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Ninth meeting

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Item 5.2 of the provisional agenda*

**INCENTIVE MEASURES: PROPOSALS FOR THE APPLICATION OF WAYS AND MEANS
TO REMOVE OR MITIGATE PERVERSE INCENTIVES**

***Report of the Workshop on Incentive Measures for the Conservation and Sustainable Use of the
components of Biological Diversity***

Note by the Executive Secretary

The Executive Secretary is circulating herewith, for the information of participants in the ninth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, the report of the Workshop on Incentive Measures for the Conservation and Sustainable Use of the components of Biological Diversity, which was held in Montreal from 3 to 5 June 2003, with financial support from the Government of the Netherlands, in response to decision VI/15 of the Conference of the Parties to the Convention on Biological Diversity. The report was originally issued under the symbol UNEP/CBD/WS-Incentives/2/3.

* UNEP/CBD/SBSTTA/9/1.

REPORT OF THE WORKSHOP ON INCENTIVE MEASURES FOR THE CONSERVATION AND SUSTAINABLE USE OF THE COMPONENTS OF BIOLOGICAL DIVERSITY

INTRODUCTION

A. Background

1. The Workshop on Incentive Measures for the Conservation and Sustainable Use of the Components of Biological Diversity was held in Montreal from 3 to 5 June 2003, with financial support from the Government of the Netherlands, in response to decision VI/15 of the Conference of the Parties to the Convention on Biological Diversity on incentive measures. In paragraph 4 of that decision, adopted at its sixth session, in April 2002, the Conference of the Parties recognized “that further work has to be undertaken on positive incentives and their performance, as well as on perverse incentives and ways and means for their removal or mitigation”.

2. In paragraph 7 of the same decision, the Conference of the Parties requested the Executive Secretary, in collaboration with relevant organizations, “to elaborate proposals for the application of ways and means to remove or mitigate perverse incentives, for consideration by the ninth meeting Subsidiary Body for Scientific, Technical and Technological Advice prior to the seventh meeting of the Conference of the Parties”.

3. The purpose of the Workshop was to elaborate, for the consideration of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) at its ninth meeting and the Conference of the Parties at its seventh meeting, proposals for the application of ways and means to remove or mitigate perverse incentives as contemplated in decision VI/15, paragraph 7, and for future cooperation to assist Parties in the design and implementation of incentive measures.

B. Attendance

4. Participants in the Workshop were selected from among government-nominated experts from each geographic region with a view to achieving a balanced regional distribution. In addition, representatives of competent intergovernmental organizations were invited to participate as observers.

5. The Workshop was attended by experts nominated by the following Governments: Antigua and Barbuda, Austria, Barbados, Canada, Colombia, Cuba, Egypt, France, Latvia, Mexico, Mozambique, Netherlands, Pakistan, Poland, Senegal, Sri Lanka, Sudan, Ukraine and United Republic of Tanzania.

6. Representatives of the following intergovernmental organizations participated in the Workshop as observers: Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on Wetlands of International Importance, especially as Waterfowl Habitat (Ramsar, Iran, 1971), Food and Agriculture Organization of the United Nations (FAO), North American Commission for Environmental Cooperation (NACEC), Organisation for Economic Co-operation and Development (OECD), World Conservation Union-IUCN, World Bank.

ITEM 1. OPENING OF THE MEETING

7. The Workshop was opened by Mr. Hamdallah Zedan, Executive Secretary of the Convention on Biological Diversity, at 10 a.m. on Tuesday, 3 June 2003.

8. Mr. Zedan expressed his gratitude to the Government of the Netherlands for its financial support, which had made it possible to hold the meeting. He recalled that Article 11 of the Convention on Biological Diversity emphasized the importance of adopting economically and socially sound measures

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acting as incentives for the conservation and sustainable use of biodiversity. The main purpose of the Workshop was to elaborate proposals for the application of ways and means to remove or mitigate perverse incentives, as called for in paragraph 7 of decision VI/15 of the Conference of the Parties. Such proposals could include recommendations on measures to be taken by Parties as well as recommendations regarding how international institutions could assist Parties in removing or mitigating perverse incentives. The report of the Workshop would be submitted for the consideration of SBSTTA at its ninth meeting, in November 2003, which in turn would make recommendations to the seventh meeting of the Conference of the Parties. Hence, participants in the Workshop had a unique opportunity to give shape to the future work on incentive measures in the framework of the Convention.

