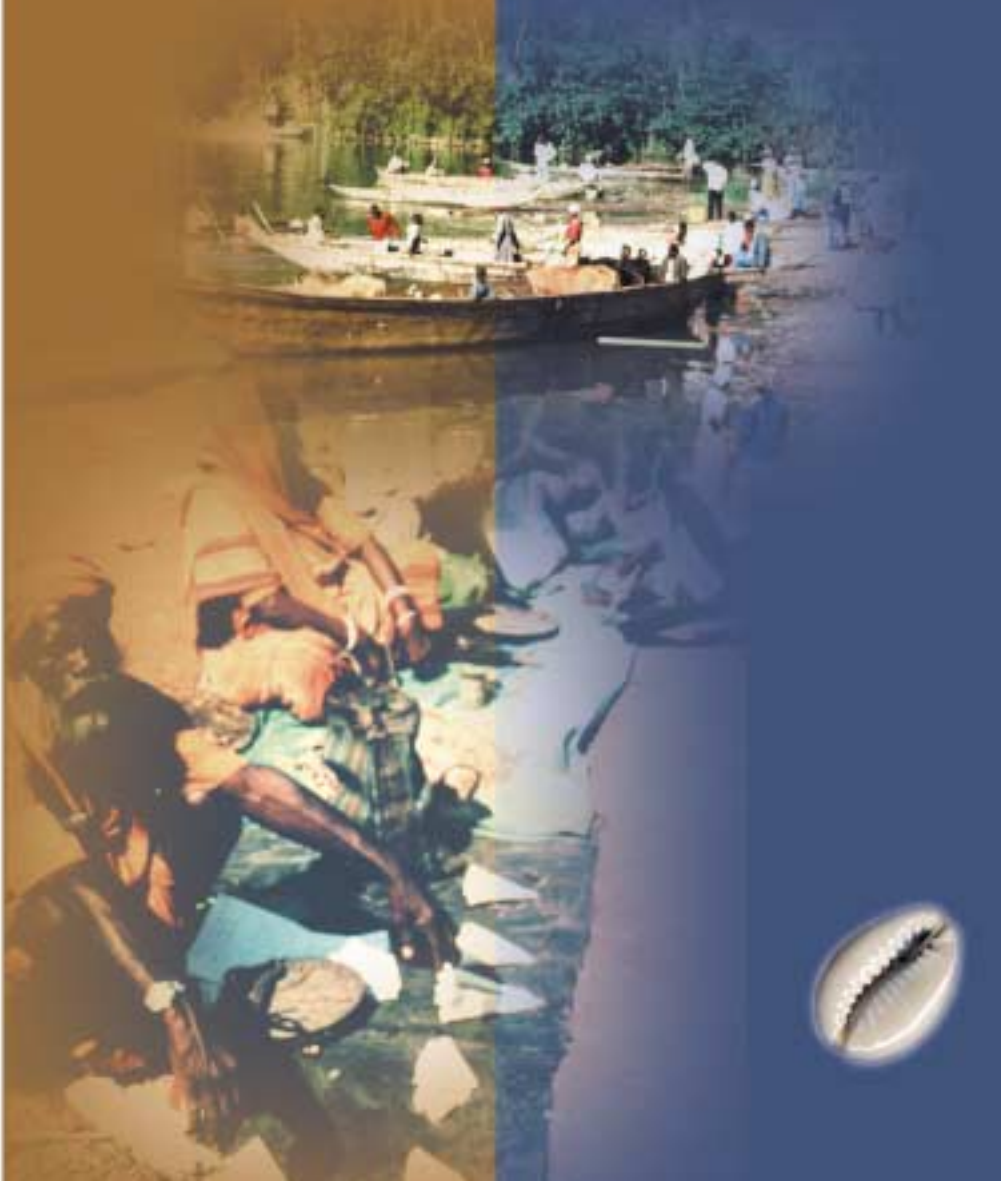




**CBD**

Secretariat of the  
Convention on  
Biological Diversity

# Proposals for the Design and Implementation of Incentive Measures



**UNEP**



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ISBN: 92-807-2405-3

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For bibliographic and reference purpose this publication should be referred to as:

Secretariat of the Convention on Biological Diversity (2004). *Proposals for the Design and Implementation of Incentive Measures*. Montreal: Secretariat of the Convention on Biological Diversity.

Graphic Design: Martina Hoft

The financial support of the Government of the Netherlands for the publication of this booklet and CD-ROM is gratefully acknowledged.

