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MAINSTREAMING BIODIVERSITY IN PRODUCTION LANDSCAPES AND SECTORS – DISCUSSION PAPER

(Prepared by the Scientific and Technical Advisory Panel)

Scientific and Technical Advisory Panel to

the Global Environment Facility:

mainstreaming biodiversity in production

landscapes and sectors – discussion paper

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Mainstreaming Biodiversity in Production Landscapes and Sectors

“The most important lesson of the last ten years is that the objectives of the Convention will be impossible to meet until consideration of biodiversity is fully integrated into other sectors. The need to mainstream the conservation and sustainable use of biological resources across all sectors of the national economy, the society and the policy-making framework is a complex challenge at the heart of the Convention.”(Hague Ministerial Declaration from COP VI to WSSD, 2002)

This paper serves as a background document to assist participants in preparing for the workshop to be held in Cape Town from 20-24 September 2004 on *Mainstreaming Biodiversity in Production Landscapes and Sectors*. The workshop is co-hosted by the South African National Biodiversity Institute (SANBI)¹ and the Scientific and Technical Advisory Panel (STAP) of the Global Environment Facility (GEF), whose implementing agencies are the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP) and the World Bank. This paper covers five areas corresponding to the aims of the workshop.

The aims of the workshop are:

1. to determine an operational *definition* of the concept of mainstreaming biodiversity in production landscapes² and sectors, building on the work of previous workshops
2. to demonstrate the *role* of mainstreaming in advancing CBD goals and Strategic Priority 2 of the GEF-3 programme of work
3. to explore the *scale* at which mainstreaming can most effectively be carried out
4. to critique *successes and failures* in achieving mainstreaming outcomes to date – consolidating and evaluating experience in different sectors
5. to brainstorm on modified or new *approaches and tools* to assist in designing more effective interventions and achieving more effective mainstreaming outcomes in future, e.g. models of best practice, principles and indicators.

¹ As of 1 September 2004, the National Botanical Institute has become the South African National Biodiversity Institute (SANBI) in terms of the [National Environmental Management: Biodiversity Act 10 of 2004](#).

² Although significant mainstreaming work is being carried out in the fisheries sector, for example through marine protected areas and no-take zones, it was decided to limit this workshop to the terrestrial environment for purposes of focus.

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1. Determining an operational definition of mainstreaming biodiversity

The term “mainstreaming” is used in a variety of ways, but within broad environment-development circles “mainstreaming biodiversity” has come to have a particular meaning. For the purposes of the workshop, a working definition is proposed as follows:

Mainstreaming biodiversity involves integrating the values and goals of biodiversity conservation and sustainable use into economic sectors and development policies and programmes.

More detail on the way in which the concept is commonly used, is provided below:

- Mainstreaming biodiversity involves the **integration of biodiversity conservation and sustainable use principles** into policies, plans, programmes and production systems where the primary focus has previously been on production and economic activity, rather than on biodiversity conservation losses or gains.
- Mainstreaming of biodiversity may occur on the ground in **production landscapes and seascapes³ or within economic sectors**, particularly those directly related to natural resource use and management – agriculture, forestry, fisheries, invasives control, wildlife utilisation, mining and tourism. Biodiversity may also be mainstreamed in areas of economic activity such as energy, infrastructure, manufacturing, military activities, transport, construction and international trade.
- Mainstreaming also involves the integration of biodiversity values **into the enabling environment**, ranging from national policy-making to global financial markets. This may include legislation, land-use planning, finance, taxation, economic incentives, international trade, capacity building, research and technology.
- Mainstreaming can be a **process** which occurs through a conscious intervention. At other times, however, a **mainstreaming outcome** may be achieved without such a deliberate

³ For purposes of focus, however, this workshop is limited to the terrestrial environment.

intervention, for example through the action of market forces. The achievement of mainstreaming outcomes needs to be measurable so that progress can be assessed.

- Mainstreaming biodiversity into broad landscapes may involve **using a range of tools**, including protected areas, buffer zones and biological corridors, as well as interventions affecting privately owned land such as incentives, subsidies and direct payments. The emphasis in mainstreaming biodiversity, however, is on the roughly 90% of land not under formal protection⁴.
- Although mainstreaming initiatives may be generated by conservation agencies, increasingly often they originate within economic sectors, and typically **involve a broad range of actors**, with partnerships between NGOs, government, industry, small, medium and micro enterprises, and communities.

How is mainstreaming related to “integration”?

Article 6(b) of the Convention on Biological Diversity (CBD) calls on the Contracting Parties to “integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies” (CBD, 2003:6). This article is related to article 10(a), which calls on Parties to “integrate consideration of the conservation and sustainable use of biological resources into national decision-making” (CBD, 2003:11). Although these articles have *integration* as their key concept, this is clearly another way of describing mainstreaming. Also relevant is article 10(e), which calls on each country to “encourage co-operation between its governmental authorities and its private sector in developing methods for sustainable uses of biological resources”.⁵

Integration is also the theme of the Biodiversity Planning Support Programme (BPSP) of UNEP / UNDP/ GEF, which has a mandate to provide assistance to national biodiversity conservation planners. As part of this programme, UNEP commissioned a series of thematic studies, focusing on global best practice in the integration of biodiversity in eight specific areas, including national sectors in agriculture, fisheries, forestry and tourism, as well as integration with environmental assessment procedures and economic measures in planning. The principles and best practice guidelines suggested in the studies on the agriculture, forestry and tourism sectors and on the use of economic measures in National Biodiversity Strategies and Action Plans (NBSAPs), are summarised in Annex 1.

The term “*integrated responses*” used in the Millennium Ecosystem Assessment (MA) is also of relevance to mainstreaming biodiversity. The MA defines integrated responses as initiatives which explicitly address more than one ecosystem service and which include objectives to enhance human well-being. Most mainstreaming interventions fulfil these criteria and could thus also be described as integrated responses. Both concepts make provision for a simultaneous

⁴ According to the Sustainable Use Specialist Group of the World Conservation Union (IUCN), the likelihood that no more than 15% of the Earth’s surface will ever be effectively conserved in protected areas means that “the survival of Biodiversity largely depends on land use practices outside formal protected areas” (IUCN. 2004: 1).

⁵ Article 16.4 says that “each contracting party shall take legislative, administrative or policy measures, as appropriate, with the aim that the private sector facilitates access to, joint development and transfer of technology... for the benefit of both governmental institutions and the private sector of developing countries...”

benefit to biodiversity and human well-being, with trade-offs and choices needing to be made in each situation. The MA takes a slightly broader perspective than simply focusing on biodiversity conservation and sustainable use, but nonetheless provides important insights for mainstreaming.

