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**SUBSIDIARY BODY ON SCIENTIFIC,
TECHNICAL AND TECHNOLOGICAL ADVICE**Ninth meeting
Montreal, 10-14 November 2003
Item 5.2 of the provisional agenda***SUSTAINABLE USE: DEVELOPMENT OF PRACTICAL PRINCIPLES, OPERATIONAL
GUIDANCE AND ASSOCIATED INSTRUMENTS***Note by the Executive Secretary**Addendum***ELABORATION OF PROPOSALS FOR THE APPLICATION OF WAYS AND MEANS TO
REMOVE OR MITIGATE PERVERSE INCENTIVES****EXECUTIVE SUMMARY**

The present note presents proposals for the application of ways and means to remove or mitigate perverse incentives as elaborated by the second Workshop on Incentive Measures for the Conservation and Sustainable Use of Components of Biological Diversity, held in Montreal from 3 to 5 June 2003. Section I of the note provides a brief introduction to the mandate of the Workshop. Section II provides a number of proposals for the further implementation of the programme of work on incentive measures that SBSTTA may wish to consider for inclusion in its recommendation to the Conference of the Parties. These proposals address further activities pertaining to perverse incentives as well as work on positive incentives and on the assessment of the values of biodiversity; they are reflected in the suggested recommendation below. The annex of this note contains a *verbatim* reproduction of the proposals for the application of ways and means to remove or mitigate perverse incentive as elaborated by the Workshop on Incentive Measures, extracted from the report of this meeting, which is available as an information document (UNEP/CBD/SBSTTA/9/INF/10).

The proposals provide a general framework to address the removal or mitigation of perverse incentives in different economic sectors and ecosystems. They include the following sections:

(a) *General considerations*, including the use of terms and an overview of the general structure of the proposals;

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(b) *Identification of policies or practices that generate perverse incentives*, which, in its first subsection, presents a number of principles for identifying such policies and practices. Reviews of policies and practices should address: the interaction between policies and practices and other root causes; the identification of perverse practices; the scope of perverse incentives; the differentiation of policy objectives, operational targets, and tools; the identification of all relevant costs and benefits and their distribution; and the identification of obstacles for policy reform. They should enable the prioritization of subsequent reforms. The need for periodic policy evaluations is also underlined. The second subsection addresses a number of ways and means to identify policies and practices that generate perverse incentives, including: elements of strategic environmental assessments; stakeholder involvement; transparency; and capacity-building;

(c) *Design and implementation of appropriate reforms*. This section is also divided into two subsections. The subsection on guidelines for the choice of reforms spells out possible political action further to the identification of policies or practices that generate perverse incentives, and provides an indicative list of conditions for the selection of such action. The second subsection identifies a number of ways and means to remove or mitigate perverse incentives. Tools that are important both for removal and mitigation include: national guidelines; stakeholder involvement; awareness-raising and education programmes; transparency; capacity-building; and international cooperation. Ways and means for removal include re-instrumentation and compensatory policies. Ways and means for mitigation include regulation as well as positive and negative incentive measures. Important preconditions for the successful application of these ways and means are also identified;

(d) *Monitoring, enforcement and evaluation of reforms*. This section addresses a number of important elements for the effective monitoring, enforcement and evaluation of reforms, such as indicators and information systems as well as success criteria for evaluation. Moreover, stakeholder involvement, transparency and capacity-building are also identified as important elements during this stage.

SUGGESTED RECOMMENDATIONS

The Subsidiary Body on Scientific, Technical and Technological Advice may wish to consider adopting a recommendation along the following lines:

Subsidiary Body on Scientific, Technical and Technological Advice,

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,

Stressing that the draft 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,

Recognizing that new policies should also be examined with a view to identifying, and avoiding, potential perverse incentives,

Recalling the programme of work on incentive measures established in decision V/15 of the Conference of the Parties and the recognition by the Conference of the Parties at its sixth meeting that

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further work needs to be undertaken on the role of positive incentives and their performance as well as on perverse incentives and ways and means for their removal or mitigation, as reflected in decision VI/15,

