AN INTERNATIONAL MARKET-BASED INSTRUMENT TO FINANCE BIODIVERSITY CONSERVATION:

TOWARDS A GREEN DEVELOPMENT MECHANISM

Report from an Expert Workshop

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INTRODUCTION

The Expert Workshop on a Green Development Mechanism was held on 9-10 February 2009 in Amsterdam, The Netherlands. The aim was to discuss the potential for a global financial mechanism aimed at addressing biodiversity loss: a Green Development Mechanism (GDM). Participants at the Workshop included representatives from national governments, the private sector, international organisations, NGOs and academia. (See List of Participants, Annex A) The Workshop was graciously hosted by the Netherlands Ministry of Environment. The development of the agenda was guided by a Steering Group consisting of representatives from the following organisations: United Nations Environment Programme (UNEP); Secretariat of the Convention on Biological Diversity; World Conservation Union (IUCN); International Finance Corporation; Ministry of Environment of the government of the Netherlands; and, the U.K. Department of Environment, Food and Rural Affairs (DEFRA-UK). The idea driving the meeting was to bring together experts representative of a wide range of experience with conservation mechanisms and development compensation programmes, in order to share experiences and to aid in the formulation of a common framework for the development of a GDM. (Agenda for a GDM, Annex B) The Centre for Law & Economics for Environment and Development (CLEED) of University of Cambridge and UCL provided the background documents and acted as rapporteur for the Workshop.

The objectives of the Workshop were as follows:

1) To establish whether there is a valid case for a GDM. This case rests partly on the significance of biodiversity loss as a global problem. It also relies on the absence of existing instruments to address the problem.

2) To agree on the necessary features that a GDM must have if it is to be effective.

3) To develop one or more proposals for the form a GDM might take.

4) To generate a possible plans of work for the further development of a GDM.

The structure of the Workshop was based around these objectives, with plenary sessions and smaller Working Groups to discuss and to develop possible starting points for GDM proposals. The Workshop was supplied with a Background Paper providing technical information on the range of approaches and options available. It was also supplied with a working paper entitled A Proposal for a GDM, which provided a starting point for the discussions by the different Working Groups. (both published on the CLEED website) This Report from an Experts Workshop was developed as an amalgam of the background papers and the results from the Workshop and the comments received throughout that process. It is intended to

provide an indication of the ways forward that are available as potential avenues for further investigation for the development of a GDM.

Section A of this Report addresses Objective 1 and Objective 2 from the meeting. It first examines the nature and implications of the problem of biodiversity loss. It then looks at why existing mechanisms have so far not successfully addressed the problem. Lastly, Section A sets out the agreed requirements of any mechanism aimed at reducing biodiversity loss.

Declines in biodiversity at the global level are driven by conversion of natural resources for development purposes. This conversion has largely occurred already in developed countries, but is taking place today in many developing countries. Given this, a global mechanism for protecting biodiversity should provide a means for transferring financial resources to biodiversity-rich developing countries. This is necessary in order to compensate for the opportunity costs (in terms of foregone development) of continuing to host biodiversity. The GDM needs to generate an ongoing source of finance for biodiversity conservation. It must also provide a framework through which suppliers of biodiversity can be identified and compensated. Finally, any GDM proposal should consider the governance issues surrounding implementation, monitoring and enforcement.

Section B outlines the four proposals developed by the Working Groups. Each proposal addresses both the demand for, and the supply of, biodiversity conservation. Each one also considers mechanisms for matching supply and demand, and the systems required for monitoring and enforcement the agreed outcome.

The four proposals considered at the Experts Meeting were:

1) Tradable Conservation Obligations
2) Offsets with international support
3) Biodiversity footprint taxation with structured supply
4) Greening of commodity imports.

Section C of the Report sets out a possible plan of work for further development of a GDM. The first stage is to select the one, or possibly two, most promising proposals for more detailed examination. For each of the proposals, there are potential pilot activities that could be implemented, or are already under way. These can provide additional information on the likely feasibility and impacts of the mechanisms. There are also options for small scale or voluntary introduction of any of the proposals in advance of implementation of a complete global mechanism. Section C also provides a timetable of events and activities that provide opportunities for ongoing engagement with the stakeholder groups that have interests in the development of a GDM.

In sum, this Report from an Experts Meeting is intended as a contribution to the project of developing a proposal for a GDM. It provides some structure to the discussion without foreclosing any options at this juncture. The object of this Report is to start the discussions regarding what is necessary to the development of a successful GDM, and to initiate a process that might to that development. The hoped for conclusion to this process is the placement of a proposal before COP-10 in Japan 2010.

SECTION A: FRAMEWORK FOR A GREEN DEVELOPMENT MECHANISM

The Expert's Meeting commenced with a discussion of the Case for a Green Development Mechanism, and what its constituent parts and purposes would be.

There were some general points of agreement among the Meeting participants. These are discussed in detail below, but they can be summarised as follows:

1) There is a clear need for an international mechanism that will help to generate trans-boundary payments to compensate hosts of biodiversity for their opportunity costs of conservation. This conclusion arises from agreement that:

- Global biodiversity loss is a serious problem, and existing mechanisms for conservation are insufficient to address it effectively.

- Much of the world's biodiversity exists in developing countries, while natural ecosystems have largely been converted in developed countries. This means that many of the costs of biodiversity conservation will be incurred in developing countries, while the benefits accrue globally.

2) Habitat conversion is the primary driver of biodiversity loss. However, other factors such as overexploitation of resources, pollution and climate change impacts are also important. A GDM should therefore focus on reducing rates of conversion, but may also need to address other drivers. This could include providing incentives for sustainable resource use or non-polluting production methods.

3) Some form of regulatory mechanism will be required in order to achieve the scale of financial flows necessary to effectively deliver biodiversity protection. However, this may be preceded by voluntary activities as part of a demonstration phase of implementation.

4) A GDM will need to be compatible with existing policy instruments. This applies to both voluntary and national mechanisms for biodiversity conservation, and to related global instruments such as the Clean Development Mechanism.

5) The effective operation of any GDM will be dependent on the prior removal of perverse subsidies. Otherwise, funds for biodiversity protection will be competing with subsidies for land conversion or unsustainable levels of production.

6) There is a clear mandate for a role for the CBD in the development and future implementation of a GDM.

Case for a Green Development Mechanism

The diversity of biological resources is declining at the ecosystem, species, and genetic levels. At the ecosystem level, significant losses are occurring due to human activities. For example, global forest area has been reduced by 40% over the past 300 years, and continues to decline at a rate of 13 million ha per year (FAO 2005). There have also been reductions in mangrove area of 35% in the last 20 years (MA 2005), and a decline in hard coral cover on reefs from 50% cover to 10% over 30 years (Gardner et al. 2003). Rates of species extinction have risen, with 25% of mammals and 12% of bird species threatened (IUCN Red List). Even where species are not lost altogether, reductions in genetic diversity are a serious issue.

There are two key ecological consequences of biodiversity loss. The first relates to declines in ecosystem function, and the second to reductions in the resilience of ecosystems. Through its impacts on ecosystem functioning, as well as the direct provision of tangible and intangible benefits, biodiversity has significant economic value at multiple spatial scales. At the local level, it can provide both productive and consumptive direct use values such as harvests of food and non-food products. The contribution of biodiversity to ecosystem services is often experienced at the national or regional level. These include benefits such as the protection against flooding and water quality improvements provided by intact mangroves or wetlands. Recreation and amenity benefits of biodiversity can be experienced at the local, national or international level, and the values can be considerable.