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## Foreword

Human behavior is governed by incentives that emanate from social, economic and policy frameworks at all levels. However, these frameworks often fail to generate adequate incentives for the conservation and sustainable use of biological diversity. For instance, unfettered markets do not reflect biodiversity's essential role in the supply of goods and services important for human well-being. Moreover, many government policies and programmes actually generate so-called perverse incentives: They induce unsustainable behavior that leads to biodiversity degradation.

In Article 11, the Convention on Biological Diversity (CBD) acknowledges the importance of adopting economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity. Such incentive measures seek to bridge the profitability gap between unsustainable activities and sustainable alternatives and thus induce these actors to conserve biological diversity or to use its components in a sustainable manner. Importantly, such an inducement does not rely on an outright prescription or prohibition of specific activities.

The Conference of the Parties also stressed the importance of taking appropriate action against those incentive measures that threaten biological diversity. These perverse incentives often arise as unanticipated side effects of policies designed to attain other objectives. In order to ensure the conservation of biodiversity and the sustainable use of its components, it is important to identify policies and practices that generate perverse incentives and to consider their removal or the mitigation of their negative impacts through appropriate means.

Important international policy guidance on incentive measures has recently been developed under the Convention in the form of the Proposals for the Design and Implementation of Incentive Measures, reproduced below. Mandated by the Convention's programme of work on incentive measures, these proposals were developed by the first international expert workshop on incentive measures, held in October 2001 with financial support of the Government of the Netherlands. The Proposals prepared by the workshop were reviewed by the Convention's Subsidiary Body for Scientific, Technical and Technological Advice at its seventh meeting. In 2002, the Conference of the Parties, at its sixth meeting, endorsed the Proposals, as far as they are consistent with Parties' national policies and legislation as well as their international obligations, and invited Parties to take these Proposals into consideration when designing and implementing incentive measures.



The Proposals highlight the key elements to be taken into consideration when designing and implementing incentive measures, and also provide guidelines for selecting appropriate and complementary measures. They are an important milestone in the development of international policy guidance to assist Parties and governments in the application of incentive measures for conservation and sustainable use of biological diversity.

The Secretariat of the Convention on Biological Diversity is engaged in compiling and disseminating case studies and best practices as well as conceptual and analytical information on the use of incentive measures. The CD-ROM attached to the present brochure contains an offline version of the incentive measures pages on the CBD Web site. It provides access to extensive information on the activities under the Convention related to incentive measures as well as on relevant handbooks and other important publications. It also provides access to an off-line version of the database of incentive measures case studies. The database contains over one hundred case studies on the use of incentive measures for conservation and sustainable use of biodiversity in a broad sampling of countries, regions and ecosystems. An electronic tool permits search of the database by type of incentive measure, by region and ecosystem, and by selected keywords.

While a large number of governments have already taken steps to introduce or strengthen incentive measures in various contexts, more remains to be done at national, regional and international levels. As requested by the Conference of the Parties at its sixth meeting, at the international level, further policy guidance is now under development on the application of ways and means to remove or mitigate perverse incentives.

I am certain that the Proposals for the Design and Implementation of Incentive Measures, as well as the background information provided on the CD-ROM, will prove to be useful tools for Parties and governments that are in the process of designing and implementing incentive measures for the conservation and sustainable of biodiversity.

*Hamdallah Zedan*

Executive Secretary  
Convention on Biological Diversity



## Proposals for the Design and Implementation of Incentive Measures

1. In general terms, incentive measures should be designed to address the conservation and sustainable use of biological diversity, while taking into account:

- (a) Local and regional knowledge, geography, circumstances and institutions;
- (b) The mix of policy measures and structures in place including sectoral considerations;
- (c) The need to match the scale of the measure to the scale of the problem;
- (d) The measures' relationship to existing international agreements.

2. The following elements should be taken into consideration in the design and implementation of incentive measures for the conservation and sustainable use of biological diversity:

### A. Identification of the problem: purpose and issue identification

**3. Goals of the incentive measures.** An incentive measure should have a defined purpose. Consistent with decision V/15, the purpose of incentive measures is to change institutional and individual behaviour in order to achieve in whole or in part the following objectives of the Convention on Biological Diversity: the conservation of biodiversity, the sustainable use of the components of biodiversity and the fair and equitable sharing of benefits arising out of the utilization of genetic resources.

