



Convention on Biological Diversity

Distr.
GENERAL

CBD/CP/MOP/10/9
31 January 2022

ORIGINAL: ENGLISH

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

Tenth meeting

Kunming, China, 11 to 15 October 2021

and dates to be confirmed

Agenda item 17

NAGOYA – KUALA LUMPUR SUPPLEMENTARY PROTOCOL ON LIABILITY AND REDRESS

Note by the Executive Secretary

I. INTRODUCTION

1. The Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety (Supplementary Protocol hereinafter) was adopted by the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety at its fifth meeting through decision [BS-V/11](#). The Supplementary Protocol entered into force on 5 March 2018.
2. At its ninth meeting, in decision [CP-9/15](#), the Conference of the Parties serving as the meeting of the Parties, in accordance with Article 10, paragraph 3, of the Supplementary Protocol, requested the Executive Secretary to undertake a study of financial security mechanisms for consideration by the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety serving as the meeting of the Parties to the Supplementary Protocol at its next meeting.
3. Also, in decision CP-9/15, Parties to the Supplementary Protocol were requested to designate a competent authority to perform the functions set out in Article 5 of the Supplementary Protocol, and to make the contact information of its competent authority available on the Biosafety Clearing-House. Further, Parties to the Supplementary Protocol were requested, and other Governments invited, to report on their measures to implement the Supplementary Protocol by responding to the questions of the fourth national report related to the Supplementary Protocol.
4. Further to decisions [CP-9/7](#) and [CP-9/3](#), the implementation plan and the capacity-building action plan for the Cartagena Protocol have been developed (see the compilation of draft decisions, CBD/CP/MOP/10/1/Add.5). The plans contain a goal on the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress.
5. The present document provides an overview of the status of the Supplementary Protocol (section II), information on the study on financial security mechanisms (section III), information on the modalities for designating competent authorities in the Biosafety Clearing-House (section IV), and a summary of key findings from the fourth national reports under the Cartagena Protocol related to

implementation of the Supplementary Protocol (section V). Section VI contains suggested elements for a draft decision.

II. STATUS OF THE SUPPLEMENTARY PROTOCOL

6. The Supplementary Protocol is an international treaty to which only Parties to the Cartagena Protocol may become Party (Article 16, paragraph 3 of the Supplementary Protocol).

7. By the date of preparation of the present note, 49 Parties to the Cartagena Protocol had become Party to the Supplementary Protocol, as follows:

(a) *Africa*: Burkina Faso, Central African Republic, Congo, Democratic Republic of the Congo, Eswatini, Guinea-Bissau, Liberia, Mali, Togo, Uganda;

(b) *Asia and the Pacific*: Cambodia, Democratic People's Republic of Korea, India, Japan, Mongolia, Syrian Arab Republic, United Arab Emirates, Viet Nam;

(c) *Central and Eastern Europe*: Albania, Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Republic of Moldova, Romania, Slovakia, Slovenia;

(d) *Latin America and the Caribbean*: Colombia, Cuba, Mexico, Venezuela;

(e) *Western European and Others Group*: Austria, Denmark, European Union, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland.

8. The fourth national reports under the Cartagena Protocol show that 37 Parties to the Cartagena Protocol that have not yet become Party to the Supplementary Protocol have a national process in place to become Party to the Supplementary Protocol.¹ The regional breakdown of these 37 Parties is as follows: 16 from the African region, 7 from the Asia-Pacific region, 3 from Central and Eastern Europe, 7 from Latin America and the Caribbean, and 4 from the Western Europe and Others Group.

III. STUDY ON FINANCIAL SECURITY MECHANISMS (ARTICLE 10 OF THE NAGOYA – KUALA LUMPUR SUPPLEMENTARY PROTOCOL)

9. As referenced above, in decision CP-9/15, the Executive Secretary was requested to undertake a comprehensive study, subject to the availability of funds from the Voluntary Trust Fund, for consideration at the next meeting of the Parties, addressing (a) the modalities of financial security mechanisms; (b) an assessment of the environmental, economic and social impacts of such mechanisms, in particular on developing countries; (c) an identification of the appropriate entities to provide financial security.