Although these values of biodiversity are extremely important, they alone do not provide justification for a ***global*** mechanism for biodiversity protection. Benefits such as harvests of natural products or recreational activities are private benefits. As such there is scope for capturing them through existing market mechanisms. Public good values that occur at the national level may require intervention, but this can be implemented by national governments. In some cases, trans-boundary agreements may be required for regional ecosystem services.

Global benefits of biodiversity include the value of genetic information, contributions to the provision of global ecosystem services such as carbon sequestration, and non-use values for both biodiversity as a whole and for the preservation of individual species. These represent substantial welfare reductions as biodiversity declines. In addition, the impact of biodiversity on ecosystem resilience constitutes a global public good that is fundamental to life. All of these values also require institutional mechanisms at the global level in order to capture them. As a result, the mechanisms proposed in this report are primarily aimed at capturing global use and non-use benefits of biodiversity, so that these uses are accounted for in local and national level decision-making.

One important feature of biodiversity is that it is not evenly distributed around the globe. Specifically, diversity tends to increase towards the equator, and the most species rich environments are moist tropical forests. These cover 7% of the world's surface and may hold up to 90% of the world's total species. Coral reefs and areas of Mediterranean climate in South Africa and southwest Australia also have high levels of biodiversity (CBD 2004). The result of this is that the majority of the world's biodiversity is located in developing countries.

The immediate drivers of biodiversity loss relate to the destruction of, or damage to, habitats and ecosystems. Habitat conversion for human activities is the largest single driver, while other important factors include the introduction of invasive species, disease, overexploitation, pollution and climate changes (MA 2005).

All of these underlying drivers are the result of problems of externality, whereby the full social costs of economic activities are not accounted for. Specifically, the private costs and benefits may be those of individual farmers, private firms, or consumers who make use of biodiversity or natural resources. The social costs and benefits, including the costs of biodiversity loss described above, may be experienced at the level of the community, the country, the region or at the global level (Pearce and Moran 1994). The effect of this is that any mechanism for reducing losses of biodiversity must alter the local decision-makers' land use calculus in order to correct for the divergence between private and social costs associated with particular development paths or individual economic activities.

Biodiversity is a global public good, while conservation has opportunity costs at the local level. Therefore there is a need for mechanisms through which the benefits of biodiversity can be transferred to those who both bear the opportunity costs and who make the ultimate decisions about hosting or investing in biodiversity.

Existing methods for biodiversity conservation at the global level include Protected Areas and project-based funding. Protected Areas can in principle be effective in conserving biodiversity if they have sufficient funding to cover both opportunity costs and management costs. However, in many cases they do not address the underlying incentives faced by local decision-makers, and as a result they are frequently ineffective in practice (WCMC 1992). The problems of 'paper parks' arise when funds are insufficient to implement and enforce protected area restrictions. This is of particular concern because management budgets for parks and protected areas across the world are closely associated with national incomes. Developing countries, who host much of the world's biodiversity, are only able to afford to spend a fraction of that being spent in the developed world (James et al. 1999).

Another existing method of biodiversity conservation involves funding for the implementation of individual projects over a fixed period of time. For example, the Global Environmental Facility (GEF) is an important current source of funding for conservation of the global public goods provided by biodiversity. This provides temporary incentives for refraining from economic activities that damage biodiversity, but does not provide the assurance of additional funds for the indefinite future. The pursuit of an alternative development path requires the creation of stable institutions promising long-term flows of funding to these investments, and a funding mechanism for biodiversity conservation must take this form.

In addition to existing global mechanisms for biodiversity conservation, there are numerous national and voluntary mechanisms. These provide important experiences that can be used for the development of a global GDM. They would benefit from having an international structure put in place that aided their further development, provided regulatory assurance and enabled trans-boundary transfers. It is important

that a proposed GDM takes account of these existing instruments, and that it complements and develops them.

Requirements for a Green Development Mechanism

The means for reducing biodiversity loss will necessarily lie in the permanent alteration of the terms of trade between conservation and alternative economic activities, within the decision making framework of the resource hosts. Due to the importance of biodiversity as a global public good, and to the geographical mismatch between the locations of diverse biological resources and many of the beneficiaries of biodiversity conservation, there is a need for a mechanism that can do this at the international level.

An effective institution must provide some manner of assurance of an ongoing future flow of benefits if it is to impact upon the investment decisions of hosts. This is because investment decisions are decisions regarding assets and the anticipated flows regarding them; a host will only deviate from its perceived first-best investment path if the present value of the entire flow of future net benefits from such an alteration would appear to warrant it. Therefore, in order to have a long term impact on decision making concerning the selection of development paths, it is necessary to make an impact on the perceived benefits from alternative pathways into the future, not just at the present time.

In this view a GDM can take any form that will enable: a) the ongoing and continuing transfer of values; b) from the demanders of biodiversity or biodiversity-associated goods and services; c) to those hosts who make the choices regarding assets (usually lands) that are capable of supplying them. Such a mechanism does not currently exist to protect the global values of biodiversity.

Elements of a Green Development Mechanism

A GDM may be thought of as a system that will: a) create a concrete and on-going source of finance for biodiversity; b) generate a well-defined set of suppliers of biodiversity; c) match-up demand and supply in a structured framework; and, d) monitor and enforce this agreement to maintain biodiversity.

I) Demand:

In order to generate transfers to the hosts of biodiversity, sources of demand must be identified and translated into funds for conservation or for encouraging sustainable use. This requires some form of voluntary or regulatory constraint on biodiversity loss. Conversely, activities that damage biodiversity can be constrained. In either event, the idea is to create a constraint which then requires payment of some fee or compensation for its release.

The constraint may relate to all forms of biodiversity loss in all locations. Alternatively, it may be focused on particularly valuable aspects of biodiversity; on

the impacts of particular commodities; or on losses resulting from specified activities, such as land conversion or unsustainable resource use.

It is also possible that the asymmetry in biodiversity resources will require that this constraint be negative in some parts of the world, and positive in others. For example, in Proposal 1 in the following Section, developed states start with an obligation to establish more reserves of unconverted habitat, while developing states start with a constraint that allows some amount of conversion of their existing habitats. Payments from developed to developing are then for the purpose of enabling developed states to meet their obligations to establish reserves by paying developing states to do so.

II) Supply:

As well as generating sufficient demand for biodiversity conservation, a GDM must provide a framework through which biodiversity can be supplied. This requires a mechanism for identifying those groups who host biodiversity, and some agreed means of measuring the amounts of biodiversity being supplied.

There are many important issues that must be resolved regarding the appropriate metric for quantifying the biodiversity supplied. It should take into account the variance in biodiversity across ecosystems of varied type and condition. There are also important issues that must be resolved regarding the identity of the suppliers of biodiversity, whether nation-state, local group or property owners.

It is possible that the supply of biodiversity might be organised by public or private entities. Private firms or NGOs could take a role in identifying particular areas that might provide ongoing supplies of biodiversity, and could also identify the mechanism by which biodiversity payments might generate an ongoing supply from that area. Alternatively, states or local authorities might also be the best-placed providers of a supply of biodiversity, as land-use and reserve designation is usually seen as a fundamental matter of state and local authority.

III) Matching Supply and Demand:

A GDM is intended to provide ongoing transfers between demanders of biodiversity, who are primarily located in developed countries, and suppliers, who are primarily located in developing countries. There are important roles to be determined at several levels of governance: local authorities; national authorities; and international agencies.

Local authorities have a crucial role to play in a GDM since land use and habitat designation is fundamentally a matter of local concern in most states. Local authorities are usually focused on the issues that matter to most local communities, and local resources are usually seen to be one of these local concerns. Any payment (benefit-sharing) and enforcement mechanism must operate at least in part through local authorities.