**4. Underlying causes/threats to biodiversity.** The identification of the proximate and underlying causes and the importance of threats to biodiversity and its components are a prerequisite for the selection of the appropriate measure to stop or reverse degradation. Policies that create incentives without removing the underlying causes of biodiversity loss (including perverse incentives) are unlikely to succeed. Therefore, prior to embarking on an exercise to develop incentive measures for conservation or sustainable use, it is important to undertake a thorough study to identify and evaluate the respective and mutually reinforced impacts of any underlying pressures.

5. This study should specifically include threats generated by social or economic forces or by the institutional framework. In some cases social and



economic issues are at the root of unsustainable practices and, while addressing market and policy failures with incentive measures may help correct this behaviour, the measures may not address core problems such as lack of resources or poverty and unjustified human demands beyond needs. This might also include the analysis of existing incentive measures, at the national and at the international level; specifically, perverse incentives that might threaten biodiversity, and the barriers that stand in the way of their removal, should be identified.

6. While most of the underlying causes in general are listed in the OECD Handbook of Incentive Measures for Biological Diversity: Design and Implementation<sup>1</sup>, it is important that each country implement incentive measures that are targeted at specific causes relevant to its circumstances. Incentives may be directed to correct some underlying causes related to economic development trends, poverty, lack of policy integration, sectoral policy impacts, and perverse measures undertaken at the national, supra-national and international levels.

7. **Identification of relevant experts and stakeholders.** As well as including policy-makers, experts and scientists, the range of stakeholders should include the private sector, women, and local communities as well as individuals, relevant national and multilateral organizations, non-governmental organizations and representatives of indigenous and local communities. These stakeholders may have contributed to the issue and/or have practical knowledge of it and could be key players in its successful implementation. Moreover, different levels of decision-making (local, subnational, national, subregional, regional, international) and their interrelationship must be taken into consideration in order to ensure coherence of the measure.

8. **Establish processes for participation.** In order to ensure that incentive measures are developed in a manner that is participatory and promotes effective policy integration and stakeholder participation, processes should be established to facilitate intergovernmental dialogue as well as dialogue with relevant stakeholders including indigenous and local communities and representatives of civil society.

9. **Set clear targets and indicators.** To the extent feasible, incentive measures should have targets that are specific, measurable, time-driven, and based on an analysis of their effects. The successful monitoring and evaluation of their impacts is an important factor in ensuring the ultimate success of incentive measures. For example, indicators can facilitate the evaluation of a measure and provide useful information in determining the need for corrective action.

<sup>1</sup> OECD Handbook on Incentive Measures for Biological Diversity: Design and Implementation (OECD, 1999)



## B. Design

10. **Ecosystem approach.** The design of incentive measures should, where appropriate and feasible, be based on an ecosystem approach as defined in the framework of the Convention.

11. **Sectoral approach.** The design of incentive measures should also be based, where possible, on an analysis of the incentives of the different economic sectors such as tourism, forestry, fisheries and agriculture.

12. **Sectoral mainstreaming.** Consideration should be given to integrating biodiversity incentives into the incentives provided through other sectors, where appropriate.

13. **Carrying capacity.** The carrying capacity of the different ecosystems has to be fully considered in the design of incentive measures, as the use of resources may be limited by carrying capacity.

14. **Precautionary approach.** Combined with the ecosystem approach, a precautionary approach requires that programmes on incentive measures err on the side of caution when scientific knowledge is uncertain and where there is a threat of significant reduction or loss of biological diversity.

15. **The efficiency objective.** Programmes on incentive measures should primarily consider those measures which best meet biodiversity objectives, and should be designed to ensure that expected benefits are greater than or equal to the cost of implementation, administration, and enforcement. The social and institutional context of a country can affect these costs considerably. Whenever benefits cannot be adequately quantified, cost-effectiveness analysis (i.e., to achieve a given target at minimum cost) should be applied.

16. **Internalization.** Internalization should be considered as one of the guiding principles for selecting appropriate incentive measures to prevent, arrest or reverse the loss of biodiversity and take into account other relevant environmental concerns, such as climate change, desertification and deforestation. Internalization refers to the incorporation of external costs and benefits into the decisions of producers and consumers. External costs and benefits are essentially environmental "side-effects" of economic activities and incentive measures should strive to internalize a greater proportion of these effects in the calculation of decision makers and consumers. When full internalization is not possible (due to economic and social circumstances), incentives should be designed so as to make sustainable activities more attractive than unsustainable ones.



