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IN-DEPTH REVIEW OF THE PROGRAMME OF WORK ON INCENTIVE MEASURES

Addendum

Summary of views, experiences and options provided by international organizations and stakeholders

Note by the Executive Secretary

I. INTRODUCTION

1. The present document complements the note by the Executive Secretary on in-depth review of the programme of work on incentive measures: summary of views, experiences and options provided by Parties (UNEP/CBD/COP/9/12). The latter document explains the steps undertaken during the preparatory process for the in-depth review of the work on incentive measures as mapped out by the Conference of the Parties in decision VIII/26, and provides a summary of views on, and experiences in, the implementation of the programme of work provided by Parties, as well as a summary of options for a future programme of work, identified by Parties. The present document provides a similar summary of the pertinent submissions received by international organizations and stakeholders.

II. SUMMARY OF EXPERIENCES IN, AND VIEWS ON, THE IMPLEMENTATION OF THE PROGRAMME OF WORK ON INCENTIVE MEASURES

A. *The Commonwealth Scientific and Industrial Research Organization (CSIRO)*

2. The Commonwealth Scientific and Industrial Research Organization (CSIRO) in Australia has been instrumental in leading research in the area of incentive measures for biological diversity. The work has concentrated on Market Based Instruments, which use market signals (auctions, prices and trading mechanisms) to influence the way people manage natural resources and the environment. The work

* UNEP/CBD/COP/9/1.

covers both the theoretical and practical aspects of different incentives as well as experimental economics case-studies and on-ground trials, relating to varying purposes, including: revegetation on agricultural land, salinity recharge programmes, ecosystem services enhancement, forestry expansion, marine biodiversity improvements, urban water quality enhancement and internationally based biodiversity improvement schemes. The submission refers to 24 projects and associated case-studies in these areas, and provides references to pertinent reports.

3. The submission from CSIRO explained that, although it would be difficult to draw conclusions from such a wide ranging body of research, two success factors were generally found to be valid in most cases:

- Need to target the particular incentive or framework of incentives to the contextual situation;
- Need to include the relevant stakeholders in the design of the incentive scheme.

B. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

4. The CITES Secretariat made reference to relevant documents and decisions on incentives for implementation of CITES, including information on collaboration between the UNCTAD Biotrade Initiative and the CITES Secretariat, as well as on the ongoing wildlife trade policy review project.

5. Document CoP 14 Doc.32 provides an overview and brief discussion on incentive measures most relevant and easily applied in a CITES context:

- *Due diligence*: efficient administrative processes for authorizing trade would be a simple and major incentive to promote compliance with CITES requirements.
- *Compensations* to pastoralists and farmers for damage caused by wildlife could potentially reduce hunting pressures on wildlife populations. Mechanisms may include payments but also measures such as developing a hunting trophy industry, creating livestock-free areas on common land, or improved access to markets for alternative or substitute products, in exchange for a conservation commitment from local communities.
- *Certification* in the CITES context seeks to separate the legal and illegal markets for CITES products and generate a price premium. In some cases, CITES products have been certified using additional requirements or standards (e.g, for re-exporting caviar, and for vicuna wool and products). The UNCTAD BioTrade Initiative also combines CITES requirements with additional standards in order to facilitate market access to CITES products and to generate price premiums.
- *Communal property rights*, instead of *de facto* open access, can help to reduce enforcement costs by providing resource owners with an incentive to protect CITES species. Those rights could include self administration of resource use and the right to sell hunting licences.
- *Auctioning CITES export quotas*, which allow limited volumes of trade in specimens of CITES-listed species under certain conditions, and making them transferable and tradable between interested harvesters would ensure that they go to the highest-value use and would thus contribute to their efficiency.
- *Cost recovery* can provide an important means of improving the efficiency and diligence with which CITES services are delivered. Charges for services can send an important message to users or customers about the cost of the resources involved.

6. CITES requirements have been incorporated in UNCTAD BioTrade procedures, such as the selection of product groups and value chains. UNCTAD BioTrade developed, in close cooperation with the CITES authorities of the countries in which it operates, guidelines for sustainable management of wildlife products for enterprises engaged in wildlife trade.