ITEM 2. ORGANIZATIONAL MATTERS

2.1. Officers

9. At the opening session of the Workshop, on 3 June 2003, participants elected Dr. Theo van Bellegem (Netherlands) as Chair.

2.2. Adoption of the agenda

10. The Workshop adopted the following agenda on the basis of the provisional agenda that had been circulated as document UNEP/CBD/WS-Incentives/2/1:

1. Opening of the meeting.
2. Organizational matters:
 - 2.1. Election of officers;
 - 2.2. Adoption of the agenda;
 - 2.3. Organization of work.
3. Elaboration of proposals for the application of ways and means to remove or mitigate perverse incentives.
4. Recommendations for the further implementation of the programme of work on incentive measures.
5. Other matters.
6. Adoption of the report.
7. Closure of the meeting.

2.3. Organization of work

11. At its opening session, the Workshop decided to work in plenary throughout the meeting. During the first working session of the meeting, the representatives of FAO and OECD gave presentations on ongoing work on perverse incentives in their respective organizations. Statements were also made by the representatives of CITES and the World Bank to brief participants on ongoing work on incentive measures in their respective organizations.

ITEM 3. ELABORATION OF PROPOSALS FOR THE APPLICATION OF WAYS AND MEANS TO REMOVE OR MITIGATE PERVERSE INCENTIVES

12. The Workshop considered agenda item 3 over the course of four working sessions on 3 and 4 June 2003. In addressing the item, the Workshop had before it a note by the Executive Secretary on elaboration of proposals for the application of ways and means to remove or mitigate perverse incentives (UNEP/CBD/WS-Incentives/2/2) and perverse incentives in selected economic sectors (UNEP/CBD/WS-Incentives/2/INF/1).

13. Introducing the item, the representative of the Secretariat said that the note on elaboration of proposals for the application of ways and means to remove or mitigate perverse incentives (UNEP/CBD/WS-Incentives/2/2) provided a framework that the Workshop might wish to use as a basis for its work. On 3 June, participants reviewed the background information provided in the notes of the Executive Secretary and agreed on the general direction of their work.

14. On 4 June, participants discussed the draft proposals for the application of ways and means to remove or mitigate perverse incentives contained in the note by the Executive Secretary (UNEP/CBD/WS-Incentives/2/2). The proposals as amended pursuant to the work of the group are set out in annex II below.

ITEM 4. RECOMMENDATIONS FOR FURTHER IMPLEMENTATION OF THE PROGRAMME OF WORK ON INCENTIVE MEASURES

15. The Workshop took up agenda item 4 at its fifth session, on 5 June 2003. In addressing the item, the Workshop had before it the recommendations set out in the note by the Executive Secretary. Experts formulated a number of recommendations to the Subsidiary Body for Scientific, Technical and Technological Advice as set out in annex I below.

ITEM 5. OTHER MATTERS

16. Participants expressed their appreciation to the Government of the Netherlands for its support for the meeting.

ITEM 6. ADOPTION OF THE REPORT

17. The present report was adopted at the fifth session of the Workshop, on 5 June 2003.

ITEM 7. CLOSURE OF THE MEETING

18. Following the customary exchange of courtesies, the Workshop was closed at 1 p.m. on Thursday, 5 June 2003.

*Annex I***RECOMMENDATIONS FOR FURTHER IMPLEMENTATION OF THE PROGRAMME OF WORK ON INCENTIVE MEASURES**

The Workshop on Incentive Measures for the Conservation and Sustainable Use of the Components of Biological Diversity,

Recognizing that the removal of policies or practices that create perverse incentives for the conservation and sustainable use of biological diversity, or the mitigation of these perverse incentives, is a crucial element in national and global strategies to halt and reverse the degradation of biodiversity,

Noting with appreciation that the recent elaboration of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity also call for the removal or mitigation of policies, laws and regulations that generate perverse incentives,

Underlining the need for further policy guidance on this issue, in particular with regard to the application of ways and means to remove or mitigate perverse incentives,