State authorities have a crucial role to play in both coordinating local authorities' efforts and also in making determinations regarding overall supplies of biodiversity from that state, and the compensation required. States could play many of the

fundamental roles of developing schemes of provision and regulation, and simply list the supplies and contractual terms under which they are available. They might also provide a level of assurance regarding the performance of monitoring and enforcement at local level.

International agencies might play a range of roles, from information conduit and exchange to regulatory standards and assurance. To the extent that local and national authorities take on most of the responsibilities, the international role is increasingly one of an exchange that provides information and assurance that the national undertakings are being fulfilled. To the extent that regulatory standards are made more uniform and inter-changeable (in order to ensure that trans-boundary exchanges are possible), then the roles of regulation are undertaken more at the international level.

IV) Monitoring and Enforcement:

Monitoring and enforcement is crucial for the GDM to be credible. Biodiversity will be supplied within national boundaries, and so must rely substantially upon national and local authorities. However, if it is compensated through a global mechanism, the certification process must ensure that the terms of any international agreement are met. Effective implementation depends on the credibility of the institutions involved. They must also be capable of enforcing commitments over long periods of time. In the end, effective demand for biodiversity will only be generated to the extent that credible monitoring and enforcement mechanisms are put in place.

The GDM design needs to specify the division of responsibilities between different levels of authority, and indicate how each level is able to enforce the obligations undertaken at the other levels of authority. This might imply that the funding is provided over a longer period of time, but on a period by period basis, dependent upon demonstrated and effective monitoring and enforcement.

It might also indicate that some manner of periodic inspection across levels of governance will be necessary, with built-in checks for withheld payments. Alternatively, it might suggest that particular forms of supplies are provided that are subject to external (e.g. satellite) monitoring.

SECTION B: PROPOSALS FOR A GREEN DEVELOPMENT MECHANISM

After considering the case for a GDM and the requirements of any form mechanism, the Experts Meeting turned to consider possible designs for a GDM. Several options were identified, around the ideas listed above, and the groups met to provide some concrete structure to each of the options. The four possibilities considered were: 1) tradable conservation obligations; 2) offsets with international support; 3) biodiversity footprint taxation with structured supply; and 4) the greening of commodity imports.

1) Tradable Conservation Obligations

Description of mechanism:

Tradable Conservation Obligations (TCOs) refers to a 'cap and trade' type of mechanism. Under such a system an aggregate target level of effective global conservation is agreed. Then states are allocated individual quotas of that aggregate target based on some formula of agreed burden sharing. States must then meet their quota by means of effective conservation within their own boundaries, or by means of acquiring a supply of effective conservation obligations (TCOs) from others. For example, it might be the case that obligations are agreed such that developed countries are initially in deficit, given that they have already converted the majority of natural habitat. Countries with large areas of unconverted land would be "in credit" and would have surpluses of TCOs available for exchange. The trading mechanism allows those with shortages of protected land to purchase Conservation Obligations from those with surplus land available for protection. This will generate a flow of funding from regions that have already developed to currently developing regions. This system might also be joined up with the Climate Change mechanisms, by means of enabling conservation obligations to be tradeable to meet commitments within either or both regimes.

Source of demand:

Demand is translated into financial resources for conservation through a globally agreed commitment by every country to maintain a certain quota of effective conservation (e.g. a particular area of habitat under effective conservation). The tradability of these commitments means that conservation is paid for by countries with initial deficits of protected areas, as they are required to purchase Conservation Obligations from those with initial surpluses.

There is also scope for capturing demand from the private sector and NGOs within the TCO mechanism. National governments will be responsible for providing initial transfers of resources; however, if private companies wish to developed additional areas of unconverted land, they will also be required to purchase conservation credits in order to maintain the protected area targets. NGOs may purchase credits in order to generate conservation in excess of the agreed targets.

In addition, other international obligations might provide the impetus for other sources of demand, e.g. to meet climate change protocol commitment to effective

forest conservation. It would be possible to segregate conservation obligations into various forms of habitats, some of which would be available for meeting obligations that arose out of other legal settings.

Demand for conservation is expressed through the purchase of TCOs: tradeable conservation obligations. These TCOs might be segregated into different forms or categories that might be tradeable only for specific types of obligations (e.g. specific types of habitat obligations). The TCO is a certificate that represents a quality-assured commitment to effective conservation by the supplier of that particular commitment.

Supply of biodiversity:

Suppliers of biodiversity provide units of the TCOs representative of the effective management of a defined quantity and quality of habitat. These units are supplied by states, but certified on the basis of global standards for biodiversity protection. The state is the legal issuer of the TCO, although the specific agent operating the area (under state supervision) might be public, private or NGO. Existing protected areas can contribute to compliance with national targets or can be sold as conservation credits, provided they are effectively managed. Newly created protected areas can also be introduced to the tradable system. The international agency is responsible for quality assurance of state commitments, and the maintenance of some level of standardisation across TCOs.

The mechanism is primarily focused on effectiveness in supplying specified quantities and qualities of habitats. However, the specific meaning of a TCO will depend on how 'effective management' is defined. There is the potential to include other forms of conservation commitments within the definition, such as a national commitment to effective management spending or a national commitment to specific species protection. These would be matters handled by the international agency in regard to its responsibility for standardising the definition of a TCO.

The total supply of credits is registered at the national level. This register of potential TCOs is then provided to the international agency for placement on the international market.

Matching Supply and Demand:

A key feature of this mechanism is the role of the international agency in supplying some form of international marketplace for matching up the demanders and the suppliers of TCOs. One possibility is that the agency operates a global clearing house for bringing together demand for biodiversity conservation and supply. The GDM Clearing House then lists all quality-approved state-registered TCOs within the Clearing House.

The international agency is also responsible for setting the standards for the trading of TCOs. For example, there may be different categories of TCOs (related to different forms of habitats or commitments) and different exchange ratios between different categories. This is an important feature of the TCO mechanism because all hectares of

conserved biodiversity may not be deemed to be of equal value. Instead the value depends on the relative scarcity of a particular resource and the threats to its continued existence. The ratio at which obligations in one country can be met through the purchase of land management contracts in another may be made a function of these relative values. In certain cases, such as for heritage sites, only uni-directional trades may be permitted. The role of the international agency would be to establish the system of TCOs and the committee by which the trades were certified or agreed. It would also be responsible for developing the standards under which state-level registration and supervision of commitments was monitored.

Monitoring and Enforcement:

Supply of biodiversity conservation will be certified and monitored at the domestic level, with oversight by the international agency. Monitoring by the agency is necessary to ensure that the benefits are provided in practice. Certification and monitoring could be carried out by agencies similar to the Designated Operating Entities (DOE) of the Clean Development Mechanism (CDM). These are private organisations that have been accredited by the Executive Board of the CDM. An institution of the CBD could carry out the accreditation role, as well as the monitoring of the DOEs.

Compliance by suppliers is ensured through the threat of withholding annual payments, and enforced by a global Compliance Committee. Enforcing compliance with agreed state targets by the individual states is more difficult. Available sanctions are limited to NGO pressure, loss of political capital etc.

Advantages:

- Potential for significant, ongoing financial transfers for biodiversity protection at the global level.
- The mechanism provides both incentives for reducing land conversion and incentives for conserving land of high biodiversity value.
- A specified quantity of biodiversity conservation is guaranteed (uncertainty relates to price rather than quantity, which is appropriate given the irreversibility of biodiversity loss).
- Biodiversity can be conserved in the locations where the opportunity costs are lowest. At the same time, manipulation of trading ratios can be used to ensure protection of the most highly valued components of biodiversity.
- System is most flexible on account of "currency concept" of TCO, enabling the dove-tailing of this system with others such as the obligations for forestation under Climate Change Convention

Potential issues:

- The rates of exchange for different components of biodiversity may be difficult to agree on internationally.
- There will be trade-offs between the allowing exchanges of Conservation Obligations to occur without interference, and avoiding losses of particular components of biodiversity.