7. At its thirteenth meeting, the CITES Conference of the Parties decided that the Secretariat shall conduct, in cooperation with the Parties, a review of their national policies regarding the use of and trade in specimens of CITES-listed species, which may further contribute to the identification of specific incentive measures and of national experiences in the implementation. A review framework providing guidelines, methodologies and potential indicators was developed jointly with the UNEP/UNCTAD Capacity-Building Task Force on Trade, Environment and Development, and the University of Geneva's Graduate Institute for Development Studies. Pilot reviews are currently being undertaken in four countries (Madagascar, Nicaragua, Uganda and Viet Nam).

8. The CITES Conference of the Parties at its fourteenth meeting, on 3-15 June 2007, decided: (i) to encourage Parties that develop incentive measures for the effective implementation of the Convention to include relevant details in their biennial reports; (ii) to encourage Parties to consider the adoption of standard operating procedures to complete the formalities required for trade in CITES-listed species in an efficient manner; (iii) that Parties shall consider practical ways to enhance stakeholder engagement in the implementation of the Convention; (iv) to invite exporting and importing countries to carry out national wildlife policy reviews.

9. The Conference of the Parties also decided that the Secretariat: (i) should conduct a survey of the fees for CITES permits and cost of CITES-related administrative services, and provide basic guidance to Parties on how cost-recovery programmes can be designed and used for internalizing the cost of implementing the Convention in this regard; (ii) shall, subject to external funding, continue its cooperation with the UNCTAD BioTrade Initiative, and (iii) shall, contingent on the availability of external funding, facilitate the national trade policy reviews.

C. DIVERSITAS – ecoSERVICES Core Project

10. The contribution notes the public good nature of many ecosystem services and the lack of markets, which would imply that people are not confronted with the true cost of their decisions. Correspondingly, there would be increasing interest in the potential for economic instruments to provide people with incentives to use biological resources in ways that are efficient, equitable and sustainable. Instruments include the establishment of property rights where feasible, along with traditional market-based instruments (MBIs) – user charges, access fees, taxes, and the like – and, more recently, systems of payments for ecosystem services (PES).

11. According to the contribution, market formation is attractive wherever conservation goals may be readily aligned with the pursuit of private gain - ecotourism or markets for bioprospecting being examples (sometimes however with mixed results). Systems of tradable development rights were developed and implemented extensively in the 1970's to direct development within urban areas, and currently exist at the landscape level in form of zoning programs. Competitive conservation auctions, unlike other instruments, encourage landowners to reveal the true private cost of conservation – it is for example estimated that the *BushTender* auctions in Australia provided 75 per cent more biodiversity conservation compared to a fixed-price payment scheme. Various attempts to engage local communities through community-based conservation and integrated conservation-development projects had mixed success, partly because of the difficulties of ensuring community compliance with agreements.

12. Recent payment mechanisms for ecosystem services have implications for the distribution of both assets and income, and in many cases this would be their ultimate motivation. Pricing access to

ecosystem services can cause the socially disadvantaged and vulnerable to be excluded from those services, and this discourages use of instruments such as taxes, user fees and access charges. PES that involve direct payments would have at least the potential to alleviate poverty whilst encouraging the provision of socially beneficial land uses.

13. Noting the international dimension of biodiversity conservation and sustainable use, the contribution also refers to recent economic analyses of the role of border control measures and tariffs in the context of invasive alien species.

14. The contribution summarizes that:

- The incentive problem in the conservation and sustainable use of biodiversity has two elements: the generation of mechanisms that deliver the correct incentives for biodiversity conservation and sustainable use, and the discouragement of mechanisms that deliver perverse incentives.
- Most problems are likely to require a mix of measures, including direct and indirect incentives as well as disincentives.
- The development of markets for ecosystem services is increasing rapidly, and offers a number of significant benefits. Up to now the newer market-like mechanisms have emerged in areas where the capturable benefits are largest. The most direct attempts to do this involve the widening and deepening of markets for individual biological resources.
- A second set of markets offer biodiversity conservation benefits as a side-effect (an externality) of markets for unrelated effects.
- The development of PES involves a third approach: payment systems that encourage individuals to protect common pool resources that are the source of wider benefits. While payments for ecosystem services are a promising instrument that potentially address both the incentive question and poverty, they need to be applied with the same caution as existing subsidies in agriculture, forestry and fisheries.