10. Accordingly, a consultant was commissioned to undertake the study. A draft of the study was made available on the Secretariat website for peer review on 25 May 2021 and Parties to the Supplementary Protocol, as well as other Governments, relevant organizations and indigenous peoples and local communities, were invited to submit any comments by 25 June 2021.²

11. Comments were received by three Parties to the Supplementary Protocol, four other Governments and two organizations, and were made available on the website.³ The study was revised and finalized, taking into account the comments received.

12. An executive summary of the study is available as an annex to the present document and the full study is available in [CBD/CP/MOP/10/INF/1](http://cbd.int/protocol/supplementary/Study.shtml).

¹ The number of Parties (37) is based on the responses to question 170 from all fourth national reports received by the date of preparation of this note. Further information provided by Parties to the Supplementary Protocol in their fourth national reports is provided in section V below.

² Notification [2021-038](#) of 25 May 2021.

³ <http://bch.cbd.int/protocol/supplementary/Study.shtml>.

IV. COMPETENT AUTHORITIES

13. The Supplementary Protocol assigns a central role to the “competent authority”. Among other things, Parties are to require operators, in the event of damage and subject to any requirements of the competent authority, to immediately inform the competent authority (Article 5, paragraph 1 (a)). The competent authority must identify the operator that caused the damage, evaluate the damage and determine which response measures should be taken by the operator (Article 5, paragraph 2). The competent authority may also implement appropriate response measures and recover these costs, including costs for the evaluation of the damage, from the operator (Article 5, paragraphs 4 and 5). Publishing contact information on the competent authority in the Biosafety Clearing-House would assist operators to fulfil this requirement.

14. In decision CP-9/15, Parties to the Supplementary Protocol were requested to designate a competent authority to perform the functions set out in Article 5 of the Supplementary Protocol, and to make their contact information available on the Biosafety Clearing-House. The same decision requested the Executive Secretary to create an appropriate common format in the Biosafety Clearing-House to enable Parties to share the contact information of their competent authorities.

15. A common format has been developed to enable Parties and non-Parties to submit contact information on their Supplementary Protocol competent authority (SPCA) and can be accessed through the *Submit* section of the new Biosafety Clearing-House at <http://bch.cbd.int/en/register> (login required). The common format is also available as a Word document⁴ and in information document CBD/CP/MOP/10/INF/7. A notification was issued in December 2021 to invite Parties to publish the contact details of their competent authority under the Supplementary Protocol.⁵

16. According to the fourth national reports (see section V, paragraph 25, below), 38 Parties had identified their competent authority for the Supplementary Protocol. As of 27 January 2022, three Parties to the Supplementary Protocol and two non-Parties had designated their competent authority in the Biosafety Clearing-House.

V. RELEVANT ELEMENTS FROM THE FOURTH NATIONAL REPORTS

17. In [decision CP-9/5](#), Parties were requested to submit their fourth national reports on the implementation of the Cartagena Protocol on Biosafety. Seventeen questions of the reporting format relate to the Supplementary Protocol (i.e. questions 169 to 185). The information in this section is based on responses provided by those Parties to the Supplementary Protocol that had submitted their fourth national report by 10 January 2022.⁶

18. In addition to providing useful information on the current status of implementation of the Supplementary Protocol, the information in this section may also be useful in the context of the future assessment and review of the Supplementary Protocol further to its Article 13. Article 13 provides that a review of the effectiveness of the Supplementary Protocol shall be undertaken “five years after its entry into force and every five years thereafter, provided information requiring such a review has been made available by Parties. The review shall be undertaken in the context of the assessment and review of the Protocol as specified in Article 35 of the Protocol, unless otherwise decided by the Parties to this Supplementary Protocol. The first review shall include a review of the effectiveness of Articles 10 and 12.”

