to identify the different groups within the general public and tailor capacity-building accordingly. She also stated that the target groups for capacity-building may differ depending on the type of living modified organism that is the subject of decision-making.

40. A representative from Norway explained that one important challenge with regard to capacity-building on socio-economic considerations is that most of the previous initiatives for capacity-building have been framed with the intention to build competence in risk assessment, which influences the choice of participants (the main target group has been those with a scientific background within natural science and in law) as well the approach. Socio-economics is a multidisciplinary field, which may therefore be new for most of the groups presently involved in biosafety.

41. A representative from Austria agreed, adding that much broader expertise will be needed for assessing possible socio-economic effects. The main challenge for the near future will be to identify the relevant target groups, including economists, social scientists and experts in communication who have not worked in the field of biosafety, and start to build their capacity in this area.

42. The representative of the International Food Policy Research Institute (IFPRI) said that the main objective of capacity-building for countries that have decided to implement socio-economic considerations should be to develop functional capacity for the assessment, analysis and evaluation of living modified organisms based on requirements contained in policies, laws or regulations. The need will arise for different actors to develop different levels of competency and understanding about the process, methods, decision-making standards and the decision documents themselves. He suggested that these actors will include assessors/evaluators, regulators and decision makers, and the general public and other stakeholders. The capacity-building requirements will be different for each of these groups. For example, an in-depth understanding of methods will be required for practitioners to deal with the particularities of living modified organisms, but for policy and decision makers the issue is more of

developing capacity to understand the meaning of the results of a socio-economic assessment and the limitations of such studies. The public will need a general understanding of the assessment and scientific peer review process, the decision-making approach and the overall regulatory process including the risk assessment and the socio-economic assessment, if required. All research materials and tools used in the assessments should be accessible to anybody but this will need to be balanced with the protection of confidentiality and confidential business information. He concluded that the objective should be scientific and research excellence in order to achieve the best possible evaluation through a cost-effective process that maintains public confidence.

43. Representatives of Bolivia and Norway agreed that there are several groups that need capacity-building and their capacity-building needs are different. The representative of Bolivia, however, was of the view that both policy makers and the public also need to understand the criteria, parameters and methods used for socio-economic assessments. For policy makers, such an understanding will enable them to evaluate the quality of the information they are receiving from the assessors; for the public, it will contribute to the transparency of the process

44. The representative of IFPRI proposed two different approaches to capacity-building, depending on the development stage of a country. The first approach would support and contribute to countries' discussions on the potential inclusion and implementation of socio-economic considerations and their assessment in biosafety decision-making. The target audience for these activities would be countries that have not expressed publicly their intention to include socio-economic considerations, that are in preliminary internal talks about doing so, or that have included such a requirement in their draft national biosafety frameworks and/or policy but not in law.

45. He indicated that the target groups for capacity-building at this stage would be policy- and decision makers, regulators, practitioners, developers/operators (especially those in the public sector) and the general public. He suggested certain key issues for this group: taking socio-economic considerations into account in decision-making on living modified organisms is not mandatory under paragraph 1 of Article 26 of the Biosafety Protocol; the provision has a very specific scope and is focused on biodiversity; the provision recognizes that national regulations may incorporate approaches beyond the Protocol but this requires careful thinking about implementation and consequences.

46. He suggested that the keys for countries that may be more advanced in their inclusion of socio-economic considerations in decision-making would be to: focus on alternative policy options, the development of a functional system and implementation issues particularly regarding the question of what will be covered by socio-economic assessments; and analyse trade-offs among knowledge gains, costs of compliance and technology deployment.

47. The second approach would be the development of functional capacity to conduct socio-economic assessments. He indicated that the target countries in this approach would be those that have already incorporated socio-economic assessments in their national policies or laws. The target groups would be the same as those in the first stage. He explained that the key messages would be to focus on implementing regulations; address transparency, feasibility and decision-making standards; and ensure capacity to conduct feasible socio-economic studies in a cost-efficient and timely manner.

48. In the survey on the application of and experience in the use of socio-economic considerations in decision-making on living modified organisms (see paras. 15-17 above), respondents identified the following as the primary audience for a methodological guide: (i) those who evaluate socio-economic assessments and recommend decisions; (ii) those who conduct the assessments; and (iii) decision-making authorities.

V. QUESTIONS TO CONSIDER

49. During the workshop, participants will have the opportunity to discuss capacity-building and socio-economic considerations in more depth. Some relevant questions for consideration are:

(a) How can countries prioritize their capacity-building needs in this area given the wide range of needs that have been identified?

(b) What are some options for national, regional and international cooperation to address capacity-building needs regarding socio-economic considerations?

(c) How might conceptual clarity on socio-economic considerations in decision-making on living modified organisms (see para. 27 above) be developed in order to improve the effectiveness of other capacity-building activities in this field?