D. Food and Agriculture Organization of the United Nations (FAO)

15. FAO has initiated two major programmes that provide information on incentive measures for the sustainable use of plant genetic resources, in particular in the context of seed systems and seed markets. In addition, FAO has recently undertaken a major review and assessment of payment for ecosystem services in its 2008 report on the State of Agriculture.

1. Incentive measure for sustainable use of plant genetic resources

16. *Using Markets to Promote the Sustainable Use of Crop Genetic Resources* investigates how agricultural markets affect the sustainable use of crop genetic resources, and seeks to identify policy levers that affect access to those crop genetic resources in the market. Several CGIAR centers are active partners in the programme, including in carrying out case studies in Mali, Kenya, Bolivia, India and Mexico.

17. *Gender, biodiversity and local knowledge systems for food security* seeks to identify the knowledge, skills and practices of farmers that are often highly sustainable and respectful of the natural ecosystems they depend upon, with a particular focus on gender roles and responsibilities in the farming system. The programme seeks to better understand the complex relationships between gender,

agro-biodiversity, local knowledge, seed management, and food security. Case studies will be carried out in Mozambique, Swaziland, Tanzania and Zimbabwe.

a) *Lessons learned and key challenges*

18. While the work under these programmes is not yet fully completed, several important insights relevant to the programme of work on incentive measures under the Convention on Biological Diversity can already be obtained. They are also relevant for the programme of work on agricultural biodiversity.

- There is a significant on-farm demand for plant genetic diversity in the form of seeds and varieties, for varying reasons including.
- Local markets are an important source of seed for farmers – even the poorest – and they play an important role in times of crisis when farmers own supplies are wiped out. Seeds obtained in local markets are often not certified seeds.
- In many cases, farmers prefer using traditional or local landraces of seeds, as they can be more effective in producing reliable yields, and also provide crops with characteristics that farmers want.
- Gender is a key issue in the access to and use and management of plant genetic resources, and reaching out to women is important for agro-biodiversity conservation issues.
- Accessing seeds of both traditional and improved varieties can be a problem for farmers, and this affects their incentives for sustainable use of plant genetic resources as customary systems of saving and exchanging seeds are breaking down due to changes in the agricultural sector. Supplying traditional varieties through markets is not generally given any policy importance, and in fact is often blocked by regulations favoring the commercialization of seeds of improved varieties.

b) *Options to address the challenges identified*

19. There is a need to revisit seed sector policies in agricultural-based developing economies to support the supply of plant genetic diversity that farmers demand. This is a critical area for improving incentives to farmers to sustainably manage their plant genetic resources. Such a review may lead to measures such as: (i) Developing more flexible standards for the exchange of seeds in the informal sector, in particular landraces and recycled improved varieties; (ii) Reducing subsidies on improved seeds which create artificially high returns to farmers from abandonment of traditional varieties; (iii) Improving information flows in the informal sector, for instance through “diversity fairs”, as farmers often lack information about beneficial landraces or traditional varieties; (iv) Local sourcing for emergency seed relief supplies. Greater consideration of the use of local sourcing and local plant genetic resources in such programmes could result in better farm access to plant genetic diversity and sustainable use; (v) Developing markets for diversity, which is a potentially important means of providing farmers with incentives for sustainable use of plant genetic resources, for instance, markets for niche products from specific landraces.

c) *Priorities for a future programme of work*

20. Priorities depend on the type of economy (agricultural-based or industrialized) as well as the crop (major commodities vs. minor or underutilized species).

- Capacity-building in developing appropriate seed sector policies to promote incentives for sustainable use is clearly a priority in many countries, particularly agricultural-based economies.

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- Reform of seed sector regulations to promote the flow of diversity between farmers and within the formal and informal seed sectors is an area of great importance in promoting sustainable use. Much work is still needed in this area to develop appropriate frameworks and guidelines.

d) *Key gaps*

21. Better understanding, recognition and validation of the importance of diversity in an agricultural development strategy is needed. Increasing involvement of the private sector in plant breeding and seed sector development may inhibit the development of a desired supply of diversity in the seed system, since many of the benefits are in the form of public goods.

e) *Interface with other international initiatives and instruments*

22. A key interface is with agricultural development initiatives under the New Economic Programme for African Development (NEPAD) and its Comprehensive Africa Agriculture Development Programme (CAADP), as well as the Program for Africa's Seeds Systems of the Alliance for a Green Revolution in Africa (AGRA). The interface with CGIAR centers is also critical, and the International Treaty on Plant Genetic Resources for Food and Agriculture is the central international instrument dealing with these issues and interface is clearly necessary.