The MA is currently assessing a range of processes which contribute to mainstreaming – at an international level these include Agenda 21, International Environmental Governance, Multilateral Environmental Agreements, and integration between international trade and environmental governance regimes. National level processes considered are national policy integration, National Environmental Action Plans, and National Strategies for Sustainable Development and related initiatives. Processes at multiple scales (including the sub-national level) which are considered are Sustainable Forest Management, Integrated Conservation and Development Projects, Integrated Coastal Zone Management, and Watershed and River Basin Management. These sub-national level processes all involve mainstreaming biodiversity into production landscapes.

Once published, the MA chapter on Integrated Responses will provide a useful assessment of all these processes and lessons learnt from them in relation to linkages between social and natural systems; horizontal and vertical integration; integration of different actors, stakeholders and institutions; tools for integration; mapping integrated responses; and assessing their overall impact. Since all these aspects of integration are important for mainstreaming biodiversity, the lessons learnt will be of value for the mainstreaming debate as well. It will also be important for the findings of the MA on biodiversity conservation and sustainable use to be fed into the Poverty Reduction Strategy Papers being developed by the World Bank, which do not currently appear to address environmental concerns adequately (discussed further in section 3 below).

2. The role of mainstreaming in advancing CBD goals and Strategic Priority 2

The main objectives of the Convention on Biological Diversity (CBD) are the conservation and sustainable use of biological diversity, and the fair and equitable sharing of benefits arising from the utilisation of genetic resources (CBD, 2003: xvii). Biological diversity, or biodiversity, is defined as “the variability among living organisms from all sources including *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems” (CBD, 2003:5).

Mainstreaming biodiversity in production landscapes and sectors contributes to the fulfilment of article 6(b) of the CBD, which calls on the Contracting Parties to “integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies” (CBD, 2003:6). It also contributes towards fulfilling article 10(a), which calls on Parties to “integrate consideration of the conservation and sustainable use of biological resources into national decision-making” (CBD, 2003:11).

Part of the work of the Global Environment Facility (GEF) is to assist the 188 countries who are signatories to the CBD by providing finance to implement its provisions effectively. In the GEF-

3 Programme of Work, four strategic priorities are set out. The Cape Town workshop aims to contribute towards the second and fourth strategic priorities. The strategic priorities are as follows:

- SP1: Catalyzing sustainability of protected areas – to conserve biodiversity through the expansion, consolidation and rationalization of existing protected area systems
- SP2: Mainstreaming biodiversity in production landscapes and sectors – to integrate biodiversity conservation into agriculture, forestry, fisheries, tourism, and other production sectors in order to secure national and global environmental benefits
- SP3: Building capacity to implement the Cartagena Protocol on Biosafety – to recognize that modified living organisms pose potential risks and , therefore, biosafety constitutes a high priority for recipient countries
- SP4: Generating and disseminating best practices – to maximise the sustainability and effectiveness of GEF impacts in the biodiversity focal area.

Strategic Priority 2 reflects a shift in emphasis in GEF funding. Although protected areas work remains dominant in its biodiversity portfolio, the GEF believes that attention needs urgently to be given to integrating biodiversity conservation into landscapes where the primary emphasis is on economic uses, in order to meet the GEF’s global biodiversity conservation goals. Mainstreaming is seen as a way to increase the effectiveness of protected areas work, by integrating biodiversity conservation into broader production landscapes and into the national and international policy frameworks which affect them. This also involves a shift to a bigger scale and a longer time-frame: “Mainstreaming means moving beyond a project-by-project emphasis to approaches that systematically target country-enabling environments and long-term institution building.” (GEF, 2004a: 32)

In future, it is expected that focusing around Strategic Priority 2 will assist projects to have the following impacts:

- Producing biodiversity gains in production systems in recipient countries
- Improving livelihoods based on more sustainable harvesting
- Replicating approaches applying incentive measures
- Having biodiversity mainstreamed into sector programmes of the Implementing Agencies (GEF, 2004b:1)

Because the strategic priorities were only developed in 2003, the existing projects of the implementing agencies may or may not have explicit mainstreaming objectives. Section 4 of this document considers the extent to which biodiversity projects of UNDP, UNEP and the World Bank have been successful in achieving mainstreaming outcomes, based on a recent GEF Biodiversity Program study (Dublin and Volonte, 2004).

The *UNEP* GEF portfolio of biodiversity projects is active in the following areas: strengthening the enabling environment, environmental information management, development of tools and methodologies, and transboundary conservation and sustainable use. *UNEP* has worked to ensure that its GEF-related activities are complementary to its overall programme of work. Mainstreaming, in a broad sense, can be considered related to nearly all *UNEP* activities, but is specifically addressed through *UNEP*'s policy development, implementation, environmental convention, and communications activities.

The *World Bank* assists its member countries in achieving environmental benefits in the GEF focal areas – climate change, biodiversity, international waters, ozone layer depletion, persistent organic pollutants and land degradation. Within the biodiversity focal area, the Bank has focused in the last decade on protected areas, a focus which is now broadening to meet mainstreaming objectives.⁶ One vehicle for this is the use of “blended” projects, that is, development projects that include a small GEF biodiversity component coupled with a bigger component related to a relevant sector like forestry. Dublin and Volonte point out that it will be important “to ensure that a biodiversity conservation component does not become a small and unimportant incentive to recipient countries and instead maintains its own profile and priority” (Dublin and Volonte, 2004)

UNDP-GEF projects are all also undertaken in all the focal areas, with an emphasis in the biodiversity area on the impacts of the loss of biodiversity on sustainable development, and its social, economic, cultural and educational consequences. Projects aim to address the root causes of biodiversity loss and to build scientific, technical and institutional capacity, focusing on sustainable use and allowing communities to see socio-economic benefits. With a small overall volume of work compared with the World Bank, the biodiversity component makes up a larger percentage of the overall *UNDP* portfolio, and the mainstreaming of biodiversity is an active objective within the *UNDP* portfolio.

Can the ecosystem approach of the CBD be usefully applied to mainstreaming biodiversity?

The ecosystem approach was developed internationally in the 1980s, and is “based on the application of appropriate scientific methodologies focused on levels of biological organisation that encompasses the essential processes and interactions among organisms and their environment” (Malawi Workshop, 1998). An ecosystem is defined as “a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit” (CBD, 2003:5). The recognition that humans are an integral part of ecosystems is also a key feature of the approach. A systems approach makes it possible to consider different levels of the biodiversity hierarchy – genes, species, population, ecosystems and landscapes – in an holistic way (McNeely, 1999:14). The ecosystem approach can be used at varying scales.