19. As of 10 January 2022, fourth national reports had been received from 44 of the 49 Parties (90 per cent) to the Supplementary Protocol. Of these, 27 Parties (61 per cent) reported having fully introduced the necessary measures for the implementation of the Supplementary Protocol, 7 Parties

⁴ Available for download in [Arabic](#), [Chinese](#), [English](#), [French](#), [Russian](#) or [Spanish](#).

⁵ Notification [2021-083](#) of 9 December 2021.

⁶ Documents [CBD/SBI/3/3](#) and [CBD/SBI/3/3/Add.1](#) on the fourth assessment and review of the effectiveness of the Cartagena Protocol and the final evaluation of the Strategic Plan for the Cartagena Protocol on Biosafety for the period 2011-2020 also include an analysis of information from fourth national reports relevant to the indicators of the Strategic Plan concerning liability and redress.

(16 per cent) reported that national measures were partially in place, 5 Parties (11 per cent) reported that only draft measures existed and another 5 Parties (11 per cent) reported that no measures had yet been taken (question 171).⁷

20. Thirty-nine Parties to the Supplementary Protocol reported on which instruments were in place for the implementation of the Supplementary Protocol (question 172). Of these, 28 Parties (72 per cent) reported having one or more national laws, another 8 Parties (21 per cent) reported having one or more national regulations and 3 Parties (8 per cent) reported having no instruments in place.

21. Out of the 44 Parties to the Supplementary Protocol that submitted a fourth national report, 35 Parties (80 per cent) reported having administrative or legal instruments that required response measures to be taken in case of damage resulting from living modified organisms (LMOs) (question 173 (a)) and the same number of Parties reported that this was also the case if there was sufficient likelihood that damage would result if response measures were not taken (questions 173 (b)).

22. Among the 35 Parties to the Supplementary Protocol that reported having administrative or legal instruments that required response measures to be taken in case of damage resulting from LMOs, all but one also reported that these instruments also required the operator to take response measures to avoid damage (question 175).

23. Parties to the Supplementary Protocol that reported that they had administrative or legal instruments in place that required response measures to be taken in case of damage resulting from LMOs or if there was sufficient likelihood that damage would result if response measures were not taken (a total of 36 Parties)⁸ were also invited to report on whether the instruments in question provided for a definition of the term “operator” (question 176). Thirty-one of these Parties (86 per cent) answered in the affirmative while 5 Parties (14 per cent) reported that their instruments did not provide for a definition of the “operator”. Those who responded “yes” to question 176 were requested to specify what definition(s) of “operator” were provided for in these instruments (question 177). All options suggested in the reporting format (permit holder, person who placed the LMO on the market, developer, producer, notifier, exporter, importer, carrier and supplier) were selected in similar proportions by these Parties.

24. Thirty-five Parties to the Supplementary Protocol reported on the requirements imposed on the operator through the administrative and legal instruments (question 174). Of these, 28 Parties (80 per cent) reported that their administrative or legal instruments required the operator to inform the competent authority of the damage, evaluate the damage and take the necessary response measures, 3 Parties (9 per cent) reported that the operator was required to inform the competent authority and to take response measures, while 3 Parties (9 per cent) only required the operator to inform the competent authority. One Party (3 per cent) reported that the operator was subject to other requirements.

25. With regard to identifying a competent authority for carrying out the functions set out in the Supplementary Protocol, 38 Parties to the Supplementary Protocol of the 44 that submitted their fourth national report (86 per cent) reported having identified a relevant competent authority, while 6 Parties (14 per cent) reported that they had not identified a competent authority (question 178). Among the Parties that reported having identified a competent authority for carrying out the functions set out in the Supplementary Protocol, 30 Parties (79 per cent) also indicated that the measures that the competent authority may take included identifying the operator that caused the damage, evaluating the damage, determining the response measures to be taken by the operator, implementing the response measures, and recovering any associated costs and expenses related to these actions from the operator. The remaining 8 Parties (21 per cent) reported that some, but not all, of these measures could be taken by the competent authority (question 179).