2. *Payments for ecosystem services*

23. Payments for biodiversity conservation take various forms and they involve both private and public sector purchasers. Examples include:

- direct payments to landowners for changing land use patterns (e.g. refraining from deforestation or retiring agricultural lands- examples can be found in Costa Rica, United States, South Africa)
- payment of a premium for a product produced under a biodiversity friendly production system (e.g. shade-grown coffee in Central America)
- payments to landowners to maintain an aesthetically pleasing landscape for ecotourism (numerous cases in Africa and Latin America)
- In addition, payments for offsetting biodiversity losses have also been made in a limited number of cases – primarily in the United States.

a) *Lessons learned and key challenges*

24. Payments for biodiversity conservation services is a relatively new policy instrument whose use is growing in both developing and developed countries. It is just one type of measure that can be used to provide incentives for biodiversity conservation, and its effectiveness varies by situation. Other measures such as regulations or the removal of perverse incentives may be more effective depending on the specific threat to biodiversity conservation.

25. Payments for biodiversity conservation programmes face several challenges:

- It is very difficult to establish prices for the service since biodiversity values are largely non-marketed.
- Since biodiversity conservation generally requires the collective efforts of a large group of people, cooperation amongst providers is necessary and often difficult to establish.
- The demand and payment flows for biodiversity conservation is limited, and payments for long-term biodiversity conservation services are difficult to secure.

- Biodiversity conservation may come into conflict with agricultural and economic development processes. Payments for conservation need to be carefully structured to support overall economic development and poverty reduction objectives.

b) *Options to address the challenges identified*

26. Several options are available to addressing the challenges identified above, whose appropriateness will be context-specific:

- At present, in many cases payments for biodiversity conservation are being set based on the opportunity costs of conservation, but this may represent a significant undervaluation. More work on valuation is needed, including by linking biodiversity to other valuable outcomes, such as reducing the incidence of natural disasters or the spread of contagious diseases which have known large costs.
- Identification of locations and production systems where payments for biodiversity conservation has the highest return is important in successfully integrating payments for conservation into overall development strategies.
- Long-term funding for biodiversity conservation will most likely require public sector intervention since much of the values are public goods.
- The experience indicates that the best results are obtained in situations where communities have already established institutions for collective action.
- More capacity-building and market development for agricultural products developed under biodiversity friendly production systems is needed to support these payments.

c) *Priorities for a future programme of work*

- More work on the valuation of biodiversity use values, particularly indirect uses like disease and disaster prevention and resilience to climate change.
- Identification of locations and production systems where payments for biodiversity conservation are likely to be most effective.
- Capacity-building and market development for agricultural products produced under biodiversity friendly production systems.
- Establishment of public sector funds to support long term biodiversity conservation.

d) *Key gaps*

- Information on biodiversity values, and conservation that can be obtained within various types of agricultural production systems;
- International and national agricultural marketing chains that support biodiversity friendly production, particularly in developing countries.

e) *Interface with other international initiatives and instruments*

27. International NGOs are key in this effort, also GEF.

E. Organisation for Economic Co-operation and Development (OECD)

28. The OECD highlighted some of the relevant reports and conclusions arising from the work of the OECD Working Group on Economic Aspects of Biodiversity (WGEAB). The main focus of the work of the WGEAB for over the last ten years has been on incentive measures, valuation and market creation for the sustainable use and conservation of biological diversity. The main outputs of the Group include a series of handbooks, reports and case-studies.

29. In 2004, all 30 OECD member countries agreed to the “OECD Council Recommendation on the Use of Economic Instruments in Promoting the Conservation and Sustainable Use of Biodiversity”. The WGEAB is currently undertaking a review of the implementation of this recommendation by OECD’s member countries. Some initial findings can be identified.