⁶ Over the past 15 years, the Bank has also been mainstreaming biodiversity through various instruments including: Country Assistance Strategies, sector work, international water programmes (Caspian Sea, Red Sea, Mediterranean Technical Assistance program, etc.), components (funded through loans or GEF) of infrastructure loans, use of bilateral trust funds, partnerships and co-financing with the private sector and the military, etc.

Annex 2 outlines the background to the adoption of the concept of the ecosystem approach in the Convention on Biological Diversity. Annex 3 lists the twelve principles endorsed by the Conference of Parties in 2000. The ecosystem approach is described as “the fundamental paradigm for the Convention’s activities; a prism through which its activities are developed” (CBD, 2003: xxiv). A large percentage of the project portfolios of GEF and its implementing agencies is targeted at one or more critical life-supporting ecosystems and the interactions among them.

To some commentators, the ecosystem approach is highly compatible with mainstreaming biodiversity because of its emphasis on social and economic concerns, and on integrated and holistic decision-making. “Because of its holistic nature,” says Hamilton, “the ecosystem approach has the potential to mainstream conservation into general human affairs”, and to reduce the stark contrast sometimes drawn between development and conservation (Hamilton, 2004, unpublished). A tension may sometimes exist, however, between the principle of the ecosystem approach that conservation of ecosystem structure and functioning should be a priority target, and the need for real-world compromises and trade-offs in some mainstreaming interventions.

Of direct relevance for mainstreaming biodiversity is the recognition in Principle 4 of the ecosystem approach that ecosystems need to be understood and managed in an economic context. The tools mentioned are important for mainstreaming interventions which seek to influence the enabling environment – reducing market distortions that adversely affect biological diversity, aligning incentives to promote biodiversity conservation and sustainable use, and internalising costs and benefits in a given ecosystem. Where possible in mainstreaming interventions, full accounting for biodiversity goods and services should be undertaken.

The ecosystem approach provides a good platform for work in the “real world” and contributes a sound scientific underpinning for an emphasis on mainstreaming biodiversity. It cannot, however, provide specific guidelines for mainstreaming interventions. The question of how mainstreaming can be applied, needs to be addressed in a context that considers policy, institutional, structural, social and economic considerations alongside the needs for conserving biodiversity in each case. There are no “blueprints” for mainstreaming biodiversity, but lessons can be learnt from past experience and models of best practice developed for the future.

3. Achieving mainstreaming outcomes at different scales

Mainstreaming outcomes can be achieved and mainstreaming interventions made at a range of scales in relation to time, geographic impact and actors involved. The question of scale can be considered in the following ways:

- *Temporal scale.* A mainstreaming intervention could take place over a range of time periods, from a single day used to raise an issue, to a decade-long campaign. The benefits of a mainstreaming outcome could also be experienced over varying time scales.
- *Geographical scale.* A mainstreaming intervention can be carried out in a range of physical spaces – ranging from a very small geographical area, such as a portion of one farm, to a bioregion or entire ocean. This will also affect the scale of biodiversity being addressed.

- *Institutional scale.* A mainstreaming initiative may involve actors at differing levels, for example, a community of resource users at the local level, a national government department or business sector, a global financial market or the parties to a multilateral environmental agreement.
- *Financial scale.* Mainstreaming work may be carried out through projects with dedicated budgets of varying sizes, or through the regular operations of role-players such as landowners or private sector companies.

Figure 1 positions some examples of mainstreaming work according to whether they are local, national or global (x axis) and whether they are short, medium or long term (y axis). It applies across sectors, with interventions at multiple scales and through different institutional structures from local communities to global conventions.

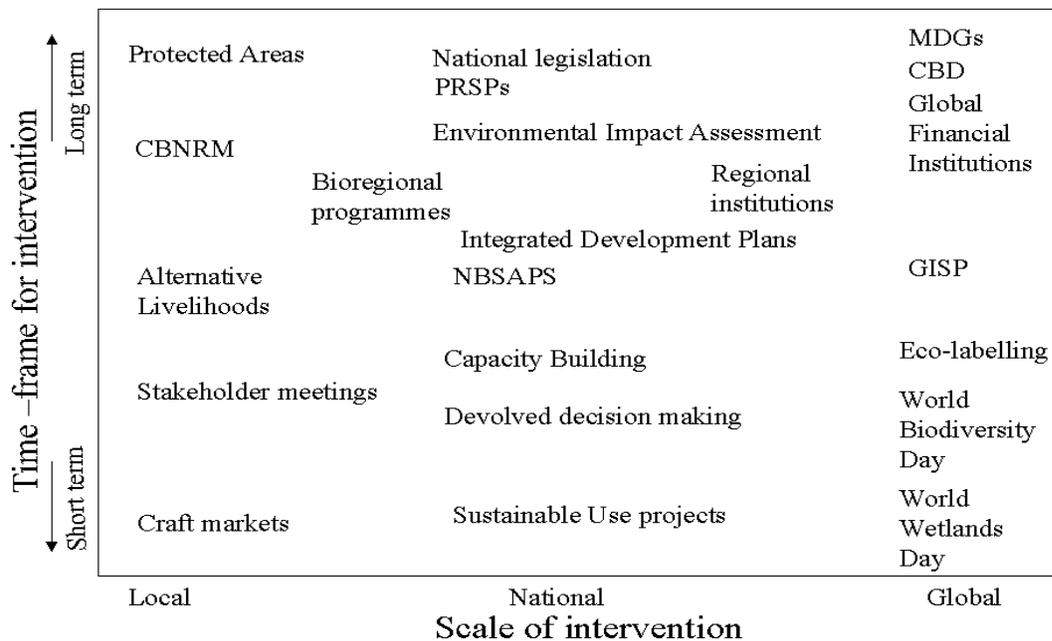


Figure 1: Spatial and temporal scales of different kinds of mainstreaming interventions

Some commentators argue that mainstreaming is most effective at the highest possible level of national and international politics or economics. According to Rodgers, commenting on mainstreaming in Tanzania, “mainstreaming ensures that an activity or programme is taken out of a limited sectoral context and placed within the larger format of central policy and decision making processes” (quoted in Shah 1997:1) The opposite point has also been made: “for mainstreaming to achieve lasting impact, it must occur at a very local level, and become part of ordinary people’s lives” (Sandwith in Pierce, *et al.* 2002). Both approaches could be valid,

depending on the context of a specific project, the biodiversity properties being addressed, and the existing policy and institutional framework.

