

## **SUBMISSION FROM COSTA RICA (PARTY)**

*(Translated from the original in Spanish)*

### **FORM FOR THE SCIENTIFIC REVIEW OF THE GUIDANCE ON RISK ASSESSMENT OF LIVING MODIFIED ORGANISMS**

The Guidance for Risk Assessment of Living Modified Organisms (the “Guidance”) was developed through collaborative efforts between the Open-ended Online Expert Forum and the Ad Hoc Technical Expert Group (AHTEG) on Risk Assessment and Risk Management.\*

The aim of the Guidance is to further elaborate the methodology for risk assessment of living modified organisms (LMOs) in accordance with the Cartagena Protocol on Biosafety, and in particular in accordance with Annex III of the Protocol.

The Guidance is intended to be a “living document” that will be improved with time as new experience becomes available and new developments occur in the field of applications of LMOs, as and when mandated by the Parties to the Cartagena Protocol on Biosafety.

At the fifth meeting of the Conference of the Parties serving as the meeting of the Parties to the Protocol (COP-MOP), the Parties to the Protocol welcomed the first version of the Guidance and noted that it requires further scientific review and testing to establish its overall utility and applicability to living modified organisms of different taxa introduced into various environments.

The Executive Secretary was therefore requested to coordinate a review process of this first version of the Guidance among Parties and other Governments, through their technical and scientific experts, and relevant organizations.

The following questions are aimed at seeking views to assist the Open-ended Online Expert Forum and the AHTEG in revising the Guidance.

The completed review forms are to be mailed to the Secretariat at: [riskassessment.forum@cbd.int](mailto:riskassessment.forum@cbd.int) . Reviews from Parties and other Governments are to be submitted by their National Focal Points. Reviews from organizations are to be submitted through their head offices.

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\* Additional information on the development of the “Guidance on Risk Assessment of Living Modified Organisms” may be found in document UNEP/CBD/BS/COP-MOP/5/12 (see “Official Documents” at <http://www.cbd.int/doc/?meeting=MOP-05>).

**i. Reviewer's information**

Please select **only one** of options below

**This scientific review of the Guidance on Risk Assessment of Living Modified Organisms is being submitted on behalf of a:**

- Party. Please specify: COSTA RICA
- Other Government. Please specify: <Country's name>
- Organization: Please specify: <Organization's name>

**ii. Overall evaluation**

Please select **only one** answer for each section

<b>Q1. How do you evaluate the level of consistency of the following sections of the Guidance with the Cartagena Protocol on Biosafety, particularly with its Article 15 and Annex III?</b>	<b>Very poor</b>	<b>Poor</b>	<b>Neutral</b>	<b>Good</b>	<b>Very good</b>
• Roadmap for risk assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Risk assessment of living modified organisms with stacked genes or traits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Risk assessment of living modified crops with tolerance to abiotic stress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Risk assessment of living modified mosquitoes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Q2. How do you evaluate the usefulness of the following sections of the Guidance as tools for assisting countries in conducting and reviewing risk assessments of LMOs <u>in a scientifically sound and case-by-case manner?</u></b>	<b>Very poor</b>	<b>Poor</b>	<b>Neutral</b>	<b>Good</b>	<b>Very good</b>
• Roadmap for risk assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Risk assessment of living modified organisms with stacked genes or traits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Risk assessment of living modified crops with tolerance to abiotic stress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Risk assessment of living modified mosquitoes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>Q3. How do you evaluate the usefulness of the following sections of the Guidance as tools for assisting countries in conducting and reviewing risk assessments of LMOs introduced into various receiving environments?</b>					
	<b>Very poor</b>	<b>Poor</b>	<b>Neutral</b>	<b>Good</b>	<b>Very good</b>
• Roadmap for risk assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Risk assessment of living modified organisms with stacked genes or traits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Risk assessment of living modified crops with tolerance to abiotic stress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Risk assessment of living modified mosquitoes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Q4. How do you evaluate the usefulness of the “Roadmap” as a tool for assisting countries in conducting and reviewing risk assessments of LMOs of different taxa?</b>					
	<b>Very poor</b>	<b>Poor</b>	<b>Neutral</b>	<b>Good</b>	<b>Very good</b>
• Roadmap for risk assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**ADDITIONAL COMMENTS ON THE OVERALL EVALUATION**

Please add any additional comment you may have regarding the overall evaluation of the first version of the “Guidance on Risk Assessment of Living Modified Organisms” below.