17. **Undertaking valuation.** While recognizing that full internalization is often not possible because of limitations of valuation methods, as recognized by the Conference of the Parties in its decision IV/10, valuation is nevertheless an important step for better internalizing and raising awareness of the importance of biodiversity values.

18. **Underlying cause of biodiversity loss.** Programmes on incentives should be designed to address the underlying causes of biodiversity loss.

19. **Comprehensibility.** While recognizing the interaction of many factors, incentive measures should remain as simple and focused as possible, allowing for faster implementation and clearer assessment of their effects. They should be easily understood by all stakeholders.

20. **Equity: distributional impacts.** In designing incentive measures, it is important to ensure that the definition of beneficiary communities is inclusive and equitable. A participatory approach to the design and implementation of incentive measures can help ensure that these issues are considered. Any conservation measure has some impact on stakeholders; incentive measures should aim to take into account those who benefit and those who assume the cost of the measure. Incentive measures should be designed and introduced in a way to support poverty alleviation and reduction of disparities between rural and urban communities.

21. **Capturing value for indigenous and local communities.** The value of biological diversity for subsistence, cultural or commercial purposes should be recognized and incentive measures designed so that, to the extent possible, they support the social and economic development needs of indigenous and local communities. The approach of these communities in determining the values of biological diversity should be taken into consideration.

22. **Raising awareness of biodiversity values and services.** Identifying and assessing the value of biodiversity and of the environmental services that it provides can be an incentive in itself and supports the design of other incentive measures. Raising awareness among all stakeholders of the value and services of biodiversity improves the chances for incentive measures to be successful.

23. **Mix of measures.** In many cases, a combination or combinations of various measures is likely to be necessary in order to realize both the public benefits of protecting biodiversity and the private benefits brought about by the sustainable use of its components.

24. **Monitoring and evaluation.** Incentive measures should be designed to facilitate monitoring and evaluation of their successes and failures.





25. **Political and cultural acceptability.** The political and cultural context in which any incentive measure is developed should be taken into account in the design of the instrument.

26. **Funding.** Funding, as appropriate, should be ensured in the design of the incentive measure.

### **C. Provision of capacity and building of support: facilitating implementation**

27. **Physical and human capacity.** Implementation of incentive measures will require adequate physical and human capacity. This includes scientific and technical capacity, as well as capacity related to administrative, educational, training and communications issues. In many cases, in the implementation phase of incentive measures, there will be an ongoing need for training of trainers, managers and other workers, public-education programmes and other forms of human capacity-building. In other cases, there may be a need for physical capacity-building, including the installation of monitoring equipment or other infrastructure needs. Training will often be a necessary component for the effective implementation of incentive measures.

28. **Institutional mechanisms.** Institutional mechanisms are required to encourage dialogue and communication between policy makers within government and stakeholders outside of government at the national and local levels, in order to promote policy integration. Ensuring that avenues exist for intra-governmental dialogue between relevant ministries and agencies with an interest in biodiversity is important, as government agencies will often share responsibilities in the implementation of incentive measures. Community institutional structures should be developed to make indigenous and local communities equal partners in the implementation of incentive measures. For the implementation of incentive measures, existing institutional arrangements should be recognized and strengthened or new ones should be established, as necessary for the conservation and sustainable use of biological diversity.

29. **Transparency and dissemination of public information.** Dissemination of information can play a key role in building support for incentives for conservation and sustainable use. Information on the effects of pressures on biodiversity should be disseminated among stakeholders, administrative and policy authorities and civil society. The provision of information regarding the incentive measure itself to stakeholders and transparency in implementation are also important.



30. **Stakeholder involvement.** Even after the design of a measure, stakeholders should be involved to ensure that incentive measures are implemented effectively on the ground. Relevant stakeholders should play a role in building the capacity of local institutions and individuals in order to enhance their awareness of the importance of biodiversity conservation measures and facilitate their capacity to participate in all stages of the process, from design to implementation.

31. **Funding.** Funding should be ensured for capacity-building.

## D. Management, monitoring and enforcement

32. **Administrative and legal capacity.** The ultimate success of any incentive measure is contingent upon successful management, monitoring, enforcement and evaluation of its impact. Adequate capacity to manage, monitor and enforce incentive measures rests in part on adequate stakeholder involvement and the existence of appropriate institutions. It also depends on available administrative and legal capacity.

33. **Policy-impact indicators.** The development of sound policy-impact indicators is key to any useful valuation of the success or failure of incentive measures.