Addressing the enabling environment

The GEF Council recently highlighted the importance of creating the right enabling environment for mainstreaming biodiversity, pointing to the need for “an effective institutional and enabling environment where biodiversity has been mainstreamed across the sectors. This is not an option; in fact, it is critical for ensuring sustained biodiversity benefits. Unless the institutional structures of a country are reinforced to mainstream biodiversity, they remain vulnerable (to alternative development options) and may become islands (in which case the biodiversity value may get eroded over time)” (GEF, 2002)

The GEF’s Biodiversity Program Study 2004 reviews components of the majority of GEF-financed projects which seek to improve the enabling environment for meeting objectives relating to biodiversity conservation, sustainable use of biodiversity and mainstreaming. Components of the enabling environment where significant progress has been made include:

- creating and implementing national policies or legislative action
- public awareness and environmental education
- partnerships
- targeted research, information generation and knowledge sharing
- tool and technology development.

As noted previously, mainstreaming initiatives may operate simultaneously at different levels and strive for vertical integration between these levels. Projects which operate primarily at a local level nonetheless need to address the enabling environment by influencing decision-making at regional, national and even international levels. There is a need in particular to engage national governments who may have made commitments on paper to agreements promoting biodiversity conservation, but who may be simultaneously forging ahead with new developments which run contrary to those agreements or maintaining perverse incentives which drive economic sectors to destroy biodiversity rather than conserve it.

An example of planning for multi-level engagement is provided by a new full-sized project concept being developed by the UNDP for the China Biodiversity Programme, which will engage various levels: the high policy level through the Five Year Development Plan, the sector level through sectoral plans and programmes, and the provincial / prefecture level through focusing on piloting biodiversity-friendly management practices within local level projects and investments.

A number of global policy initiatives are relevant to the enabling environment for mainstreaming created in each country. One of the United Nations’ Millennium Development Goals commits governments to “ensure environmental sustainability” by 2015, including targets around integrating the principles of sustainable development into country policies and programmes (i.e. mainstreaming) and reversing the loss of environmental resources (i.e. biodiversity

conservation). Similarly, many of the targets in the Plan of Implementation which came out of the 2002 World Summit on Sustainable Development in Johannesburg are relevant for mainstreaming. It will also be important for the findings of the Millennium Ecosystem Assessment on biodiversity conservation and sustainable use to be fed into the Poverty Reduction Strategy Papers being developed by the World Bank, which do not currently appear to address environmental concerns adequately.

National governments' development plans and policies are a crucial aspect of the enabling environment for mainstreaming work in production sectors and landscapes. National processes for developing National Sustainable Development Strategies and National Biodiversity Strategy and Action Plans (NBSAPs) have the potential to make an enormous contribution to mainstreaming biodiversity considerations into government departments and sectors of the economy.

In a review of country experience in implementing NBSAPs, however, Swiderska (2002) finds that, despite having had some useful outcomes, "NBSAPs are not affecting the main forces degrading biodiversity, essentially because they have not influenced planning in economic sectors and are therefore not connected with the use of resources. NBSAPs have not paid enough attention to linkages with economic policies and plans, and have suffered from a lack of integration with other national institutions and planning mechanisms... Many biodiversity plans have failed to arouse much political interest and remain on the shelf" (Swiderska, 2002:9) She points to the failure of NBSAPs to establish systems and processes which engage sectors of society and government in action and the need to integrate biodiversity and economic development objectives. To become more effective, Swiderska suggests, NBSAPs will need to:

- Focus on establishing an ongoing institutional system for mainstreaming
- Develop a broad vision at national level
- Develop biodiversity strategies at local level
- Invest significantly in building and sustaining political commitment throughout the process
- Invest significantly in building commitment in line agencies, planning authorities and decentralized agencies
- Seek formal links with key development planning processes
- Incorporate biodiversity objectives into existing environmental integration tools
- Integrate biodiversity's livelihood and ecosystem functions
- Actively engage local communities and the private sector (Swiderska, 2002:59-60).

This is confirmed by the BPSP thematic study on the use of economic measures in NBSAPs, which states that "in many countries few people outside the conservation sector have any knowledge of the content or goals of the NBSAP. Yet it is macroeconomic and sectoral planners who decide the wider economic policies, activities and conditions under which people conserve or degrade biodiversity" (Emerton, 2001:27) Influencing development policy at this level remains a major challenge facing the GEF and its implementing agencies.

The global arena of financial markets is another key aspect of the enabling environment which requires more attention. There is a need to engage the business and investment communities around achieving best practice on biodiversity conservation and sustainable use. Socially responsible investment (SRI) strategies include avoidance / ethical screening, best in class / positive screening, environmental technology investment, engagement / advocacy and integrated investment (Ten Kate, 2004). Ideally, the initiative in mainstreaming interventions should come increasingly from within the private sector, in partnership with other key actors, such as conservation agencies, government, NGOs and communities.

In engaging the private sector, conservationists need to:

- keep the biodiversity message simple and practical, with the potential benefits to the participants clearly defined on a case-by-case basis
- focus on core business operations rather than corporate philanthropy
- communicate through the business agenda, rather than the CBD agenda
- understand the connections between business, investors and biodiversity, and the diversity within the private sector
- find innovative mechanisms for interaction which will capture the attention of business
- work with investors to influence business behaviour and raise standards
- develop useful tools for companies and investors, such as best practice standards and manuals, indicators for corporate performance, and literature for fund managers and pension fund trustees (Ten Kate, 2004).

4. Success and failure in achieving mainstreaming outcomes

The GEF's 2004 Biodiversity Program Study assesses the achievement of mainstreaming outcomes by UNEP, UNDP and World Bank projects in the agriculture, forestry, fisheries and tourism sectors (Dublin and Volonte, 2004). It should be noted, however, that most of the projects considered in the study were conceptualised and initiated long before the development of Strategic Priority 2 in 2003. The achievement of mainstreaming outcomes was thus not one of their original goals.

The Program Study reviews all 141 projects in the BPS2004 cohort in relation to their stated objectives around biodiversity conservation, sustainable use of biodiversity resources, access and benefit sharing of genetic resources between countries, and enabling environment and mainstreaming biodiversity. The study points out that projects with these objectives may operate in landscapes that include a continuum from fully protected areas to intensively modified areas. Projects working primarily in a production environment are typified as mainstreaming projects contributing to Strategic Priority 2.

In relation to mainstreaming, the study reached the following broad conclusions (our emphasis):

- Mainstreaming should form an increasingly strong basis for future GEF programming, because "over the long term, successful mainstreaming of biodiversity considerations in all

aspects of society and governance will be the surest way to guarantee conservation gains.” (GEF, 2004: 101) Mainstreaming should occur at appropriate levels of priority across all sectors of society.