Q5. This is a well-prepared document and it provides the necessary guidelines for conducting risk assessments. However, the question is just how efficiently this tool can be used, in particular in developing countries, which lack a team of professionals with multidisciplinary skills who are qualified, trained and prepared to conduct risk assessments, and which will most likely choose not to use the risk assessment tools or protocols available, and will even establish moratoria on the use of this technology, given also the absence of scientific information specific to tropical countries or the inability to generate such information or request it from applicants (you cannot ask for what cannot be provided), as is happening in many Latin American countries.

The opposite is true in areas where highly trained and qualified biosafety teams exist, in which case this risk assessment tool is extremely useful.

**iii. Section-by-section review**

Please select **only one** of the boxes for each question

**PART I: THE ROADMAP FOR RISK ASSESSMENT**

**1. INTRODUCTION**

Q6. Are all the concepts in this section relevant and accurate from a scientific point of  Yes

view?  No. Please comment: <Type here>

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Q7. Does this section include all the necessary relevant concepts?  Yes  
 No. Please comment: <Type here>

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Q8. Are all the concepts in this section expressed in a language that could be easily understood by the target users?  Yes  
 No. Please comment: The concepts would be clearly understood if the target users in developing countries or island nations had experience in risk assessment.

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## 2. THE RISK ASSESSMENT

**Step 1: "An identification of any novel genotypic and phenotypic characteristics associated with the living modified organism that may have adverse effects on biological diversity in the likely potential receiving environment, taking also into account risks to human health"**

Q9. Are all the concepts in this section relevant and accurate from a scientific point of view?  Yes  
 No. Please comment: <Type here>

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Q10. Does this section include all the necessary relevant concepts?  Yes  
 No. Please comment: <Type here>

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Q11. Are all the concepts in this section expressed in a language that could be easily understood by the target users?  Yes  
 No. Please comment: The concepts would be clearly understood if the target users in developing countries or island states had experience in risk assessment.

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**Step 2: "An evaluation of the likelihood of adverse effects being realized, taking into account the level and kind of exposure of the likely potential receiving environment to the living modified organism"**

Q12. Are all the concepts in this section relevant and accurate from a scientific point of view?  Yes  
 No. Please comment: <Type here>

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Q13. Does this section include all the necessary relevant concepts?  Yes  
 No. Please comment: <Type here>

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Q14. Are all the concepts in this section expressed in a language that could be easily understood by the target users?  Yes  
 No. Please comment: The concepts would be clearly understood if the target users in developing countries or island states had experience in risk assessment.

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**Step 3: "An evaluation of the consequences should these adverse effects be realized"**

Q15. Are all the concepts in this section relevant and accurate from a scientific point of view?  Yes  
 No. Please comment: <Type here>

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Q16. Does this section include all the necessary relevant concepts?  Yes  
 No. Please comment: <Type here>

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Q17. Are all the concepts in this section expressed in a language that could be easily understood by the target users?

Yes

No. Please comment: The concepts would be clearly understood if the target users in developing countries had experience in risk assessment.

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**Step 4: “An estimation of the overall risk posed by the living modified organism based on the evaluation of the likelihood and consequences of the identified adverse effects being realized”**

Q18. Are all the concepts in this section relevant and accurate from a scientific point of view?

- Yes  
 No. Please comment: <Type here>

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Q19. Does this section include all the necessary relevant concepts?