Recognizing that the development and application of practical methods of assessing trends in the economic and social value of biodiversity and of demonstrating the economic and ecological consequences of biodiversity loss are essential elements in meeting the 2010 target,

Recommends that the Conference of the Parties to the Convention on Biological Diversity:

Proposals for the application of ways and means to remove or mitigate perverse incentives

(a) *Endorses* the proposals for the application of ways and means to remove or mitigate perverse incentives annexed to the present note as a general framework to address the removal or mitigation of perverse incentives in different economic sectors and ecosystems;

(b) *Decides* that the proposals should be integrated into the implementation of 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) *Requests* 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 *invites* these entities to further cooperation with the Convention on Biological Diversity on removing or mitigating perverse incentives;

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

(g) *Invites* 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) *Decides* 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;

Further implementation of the programme of work on incentive measures

(i) *Invites* Parties, Governments and international organizations to submit case-studies, best practices and other information on the use of positive incentive measures for the conservation and

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sustainable use of biodiversity and on the application of methodologies for the assessment of biodiversity values to the Executive Secretary;

(j) *Requests* the Executive Secretary to make this information available through the clearing-house mechanism and other means, if appropriate;

(k) *Requests* the Executive Secretary to prepare, in cooperation with relevant international organizations, an analysis of existing and new instruments that provide positive incentives, their interaction with other policy measures and their effectiveness, including their requirements for successful application, possible limitations and shortcomings, and to develop proposals on the application of such positive incentive measures and their integration into relevant policies, programmes or strategies, for consideration by the Subsidiary Body for Scientific, Technical and Technological Advice at a meeting prior to the eighth meeting of the Conference of the Parties;

(l) *Requests* the Executive Secretary to explore, in cooperation with relevant international organizations, existing methodologies for valuation of biodiversity and biodiversity resources by preparing a compilation of existing valuation tools, including non-market methods, that provides an overview of the discussion on their methodological status, if appropriate, as well as an assessment of their applicability in terms of effectiveness and capacity preconditions, and to prepare proposals for the application of such tools, including the identification of options to strengthen international collaborative partnerships for assessing biodiversity values.

CONTENTS

	<i>Page</i>
EXECUTIVE SUMMARY.....	1
SUGGESTED RECOMMENDATIONS.....	2
I. INTRODUCTION.....	6
II. PROPOSALS FOR THE FURTHER IMPLEMENTATION OF THE PROGRAMME OF WORK.....	6
<i>Annex.</i> PROPOSALS FOR THE APPLICATION OF WAYS AND MEANS TO REMOVE OR MITIGATE PERVERSE INCENTIVES.....	10
A. General considerations.....	10
B. Identification of policies or practices that generate perverse incentives.....	10
C. Design and implementation of appropriate reforms.....	13
D. Monitoring, enforcement and evaluation of reforms.....	18

I. INTRODUCTION

1. At its sixth meeting, the Conference of the Parties of the Convention on Biological Diversity requested the Executive Secretary, in collaboration with relevant international organizations, to elaborate proposals for the application of ways and means to remove or mitigate perverse incentives, for consideration by the Subsidiary Body for Scientific, Technical and Technological Advice at a meeting prior to the seventh meeting of the Conference of the Parties (decision VI/15, paragraph 7).

2. Further to that request, the Executive Secretary, with support of the government of The Netherlands convened a workshop on incentive measures for the conservation and sustainable use of components of biological diversity in Montreal from 3 to 5 June 2003. 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 and non-governmental organizations participated as observers.

3. Based on background documentation and draft proposals prepared by the Secretariat,^{1/} the workshop elaborated proposals for the application of ways and means to remove or mitigate perverse incentives. These proposals provide a general framework to address the removal or mitigation of perverse incentives in different economic sectors and ecosystems. They include the following elements: general considerations; identification of policies or practices that generate perverse incentives; design and implementation of appropriate reforms and; monitoring, enforcement and evaluation of reforms. In the annex of the present note, the proposals are reproduced *verbatim* from the report of the workshop.