- The current focus on working in individual sectors such as agriculture, forestry, fisheries and tourism should be expanded to address *cross-sectoral needs* (such as finance, energy, transport, mining and health).
- GEF projects can be categorised as shown in the table below. These two *mutually supportive approaches* should be continued – working at the policy level to establish a more favourable enabling environment, and working at the level of demonstration projects that operate in the existing policy environment to improve resource management.

| | Local / sub-national | National |
|-----------------------------|---|--|
| Enabling Environment | Many projects to build local institutions’ capacity e.g. community-based forest management; establishing good conditions for governance e.g. stakeholder participation, transparent and devolved decision-making | Some interventions to improve institutional capacity of national-level institutions and systemic capacity related to biodiversity conservation |
| Demonstrations | Many interventions aiming to influence local livelihoods in such a way that the economic goals of local stakeholders are more compatible with biodiversity conservation; and to increase the biodiversity value of the production activities themselves | A limited number of projects to influence resource management systems at a national level, often through sector-based approaches |

- In many countries *governments lack commitment* to the incorporation of biodiversity considerations and approve development projects which run contrary to GEF mainstreaming efforts. Stronger evidence of commitment should be required, e.g. through endorsement letters, co-financing agreements and M&E plans that include commitment milestones.
- A small number of projects has been carried out with a wide range of *private sector* actors. This trend should be encouraged as the GEF shifts from working mainly in the public sector to developing partnerships with the private sector, based on a clear understanding of their role and motivation.
- Current *successful trends* within mainstreaming projects should be continued, particularly providing technical assistance to national governments, and linking government agencies with each other and with local-level actors.
- Some projects have been successful in *empowering communities* and involving them in resource management, and these should serve as models for future projects.
- The *length of time* required for meaningful mainstreaming to occur is often underestimated, and successful projects have often relied on prior capacity building interventions. New projects should ideally have an initial capacity building phase before mainstreaming interventions begin.
- *Reviews of projects proposals* should consider whether the necessary prerequisites and stimuli for a successful intervention are in place. In sectors which lack experience of mainstreaming, projects should be carefully designed.

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- The GEF's Tracking Tool for reporting mainstreaming progress should be further developed, as well as other *quantitative impact indicators* for use in future projects.
 - Given that there has been some confusion within implementing agencies about what exactly mainstreaming encompasses, "*guidelines and clear definitions* should be developed to clarify exactly what types of activities, processes and interventions are covered under the mainstreaming concept in the GEF context" (GEF, 2004:102).

5. New approaches and tools for designing and evaluating mainstreaming work

The Cape Town workshop aims to contribute to developing best practice in mainstreaming biodiversity, building on the lessons learnt from case studies presented at the symposium which initiates the workshop, as well as an assessment of past and current GEF-funded projects. The products of the workshop should provide guidance for policy-makers and decision-makers within and outside the Implementing Agencies on how to achieve maximum impact and leverage through investment in mainstreaming biodiversity. Possible products of the Cape Town workshop are can be divided into tools for designing effective interventions, and tools for evaluating the effectiveness of mainstreaming interventions and their outcomes.

Tools for designing effective mainstreaming interventions

A range of products or tools could be developed to assist in designing mainstreaming interventions which are likely to be successful and to have the desired impact on biodiversity. Some of these are listed below.

- *Criteria for proposal review*: Participants in the Cape Town workshop could develop criteria for reviewing project proposals falling within GEF's Strategic Priority 2
- *Frameworks for successful mainstreaming*: Related to the above point, a template could be developed which draws out the prerequisites, stimuli, mechanisms needed for successful mainstreaming interventions in specific production sectors. This uses the framework developed by Pierce *et al.* (2002) which is based on the assumption that, if certain *prerequisites* are in place, a set of specific *stimuli* can catalyse activities which lead to the development of appropriate *mechanisms*, with effective and measurable mainstreaming *outcomes* resulting (see Annex 4). Taken together, these factors can be used as likely indicators of success against which a project proposal could be assessed.
- *Principles for mainstreaming*: Participants may wish to develop a set of principles for effective mainstreaming interventions.
- *Guidelines for best practice*: Guidelines could be developed for best practice, for example, in the following areas:
 - ⇒ achieving effective vertical integration between local demonstration projects and the enabling environment at national level – removing perverse incentives, enforcing regulations etc.

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- ⇒ building capacity for implementation on the ground in production sectors – phased project implementation starting with capacity building etc.
 - ⇒ creating economic incentives to promote biodiversity conservation and sustainable use – use of tax incentives, direct payment for ecological services etc.
 - ⇒ influencing the private sector and global financial markets – socially responsible investment, role of shareholder pressure etc.
 - ⇒ reaching innovative compromises and trade-offs between the interests of role-players to enable simultaneous achievement of conservation and development goals.
- *Planned workshop products:* Products of the workshop which are currently planned include a volume of workshop proceedings, a document containing STAP’s advice to GEF on mainstreaming, and a possible article for submission to a scientific journal.

Tools for evaluating the effectiveness of mainstreaming interventions and their outcomes

Some critical questions to be answered by the Cape Town workshop relate to the outcome of mainstreaming interventions – how do we define a successful outcome and how do we measure it? A report on a World-Bank funded mainstreaming workshop (Pierce *et al.* 2002), which examined a number of South African case studies, including several large regional programmes in different economic sectors, argues that situations where mainstreaming can be said to have occurred *successfully* include the following:

- the incorporation of biodiversity considerations into policies governing sectoral activities
- the simultaneous achievement of gains in biodiversity and gains in an economic sector (the “win-win” scenario)
- sectoral activity being recognised as based on, or dependent on, the sustainable use of biodiversity
- situations where sectoral activities result in overall gains for biodiversity exceeding biodiversity losses.

Pierce *et al.* (2002) point out that mainstreaming may arise gradually with improved understanding of biodiversity issues in a sector, or suddenly when an opportunity for mutual benefit presents itself. In ideal cases, they argue, biodiversity gains exceed losses without compromising sectoral activities, occasionally involving the change of land use away from production to conservation, but most often involving mitigation of impacts. Essentially, they argue, “integration of biodiversity is achieved when the sectoral activity becomes dependent on the sustainable use, or preservation of biodiversity” (Pierce *et al.* 2002: 144).