1. *Has elaborated* proposals for the application of ways and means to remove or mitigate perverse incentives (referred to as “proposals” hereafter) to provide a general framework to address the removal or mitigation of perverse incentives in different economic sectors and ecosystems;

2. *Recommends* that the Subsidiary Body for Scientific, Technical and Technological Advice should recommend that the Conference of the Parties:

(a) Endorse the proposals for the application of ways and means to remove or mitigate perverse incentives contained in annex II;

(b) Integrate the implementation of the proposals attached to the report of the Workshop into the thematic programmes of work of the Convention, and that the experiences gained in the implementation of the thematic programmes of work on the removal or mitigation of perverse incentives should feed into the further elaboration of the proposals;

(c) Request the Executive Secretary to disseminate the proposals to other relevant international organizations and processes addressing the removal or mitigation of perverse incentives, as well as to other biodiversity-related conventions, and invite these entities to further cooperate with the Convention on Biological Diversity on removing or mitigating perverse incentives;

(d) Invite competent international organizations and agencies to provide technical and financial support to the efforts of Parties and governments to apply these proposals with a view to removing or mitigating perverse incentives;

(e) Urge Parties and governments to use these proposals for guidance in their efforts to identify and remove or mitigate policies or practices that generate perverse incentives, and to extend their efforts to an examination of new policies with a view to identifying and avoiding potential perverse incentives;

(f) Invite Parties and Governments to use these proposals as further guidance in implementing the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity and, in particular, principles 2 and 3 which address incentive measures;

(g) Invite Parties, Governments and relevant organizations to submit any information on the removal or mitigation of perverse incentives, including case-studies and best practices on the application of ways and means as well as their experiences with the application of the proposals, to the Executive Secretary for dissemination through the clearing-house mechanism;

(h) Decide that the progress made by Parties in removing or mitigating perverse incentives should be included in their national reports prepared in accordance with Article 26 of the Convention.

*Annex II***DRAFT PROPOSALS FOR THE APPLICATION OF WAYS AND MEANS TO REMOVE OR MITIGATE PERVERSE INCENTIVES****A. General considerations**

1. For the purpose of these indicative guidelines, the term *policy* shall refer to a system of strategies, plans and programmes that spell out, *inter alia*, operational targets, and a related set of legal, administrative and/or economic tools that are implemented by national, sub-national and local governments to attain a set of underlying objectives. The term *practice* shall refer to any activity undertaken by individuals, communities, companies and organizations that is based on customary law, social norms or cultural traditions.

2. A *perverse incentive* emanates from policies or practices that encourage, either directly or indirectly, resource uses leading to the degradation of biological diversity. The removal of such policies or practices or the mitigation of their perverse effects is therefore an important element in promoting the conservation and sustainable use of biological diversity.

3. Three phases are suggested in the process of removing such policies or practices or in mitigating their perverse effects on biological diversity, all of which should be implemented with stakeholder participation:

- (a) The identification of policies or practices that generate perverse incentives and their impacts;
- (b) The design and implementation of appropriate reforms;
- (c) The monitoring, enforcement and evaluation of these reforms.

4. The following sections provide indicative guidance, corresponding to these three phases on the application of ways and means to remove policies or practices generating perverse incentives.

B. Identification of policies or practices that generate perverse incentives*1. Principles for identifying policies and practices that generate perverse incentives*

5. *Review of policies and practices.* Not every single policy measure and, in particular, not every incentive measure, leads to adverse effects for biodiversity. A thorough study, critical review and evaluation of policies and practices potentially contributing to biodiversity loss, including the assessment of their impact on biodiversity as well as their effectiveness and efficiency, is therefore essential to identify properly and comprehensively any specific policies or practices and their interaction that are responsible for such decline. Indicator systems are an important means to inform such an analysis. Parties and governments should engage in the further development of such systems.

6. *Interaction between policies and practices, and with other root causes.* The study should take fully into account that the loss of biodiversity may be caused by a complex interaction of several root factors. Consequently, the identification of perverse incentives resulting from specific policies and practices is often difficult, as their extent may crucially depend on the design and degree of implementation and enforcement of other policies, and on other socio-economic root causes. The removal or mitigation of such policies and practices, although necessary, may not be sufficient to halt the loss of

biodiversity if other macro-economic and sectoral policies and key socio-economic reasons remain unchanged.