- Local communities will be affected by the spatial distribution of protected areas. Those with rights to land will gain from the sale of conservation credits. Those without rights to land may gain from local ecosystem services that are protected in addition to global biodiversity benefits. Alternatively, they may lose potential development opportunities.

2) Offsets with International Support

Description of Mechanism:

There are numerous examples of national and sub-national mechanisms for biodiversity conservation that involve restrictions on development. Increasingly, these provide flexibility through the use of biodiversity offsets in cases where development is unavoidable or particularly desirable. Such mechanisms are becoming relatively common in developed countries. This is because these systems rely on the administrative capacity of the individual state to designate and enforce development restrictions, and to certify offsets for development activity. The objective of an "Offsets Plus" proposal would be to help extend these regimes to developing countries, and to explore the possible mechanisms for providing some linkages between state-level regimes.

The proposed "Offsets Plus" mechanism would provide international support for national or regional conservation activities, aimed at achieving planning based biodiversity management in individual states. A global institution, the 'GDM Clearing House', would support the development of national conservation plans in developing countries. These plans specify the areas in which development is restricted, and the priority areas for biodiversity conservation. Individual countries that agree to implement the plan domestically benefit from the centrally-supplied assistance in doing so.

The GDM Clearing House mechanism might act as a type of "exchange": a centralised listing mechanism that specifies the minimum standards that must be satisfied for a national programme to be listed on the GDM Clearing House. Then national systems would provide certification and offset programmes at higher levels of certification, monitoring and enforcement in order to secure a listing. This would provide for more diversity of practice and regulation at national level, but the provision of some level of assurance and confidence through international listing.

Source of Demand:

Under this proposal, restrictions on land conversion for development are imposed at the national level. The restrictions may pertain to all unconverted land, or only to land within zones designated as areas of high biodiversity value. In the latter case there is a requirement for mapping and planning to specify the zones in which development is unrestricted; permitted with offsetting; or disallowed altogether.

Financing for biodiversity conservation within this mechanism comes from developers of land in restricted zones. Those who wish to convert land must

compensate for the relaxation of development restrictions. This is done by purchasing biodiversity offset credits, generated through conservation activity in other locations.

Supply of Biodiversity:

Private landowners or public authorities (through land use and habitat regulation) supply specific conservation outcomes in specific habitats. One of the primary objectives of the system would be to induce national level authorities to introduce land use planning that includes a biodiversity management target. This targeted level of biodiversity might be specify the retention of certain types of critical habitats, or it might provide for an aggregate level of conservation that is desired across the country. The primary distinction between this system and that of the TCO (see 1) above) is that this is a state-focused conservation regime with linkages, while the TCO regime encourages conservation at the integrated level.

The state concerned would then certify under its own regulations that the offset meets its requirements for listing. The national level regulation may take the form desired by that state, providing for flexibility and experimentation within the system.

Matching Supply and Demand:

In this system all development restrictions are imposed through national legislation. National agencies also have responsibility for certification of offset proposals. For the most part, it is conceived as a standalone national system of internal offsets, with the possibility of linkage and of wider communication.

Some system of zoning would make it more likely to link between different national systems. To this end national regulations could specify what is required to offset development activities by reference to particular zones. In certain zones, like-for-like exchanges may be required. In other zones, equivalent areas of different habitats may be acceptable. It might be possible that some zones will be designated as unique and unavailable for offset.

The initial role of the GDM Clearing House is to provide information on the different national offset/credit markets. At a minimum this makes it possible for developers to elect to operate in a given state, given information on the status of its current biodiversity management system.

It is also possible for the GDM Clearing House to take a more active role to provide some minimum standards for listing and to provide some measure of comparability between offsets. In this case the GDM Clearing House would provide applying states with a list of agreed principles and guidelines to inform them on the development of a national system. The GDM Clearing House would then also aid in channelling funds to states for establishment of adequate national systems, and would provide over-arching monitoring of the auditing process for ensuring that national systems met their own standards. All of this would be required in order to secure a listing at the GDM Clearing House.

Monitoring and Enforcement:

With regard to the nationally established offsets, local communities and stakeholders will carry out local monitoring. This will be supplemented with monitoring at the national level, as well as GDM monitoring for continued listing of the scheme. Enforcement at the national level is achieved through the use of contracts, with bonds to ensure compliance. Enforcement of international standards is based on the potential for de-listing national schemes that do not meet the required standards.

Advantages:

- The mechanism builds on existing national conservation programmes and may be implemented incrementally over time.
- Each country can independently determine its priorities for biodiversity conservation.
- Areas of unique or particularly valuable biodiversity can be zoned to prohibit all development. This provides assurance that such areas will not be irreversibly converted.
- Participation in the global mechanism is voluntary, which reduces the need for complex multilateral agreements. At the same time, offsets are mandatory for developers in participating countries, which generates demand for biodiversity credits.
- The mechanism does not have to set exchange rates for biodiversity conservation across national boundaries.

Potential issues:

- Reduced role for international transfers, since emphasis is on national level offsets and "no net loss" (indicates importance of linkages and comparability)
- Reduced role for international harmonisation but increased role for national experimentation.

3) Biodiversity Footprint Taxation with Biodiversity Supply Mechanism

Description of Mechanism:

Under this proposal countries would agree to adoption of a tax system based around the principle of "biodiversity footprint" taxation, with revenues flowing into a "biodiversity supply mechanism". For example, footprint taxation might be based around the targeting of certain commodities that are highly correlated with conversion activities. The approach provides both incentives to countries to minimise their unsustainable footprint (e.g. through the use of certified commodities) as well as an incentive to invest in conservation and sustainable use. Conservation thus competes with conversion on a better footing, providing incentives for intensification of agricultural production rather than conversion.

Source of Demand:

Developed country governments take on commitments to reduce their unsustainable biodiversity footprint through "biodiversity footprint" taxation, with revenues flowing into a national or international fund. As a "biodiversity footprint" tax at the individual

level would be difficult to merge with existing VAT or income tax systems, the tax would be imposed at the country level. Therefore, each country would make payments based on their "biodiversity footprint", but they would decide independently how to raise the necessary funds at the domestic level.

Calculation of each country's footprint could be done along the same line as the CO-2 emissions calculation in the recent Mexican proposal under UNFCCC (mix between use and per capita income, GDP).

The funds raised would finance conservation of biodiversity and intact ecosystems, restoration of degraded ecosystems as well as sustainable production projects, through a "biodiversity supply mechanism".

Supply of Biodiversity:

Payments from the "biodiversity supply mechanism" should be made upon delivery of certificated "conservation outcomes". These conservation outcomes would be supplied in return for certificates per unit of effective conservation. The specifics of what would constitute effective conservation require further development. These certificates may be allocated to individual national governments or awarded through a centralised institution. In any event a centralised set of standards would be required to establish the conservation effectiveness required to achieve certificated status, and to determine the denomination of each certificate.

Suppliers of "conservation outcomes" may include local, regional and national governments, biodiversity banks or private landowners. International agreement would need to be reached concerning the prioritisation of conservation objectives, with implications for the distribution of expenditure. Possible models for expenditure include twinning (national funds focussing on specific ecosystems or countries) or an international scoring system (e.g. on the basis of current GEF system), in which CBD might play a more prominent role. Prioritisation may also be based on areas where pressure from landtake/conversion is high, in order to steer away from a race to the bottom where conservation focuses on areas that are currently not under threat.