A debate exists on the extent to which “win-win solutions” which benefit both conservation and development are actually possible to attain. According to Wells *et al.* (2004), over the period since the 1992 Earth Summit in which “Integrated Conservation and Development Projects” became fashionable, “the myth of ‘win-win’ solutions created a culture in which overly ambitious projects proliferated based on weak assumptions and little evidence.” They argue that, while “poverty alleviation and conservation of biodiversity must work hand-in-hand in today’s world”, trade-offs must be made, mistakes avoided and future projects based on “explicit testable

assumptions, clearly stated objectives, and measurable conservation targets” (Christensen, 2004:7).

A win-win situation in which significant and equal gains are made in both biodiversity and an economic sector may occasionally be possible. But often this is not the case. In some cases, alternative livelihood options provided as a “sweetener” may fail to compensate for income losses by communities who are being asked to stop activities which have a negative impact on biodiversity. In other cases there are powerful vested interests involved in the destruction of biodiversity, who have no incentive to co-operate with a conservation agenda. Policy-makers have to consider the long-term costs of conserving biodiversity in certain contexts, and develop scenarios and plans in which the additional costs can be internalised. Successful outcomes will take many forms and will always necessitate compromises and trade-offs.

Another way of analysing sectoral activity is the World Bank’s Global Overlays Programme, which aims to internalise global externalities (relating to greenhouse gas emissions, protection of international waters and biodiversity conservation) into national environmental planning and sector work, operations and dialogue with governments and partners. The programme asks: ‘How and at what cost would policies, institutions and investment priorities change if global environmental objectives were added to conventional sector objectives?’ (Pagiola *et al.* 1998: 40) Biodiversity overlays pose questions like:

- How do development activities in the sector or sub-sector affect biodiversity?
- How can the sustainable use of biodiversity enhance development in the sector?
- How can government policies and programmes be adjusted to reduce biodiversity loss?
- What are the costs of such adjustments?
- How can the relevant trade-offs be evaluated?

It is important for the GEF and its implementing agencies to build up tools to monitor and evaluate the effectiveness of mainstreaming interventions and their eventual impact on biodiversity. Indicators can be designed at differing levels – to track outputs of projects, outcomes of projects, impacts of projects and the inter-relationships between these.

Indicators could include local or regional ones for local production landscapes – like community income levels, species counts, rates of habitat loss, percentage of land under biodiversity-friendly production, land-use zoning. Within whole economic sectors, the kinds of indicators which could be used relate to the percentage of sector budgets spent on biodiversity-related activities, or the percentage value of biodiversity in economic production. Ultimately, it would be most useful to have indicators which track the relationship between mainstreaming efforts and actual changes on the ground in terms of biodiversity conservation and sustainable use.

Within the GEF’s Strategic Priority 2, a new Tracking Tool for “Reporting Project Progress on Mainstreaming Biodiversity in Production Environments” has been developed (GEF, 2004b). As well as tracking progress towards the Strategic Priorities, the tool aims to measure progress towards the GEF-3 replenishment targets. These targets include increasing land under protection by 17 million hectares, and also placing under conservation “no less than 7 million additional

hectares of “productive” landscapes, including land around protected areas that is under protective use, but supports habitats and ecosystems”.

The tool includes coverage indicators and impact indicators, with questions to be answered for each project on the enabling environment, management practices, financial sustainability, replication, monitoring and evaluation. It draws a link between project objectives and in-country Implementing Agency (IA) programmes. Performance indicators for projects include the following:

- Number (and %) of projects in each sector which have included biodiversity aspects into sector policies and plans at national and sub-national levels, have adapted appropriate regulations and are implementing plans accordingly
- Number of hectares of production systems that contribute to biodiversity conservation or the sustainable use of its components against the baseline scenarios
- Number of people (% of beneficiaries) showing improved livelihoods (especially local and indigenous communities) based on more sustainable harvesting
- Number of replications applying incentive measures and instruments (e.g. trust funds, payments for environmental services, certification) within and beyond project boundaries
- Percentage of projects mainstreaming biodiversity into IA loan and/or sector work.

Participants in the Cape Town workshop could review the draft Tracking Tool, and consider whether there are other kinds of indicators of outputs, outcomes or impact which need to be developed for work in particular production sectors and on different aspects of the enabling environment.

ANNEX 1: Guides to Best Practices for Sectoral Integration: Biodiversity Planning Support Programme

UNDP/UNEP/GEF Biodiversity Planning Support Programme. 2001. **Integrating Biodiversity into the Agriculture Sector: A Guide to Best Practice.**

Key principles or best practices for the conservation of farm genetic resources are:

- Baseline information needs to be strengthened.
- It is important to identify ecosystem management practices and associated techniques and policies to promote positive and mitigate negative impacts on farm genetic resources.
- Need to develop linkages between agricultural genetic conservation and use and benefit sharing, as agricultural genetic biodiversity resources are essential to global agricultural productivity.
- Strengthening community management of agricultural resources increases plants and animal diversity essential for secure livelihoods.
- Develop appropriate partnerships.
- The private sector should take responsibility for ensuring that their activities support the conservation of agricultural genetic resources.
- Issues of access, benefit sharing and intellectual property rights are central to the NBSAP process so planners need to carefully consider the position of various stakeholders.
- Recent advances in biotechnology have profound implications for agricultural genetic resources and these need to be addressed by the NBSAP process.
- Expanding global trade increases access to biodiversity for countries, but the potential hazards to agricultural genetic resources need to be addressed by the NBSAP process.

Key principles or best practices for the conservation of agricultural ecosystem services are:

- It is important that everyone – farmers and policymakers both – understand the concept that agricultural ecosystem services can sustain themselves with proper design.
- Ecosystem services have the potential to reduce both off-site inputs and on- and off-site pollution.
- Promoting identification and taxonomy is necessary.
- Assessment of risks over time, relative dependence, and sustainable livelihoods are critical issues for agricultural biodiversity, and need to be in appropriate balance.
- Policy makers are biased toward large scale plans, whereas much of agrobiodiversity is fine-scaled.
- Costs and benefits of agrobiodiversity goods and services need to be identified.
- It is necessary to enhance capacity for adaptation to change.
- Creating popular awareness and education is necessary for change.

Key principles or best practices for the conservation of landscape level diversity, wild biodiversity in agricultural landscapes, and knowledge systems for agrobiodiversity are:

- Farm resource management practices can be modified to enhance habitat quality in and around farmlands.
- Conservation and management of biodiversity will be optimized by varying degrees of agricultural intensification on a landscape. Thus, NBSAPs should promote policies that will maintain the diversity of land use across the landscape.
- NBSAP planners need to recognize and utilize traditional practices as a component of the knowledge system that support conservation and management of agrobiodiversity.
- NBSAP planning needs to take account of the fact that different ecologic and socio-economic differences between farmers make it easier for some to manage biodiversity than others and that these difference are widening, thus new instruments for conservation may be needed.
- Protected areas- of a different scale and management than conventional protected areas, may be desirable near farming areas and grazing land.