II. PROPOSALS FOR THE FURTHER IMPLEMENTATION OF THE PROGRAMME OF WORK

4. At its fifth meeting, the Conference of the Parties, in its decision V/15, adopted a programme of work on incentive measures. As a first phase to implement this programme of work, the Executive Secretary, in collaboration with relevant international organizations, was requested, in paragraph 3 of this decision to:

(a) Gather and disseminate additional information on instruments in support of positive incentives and their performance, and to develop a matrix identifying the range of instruments available, their purpose, interaction with other policy measures and effectiveness, with a view to identifying and designing relevant instruments, where appropriate, in support of positive measures;

(b) Continue gathering information on perverse incentive measures, and on ways and means to remove or mitigate their negative impacts on biological diversity, through case-studies and lessons learned, and consider how these ways and means may be applied;

(c) Elaborate proposals for the design and implementation of incentive measures, for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at its sixth or seventh meeting and by the Conference of the Parties at its sixth meeting.

5. With regard to activity (c), proposals for the design and implementation of incentive measures were elaborated by the first workshop on incentive measures for conservation and sustainable use of components of biological diversity, held in Montreal from 10 to 12 October 2001, based on background

^{1/} See documents UNEP/CBD/WS-Incentives/2/2 and UNEP/CBD/WS-Incentives/2/INF/1.

documentation ^{2/} prepared by the Executive Secretary. These proposals were reviewed by the seventh meeting of the Subsidiary Body for Scientific, Technical and Technological Advice and endorsed by the sixth meeting of the Conference of the Parties, in decision VI/15.

6. As was explained in section I above, implementation of activity (b) was further mandated by the Conference of the Parties at its sixth meeting, in paragraph 7 of decision VI/15. Further to the elaboration of proposals for the application of ways and means to remove or mitigate perverse incentives, the second workshop on incentive measures also developed a number of recommendations on the further implementation of the programme of work with regard to the removal or mitigation of perverse incentives. ^{3/} These recommendations are reflected in the suggested recommendation given above.

7. With regard to activity (a), it has to be noted that information on the range, purpose and effectiveness of available instruments, including positive incentive measures, was already provided in a note by the Executive Secretary prepared for the seventh meeting of the Subsidiary Body (UNEP/CBD/SBSTTA/7/11) and included in the proposals for design and implementation of incentive measures endorsed by the sixth meeting of the Conference of the Parties. The Subsidiary Body may wish to recommend additional work on this issue with a stronger emphasis on positive incentives. Such emphasis would be in line with the recognition of the sixth meeting of the Conference of the Parties that further work needs to be undertaken on positive incentive and their performance (see decision VI/15, paragraph 4). Further work could consist of an analysis of existing and new instruments that provide positive incentives, their interaction with other policy measures and their effectiveness, including their requirements for successful application, possible limitations and shortcomings. The Executive Secretary could also develop proposals on the application of such positive incentive measures and their integration into relevant policies, programmes or strategies.

8. Such work would be undertaken in close collaboration with international organizations working on the application of positive incentives. For instance, the World Bank Institute is undertaking work on payments for environmental services, including country-level projects on the design of such systems in developing countries. ^{4/} Conceptual work and the experiences gained at the country level could provide useful input to the work of the Executive Secretary.

9. Beyond the first phase to implement the programme of work on incentive measures, the Conference of the Parties decided, in paragraph 2 of decision V/15, that the activities under the programme should result in the following:

(a) The assessment of representative existing incentive measures, review of case-studies, identification of new opportunities for incentive measures, and dissemination of information, through the clearing-house mechanism and other means, as appropriate;

(b) The development of methods to promote information on biodiversity in consumer decisions, for example through ecolabelling, if appropriate;

^{2/} See document UNEP/CBD/SBSTTA/7/11.

^{3/} See annex I to the report of the second Workshop on incentive measures for the conservation and sustainable use of the components of biological diversity (UNEP/CBD/SBSTTA/9/INF/10).