- Most responding OECD Members have national biodiversity strategies or frameworks in place, a number of which provide a comprehensive and over-arching framework across policy areas. All responding countries noted improvements to or strengthening of their biodiversity strategy or framework in recent years.
- Nearly all noted further progress in the last few years in the application of economic instruments within their biodiversity strategy or framework, although the use of market-based instruments is still limited in biodiversity management compared with more traditional measures (e.g., regulations and creation of protected areas).
- The most commonly noted economic instruments used in the OECD review is positive subsidies for biodiversity friendly behaviour, with the application of fees, charges and taxes fairly widely used as well.
- Less progress has been made however in reforming perverse incentives, with the exception of recent reforms of agricultural subsidies – for example, the reform of the Common Agricultural Policy in the European Community – and some progress in reforming perverse subsidies in the fishing industry.
- Instruments that create markets for sustainable use of biodiversity resources are also relatively less developed in biodiversity management in OECD countries, for example tradable permits schemes, although there are some examples such as with fishing quotas and hunting permits.
- Areas and ecosystems covered most comprehensively by such measures in OECD countries are inland waters, agriculture, forests and marine biodiversity, while the use of such instruments is more partial or limited in all mountain areas and species management.
- The other finding is that a specific type of economic instruments dominates a certain area. In both agriculture and forests, the most commonly used type of instrument is positive subsidies, or payments for activities which encourage sustainable use or conservation of biodiversity. Taxes, fees and charges are most commonly used to preserve inland water ecosystems, with the majority of their imposition targeted to three areas: water use, wastewater charges, and the abstraction of materials. Some progress in the introduction of new economic instruments to support management of marine and coastal areas has been noted in the last few years.

30. In 2001, OECD Environment Ministers also agreed to an “OECD Environmental Strategy for the First Decade of the 21st Century”, which also calls to “enhance the use of economic instruments to provide incentives for the sustainable use and conservation of biodiversity, including through the development of carefully designed markets for biodiversity services.” In 2004, OECD Environment Ministers reviewed a report on implementation of the Strategy by member countries to that date, and they

will meet again in April 2008 to review a report on further progress. The results of the 2004 review on incentive measures for biodiversity can be summarized as follows.

- The wide array of tools that OECD countries have begun to use include economic instruments, standards setting, assignment of well-defined property rights, conservation easements and land set asides, payments for endangered species, and biodiversity or environmental funds.
- The use of eco-labelling or certification schemes has become widespread. Many OECD countries now have a range of eco-labelling schemes in use in their countries, including ones that are international in scope. Independent verification of eco-labelling claims by government agencies or a reputable third-party is increasingly important to consumers.
- Countries such as the Australia, United States, New Zealand, Iceland, and others, have introduced instruments that create and assign property rights, including in other biodiversity contexts such as individual transferable quotas (ITQs) for fishing as well as transferable development rights, for example, for wetlands (the creation of credits that allow development to occur in one wetland area, compensated by the re-establishment of wetlands in another area).
- A popular tool in many OECD countries is the purchase of partial rights to lands which are then removed from development considerations. In other cases, private groups are participating in public auctions of logging rights and successfully acquiring those rights. This is also happening in many non-OECD countries.
- The payment of “bounties” for rare or endangered species involves payments to individuals or firms to provide and maintain mating pairs of the species. Such programmes have been used in the United States, for example, for wolves and for red-cockaded woodpeckers.
- Dedicated funds for the conservation and sustainable use of biodiversity tap into a growing pool of global savings. Funds such as the Zurich-based Sustainable Asset Management (SAM) Group of Sustainability Funds have considerable investments in biodiversity-related businesses. Others such as the EcoEnterprises Fund of the US-based Nature Conservancy leverage public money and NGOs to fund biodiversity-related investments that have a good probability of success.

F. The Global Forest Coalition

31. The Global Forest Coalition provided a critical assessment of market-based biodiversity conservation policies by analysing the challenges of “*trying to squeeze something as holistic as global biodiversity into the structured and relatively rigid framework of the market*”:

- The complexity of separating and commodifying the various elements of ecosystems has proven to be overwhelming in most existing market-based conservation approaches.
- Establishing proper baselines and verification of the added value of the activities of providers of ‘environmental services’ has proven to be a tremendous challenge, making it hard to define what would have happened with a specific environmental value in a business-as-usual situation.
- Another major problem is that of ‘leakage’, implying that the environmental benefits of a project are undermined or even completely negated because the destructive activities are simply moved to another area.

32. Setting up an 'environmental services' market would also lead to profound equity-related questions. Markets require the ownership on the assets that are to be transferred, which leads to the question as to who owns biodiversity and the associated ecosystem services.