Matching Supply and Demand:

The "biodiversity supply mechanism" would provide the assurance that funding would flow on an ongoing and permanent basis to those entities offering a supply of biodiversity services. The mechanism could do this by setting the price it was willing to pay for each certificate of conservation effectiveness. The mechanism would also establish the standards required to receive a certificate, and then allocate quotas of certificates to member states in accord with monitored conservation effectiveness in those jurisdictions. It would then be the obligation of the member state to allocate the certificates in such a manner to achieve conservation outcomes so as to acquire certificates in the coming year.

Monitoring and Enforcement:

Certification and monitoring of conservation outcomes could be undertaken by accredited private agencies. These agencies would ensure that bids made were

legitimate in terms of land ownership, and that additional biodiversity benefits would be generated. They would also monitor outcomes. The accredited agencies would in turn be monitored by a credible centralised institution. This institution may be a body of the CBD.

Failure to deliver conservation outcomes would be penalised through non-renewal of certificates. The sanction for ineffective monitoring would be removal of accreditation.

On the demand side, "biodiversity footprints" would be measured nationally, in accordance with centrally agreed methodologies. Enforcement of financial contributions by individual states would be difficult. Available sanctions are limited to NGO pressure, loss of political capital etc.

Advantages:

- Clear incentive to reduce unsustainable consumption; direct link between source of funds for GDM with pressure on biodiversity.
- The demand is consumption based. Consumption of high-footprint commodities is one of primary drivers of biodiversity loss, so there is a direct link between wealthy countries' behaviour and biodiversity loss in developing countries. Furthermore, consumption will continue, so this is a continuous financing mechanism.

Potential issues:

- Need for international coordination of taxation schemes (highly speculative)
- Targeting of specific commodities must be considered in relation to relevant WTO agreements and dispute resolutions
- Tax burden (although recognition that any tax should be accompanied by removal of perverse subsidies, thus creating room for manoeuvre).
- Further work would be required on the methodology for calculating Biodiversity Footprints.
- Inadequate specification of the "biodiversity supply mechanism" to date (although the mechanism may be derived by reference to options 1) and 2) above)

4) The Greening of Commodity Imports

Description of Mechanism:

Importers of high-biodiversity footprint commodities (e.g. timber, palm oil, soy, meat, etc) are obliged (in a regulated scheme) or can voluntarily 'green' those imports by attaching 'greening certificates' to them. Such certificates can be purchased in the marketplace and originate from certified activities in developing countries. Certified activities could include sustainable production processes of high-footprint commodities or ecosystem conservation and restoration.

Source of Demand:

Developed country governments take on commitments to constrain imports of unsustainably produced commodities. Commitments could be expressed in % of imports greened. Governments pass on the responsibility of compliance with this commitment to commodity importers (those that buy from developing countries) by obliging them to 'green' the set % of imports through the purchase of certificates per unit of commodity. Importers can pass on the cost of greening to their downstream clients. Any imports of commodities already certified as having been produced sustainably according to standards recognised by the GDM (e.g. FSC for timber) will be exempt from the greening obligation.

Where certificates for sustainable production are purchased, commodity importers (and ultimately consumers) in developed countries pay to reduce the biodiversity impacts of commodity production. Where certificates for ecosystem conservation and restoration are purchased, they pay for activities that to some extent offset the negative biodiversity impacts of commodity production.

Supply of Biodiversity:

A proportion of the supply of biodiversity in this mechanism comes from the sustainable production of high-impact commodities by the private sector. Certificates are issued per unit of sustainably produced commodity. Since a number of certification standards already exist for sustainable production (generally called eco-labelling) these provide a good framework to piggy-back on. However, their biodiversity–benefit component would have to be strengthened to the point where it becomes acceptable to an over-arching GDM 'meta-standard' or set of principles and criteria. It could be the role of the CBD to develop these and to fulfil a function of accreditation and high-level oversight of 'associated standards'.

The alternative to sustainable production is the supply of project-based conservation or restoration activities. Private landowners supply specific conservation projects in return for certificates that can be sold to commodity importers needing to 'green' their imports. This would require agreed standards regarding the types of activities that could be supplied in return for certificates, and the quantity of certificates for particular activities in different locations and ecosystem types.

As supply takes multiple forms (sustainable production of various commodities and different types of conservation or restoration activities), it is necessary to create a single 'currency' through which they can be compared. This may be a multi-criteria score for 'biodiversity benefit', in which case each activity would need to be scored on the basis of its impacts on biodiversity relative to a baseline. In the case of sustainable production, the biodiversity impacts could be scored relative to conventional production. Conservation activities would need to be scored in terms of additional biodiversity preservation relative to a baseline position. In either case, the scoring system would need to be applicable to diverse aspects of biodiversity conservation.

Matching Supply and Demand:

As this is a market-based mechanism, buying and selling of certificates could be done through exchanges, brokers, traders, or through direct bilateral deals. Pricing would occur according to the dynamics of supply and demand.

A number of different certificates based on different associated standards could be used for compliance in the GDM. Therefore, a centralised GDM authority, established through the CBD, would be responsible for setting the number of each type of certificate necessary to 'green' a unit of a particular commodity. On the demand side, the number of certificates required for each commodity could be based on the biodiversity impacts of the production of that commodity using conventional methods. On the supply side, the number of certificates required would depend on the 'biodiversity benefit' of the certified activity. 'Biodiversity benefits' would have to be made comparable across categories of activity, ecosystem types, and components of biodiversity.

Monitoring and Enforcement:

National governments have responsibility for ensuring that the % of imports 'greened' through the purchase of certificates meets their domestic commitments.

Certification of supply takes place within accredited schemes. Each of these has its own processes for monitoring compliance with certification standards. The GDM authority ensures that both the standards set by accredited schemes, and their monitoring processes, meet the requirements of the GDM.

The compliance of the certification schemes can be enforced through loss of accreditation if GDM standards are not met. National governments will enforce compliance by domestic importers, for example using fines per unit of commodity greened less than the obligation. National performance will be reported and registered with the GDM. As with the other mechanisms, compliance with national commitments is difficult to enforce using formal sanctions.

Advantages:

- The demand is consumption based. Consumption of high-footprint commodities is one of primary drivers of biodiversity loss, so there is a direct link between wealthy countries' behaviour and biodiversity loss in developing countries. Furthermore, consumption will continue, so this is a continuous financing mechanism.
- Certification and eco-labelling are an established concept. Existing standards can be used and strengthened on their biodiversity component.
- A voluntary pilot phase can relatively easily be led through government leadership in green public procurement.
- Since it is a market mechanism it has the potential to draw in private investment expecting to make a return on the sale of certificates. This will increase efficiency and effectiveness of the GDM.
- Dynamics of supply and demand will provide the correct price on the incentive at a given time.

Potential issues:

- Exchange rates will be difficult to know in advance, which makes the cost implications and economic burden of any commitments difficult to anticipate. Yet commitments should ideally be made at an early stage, whilst the nitty-gritty of the system can be worked out in due course.
- Comparing biodiversity benefits across multiple certification standards, commodities, conservation activities, and components of biodiversity will be difficult.
- WTO trade laws and agreements might not allow the greening obligation (this should be further analysed).

SECTION C: PLAN OF WORK

Selection of Proposal(s) to take forward

The Expert Workshop proposed four possible Green Development Mechanisms. These differ in the ways in which demand for biodiversity conservation is generated, and the ways in which biodiversity conservation is supplied. The next stage will be to identify the most promising mechanisms for further consideration. These would then be developed further into a more detailed proposal for consideration at the COP-10 of the CBD.