^{4/} See <http://lnweb18.worldbank.org/ESSD/envext.nsf/44ByDocName/PaymentsforEcologicalServices> for further information.

(c) The assessment, as appropriate and applicable to the circumstances of Parties, of the values of biodiversity, in order to better internalize these values in public policy initiatives and private-sector decisions;

(d) A consideration of biodiversity concerns in liability schemes;

(e) The creation of incentives for integration of biodiversity concerns in all sectors.

10. In light of recent developments under relevant international processes and initiatives, the initiation of work on the assessment of the values of biodiversity would seem to be particularly useful. For instance, the recent meeting to review to 2010 target, convened by the Secretariat, the UNEP World Conservation Monitoring Centre (WCMC) and the United Nations Development Programme (UNDP) in London in May 2003, recognized that the development and application of practical methods of assessing trends in the economic and social value of biodiversity and of demonstrating the economic and ecological consequences of biodiversity loss are essential elements in meeting the 2010 target. ^{5/} The meeting also recognized that identifying and quantifying ecosystem services was one obvious way to understand and communicate the linkages between biodiversity and other sectors. ^{6/}

11. Such work would also be well in line with recent developments under the Convention on Biological Diversity. For instance, the expanded programme of work on forest biodiversity calls for the development, testing and dissemination of methods for valuing forest biodiversity and other forest ecosystem goods and services and for incorporating these values into forest planning and management, including through stakeholder analysis and mechanisms for transferring costs and benefits. ^{7/} Goal 2.3 of the proposed revised programme of work on inland waters biodiversity, annexed to SBSTTA recommendation VIII/2, is, to encourage the valuation of the full range of goods and services provided by inland water biological diversity and ecosystems, and to undertake comprehensive valuations of the goods and services of inland water biodiversity and ecosystems, including their intrinsic, aesthetic, cultural, socio-economic and other values, in all relevant decision-making across the appropriate sectors.

12. This work would also be consistent with the recommendations for further cooperation on incentive measures endorsed by the Conference of the Parties at its sixth meeting (decision VI/15, annex II). In paragraph 12 of these recommendations, the Conference of the Parties recognized that the methodologies for undertaking valuations should be developed further, as they play a strategic role in the development of incentives for biodiversity conservation and sustainable use, and envisaged the following activities:

(a) Continued exploration of methodologies for valuation of biodiversity and biodiversity resources;

(b) Developing and refining non-market methods of valuation;

(c) Disseminating information on existing techniques for valuation.

13. Several valuation tools already exist and are applied to assess the values of ecosystem goods and services of different ecosystems. However, many of these tools are controversial with regard to the methodological solidity, to their scope in particular with regard to non-use values, including cultural,

^{5/} See the report of the meeting *2010 – The Global Biodiversity Challenge*, 21 – 23 May 2003, London, United Kingdom, paragraphs 30 – 31.

^{6/} Ibid, paragraph 73.

^{7/} See decision VI/22, programme element 2, goal 2, objective 1, activity (b).

aesthetic or spiritual values, as well as to the extent of their possible application to facilitate policy and decision-making. SBSTTA may therefore wish to recommend that the Conference of the Parties request the Executive Secretary to explore existing methodologies for valuation of biodiversity and biodiversity resources, by preparing a compilation of existing valuation tools, including non-market methods, that provides an overview of the discussion on their methodological status, if appropriate, as well as an assessment of their applicability in terms of effectiveness and capacity preconditions. The Executive Secretary could also prepare related proposals for the application of such tools, including the identification of tools that could be adapted to the needs of developing countries and countries with economies in transition, and the identification of capacity-building needs.

14. In line with the recommendations for future cooperation, this work would be undertaken in collaboration with competent international organizations and initiatives, such as the Organisation for Economic Development and Co-operation (OECD) or the Millennium Ecosystem Assessment (MA). The proposals to be prepared by the Executive Secretary could also identify options to strengthen collaborative partnerships for assessing biodiversity values.

Annex

**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

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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 be 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

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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

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levelling 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

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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 forgone 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

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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 levelling 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 be 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 to 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 favourable 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 above, 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.