33. According to the contribution, it is assumed in most of the literature that market-based conservation mechanisms could be effective and equitable but *only*: (i) if all values are properly accounted for; (ii) if returns are equitably distributed to the proper 'owners'; (iii) if the market is properly regulated; (iv) if those regulations are effectively enforced, and (v) if there is an equal level playing field so that all biodiversity consumers and producers can participate equitably. According to the Global Forest Coalition, it would be difficult to assess whether it is ever possible to meet all these conditions or to find evidence of environmental services markets having a positive impact on poverty alleviation, since the overwhelming majority of existing payments for 'environmental services' projects are funded through public or philanthropic financing. Most 'success stories' would only really be successful because of effective public governance, rather than their links to the market. Furthermore, if effective regulations are in place, for instance a deforestation ban, introducing additional payments for ecosystem services would turn a relatively cheap, successful forest conservation policy into a very expensive forest policy.

34. The contribution also notes the need to analyze Payments for ecosystem services (PES) systems in the light of the impact they may have on public governance, especially in countries where corruption is a widely recognized problem. Actually receiving payments for their environmental services would likely to be challenge for those thousands of small land-holders that do not have close family and friends administering the system.

35. As regards the assumption that PES systems will benefit the poor, the contribution cautions that while the economic rationale sounds convincing, the bureaucratic know-how required to sell an environmental service is a significant hurdle for people who do not possess legal skills and who might not be able to properly read and write the official language of the country. Additional concerns include:

- Lack of marketing skills needed to sell 'environmental services';
- Costs associated with required Environmental Impact Assessments likely to be prohibitive for poor landholders;
- Competitive advantages of large tracts of land with one clearly defined individual owner over territorial lands controlled by (not always well-defined) communities;
- Serious governance problems associated with unclear mandates of community leaders to undertake legal transactions;
- Profound impact on many cultural and environmental values and traditions rooted in predominantly non-monetary community economies, in particular on women (as their interests are more likely to be overlooked in commercial transactions normally closed by men);
- Absence of formal land titles, in particular for many of the poorest groups in society;
- PES policies likely to have additional negative impacts on land reform campaigns and campaigns to obtain recognition of land titles;
- Risk that economically marginalised groups will have to pay for 'services' that they used to receive for free, in particular women and indigenous peoples (noting that in practice, many PES projects seem to have built in safeguards to avoid major negative impacts on social groups on the demand side of social services);

- Risks associated with the inclusion of PES schemes into multilateral and bilateral trade agreements, as these agreements are also likely to undermine or even prohibit the social safeguards needed to make 'environmental services' function.

36. The contribution concludes that new and additional financial resources are still required to support sustainable, democratic and well-enforced public governance of biodiversity, including through redirecting perverse incentives, banning deforestation and safeguarding Indigenous rights. In particular, respecting Indigenous land rights would arguably have been one of the most equitable, effective and efficient policy incentives for sustainable forest management.

G. United Nations Environment Programme (UNEP)

37. UNEP has since the 1990s promoted the use of economic incentives to enable improved sound environmental management which also includes biodiversity. UNEP has also supported country projects that examine the use of economic instruments in specific sectors in developing countries. Based on project experiences and research of the Working Group on Economic Instruments, UNEP has published extensive guidance material and training manuals on economic instruments. Relevant ongoing work programmes include Sustainable Fisheries, International Payments for Ecosystem Services (IPES), Integrated Trade Assessment and Organic Agriculture.

a) Fisheries Subsidies Reform

38. Inappropriate subsidies to the fishing industry are a key factor driving the depletion, overcapitalization, and ecosystem degradation associated with fisheries worldwide. Since 1997, UNEP has helped galvanize international attention to this problem through publications, expert workshops and international symposiums, and will continue to do so. Three demonstration projects will explore the potential to combine public policy reforms related to fisheries management, subsidies and trade, with private sector voluntary actions, and supply chain interventions to promote sustainable fisheries management. Further work will also include: recommendations on how to enforce responsible fishing under access agreements; the review of certification and ecolabelling schemes; and the analysis of fisheries individual transferable quotas.