Selection between mechanisms may require additional evidence on the likely feasibility and impacts of the proposals. Potential sources of information are discussed below. In addition, objective criteria should be used for comparison. These criteria will include:

i) The likely effectiveness of the mechanism in achieving reductions in biodiversity loss

ii) The efficiency of the mechanism in achieving those reductions with minimum opportunity costs

iii) Minimisation of implementation, monitoring and enforcement costs

iv) Expected distributional impacts, both within and between countries

v) Long term sustainability

Assessment of the proposals may lead to a conclusion that elements of several of the proposed mechanisms should be combined. Examples of possible complementarities would be:

- Proposals (1) and (2) both involve offsetting the biodiversity impacts of land conversion, at the international and national levels respectively. There would be scope for the mechanisms to co-exist, with linkages between the national and international elements.
- Proposals (1) and (2) focus on the impacts of land conversion, while Proposal (4) focuses on the impacts of unsustainable production practices. It is possible that elements of each may be required to fully address biodiversity loss.
- One component of Proposal (3) is the creation of a fund for biodiversity conservation. This fund could be used to support land-use planning in developing states, as suggested in Proposal (2).

Key building blocks for all Proposals

Due to commonalities between the four proposals, there are certain issues that will need to be addressed regardless of the final choice of mechanism. These are priorities for further analysis, which can be undertaken in advance of the selection of a single proposal to take forward to COP-10.

Prioritisation of biodiversity protection objectives: The distribution of benefits of biodiversity protection will vary depending on what is protected, and where. All of the proposed GDM designs involve implicit or explicit decisions about what should be protected. Therefore it is important to consider how this prioritisation should be carried out (e.g. it could be done through the use of spatial mapping and planning). The nature of the decision-making process should also be considered; i.e. whether it should be based primarily on scientific assessments or on broader political processes.

Biodiversity metric: Any GDM will require methods for measuring changes in biodiversity that can be applied to multiple ecosystem types in varying condition. Mechanisms involving offsets rely on comparisons between biodiversity losses and gains, so these must each be quantified. Mechanisms involving direct payments or credit allocations for biodiversity conservation or sustainable use must also quantify the improvements that result. The metric that is developed needs to account for the multi-dimensional nature of biodiversity. It must also account for spatial and temporal variation in the value of particular components of biodiversity.

Certification of biodiversity supply: All of the proposals involve payments or credits for those who supply biodiversity protection. Therefore, a key issue for the design of any GDM is what types of activities constitute certifiable supply. This includes questions of how to ensure additionality and avoid leakage when certifying particular projects.

Monitoring changes in biodiversity: In addition to quantifying the impacts of changes in the quality and quantity of natural resources, it will be necessary to develop methods for monitoring those changes. Existing instruments use a mix of remote sensing data, and field surveys of sample sites. Further research should be undertaken into the relative costs and effectiveness of alternative methods. Consideration should also be given to who is best placed to carry out monitoring activities.

Contract design and enforcement: In all of the GDM proposals, suppliers of biodiversity are provided with payment or credits in return for delivering biodiversity benefits. Enforcement largely relies on withholding payment in cases where benefits are not delivered. The implementation of a GDM will require further evaluation of the possible design of contracts for delivery of biodiversity benefits, and the appropriate payment mechanism.

In addition to these general issues, further work will be required for each of the proposals to answer some specific questions. Key questions for each individual mechanism are presented below.

	Tradable Conservation Obligations	**Offsets with National Support**	**Biodiversity Footprint Taxation**	**Greening Commodity Imports**
Source of Demand	How should protected area targets be set?	Where will finance for a GDM Clearing House come from? Can North-South transfers be generated?	How will the biodiversity footprint be measured? Will the tax be levied on states or on individuals? How will the tax be levied?	How will the % of imports requiring 'greening' be measured e.g. based on value of imports, or related to biodiversity impacts of particular commodities? How will the obligation relate to WTO trade agreements?
Supply of biodiversity	How should 'effective management' of PAs be defined?	What will the currency be for biodiversity supply?	What type of "conservation outcomes" would be supplied? What will the currency be for biodiversity supply?	What will the currency be for biodiversity supply?
Matching Supply and Demand	How should trading ratios be set? Should trades across all components of biodiversity be allowed?	How should trading ratios be set? Should trades across all components of biodiversity be allowed? How can demand and supply be matched across national boundaries?	How will the "biodiversity supply mechanism" select which conservation activities to fund? Will a centralised body be responsible for matching supply and demand or will bilateral agreements be made between states?	How will "biodiversity benefit" be compared across both sustainable production and conservation/restoration? How will the number of certificates relate to the national commitments for % commodity imports 'greened'?
Monitoring and Enforcement	Who will sanction non-compliance across national boundaries?	How can the "GDM Clearing House" best increase capacity for monitoring and enforcement in states that implement national plans?	How will national measurements of biodiversity footprints be monitored? Who will sanction non-compliance across national boundaries?	Who will be responsible for monitoring compliance with national commitments? Who will sanction non-compliance across national boundaries?

Pilot activities and existing evidence

There is substantial scope for learning from experiences with instruments that exist currently around the world. These experiences will be relevant for the selection between the four current proposals. They will also aid the further development of the selected proposal(s).

For each of the GDM proposals there are also potential pilot activities that could take place in advance of the implementation of a complete mechanism. Some of these activities build on existing policy instruments, and can provide biodiversity benefits in the short term. They would also provide additional information on the likely impacts of the proposed mechanism, and on issues relating to their implementation.

Existing mechanisms and experiences:

Voluntary and regulatory biodiversity offset programmes are already in place in many countries. These can provide lessons on spatial mapping of biodiversity priorities; metrics for comparing gains and losses in biodiversity; and methods for certification and monitoring of offset suppliers. These lessons would be relevant to all of the GDM proposals. A review of existing mechanisms can be found in the Technical Background Paper to this Workshop.

The REDD initiative is currently being piloted. The pilots involve finance provided by individual national donors in return for avoided deforestation in individual developing countries. They may offer lessons that would be relevant for the development of any version of a GDM. These would include monitoring systems or means of ensuring additionality.

Proposal 3 (Biodiversity Footprint Taxation) suggests contributions to a global conservation fund based on the Biodiversity Footprint of each country. A number of places have already attempted to calculate regional or national Ecological Footprints. For example, New South Wales, Australia, publishes their Footprint area in their annual State of the Environment report. A review of the processes involved would be a valuable contribution to the development of Biodiversity Footprint estimates.

Possible pilot activities:

Any of the proposals may be introduced voluntarily by a subset of countries in advance of implementation at the global level.

- In relation to Proposal 1 (Tradable Conservation Obligations), there is scope for bilateral agreements between developed and developing countries to commit to set targets for protected areas. Alternatively, these commitments could be made a small group of countries.
- Proposal 2 (Offsets with International Support) is voluntary in terms of participation by developing countries. It could be implemented at a sub-global level if one or more developed countries provided support for the development of conservation plans.
- Voluntary implementation of Proposal 3 (Biodiversity Footprint Taxation) would involve the measurement of Biodiversity Footprints for individual countries, with linked donations to conservation funds.

- Commitments to 'green' imports in Proposal 4 (Greened Commodity Imports) could be introduced voluntarily by the private sector. Commitments to purchase 'green' commodities could be made by governments or private organisations.

In addition to incremental voluntary implementation, another possible pilot stage for Proposal 4 (Greened Commodity Imports) could involve strengthening the biodiversity-related elements of existing certification schemes e.g. GreenPalm certifications for palm oil, or Renewable Energy Certificates. This would provide lessons concerning the types of activities that can be certified, and the issues relating to certification and monitoring.