34. **Information systems.** Information systems could facilitate the process of managing, monitoring and enforcing incentive measures.

35. **Funding.** Adequate funding should be available to ensure the effective management, monitoring and enforcement of incentive measures.

## E. Guidelines for selecting appropriate and complementary measures

36. The following are guidelines for selecting appropriate and complementary measures:

- (a) Any decision-making process for selecting appropriate and complementary measures should take into account the specific circumstances of the country involved;
- (b) It is important to consider the context in which the incentive measure is being introduced to assist final decision-making on a particular measure or measures;



- (c) A key consideration in the design of an incentive measure is the recognition that a single measure will often not suffice to address the complexities involved in decisions on biodiversity conservation or sustainable use, and that a mix of measures may be needed;
- (d) Equity considerations, such as poverty alleviation, should be given a prominent role in the design and selection of appropriate incentive measures;
- (e) The implementation of incentive measures should not result in a significant increase in the cost of living and/or increase in government revenue;
- (f) The size of the country's economy is an important factor in the selection of financial incentive measures;
- (g) Well defined land and property rights are an important factor in the design and implementation of incentive measures in the conservation of biological diversity and the promotion of sustainable use;
- (h) Positive incentives can influence decision-making by recognizing and rewarding activities that are carried out for conservation and sustainable use purposes;
- (i) The removal of perverse incentives eases pressure on the environment. The identification of both internal and external perverse incentives and other threats to biodiversity conservation and to the promotion of sustainable use, is essential to the selection and design of incentive measures. The removal of perverse incentives may improve economic efficiency and reduce fiscal expenditures;
- (j) Disincentives continue to be an important tool for ensuring the conservation and sustainable use of biological diversity and can be used in combination with positive incentives.

37. In the process of decision-making, the general or specific features of various types of instruments should be taken into account. The following table<sup>2</sup> illustrates a range of existing instruments, their general advantages, disadvantages and applicability. It should be taken into account that this list is not comprehensive since a number of other non-economic incentives (e.g., social and cultural incentives) and international incentives should also be considered in a similar fashion. Furthermore, it has to be taken into consideration that some of the enumerated instruments are still under discussion with respect to their effectiveness and their possible shortcomings.

2 Based on the OECD Handbook of Incentive Measures for Biological Diversity: Design and Implementation.



## Instrument

## Advantages

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Environmental  
taxes/charges

Maximize economic efficiency.  
Easily understandable.

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Market creation

Results in the most efficient allocation of  
resources between competing users,  
and generates appropriate prices for  
them.  
Low monitoring requirements

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Removal of perverse  
incentives

Reforming or removing these incentives  
can lead to an easing of pressures on  
the environment, improved economic  
efficiency and reduced fiscal expendi-  
tures.

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Regulations

Easily understandable.  
Legally binding.  
Can target directly particular activities  
or processes.

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Environmental funds

Transparent and high visibility.  
Positive public relations.

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Public financing

Popular with recipients.  
Promotes desirable activities rather  
than prohibiting undesirable ones.

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## Disadvantages

## Applicability

Rely on measurability of single components and on agreement about external cost values.  
Can require extensive monitoring.

Applicable in situations where impacts are easily measurable (e.g., hunting) and sources of impacts can be easily monitored.

May be imperfect where there are [large] external effects and/or monopolies.

Applicable where clearly defined property rights can be established and upheld for easily identifiable goods and services, and transaction costs are low enough.

Perverse incentives can often be difficult to identify [lack of transparency].  
They may be politically difficult to reform because of the strong opposition from recipients.

Applicable where clear benefits in terms of budgetary, economic efficiency and/or environmental goals can be identified and potential compensatory measures exist to facilitate the support removal process.

Can be economically inefficient or costly method of achieving environmental goals, especially if proscribing certain technologies. Strict enforcement is necessary. Inflexible.  
May be complex and detailed.

Most applicable where there is a limited range of easily identifiable environmental impacts that need circumscription and/or where the number of actors is limited.

May not maximize economic efficiency.  
May be inflexible because funds are earmarked to some extent.

Applicable where Governments have difficulties raising general funds, where fiscal infrastructure is weak and where clearly identifiable and highly popular causes exist.

Requires funding.  
May lead to economic inefficiencies.  
May encourage rent-seeking behaviour.

Applicable in situations where desirable activities would not be undertaken without support or to create a differential in favour of such activities where it is not feasible to discourage the undesirable alternatives.







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