7. *Identification of perverse practices.* Special analytical care is needed if practices are to be held accountable for any adverse impacts on biological diversity. Such practices are difficult to change as they are rooted in cultural traditions or customary law, which may have wider social values. Furthermore, perverse incentives may often be explained by an economically rational response to ill-adapted policies. The analysis should determine whether the promotion of cultural adaptation is appropriate or whether the reform of policies, or a combination of both, provides better opportunities for an effective policy intervention.

8. *Scope of perverse incentives.* In some instances, policies and practices may generate perverse incentives only under specific local conditions and socio-economic circumstances, while they may prove to be neutral or even favourable for biological diversity under other conditions and circumstances. The study should therefore seek to identify and quantify, whenever feasible and appropriate, the *scope* and *extent* to which such policies and practices adversely affect biodiversity, as this information is important for prioritization and for choosing the appropriate policy response.

9. *Differentiation of policy objectives, operational targets, and tools.* Policies that induce unsustainable behaviour are often designed to attain legitimate objectives. Biodiversity decline usually comes as an un-anticipated side-effect of such policies. In particular, subsidies have often been introduced for good and sound purposes. However, the operational targets of the policy and the tools that are used to attain these targets are not always appropriate to meet the proclaimed objectives. Furthermore, the policy objectives, even while initially good and sound, may no longer be valid. Once a specific policy is identified in generating perverse incentives, further analytical work should therefore differentiate the underlying objectives, operational targets and the specific policy tools used, in order to identify the appropriate entry point for policy reform.

10. *Identification of all relevant costs and benefits and their distribution.* The identification of all relevant costs and benefits from removing or mitigating policies or practices that generate perverse incentive as well as their distribution within society and the economy is key for a well-informed policy choice. Hence, the assessment should not only include the direct, tangible costs and benefits, but also the intangible costs and benefits for society as a whole. The use of appropriate valuation tools should be considered if feasible. Furthermore, when assessing the merits of mitigation policies, the following cost components should also be taken into consideration: compliance costs, monitoring and enforcement costs, administrative costs and costs of change management.

11. *Identification of obstacles for policy reform.* The following elements should also be identified, as they are crucial for the design of implementable policy responses:

(a) Relevant obstacles for the removal of policies and practices generating perverse incentives, such as distributional issues, property rights, entrenched interests, cultural traditions, international considerations;

(b) Relevant obstacles for the implementation of policies that mitigate such perverse incentives, such as international obligations, lack of funds or lack of administrative and/or institutional capacity.

12. *Periodic policy evaluations.* The lack of evaluation of policy efficacy and efficiency contributes to the persistence of policies that create perverse incentives and do not assist in achieving what may still be legitimate policy objectives. Periodic quantitative policy evaluation, which includes biodiversity impacts, is desirable for various reasons: it provides criteria for the selection of the most desirable policy

reform interventions, it assists in the identification of relevant stakeholders (winners and losers), creates political and evidentiary support for change of ineffective and perverse incentives, gives an indication of policy alternatives and provides an indication of the cost of removal of the perverse incentives. The establishment of periodic quantitative evaluation of the effectiveness of policy instruments and an assessment of any perverse incentives created by them would enable the development of win-win policy reforms. International organizations are highly requested to cooperate in this effort.

13. *Prioritization.* The analysis should enable prioritization of subsequent reforms to remove or mitigate perverse incentives, that is, it should enable to spell out which reforms to take up first, and which ones to take up later. Such a prioritization exercise should be based on a set of criteria, including the feasibility and ease of policy reform, the importance and extent of biodiversity degradation, and socio-economic concerns.