An important area of uncertainty in Proposal 1 (Tradable Conservation Obligations) relates to the trades in obligations that would occur. The pattern of exchange will have potentially significant welfare impacts. One method for investigating these impacts in advance is by modelling the expected outcomes for a small number of developed and developing countries.

Opportunities for further engagement

The Experts Workshop provided an initial forum for discussion of a GDM, bringing together representatives of national governments, international organisations, NGOs and the private sector. Further development of a GDM proposal will involve ongoing participation by these stakeholders. There are a number of frameworks within which this can occur.

The Economics of Ecosystems and Biodiversity (TEEB):

TEEB is intended to quantify the economic costs of biodiversity loss, and identify potential economic instruments for biodiversity protection. It involves considerable consultation with national governments and the private sector. A key aim is to increase awareness and understanding of the causes and consequences of biodiversity loss, and the need for significant action to alter current trends.

TEEB provides a number of valuable opportunities in relation to the development of a GDM. Firstly, it generates new impetus on the need for action to prevent biodiversity loss. Secondly, evidence on existing innovative mechanisms for biodiversity at the national and regional levels is being collected. This type of evidence will be important in supporting the case for a GDM. Lastly, TEEB aims to identify opportunities for policy reform. Proposals for a GDM may be viewed as one such opportunity. Linking the GDM proposal with the TEEB process is therefore likely to be highly productive.

Currently, Phase II of TEEB is ongoing. Workstream D1, the Report for Policymakers, has been launched. It will present the case for policy mechanisms that support the protection of biodiversity, and identify what those mechanisms might be. This Workstream will be particularly relevant for proposals on a GDM. The D1 Report will be produced by Autumn 2009.

Workstreams D3 (Business) and D4 (Consumers) may also be relevant for the development of one or more of the proposed GDMs. The D3 and D4 Reports will be prepared by early 2010.

OECD Working Group on the Economic Aspects of Biodiversity (WGEAB):

The WGEAB is holding a workshop on 2 July 2009. This provides an additional opportunity for discussion of proposals for a global mechanism for biodiversity conservation. The provisional title for the workshop is 'Innovative Financing Mechanisms for Biodiversity Conservation (and Sustainable Use)'. It will be open to OECD delegates and external experts, and will provide a potential forum for further discussion of one or more of the GDM proposals. The workshop will be followed by a WGEAB meeting for OECD delegates on 3 July 2009.

BioEcon X and Similar:

There a numerous meetings on policies related to biodiversity conservation, and one such is the BioEcon workshop in Venice on 21-22 September 2009. It would be propitious to place GDM proposals on the agendas of such meetings, or to place the Workshop Report or a Background Paper up for consideration at such meetings.

CBD COP-10:

The medium-term objective for the development of a GDM is to prepare a proposal for consideration at the CBD COP-10. COP-9 gave a strong mandate for the development of a financial mechanism for biodiversity conservation at the global level. It provides guidance on the avenues for incorporating a GDM proposal into the CBD process, specifically at COP-10.

The decision on financial resources is particularly relevant, in particular the adoption of the strategy for resource mobilization contained in this decision (decision IX/11 B). Goal four of the strategy is to "*Explore new and innovative financial mechanisms at all levels with a view to increasing funding to support the three objectives of the Convention"*, and refers to PES in sub-goal 4.1 ("*To promote, where applicable, schemes for payment for ecosystem services, consistent and in harmony with the Convention and other relevant international obligations"*). There are also activities on biodiversity offsets (4.2) and innovative sources of international development finance (4.5).

Para 9 of decision IX/11 B maps out a process for further work on goal 4 of the strategy for resource mobilization and this process provides an entry point for feeding subsequent work on a GDM into the CBD process:

(a) Requests the Executive Secretary to prepare a document on policy options concerning innovative financial mechanisms, with inputs from regional centers of excellence in a geographically balanced way and forward it to the Ad Hoc Working Group on Review of Implementation of the Convention;

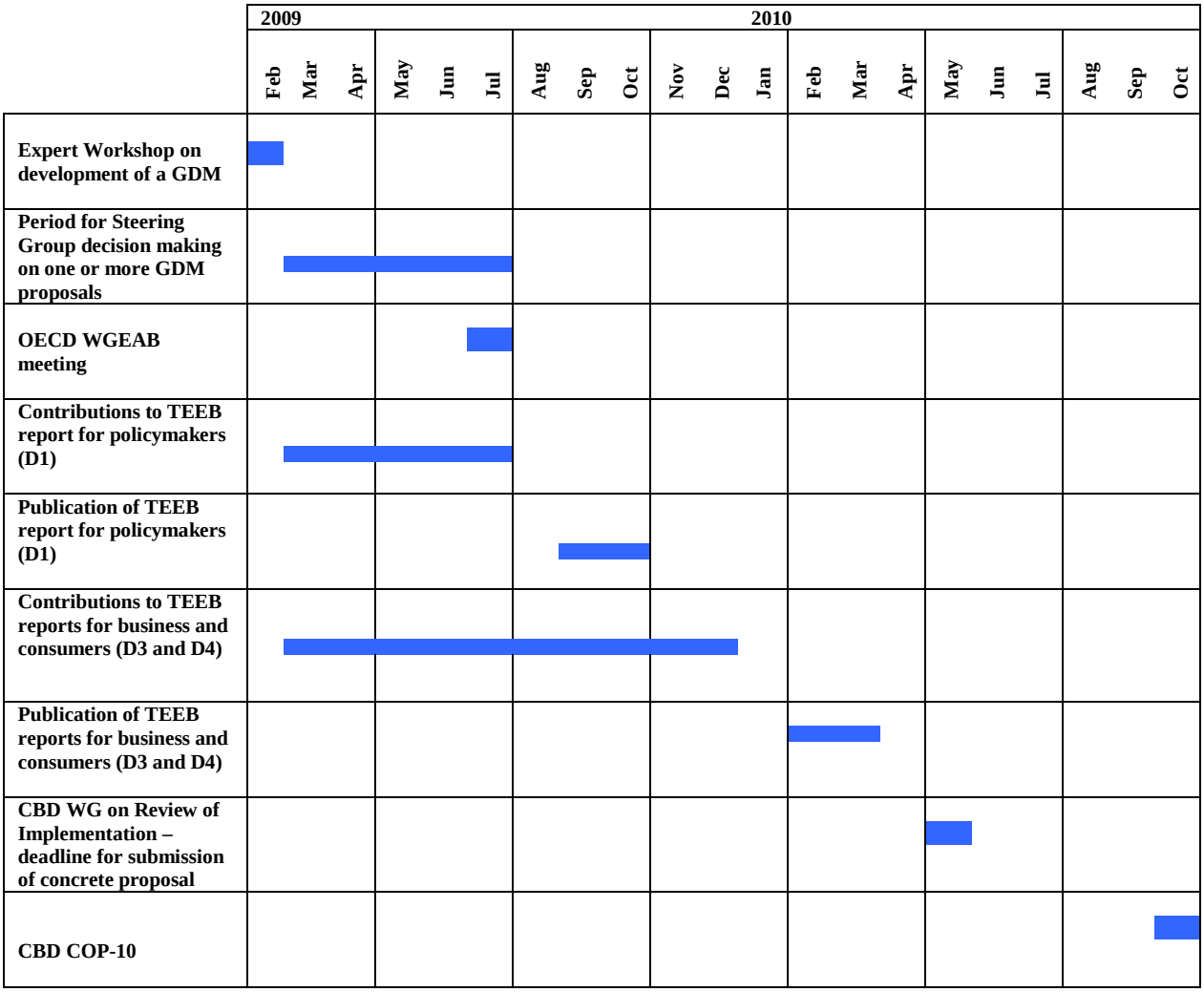
(b) Requests the Ad Hoc Working Group on Review of Implementation of the Convention to identify a series of options and policy recommendations concerning

innovative financial mechanisms, based on the above information and the submissions received from Parties in response to the invitation contained in paragraph 6 of the present decision; (paragraph 6 reads: Invites Parties to submit views on concrete activities and initiatives including measurable targets and/or indicators to achieve the strategic goals contained in the strategy for resource mobilization and on indicators to monitor the implementation of the strategy)

(c) Requests the Ad Hoc Working Group on Review of Implementation of the Convention submit the results for consideration by the Conference of the Parties at its tenth meeting.