b) Lessons learned and evaluation of key challenges

- i. *Negative impact of fisheries subsidies:* UNEP country studies confirm that many categories of fisheries subsidies have negative impacts on fish stock health, environmental conditions, and social and economic situations.
- ii. *Positive subsidisation:* Some subsidies are very important for poverty alleviation, social purposes and environmental protection. As long as they do not contribute to overcapacity and overfishing, especially developing countries should maintain the right to keep them.
- iii. *WTO as an international platform for Fisheries Subsidies Reform:* The WTO has been shown to be the most appropriate existing forum for fisheries subsidies disciplines and for achieving alignment of trade and environment goals. However, challenges lie ahead in the areas of implementation of any new rules, as well as in developing means to assuring transparency (UNEP, 2007).
- iv. *Fisheries subsidies discipline design:* Three factors must be taken into consideration when developing indicators for the sustainability of fisheries subsidies measures: (i) biological conditions in the fishery, (ii) fleet capacities and (iii) effectiveness of management. The challenge lies in finding the formula for each of these that is simultaneously effective in terms of biodiversity and fish stock protection and compatible with the WTO rules framework.
- v. *Continued support of developing countries:* It is essential that the international community continues supporting developing countries by ensuring that any new disciplines are positive both for environmental sustainability, as well as long run development.

c) *Addressing the challenges*

General Actions

- Continued international support of developing countries on fisheries subsidies reform
- Increase in funding for research to achieve a better understanding of impacts of subsidies and ways of reforming them
- Transparency must be improved in the areas reporting on subsidy payments

Recommended actions for the Convention on Biological Diversity

- Increased cooperation with other organizations, such as the OECD, FAO and WTO, to bring its knowledge and expertise into the international discussions on fisheries subsidies.
- Encouragement of CBD Parties to consider fisheries subsidies reforms as a means for conserving biodiversity, achieving sustainable development and developing better trade opportunities.
- Enhanced engagement with private sector on the issues of certification and labelling

1. Payments for ecosystem services (PES)

39. Payments for ecosystem services (PES) have recently been gaining increasing attention as a promising new environmental policy instrument. Discussions have also emerged as to whether to scale such payments up to the international level. UNEP and IUCN, in close collaboration with the CBD Secretariat, have been working on the most salient technical and policy challenges facing this emerging mechanism through co-organized meetings for experts and policymakers, joint publications and capacity-building activities.

40. One sub-component discusses payments for Avoided Deforestation. In relation to developing such a mechanism, UNEP and IUCN published a research paper on payments for avoided deforestation which was presented *inter alia* at a joint UNEP-IUCN side event at the second meeting of the Ad Hoc Open-Ended Working Group on Review of Implementation of the Convention, 9-13 July 2007, Paris.

41. Work is also being undertaken on biodiversity offsetting – compensating for internationally-driven biodiversity loss by protecting an amount of biodiversity equal to what is destroyed. This instrument requires that international actors contributing to biodiversity loss through land-use change compensate for their impact by protecting a commensurate amount of biodiversity elsewhere, an act which is sometimes referred to as ‘biodiversity offsetting’.

42. In addition, UNEP is developing principles of fairness and equity for PES schemes. An initial set of principles was developed for the UNECE guide on the design of water related PES, and a primer on the design and implementation of PES will be published by UNEP in 2008.

a) *Lessons learned and evaluation of key challenges*

- i. *Developing Strong Frameworks for IPES:* Before IPES can be established as an effective approach to ecosystem management, further case studies and pilot projects are needed to illustrate the challenges facing ‘on the ground’ implementation.
- ii. *Gaining Stakeholder Support:* While pursuing the many conceptual and technical uncertainties surrounding this mechanism, institutional capacity and gaining support from various stakeholders must also be priorities for the development of IPES.

Avoided deforestation

Based on work to date, UNEP has identified a number of challenges that must be addressed if Avoided Deforestation is to progress:

Providing international platforms for exchange:

- i. *Improving and facilitating MEA cooperation:* Increasing cooperation between CBD and UNFCCC is essential if the climate-conservation dividend is to be achieved.
- ii. *International Exchange Platform:* An international forum is essential for convening stakeholders from the diverse fields AD spans (climate change, biodiversity, desertification, etc.).

Supporting decision-makers:

- iii. *Measurement:* Estimating biodiversity value and the value of its associated ecosystem services (within and external to the AD issue) is a key challenge.
- iv. *Best practices:* There remains no comprehensive document collating best practices to be used as a universal reference for the design of procedures and principles for prospective AD programs, including equity for local stakeholders. Best practices guidelines are required – including on the question of livelihoods in developing countries where the majority of AD activities will take place.