2. *Ways and means to identify policies and practices that generate perverse incentives*

14. *Strategic environmental assessment.* Elements of strategic environmental assessment (SEA) procedures could be used, if appropriate, as a means to identify policies and practices that generate perverse incentives. In this regard, the Guidelines for Incorporating Biodiversity-related Issues into Environmental Impact Assessment Legislation and/or Processes and in Strategic Environmental Assessment (decision VI/7, annex) could be taken into consideration. While mainly used for *proposed* policies, SEA procedures provide useful guidance on how to design and conduct research to identify perverse incentives for biodiversity conservation and sustainable use that emanate from *existing* policies. In particular, the following steps emerge as possible means of assessing policies and practices with regard to potential perverse incentives:

(a) Screening to determine which policies or practices require full or partial study with regard to possible perverse incentives;

(b) Scoping to identify which potential impacts on biological diversity are relevant to address, and to derive terms of reference for the actual study;

(c) The actual study to identify the perverse incentives for biodiversity conservation and sustainable use emanating from policies and practices, taking into account those impacts that result from the interaction of different policies and practices;

(d) The identification of possible action to remove or mitigate perverse incentives;

(e) The identification of possible reform obstacles;

(f) Pursuant to the design and implementation of reform policies, monitoring and evaluating the implementation of such reform policies, to ensure that unpredicted outcomes and failed mitigation measures are identified and addressed in a timely fashion.

15. *Stakeholder involvement.* The involvement of all stakeholders is an important element in identifying policies or practices that generate perverse incentives. The direct benefits of policies often go to well organized societal actors, while the costs of these policies, e.g., the loss of ecosystem services due to biodiversity decline, are borne by the wider public or by diffuse and/or powerless groups. Such groups, however, may be able to forward additional important information and to point to possible shortcomings in the conclusions of the assessment. It should therefore be ensured, through appropriate mechanisms of leveling the playing field for all stakeholders, that all groups are fully involved throughout the process. A balanced representation of stakeholders in the consultation will contribute to identifying properly and comprehensively both the benefits of individual policies and their possible shortcomings.

16. *Transparency.* Perverse incentives are often difficult to detect, because the negative impacts on biodiversity are usually an indirect by-product of policies aiming at other goals, and because they may result from an intricate interaction between different policies or practices. Ensuring that the process of assessing policies and practices is conducted in a transparent manner will contribute to ensure that all relevant stakeholders are well-informed about the process and its outcomes. This is an important pre-condition for effective stakeholder involvement.

17. *Capacity-building.* In developing countries and countries with economies in transition, lack of institutional and administrative capacity to design and conduct appropriate assessment studies is often a serious impediment to identifying policies and practices that generate perverse incentives. Capacity-building, supported by relevant national, regional and international organizations, is therefore an important prerequisite in successfully removing or mitigating policies and practices that generate perverse incentives. Funding should be ensured for capacity-building.

C. *Design and implementation of appropriate reforms*

1. *Guidelines for the choice of reforms*

18. *Possible political action.* The following is an indicative list of possible political action once specific policies and practices are identified as generating perverse incentives for the conservation and sustainable use of biological diversity, bearing in mind that, in some instances, several such activities need to be undertaken simultaneously, and also recalling that reforms of other macro-economic and sectoral policies may often be necessary to capture the full benefits of removing or mitigating perverse incentives and to halt the loss of biodiversity:

- (a) Removal of the policy or practice;
- (b) Removal of the policy and its replacement with another policy that attains the same objectives, but without or with fewer perverse impacts on biological diversity (re-instrumentation);
- (c) In those cases where a policy or practice has overall negative impacts but some positive impacts, removal of that policy or practice and introduction of an additional policy that seeks to maintain the positive impacts;
- (d) Removal of the policy or practice, combined with measures to overcome obstacles for policy reform;
- (e) Introduction of policies that mitigate the perverse impacts on biodiversity of policies or practices, possibly including policies that address relevant obstacles.

19. The following paragraphs provide an indicative list of conditions for the selection of political action further to the identification of policies or practices that generate perverse incentives. Some conditions make reference to costs and/or benefits. It is important to note that the policy choice should be based not only on the direct, tangible costs and benefits, but also on an assessment of the intangible costs and benefits, including, for instance, benefits emanating from ecosystems services. Furthermore, the assessment should also include components such as compliance costs, monitoring and enforcement costs, administrative costs and the costs of change management, if appropriate. Maximizing the net social benefit, taking into account distributional objectives and effects at national and global levels, is the criterion for the choice of reform policies.