⁷ Due to rounding, the sum of percentages does not always equal 100 in this section.

⁸ The group of Parties responding affirmatively to question 173 (a) was not the same group of Parties that responded affirmatively to question 173 (b), resulting in a total of 36 Parties responding affirmatively to either of these two questions.

26. Thirteen Parties to the Supplementary Protocol (30 per cent) indicated that they had measures in place to provide for financial security for damage resulting from LMOs (question 180). Among these Parties, the requirement to provide evidence of a secure source of funding was found to be the most frequent type of financial security measure in place (selected by 10 Parties), followed by mandatory insurance (selected by 6 Parties), government schemes, including funds (selected by 5 Parties) and other types of measures (selected by 2 Parties) (question 181).⁹

27. Forty-two Parties to the Supplementary Protocol reported on whether they had rules and procedures on civil liability that addressed damage resulting from LMOs, or whether such damage had been recognized in court rulings (question 182). Of these, 24 Parties (57 per cent) indicated that civil liability for damage from LMOs had been recognized in court rulings or legal instruments. Of the 24 Parties, 12 Parties indicated that such rules and procedures were provided in a civil liability instrument only, 4 Parties indicated that damage resulting from LMOs had only been recognized in court rulings and 2 Parties indicated that the relevant rules and procedures were reflected in other instruments only. One Party reported that rules and procedures on civil liability that addressed damage resulting from LMOs were provided in a civil liability instrument and also in other instruments, and an additional 5 Parties reported that such rules and procedures were provided in a civil liability instrument and had also been recognized in court rulings.

28. Based on the high number of fourth national reports received from Parties to the Supplementary Protocol, it can be concluded that most Parties to the Supplementary Protocol have taken measures for its implementation, usually through laws or in regulations. More than three quarters of the Parties to the Supplementary Protocol require response measures to be taken in case of damage and if there is sufficient likelihood of damage resulting from living modified organisms. Similarly, more than three quarters of Parties to the Supplementary Protocol have designated competent authorities and set out the measures competent authorities may take, and have assigned responsibilities to operators. These rates are encouraging, especially considering the relatively recent entry into force of the Supplementary Protocol. In addition, some Parties have introduced requirements relating to financial security and half of the Parties report that civil liability for damage from LMOs has been recognized in court rulings or legal instruments.

VI. SUGGESTED ELEMENTS OF A DRAFT DECISION

28. Taking into consideration the information above, the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol may wish to adopt a decision along the following lines:

*The Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety and further serving as the meeting of the Parties to the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress*¹⁰

1. *Welcomes* the additional instruments of ratification, acceptance, approval or accession to the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety that have been deposited and *urges* all Parties to the Cartagena Protocol on Biosafety that have not yet done so to deposit their instrument of ratification, acceptance, approval or accession to the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress as soon as possible;

2. *Also welcomes* the progress made by many Parties in the implementation of the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress and *urges* Parties to the Supplementary Protocol to take the further necessary steps for its full and effective implementation;

⁹ Parties were invited to select all types of measures that apply to their situation. Several options may have been selected by each Party and therefore, the cumulative total of the responses is not equivalent to the number of Parties that reported on this question (13 Parties).

¹⁰ In accordance with Article 14, paragraph 1, of the Supplementary Protocol and subject to paragraph 2 of Article 32 of the Convention, the Conference of the Parties serving as the meeting of the Parties to the Protocol shall serve as the meeting of the Parties to the Supplementary Protocol. Consequently, the present decision has been taken by Parties to the Supplementary Protocol.