UNDP/UNEP/GEF Biodiversity Planning Support Programme. 2001. **Integrating Biodiversity into the Forestry Sector: A Guide to Best Practice.**

Principles for developing processes for good “integration” policies:

- Recognise multiple perspectives.
- Ensure an adequate negotiating process representing all stakeholders.
- Agree to disagree.
- Learn from the past and from experience.

Principles for designing appropriate laws and regulations:

- Laws and regulations should adequately reflect policies.
- Laws should be relevant, simple, clear and targeted to a problem or a set of problems.
- Participatory approaches should be favoured in designing laws and regulations.
- Biodiversity and forestry legal frameworks should recognise and acknowledge other existing regulations or regulators on forest management outside of the forest sector.

Contents of an appropriate legal framework:

- Biodiversity issues must be integrated into any sectoral laws (such as infrastructures, transportation, mining, agriculture etc. and of course forestry).
- The requirements of International treaties or Multilateral Environmental Agreements (such as the CBD, CITES, etc.) must be integrated into national laws and regulations otherwise they will never be enforced.

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- Among the topics that should be addressed in or part of an appropriate legal framework related to forest and biodiversity issues, one can list regulation on access rights, land tenure and ownership, and use of incomes.

Law enforcement (or lack of it):

- Identify core functions of government and share other functions with the private sector and the civil society.
- Streamline the forest policy, legislative and regulatory framework.
- Establish clear property rights; carry out delimitation and demarcation of forestlands.
- Involve the media, NGOs, local communities and the public in combating forest crime.
- Integrate interactions with other sectors in the design of forest policies.
- Strive to keep a balance between industrial demands and the level of sustainable harvest.
- When appropriate, increase the use of market mechanisms.
- Consider the potential to violate the future law.

Strengthening institutions:

- Institutional organization must reflect biodiversity as a national priority.
- Institutional organization should reflect the scope of integration at the national and sub-national levels.
- A mechanism (possibly informal) must be created for effecting intra-governmental coordination in respect of biodiversity issues.
- Institutions that bring together stakeholders in the forestry and biodiversity sectors must be created.
- The ultimate planning authority for biodiversity conservation should rest within agencies with real power.
- Institutions involved in biodiversity planning must honestly evaluate their strengths and weaknesses.

Implementation:

- There must be a genuine and strong political commitment at the state level to implement strong and clear decisions, to commit finances, to provide incentives and to ensure accountability.
- No stakeholder group should feel they are being 'abandoned' along the way.
- The development of strategies and plans should be considered as a national or local decision and not as something prescribed or driven from outside.
- Implementation responsibility should be given to the most appropriate institution.

UNDP/UNEP/GEF Biodiversity Planning Support Programme. 2001. **Integrating Biodiversity into the Tourism Sector: A Guide to Best Practice.**

Government planning frameworks for biodiversity and tourism:

- Aim to establish a biodiversity institution with high political profile and influence.
- Ensure that biodiversity and tourism strategies are harmonized through mutual consultation between government and other stakeholders from both sectors.

Involving the tourism sector in biodiversity planning:

- Ensure that both biodiversity conservation and tourism are recognized as a (potential) land use in any national land use classification system.
- Ensure that all tourism projects enter into the national environmental assessment process at the appropriate level by creating cross-references to relevant legislation and policy documents.
- Ensure that individual projects pass through an appropriate level of environmental assessment.
- Ensure that the objectives of a certification scheme are clearly stated.

Involvement of local communities:

- Stakeholders should be involved in all aspects of project design.
- Ecotourism projects should only be approved with the full support of local stakeholders, i.e. following full consultation and participation in both design and profit-sharing.
- Technical, planning, managerial, legal and financial assistance may be required at the beginning of ecotourism projects. Government agencies can play the role of ‘honest broker’ between local communities and private operators.
- Plans for tourism projects should include training and capacity building to increase the role of local communities and should allow for career development.
- Diversify the socio-economic benefits associated with the project as much as possible – this will increase stakeholder “buy-in” and reduce market sensitivity.

Emerton, L. 2001. UNDP/UNEP/GEF Biodiversity Planning Support Programme / IUCN. 2001. **National Biodiversity Strategies and Action Plans: A Review of Experiences, Lessons Learned and Ways Forward.** IUCN –The World Conservation Union, Regional Environmental Economics Programme for Asia, Karachi.

Lessons learned and best practices:

- Bringing in a detailed consideration of biodiversity economics at the start of the NBSAP planning process presents a strong foundation upon which to develop the subsequent strategy and action plan.

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- Economic valuation can provide a convincing, and much-needed, justification for biodiversity conservation.
 - Analysis of the full benefits and costs of biodiversity conservation, and of the economic structures and policies that influence these values, provides important information about direct and underlying economic causes of biodiversity loss.
 - Biodiversity Country Studies, by documenting and analysing the links between biodiversity and the economy, point to the ways in which economic measures can, and should, be used to support biodiversity conservation in the NBSAP.
 - Economic aims provide basic rationale and component of biodiversity conservation in most countries, and as such cross-cut the goals, strategies and actions contained in the NBSAPs.
 - Economic instruments and incentives which aim to overcome the economic causes of biodiversity loss and provide a supportive economic environment for conservation are crucial to the success and long-term sustainability of NBSAPs.
 - The successful implementation of NBSAPs, and their impact on biodiversity status, depend largely on the extent to which the conservation goals and actions they contain are accepted by decision-makers and planners in other sectors of the economy, and integrated into their own strategies, policies and plans.

ANNEX 2: The Ecosystem Approach and the CBD

Like the concept of mainstreaming, the ecosystem approach stems from a broadening perspective on biodiversity conservation over the past decade. The need for a broader approach was discussed by the CBD's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) and adopted by the CBD at the second Conference of Parties in Djakarta in 1995:

“... the Convention recognises the need to take a holistic and not merely a conservation-orientated approach to action to address the threatened components of biological diversity. Accordingly, this note and its annexes look at the conservation approaches while highlighting the need to integrate these across a broader spectrum of action.... The CBD was born at least partially because traditional conservation methods were found lacking in stemming the loss of biological diversity. The Convention sets a new context for considering biological diversity which recognises the causes of biodiversity are complex and multi-faceted and that action to address the loss must therefore reach beyond traditional approaches... In this context, it is critical that socio-economic and other issues share the centre stage with the more purely biological considerations”. (UNEP/SBSTTA/1/4 quoted in Stadler, J. 2003.)