20. *Removal of policies that generate perverse incentives.* The removal of policies that generate perverse incentives could be considered when the following conditions are met:

(a) The analysis may reveal that a policy generating perverse incentives was introduced under circumstances that no longer prevail. As a consequence, the policy objectives may no longer be valid. For instance, the objective of providing support to companies whose sector undergoes a period of economic crisis would no longer be valid after the recovery or the successful restructuring of this sector;

(b) In other cases, the policy objective may still be valid. The analysis may show, however, that perverse incentives would be generated under any policy to attain this objective, that is, under any operational target and policy tool chosen. In such cases, the removal of the policy should be considered if the costs for society of effective mitigation policies would be higher than the net societal benefits foregone when the policy is removed.

21. *Removal of perverse practices.* The removal of practices that generate perverse incentives should be considered if a careful analysis of their interplay with formal policies reveals that such practices are indeed the appropriate target for reform policies. Such practices are difficult and costly to remove, because of the very fact that they are rooted in cultural traditions or customary law. Their removal should be considered if the cost of promoting cultural adaptation, through for instance appropriate awareness-raising and education programmes, is lower than the cost of effective mitigation policies. Furthermore, it has to be recalled that perverse incentives, apparently caused by specific practices, may often be explained by an economically rational response to ill-adapted policies. In those cases, the reform of these policies may often provide better opportunities for an effective policy intervention.

22. *Re-instrumentation.* In many cases, the underlying policy objective may still be valid and legitimate, and the perverse incentives emanating from the policy could be substantially lowered or avoided if other operational targets and tools would be used. In such instances, the removal of the policy and its replacement by a policy with fewer or no perverse impacts should be considered. Special care should be paid to identifying and implementing those operational targets and related tools that generate the least or no adverse impact on biological diversity.

23. *Removal and introduction of policies that maintain any positive impacts.* In some cases, policies and practices may generate perverse incentives under specific local conditions and socio-economic circumstances, while they may even be favourable for biological diversity under other conditions and circumstances. In these cases, the removal of these policies and practices should still be envisaged if the overall effect on biological diversity is mainly negative. Additional, well targeted policies could be introduced to maintain the positive impacts.

24. *Removal and overcoming of obstacles.* Substantial obstacles may sometimes hinder the removal of policies and practices. Additional policies to overcome such obstacles could be introduced if the associated costs are lower than the costs of effective mitigation. The choice of the appropriate policy would clearly depend on the relevant obstacle identified:

(a) *Distributional concerns.* In some cases, the removal of policies or practices may have adverse distributional consequences. The impact of reforms on food security and poverty should be of particular concern. A step-by-step approach to the reforms could be considered. Additional well-targeted income policies could also be implemented to compensate these adverse effects;

(b) *Legal issues.* In some cases, the removal of policies may impinge on the property rights of some stakeholders. Compensation of associated losses might be required.

(c) *Entrenched interests.* In most cases, some groups or individuals will lose as a result of the removal of policies or practices. Such groups or individuals will resist such reform. Additional policy measures may be warranted to overcome their resistance. Such measures may include awareness-raising and education programmes as well as measures to increase transparency for the wider public with regard

to the adverse impact of policies and practices, thereby shifting the burden of proof to those groups opposing political reform. Compensatory policies for such stakeholders should only be considered as a last resort;

(d) *Lack of capacity.* In developing countries and countries with economies in transition, lack of institutional and administrative capacity is often a serious impediment to removing or mitigating perverse incentives. Capacity-building will be needed in these cases;

(e) *Cultural traditions.* The removal of practices generating perverse incentives is particularly difficult if they are deeply rooted in cultural beliefs, customs and traditions. Awareness-raising and education programmes can be appropriate means to overcome such obstacles;

(f) *International competitiveness.* Unilateral removal of policies that generate perverse incentives may create a risk that domestic industries lose competitiveness. Such risks become more important in a globalized world of increased international trade and capital flows. When evidence for such cases is compelling, international cooperation to remove such policies in a coordinated, synchronized way may be warranted;

(g) *Global benefits of removing perverse incentives.* In many cases, the benefits arising from a removal of policies that generate perverse incentives for the conservation and sustainable use of biodiversity are of a global nature, while the costs of removing such policies accrue at the national level. In such cases, international cooperation, including the extension of the activities of international financial compensatory mechanisms such as the Global Environment Facility (GEF), is warranted to cover the possible incremental national costs of generating global benefits.