3. *Underlines* the importance of awareness-raising and capacity-building activities to support further ratifications and implementation of the Supplementary Protocol as recognized in decision CP-10/-- on the fourth assessment and review of the Cartagena Protocol;

4. *Welcomes* the goal on the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress in the implementation plan for the Cartagena Protocol and the related activities in the capacity-building action plan;

5. *Reminds* Parties to the Supplementary Protocol to designate a competent authority to perform the functions set out in Article 5 of the Supplementary Protocol and to publish information on these competent authorities using the common format available for this purpose in the Biosafety Clearing-House;

6. *Welcomes* the study on financial security mechanisms (Article 10 of the Nagoya – Kuala Lumpur Supplementary Protocol);¹¹

7. *Requests* Parties to the Supplementary Protocol and *invites* other Governments to submit information to the Executive Secretary on the measures they have in place to provide for financial security for damage from living modified organisms, in particular where they have reported having such measures in place in their fourth national reports;

8. *Requests* the Executive Secretary to compile the information submitted further to paragraph 7 and submit it for consideration by the Conference of the Parties serving as the meeting of the Parties to the Protocol at its eleventh meeting;

9. *Welcomes* the inclusion of questions on the Supplementary Protocol in the format for the fifth national report, as agreed to in decision CP-10/--, and *requests* Parties to the Supplementary Protocol and *invites* other Governments to respond to these questions;

10. *Recalls* Article 13 of the Nagoya Kuala Lumpur Supplementary Protocol on Liability and Redress and *decides* that the first assessment and review of the effectiveness of the Supplementary Protocol shall be undertaken in the context of the fifth assessment and review of the effectiveness of the Cartagena Protocol.

¹¹ Made available in document [CBD/CP/MOP/10/INF/1](#). The executive summary of the study is available in the six official languages of the United Nations in the annex to document CBD/CP/MOP/10/9.

Annex

**STUDY ON FINANCIAL SECURITY MECHANISMS
(ARTICLE 10 OF THE NAGOYA – KUALA LUMPUR SUPPLEMENTARY PROTOCOL ON
LIABILITY AND REDRESS)**

EXECUTIVE SUMMARY¹²

Introduction

1. Article 10, paragraph 3, of the Nagoya–Kuala Lumpur Supplementary Protocol on Liability and Redress provides that the first meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol (COP-MOP) after the entry into force of the Supplementary Protocol shall request the Secretariat to undertake a comprehensive study, which shall address, inter alia:

- (a) The modalities of financial security mechanisms;
- (b) An assessment of the environmental, economic and social impacts of such mechanisms, in particular on developing countries;
- (c) An identification of the appropriate entities to provide financial security.

2. The Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol gave effect to this provision in its decision CP-9/15, and this study was commissioned in response. The research for this study involved reviewing relevant literature, including reports and studies prepared during the negotiations of the Supplementary Protocol, available economic literature dealing with the various types of financial security available, and literature outlining existing financial security mechanisms established for environmental damage (other than damage from living modified organisms (LMOs)). The literature and examples directly addressing financial security for damage to biodiversity as defined in the Supplementary Protocol is relatively limited; however, examples from other areas are presented to help illustrate the points described.

3. Financial security can be seen as a mechanism to protect against financial risk. Financial security mechanisms aim at ensuring the availability of resources to redress damage. They can help protect biodiversity by ensuring that resources are available to take the necessary restorative measures and, in some cases, can also create incentives for preventing damage to biodiversity from occurring in the first place.

4. First party financial security provides cover to an individual or company that is exposed to a particular risk of damage – it is the potential victim of the damage who seeks financial security. Third party financial security serves those who are liable for damage and provides them with the means to compensate victims (the “third party”).

Types of financial security mechanisms and economic, social and environmental impacts

5. Different types of financial security mechanisms are described in this study, including their modalities of operation and the entities that can provide financial security. This study explores the suitability of these mechanisms to cover damage to biodiversity caused by LMOs and assesses the economic, environmental and social impacts of these mechanisms, in particular on developing countries. It highlights some key characteristics of these mechanisms, including how they create incentives for prevention, their operational and administrative costs, and the moment at which contributions are due (ex ante or ex post).