Engaging the private sector:

- v. *Identifying Beneficiaries:* The specific private sector players that receive biodiversity benefits from AD must be identified and consulted with if the private sector is to be convinced to invest in AD.

b) *Addressing the challenges*

General Actions

- Increased funding for research into incentive measures, including pilot projects
- Enhanced engagement of private sector in policy formulation

Recommended actions for the Convention on Biological Diversity

- Mandatory targets set for biodiversity conservation
- Continued support of international incentive measures development
- If avoided deforestation (AD) is to serve as a tool for both biodiversity conservation and climate mitigation, increased cooperation between the CBD and UNFCCC MEAs is required. One possibility is to establish a separate international legal framework for AD, shouldered by both CBD and UNFCCC.

2. *Trade and biodiversity initiative*

43. Further to the call of the CBD Conference of the Parties for the impact of trade liberalization on agricultural biodiversity to be studied in cooperation with international organizations, UNEP is undertaking a four-year initiative (2005-2009) on integrated assessment of trade-related policies and biological diversity in the agriculture sector. The initiative aims to enhance capacity in developing countries to develop and implement policy recommendations – including economic incentives – that safeguard biological diversity while maximizing sustainable development gains from trade liberalization in the agriculture sector. Incentive measures will become relevant at the stage of development and implementation of the national action plans, foreseen to take place in 2009. At this point, the trade and biodiversity initiative will be able to discuss lessons learned and make recommendations for addressing key challenges identified as part of the project.

3. *UNCTAD-UNEP Capacity-Building Task Force (CBTF) - Organic Agriculture Initiative*

44. Organic agriculture (OA) production has been shown to have a positive effect on the local environment, biodiversity and soil fertility, and has the potential to increase the yields and incomes of subsistence farmers in developing countries who are not currently using agrochemicals, thus contributing to poverty reduction and sustainable rural development. Growing world markets for OA products offers interesting export opportunities for developing countries with a comparative advantage in OA due to

relatively abundant labour and lower use of agrochemicals. UNCTAD-UNEP's CBTF supports interested countries through country projects and thematic research studies aimed at developing win-win policy options through promoting OA and easing access of organic products into overseas markets.

a) *Lessons learned and evaluation of key challenges*

(a) *Compliance and certification costs:* The cost of compliance and certification with organic standards is a significant market access challenge, especially for smallholder farmers, in light of increasingly numerous and stringent standards and the lack of institutions and capacity in many developing countries.

(b) *Lack of policy coherence and institutional support:* The limited institutional support and policy coherence between relevant ministries for organic agriculture initiatives is exacerbated by insufficient research and limited data availability on the sector, absence of preferential treatment for market access, as well as lack of information, knowledge and understanding of organic agriculture requirements among farmers.

(c) *Limited participation of developing countries:* Participation of developing countries in international decision-making processes is inadequate and insufficient. The weak negotiating position of developing countries has impeded their participation in standards-setting processes, and has prevented them from having their concerns addressed.

b) *Addressing the challenges*

General actions

- Encouragement of inter-sectoral, inter-ministerial, and inter-governmental cooperation with regards to organic agriculture policy
- Development of mechanisms to facilitate participation of developing countries in decision-making

Recommended actions for the Convention on Biological Diversity

- Encouragement of consistent national, regional and international organic agriculture policies and standards
- Pursuance of favourable policies for organic agriculture in international trade

c) *Priorities for future organic agriculture work*

45. Thematic capacity-building studies were commissioned on key issues associated with OA in three East African countries (Kenya, Tanzania, Uganda). The studies provide essential information and analysis on the promotion of OA production and trading opportunities for relevant stakeholders. In addition, national integrated assessments of organic agriculture undertaken in these countries are nearing completion, which will *inter alia* enable capturing lessons learned and recommendations for replication of the project in other countries. Regional cooperation through Export Promotion of Organic Products from Africa (EPOPA) project will facilitate exchange of national experiences and ensure overall project coherency.

d) *Interface with other instruments and work programmes*

46. UNCTAD's Biodiversity-Related MEA Working Group; UNCTAD's Consultative Task Force on Environmental Requirements and Market Access for Developing Countries (CTF); CITES; IUED (International Graduate Institute for Development Studies, University of Geneva); FAO (Food and Agriculture Organization); IFOAM (International Federation of Organic Agriculture Movements)