- Yes  
 No. Please comment: <Type here>

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Q20. Are all the concepts in this section expressed in a language that could be easily understood by the target users?

- Yes  
 No. Please comment: The concepts would be clearly understood if the target users in developing countries or island states had experience in risk assessment.

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**Step 5: “A recommendation as to whether or not the risks are acceptable or manageable, including, where necessary, identification of strategies to manage these risks”**

Q21. Are all the concepts in this section relevant and accurate from a scientific point of view?

- Yes  
 No. Please comment: <Type here>

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Q22. Does this section include all the necessary relevant concepts?

- Yes  
 No. Please comment: <Type here>

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Q23. Are all the concepts in this section expressed in a language that could be easily understood by the target users?

- Yes  
 No. Please comment: The concepts would be clearly understood if the target users in developing countries or island states had experience in risk assessment.

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**3. RELATED ISSUES**

Q24. Does the “Related Issues” section include all relevant issues related to risk assessment and decision-making process but that are outside the scope of the Roadmap?

- Yes  
 No. Please comment: <Type here>

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**4. FLOWCHART**

Q25. Does the flowchart provide an accurate graphic representation of the risk assessment process as described in the Roadmap?

- Yes  
 No. Please comment: <Type here>
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## PART II: SPECIFIC TYPES OF LMOs AND TRAITS

### A. RISK ASSESSMENT OF LIVING MODIFIED ORGANISMS WITH STACKED GENES OR TRAITS

Q26. Are all the concepts in this section relevant and accurate from a scientific point of view?

- Yes  
 No. Please comment: <Type here>

Q27. Does this section include all the necessary relevant concepts?

- Yes  
 No. Please comment: <Type here>

Q28. Are all the concepts in this section expressed in a language that could be easily understood by the target users?

- Yes  
 No. Please comment: The concepts would be clearly understood if the target users in developing countries or island states had experience in risk assessment.

### B. RISK ASSESSMENT OF LIVING MODIFIED CROPS WITH TOLERANCE TO ABIOTIC STRESS

Q29. Are all the concepts in this section relevant and accurate from a scientific point of view?

- Yes  
 No. Please comment: <Type here>

Q30. Does this section include all the necessary relevant concepts?

- Yes  
 No. Please comment: <Type here>

Q31. Are all the concepts in this section expressed in a language that could be easily understood by the target users?

- Yes  
 No. Please comment: The concepts would be clearly understood if the target users in developing countries or island states had experience in risk assessment.

### C. RISK ASSESSMENT OF LIVING MODIFIED MOSQUITOES

Q32. Are all the concepts in this section relevant and accurate from a scientific point of view?

- Yes  
 No. Please comment: <Type here>

Q33. Does this section include all the necessary relevant concepts?

- Yes  
 No. Please comment: <Type here>

Q34. Are all the concepts in this section expressed in a language that could be easily understood by the target users?

- Yes  
 No. Please comment: The concepts would be clearly understood if the target users in developing countries or island states had experience in risk assessment.

## ADDITIONAL COMMENTS ON THE SECTION-BY-SECTION REVIEW

*Please add any additional comment you may have regarding particular sections of the first version of the "Guidance on Risk Assessment of Living Modified Organisms" below.*

Q35. Costa Rica is a country that has a special interest in Modern Biotechnology being properly used, and it has been conducting LMO risk assessments for the past 15 years. In the course of these years, the work of the National

Technical Biosafety Commission has resulted in the training and capacity-building of a team of professionals from the various competent national bodies that make up the commission (Ministry of Agriculture, Science and Technology, National Seed Office, National Academy of Science, and NGOs), and who have for the most part remained in the commission throughout the years. This has made it possible to gain the experience necessary to conduct risk assessments. This situation is not the same in the other countries of Central America, which is why tools are not enough, and capacity-building is also necessary, through the preparation and ongoing training of staff, in order for these guidelines to be efficiently applied towards achieving the greatest technical and scientific

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