6. *Insurance* can provide financial security for many risks. Insurance guarantees that compensation is available for response measures if damage were to occur. One of the advantages of insurance is that the cost of the risk, which is expressed through the insurance premium, is foreseeable and can be integrated in production costs. However, as it relates to insurance for damage to biodiversity caused by LMOs, insurers would face difficulty calculating an actuarially fair premium, given the lack of sufficient data about the

¹² From CBD/CP/MOP/10/INF/1, Executive Summary.

probability and potential magnitude of damage. This uncertainty causes insurer ambiguity, which may lead to uninsurability or to unaffordability of premiums. Insurance also generally requires large numbers of insured among whom the risk is spread and from whom premiums are collected.

7. Insurance requires payment of a premium *ex ante* and involves administrative costs; therefore, it is generally considered costly. The payment of an insurance premium could, in principle, lead to an increase in the prices of products deriving from LMOs, which could have negative economic and social effects. One of the social effects of insurance is that it is fairer if those creating the risks are the ones required to pay for the insurance, which can be achieved through third party insurance. In the absence of a large insurance market for certain products, premiums may be high to account for insurer ambiguity and because of lack of competition. Through risk differentiation, insurers can adapt policies and premiums to incentivize prudent behaviour and to address moral hazard (that is, the tendency of an insured individual to increase the risk as the individual himself is no longer exposed to the risk), which can help to prevent negative environmental impacts. Monitoring and control by the insurance company also helps address moral hazard. Issues related to monitoring, governance and enforcement of insurance mechanisms may be particularly challenging in developing countries.

8. Insurance facilitates the availability of compensation for the costs of response measures. Coverage must be sufficient for the environmental benefit to be optimal. Ideally, for facilitating restoration, those who incur costs for taking response measures have a direct action on the insurer to claim the insurance proceeds.

9. *Self-insurance* provides a mechanism through which operators can cover damage claims with their own assets. Self-insurance can be an attractive model for operators, as costs generally arise only when damage occurs, while the operation and establishment of the self-insurance mechanism itself requires modest resources. Self-insurance provides an incentive for prevention, as the operator would save costs as long as damage did not occur.

10. Self-insurance can only be considered an effective means of financial security if guarantees can be provided that sufficient funds are available, even in case of insolvency, to avoid negative environmental impacts. This requires some level of external control and monitoring.

11. In case of insolvency of the operator, the assets set aside to cover damage may no longer be available, and the costs associated with the damage may have to borne by other operators or society at large, leading to unfair distribution of losses. Since self-insurance requires large assets, it is an instrument suitable for larger players in the supply chain. Consequently, smaller operators may have to resort to other financial security mechanisms, which may be more expensive, creating competition disparities. Even for larger entities in developing countries, self-insurance may not be available if systems for assessing or reviewing the solvency of operators and monitoring self-insurance guarantees are not available. Self-insurance provides strong incentives for preventing damage, as the operator is not able to shift the risk to a third party and, therefore, no moral hazard risk emerges. However, environmental problems can arise if self-insurance results in insufficient compensation in case damage to biodiversity occurs.

12. *Risk pooling* involves the sharing of losses or risk among operators through a risk-sharing agreement. In the absence of damage, no substantial contributions are paid under such arrangements, as administrative costs are usually low and risk pooling allows for *ex post* payments of premiums. A risk-pooling agreement does not require actuarial information *ex ante* on the probability of an accident and the scope of the damage, as no *ex ante* premium has to be fixed.

13. Risk-pooling arrangements generally require homogeneity and a limited number of participants. They are suitable for situations in which operators are better placed to gauge the risk of their activity than external insurers, for example for highly technical, complicated or new risks.

14. Risk-pooling arrangements allow operators to differentiate the contribution of each member according to the risk associated with the activity and the preventive measures taken by each of them. Risk pooling creates incentives for mutual monitoring, as a bad risk member can increase the likelihood of damage and the need for compensation by the pool. For risk pooling to be effective, the scheme must be set

up to include coverage for LMO-related damage to biodiversity, provide sufficient cover and ideally allow for direct claims to be made to access the funds. Risk pools can be established in developing countries among sufficiently homogenous groups of members with the financial capacity to cover LMO-related damage to biodiversity, or else global risk-sharing arrangements funded by a small group of large members can be set up that would cover LMO-related damage to biodiversity occurring in developing countries.