The Working Group on Review of Implementation is tentatively planned to take place in May 2010, approximately 5 months prior to COP. This provides a timeline for the development of a firm proposal, incorporating some time for governments to further reflect on the idea and their position after a first round of formal negotiations.

Timetable for further work on the development of a GDM



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TMS and KLM

Annex A:

Participants in an Expert Workshop, Amsterdam February 2009

NAME	Country	ORGANISATION
Governments		
Helen Dunn	UK	Defra
Deanna Donovan	UK	Joint Nature Conservation Committee
Carlos Muñoz Piña	Mexico	Instituto Nacional de Ecología, Mexico
Arthur Eijs	Netherlands	Ministry of Housing, Spatial Planning and the Environment
Stefan van der Esch	Netherlands	Ministry of Housing, Spatial Planning and the Environment
David Simpson	USA	National Center for Environmental Economics US Environmental Protection Agency
Peter Bos	Netherlands	Ministry of Agriculture, Nature and Food
Michael Löfroth	Sweden	Ministry of the Environment
Chikara Nishida	Japan	Ministry of the Environment
Ms Laksmi Dhewanthi	Indonesia	Assistant Deputy for Environmental Funding & Incentive
Matthias Bechtolsheim	Germany	KfW Bankengruppe
NGO's		
Josh Bishop	Switzerland	World Conservation Union (IUCN)
Mandar Trivedi	UK	Global Canopy Programme
Andrew Mitchell	UK	Global Canopy Programme
Mark Eckstein	USA	WWF-US
Pablo Gutman	USA	WWF-MPO
Kerry ten Kate	USA	Forest Trends
Pedro Leitao	Brazil	Brazilian Biodiversity Fund (FUNBIO)
Francis Vorhies	Switzerland	Earthmind
Alice Ruhweza	Uganda	Forest Trends
Annemieke Wijn	USA	Rainforest Alliance
IGO (Intergovernmental Org)		IFC, CBD, OECD, UNEP
Catherine Cruveillier Cassagne	USA	International Finance Corporation (IFC)
Juan Jose Dada	USA	International Finance Corporation (IFC)
Markus Lehmann	Canada	CBD
Katia Karousakis		OECD – WGEAB
Pavan Sukhdev	UK	TEEB
Patrick ten Brink	UK	TEEB
Andrew Bovarnick	Panama	United Nations Development Programme (UNDP)
Business		
Mikkel Kallsoe	Sri Lanka	World Conservation Union (WBCSD)
Jan Kees Vis	Netherlands	Unilever
Jan Fehse	UK	Ecosecurities
Bob Norman	UK	Greenpalm Ltd
Sachin Kapila	UK	Royal Dutch Shell
Jeremy Goon	Singapore	Wilmar International (head of sustainability)
Academics		
Carlos Frickmann Young	Brazil	University Fed. De Rio de Janeiro
Tim Swanson	UK	University College London
Katrina Mullan	UK	University of Cambridge
Randall Kramer	USA	Duke University

Annex B – Agenda for an Expert Meeting, Amsterdam, February 2009

A Green Development Mechanism: Towards an international market-based instrument to finance biodiversity conservation

Expert Workshop

9-10 February 2009, Amsterdam

Monday 9 February 2009 commencing 9:00 a.m.

Goal of Session 1 (morning) - To reach agreement on:

- the general nature of the biodiversity problem;
- the contribution of existing mechanisms and activities for addressing the problem;
- the case for a Green Development Mechanism

	Case for a Green Development Mechanism (Chair: Arthur Eijs)
8.30 – 9.00	Registration
9.00 – 9.20	Welcome by Marijke Vos, Amsterdam Councilor for the Environment
9:20 - 9:50	Key note speech: GDM and TEEB (Pavan Sukhdev)
9.50 – 10.10	General case for a GDM (Tim Swanson)
10.10 – 10.30	CBD mandate for development of a GDM (Markus Lehman)
10:30 – 11:00	A Survey of Recent International Biodiversity Conservation Initiatives (David Simpson)
11.00 – 11:20	*Coffee Break*
11.20 – 12.40	Discussion on approaches to a GDM
12:40 – 1:00	Concluding remarks from Chair on case for a GDM
1:00 – 2:00	*Lunch*

Goal of Session 2 (afternoon)

Framing A Discussion: What are the key elements of a GDM?

Suggested Areas of Discussion -

- Theme 1 - Caps (Constraints and Creation of Demand)
- Theme 2 - Certification (Authority and Process)
- Theme 3 - Exchangeability (Offsets, Exchange Rates, Science and Measurement)
- Theme 4 – Monitoring and Enforcement (Legal Structure, Policing, Longevity)

	KEY ELEMENTS OF GDM (Chair: Josh Bishop)
2:00-2:30	What are the constituent elements of a GDM? Framing a Discussion (Tim Swanson)
2.30 – 3:00	General Discussion on Caps and Constraints – Leader: David Simpson
3:00 – 3.30	General discussion on Certification – Leader: Sachin Kapila
3.30 – 4:00	*Coffee Break*
4:00- 4:30	General discussion on Exchangeability - Leader: Pavan Sukhdev
4.30 – 5.00	General discussion on Monitoring/Enforcement-Leader: Carlos

	Munoz
5:00 – 5.30	Concluding remarks from Chair on the necessary elements of a GDM

Tuesday 10 February 2009
Goal of Session 3 (morning) – To finalise the key constituent elements of a GDM by forming working groups to: a) draft 1-2 page documents proposing a GDM and providing reasons for the proposal; and b) develop a plan of work for taking the Proposal forward.

	Developing a GDM (Chair: Catherine Cassagne)
9.00 – 9.15	Summary of First Day (Chair)
9:15 - 9:30	Developing a GDM – role of working groups (TMS) a) GDM Proposals b) GDM Reasons c) GDM Plan of Work
9.30 – 11:00	Working Groups meet to write Proposal for a GDM and its Reasons WG1 – (chair: Simpson) WG2 - (chair: Munoz) WG3 - (chair: Sukhdev)
10.30 – 11.00	*Coffee Break*
11.30 – 12.30	Working Groups meet to write Plan of Work to take Proposal forward WG1 – (chair: Simpson) WG2 - (chair: Munoz) WG3 - (chair: Sukhdev)
12.30 – 1.30	*Lunch*

Goal of Session 4 (afternoon) – Agreement on a Proposal and a Work Plan

	Agreement on a Proposal and a Plan of Work (Chair: Markus Lehmann)
1.30 – 2.30	Working Groups report back and general discussion WG1 – Report WG2 – Report WG3 - Report General Discussion
2.30 – 3.00	*Coffee Break*
3.00 – 4.00	General Discussion on Proposal for a GDM (Chair)
4:00 – 4:30	Chair's Report to Hans Alders, chair of National Task Force Biodiversity & Natural Resources; Closing remarks by Hans Alders; closure of meeting