25. *Mitigation.* If the removal of policies or practices is not feasible or too costly, the mitigation of their perverse effects on biodiversity, through appropriate means, may be warranted. More specifically, the introduction of such mitigation policies should be considered if

(a) The cost for society of removing policies and practices, including foregone benefits, would be higher than the cost of effective mitigation policies;

(b) The cost for society of replacing the policy by a policy serving the same objective with less of no perverse impacts would be higher than the cost of effective mitigation policies;

(c) The cost for society of overcoming obstacles to the removal of policies and practices are higher than the cost of effective mitigation policies.

2. *Ways and means to remove or mitigate perverse incentives*

(a) *Important tools for removal and mitigation*

26. *National guidelines.* Guidelines that are adopted by competent national authorities will be an important indirect means to effectively remove or mitigate perverse incentives. Guidelines that are well adapted to national needs and circumstances may serve to structure and inform the national process of identifying as well as removing or mitigating policies and practices that generate perverse incentives. If made publicly available, they may serve as a benchmark against which the general public can gauge the effectiveness of the reform process.

27. *Stakeholder involvement.* The removal of policies or practices that generate perverse incentives is often opposed by influential groups or individuals that profit from these policies or practices. Even when it is not the stated objective of a policy to support such groups or individuals, its removal may be at risk

because of their influence. In contrast, the costs of these policies, e.g., the loss of ecosystem services due to biodiversity decline, are borne by the wider public or by diffuse and/or powerless groups. The empowerment and involvement of such groups during the design and implementation phase, through appropriate mechanisms of leveling the playing field for all stakeholders, is therefore another important means to ensure that appropriate policy responses are implemented.

28. *Awareness-raising and education programmes.* The very fact that practices that generate perverse incentives are rooted in customary law, social norms or cultural traditions implies that considerable obstacles exist to their removal, obstacles that are beyond the immediate reach of formal policy-making. The more indirect approach of awareness-raising and education may therefore a particularly important means in removing such practices. However, awareness-raising and education programmes will also be an important element in successfully removing policies or introducing mitigation policies, to overcome the resistance of powerful groups opposing their removal.

29. *Transparency.* Creating transparency with regard to the intermediate and final outcomes of the assessment study, that is, with regard the objectives, costs, and possible negative impacts of policies and practices will contribute to clarifying the implicit choices and priorities and will expose irresponsible policies and practices to the wider public. Transparency will therefore be an important element of a successful programme to raise awareness of these issues. As a consequence, it will also increase the political costs of irresponsible policies and generate political rewards for appropriate action.

30. *Capacity-building.* In developing countries and countries with economies in transition, lack of institutional and administrative capacity is often a serious impediment to removing or mitigating perverse incentives. While some policies that generate perverse incentives can, in principle, be easily removed, the removal of practices or the implementation of successful mitigation policies may require substantial institutional and administrative capacity. Capacity-building, supported by relevant national, regional and international organizations, is therefore a key precondition in successfully removing or mitigating policies and practices that generate perverse incentives for the conservation and sustainable use of biological diversity. Funding should be ensured for capacity-building.

31. *International cooperation.* International cooperation is a very important element in removing or mitigating perverse incentives as set out in paragraph 24 (f) and (g) above.

(b) *Ways and means for removal*

32. *Re-instrumentation.* In the case of legitimate and valid policy objectives, re-instrumentation, that is, the application of operational targets and related tools that attain the same objective with less or no adverse impacts on biological diversity, may often be a particularly effective way of removing policies that generate perverse incentives for the conservation and sustainable use of biodiversity.

33. *Compensatory policies.* The introduction of additional measures could be considered to compensate stakeholders that are negatively affected by the removal of policies that generate perverse incentives. Provided that funding is ensured, the use of compensatory policies could be considered in following cases:

(a) If the removal of policies will have an adverse effect on distributional objectives, a step-by-step approach to removing such policies could be taken, and additional, well targeted income policies could be implemented;

(b) If the removal of policies negatively affects the property rights of some stakeholders, the compensation of associated losses could also be envisaged;

(c) If the conditions spelled out under (a) and (b) above do not prevail, compensatory policies should only be used as a last resort.