15. Pools need to be built in such a way as to allow monitoring among the members. Where monitoring is effective, risk-pooling leads to a fair distribution of costs as cross-subsidization or free-riding can be excluded through mutual monitoring. Exclusion of members can be problematic, however, if no other financial security mechanisms are available for those not who are able to participate in the pool. Insufficiency of cover may be an issue where pools are made up of smaller operators or small numbers of operators. As all members in the pool become collectively liable to contribute when the risk materializes, risk pools provide good incentives for mutual monitoring and preventing damage.

16. A *compensation fund* is a mechanism that directly compensates a particular victim for losses. A compensation fund usually requires State intervention at the national or intergovernmental level to regulate its financing (either through contributions by risk creators or through general taxation), which is based on ex ante payments. A compensation fund can ensure payment when there is no liable party (e.g. in case of natural disasters), when the liable party is insolvent, or when a liable party cannot be identified. Compensation funds are often used in combination with other financial security mechanisms and could provide basic coverage or could be established to supplement other types of financial security. The administration of a fund can be adjusted to specific needs which may reduce barriers for claimants.

17. Administrative costs of funds can be relatively large. If contributions are collected through general taxes, incentives for prevention are low, while the incentive for prevention would be higher if contributions are collected from the operators creating the risk. Funds often have standardized and simplified procedures that facilitate the submission and consideration of claims. Compensation is often based on a fixed lump-sum payment, which may be insufficient to cover the damage but can, on the other hand, expedite access to the redress. The impacts of a compensation fund on developing countries may depend on the characteristics of the fund – a national-level fund may be complex to establish and administer. If funds effectively apply a mechanism of risk differentiation, incentives to prevent damage can be created.

18. The study includes examples of financial security mechanisms that combine various characteristics of different mechanisms (hybrid mechanisms) that provide the flexibility needed for particular sectors. Some mechanisms are multi-layered combining different elements of various mechanisms.

Conclusions

19. The Supplementary Protocol focuses on damage to biodiversity from LMOs, which poses a number of challenges for financial security mechanisms. One issue is the high uncertainty with respect to the probability of an incident and the potential scope of the damage. A further challenge is that first party financial security mechanisms do not seem to fit very well with the concept of damage to biodiversity as biodiversity is not generally attributed to or owned by an individual. Consequently, third party financial security mechanisms would seem to be more suitable.

20. The study identified possible providers of financial security for LMO-related damage to biodiversity in the light of the suitability of the financial security mechanism. Given the uncertainties surrounding the type of risk (biodiversity damage), there is a high reluctance among insurers to provide cover, which makes it unlikely that insurers would be able to provide third party liability cover for LMO-related damage to biodiversity. There may be, however, other providers of financial security (for example larger operators in the supply chain) who might be willing to provide financial security either via self-insurance or via a risk-sharing agreement.

21. In that respect, Governments could play a facilitative role to promote financial security, including by creating the enabling conditions for the development of a variety of financial security mechanisms.

Moreover, it would be beneficial that information is shared on existing financial security mechanisms for damage to biodiversity.

22. The study showed that, in a number of developing countries, experience with financial security mechanisms exists, including such informal mechanisms as de facto self-insurance as well as risk-pooling among farmers. The administrative, regulatory and institutional challenges that many developing countries face would likely exacerbate the general difficulty to develop financial security mechanisms to cover damage to biodiversity caused by LMOs. International practice shows, however, that, with adequate regulatory support, transboundary financial security mechanisms can be developed in which operators in developing countries could also participate.

23. Further exploration of this topic would benefit from an exchange of information on the availability of financial security for damage to biodiversity.