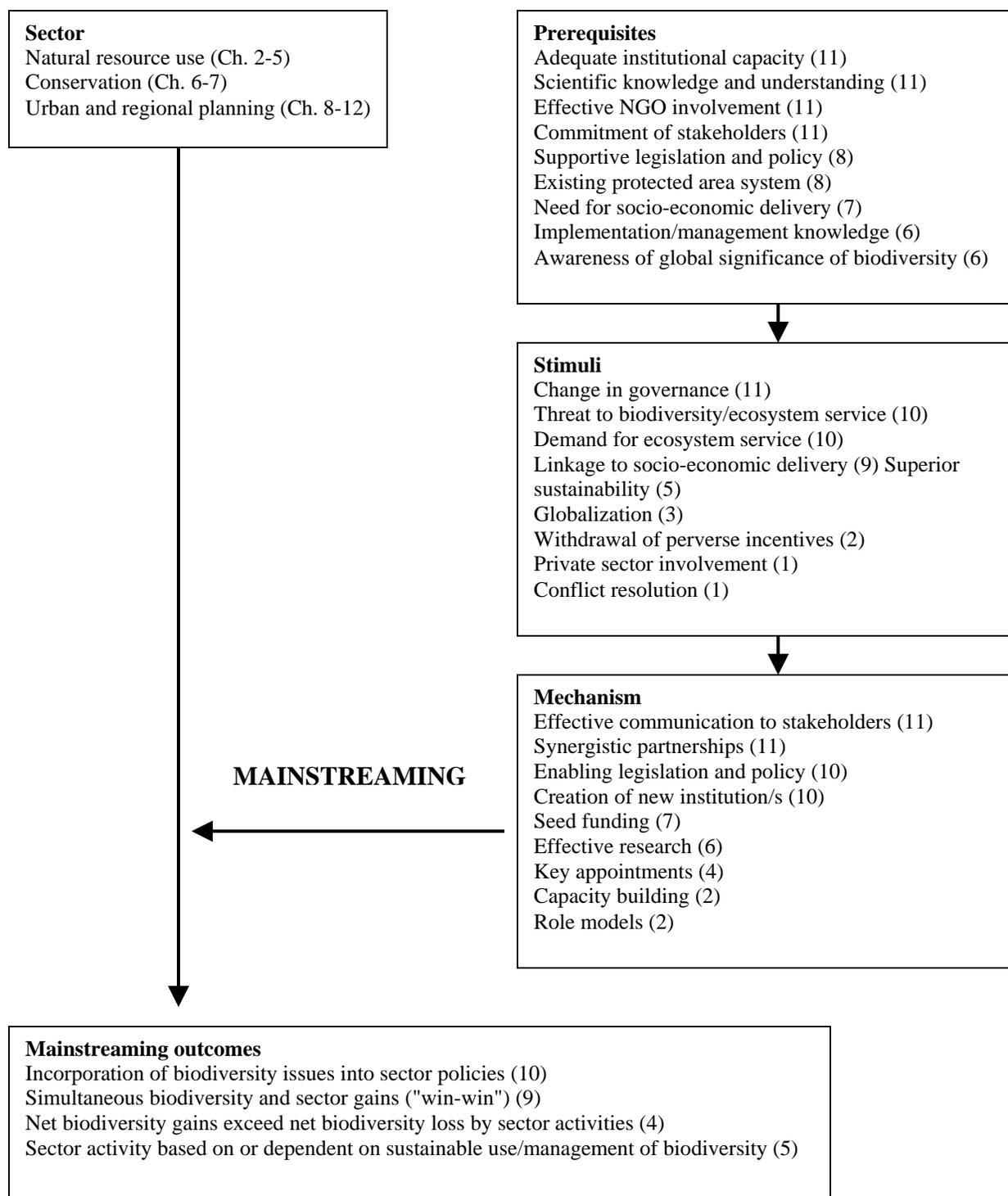
The concept of an ecosystem approach became explicit within the language of the CBD at the first Conference of Parties (COP) in 1994. It was agreed that “the conservation and sustainable use of biological diversity and its components should be addressed in a holistic manner, taking into account the three levels of biological diversity [genes, species and ecosystems] and fully considering socio-economic and cultural factors. However, the ecosystem approach should be the primary framework of action to be taken under the Convention” (Korn, H., *et al.*, 2003:26).

In the decade which followed, a series of international workshops helped to clarify and promote the concept. By its 5th meeting in 2000, the COP was ready to pass Decision V/6, outlining a description of the ecosystem approach, twelve principles to guide it (see Annex 1), and five points of operational guidance for the application of the approach. A need was felt to gain experience in the practical application of the concept, and this has been achieved through a number of regional workshops and Isle of Vilm workshop in 2002 (Korn, H. *et al.* 2003). The CBD now describes the ecosystem approach as “*the fundamental paradigm for the Convention's activities; a prism through which its activities are developed*” (CBD, 2003: xxiv).

ANNEX 3: The Principles of the Ecosystem Approach of the Convention on Biological Diversity

1. The objectives of management of land, water and living resources are a matter of societal choice.
2. Management should be decentralized to the lowest appropriate level.
3. Ecosystem managers should consider the effects (actual and potential) of their activities on adjacent and other ecosystems.
4. Recognising potential gains from management, there is usually a need to understand and manage the ecosystem in an economic context. Any such ecosystem-management programmes should:
 - Reduce those market distortions that adversely affect biological diversity (i.e., eliminate perverse subsidies, etc.);
 - Align incentives to promote biodiversity conservation and sustainable use;
 - Internalise costs and benefits in the given ecosystem to the extent feasible (including full accounting for ecosystem goods and services).
5. Conservation of ecosystem structure and functioning, in order to maintain ecosystem services, should be a priority target of the ecosystem approach.
6. Ecosystems must be managed within the limits of their functioning.
7. The ecosystem approach should be undertaken at the appropriate spatial and temporal scales.
8. Recognizing the varying temporal scales and lag-effects that characterize ecosystem processes, objectives for ecosystem management should be set for the long term.
9. Management must recognize that change is inevitable.
10. The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity.
11. The ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices.
12. The ecosystem approach should involve all relevant sectors of society and scientific disciplines.

ANNEX 4: The process of mainstreaming biodiversity (from Pierce *et al.* 2002)



Note: The numbers in brackets refer to frequency of issue/action in the 11 case studies described in Pierce *et al.* 2002.

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