(c) *Ways and means for mitigation*

34. *Regulation.* In some instances, the introduction of additional regulation may be an effective means to mitigate the perverse impacts on biodiversity, provided that a number of preconditions are met. Such preconditions include:

(a) The existence of well defined, comprehensive and measurable performance indicators;

(b) Manageable monitoring and enforcement costs;

(c) Regulations that can be designed in a comprehensive way so as to avoid adaptive behaviour of target groups, leading to secondary adverse effects on biological diversity.

35. *Overcoming obstacles to mitigation through regulation.* It should be borne in mind that the very obstacles that prevent the removal of policies may also impede the effective mitigation of their perverse effects. For instance, the incentive of target groups not to comply with the regulation may be especially high if the policy generating the perverse incentive remains in place unchanged. Therefore, awareness-raising, transparency and stakeholder involvement are important elements of effective regulatory policies to mitigate perverse incentives.

36. *Positive incentive measures.* The introduction of additional positive incentive measures is another possible means to mitigate the perverse impacts of some policies and practices. In addition to the preconditions enumerated in paragraph 34, a number of other caveats should be taken into consideration when using positive incentive measures.

(a) If policies having perverse impacts on biodiversity remain unchanged, the cost of using positive incentives for mitigating these impacts will be especially high, which, in turn, will impair the efficiency of using this instrument. Prior to using positive incentives, such policies should therefore be removed to the extent possible, through the means enumerated above;

(b) As explained in paragraph 23, policies and practices that generate perverse incentives in most circumstances may have a favorable impact on biological diversity in others. In such cases, the use of positive incentive measures could be considered to mitigate the negative effect of removing these policies and practices;

(c) The careful design of the incentive measure, including the proper specification of eligibility conditions, is especially important in the case of positive incentive measures to avoid the generation of secondary adverse effects on biological diversity;

(d) In some cases, the strategic behaviour of rational recipients will impede the long-term effectiveness of positive incentive measures. In such cases, their use should be restricted to a transitional period of time through appropriate legal means such as sunset legislation;

(e) Lack of funds may limit the use of positive incentive measures;

(f) The use of positive incentive measures may have both negative and positive distributional consequences. These consequences need to be taken into consideration when using positive incentive measures.

37. *Negative incentive measures.* The use of negative incentive measures could also be considered to mitigate the perverse impacts of some policies and practices. In addition to the preconditions enumerated in paragraph 34, political resistance will often be especially severe if negative incentive measures are to be introduced. Therefore, awareness-raising, transparency and stakeholder involvement are key elements of a successful introduction of negative incentive measures to mitigate perverse incentives.

38. *Guidance on the use of incentive measures.* Further guidance with regard to the design and implementation of incentive measures is given in the proposals for the design and implementation of incentive measures, endorsed by the Conference of the Parties to the Convention on Biological Diversity at its sixth meeting (decision VI/15, annex I).

D. Monitoring, enforcement and evaluation of reforms

39. *Stakeholder involvement.* Even after the design and implementation of reforms, relevant stakeholders should be involved in evaluation to ensure their feedback on unanticipated side-effects, failed mitigation measures and other shortcomings, and to ensure that such shortcomings are addressed in a timely fashion.

40. *Indicators and information systems.* It should be considered to introduce appropriate information systems in order to facilitate the process of monitoring and enforcing reforms. Furthermore, the development and application of sound indicators is a crucial precondition to the useful evaluation of reform policies.

41. *Success criteria for evaluation.* The evaluation of reforms should be based on a set of sound success criteria.

42. *Transparency.* Further dissemination of information can play a key role in building and maintaining public support for the reforms, and can thereby contribute to lower monitoring and enforcement costs for public authorities. Again, transparency may be a crucial precondition to ensuring effective stakeholder involvement in evaluating reforms.

43. *Capacity-building.* The ultimate success of the chosen reform is contingent upon successful monitoring, enforcement and evaluation of its impact, including unanticipated side-effects, failed mitigation measures and other shortcomings. It therefore depends on sufficient institutional and administrative capacity. Funding should be available for capacity-building.
