



Can Community Conservation Bring International Goals Down to Earth?

Chairman's Report from a workshop on the
Millennium Ecosystem Assessment

Edited by Leif John Fosse and Peter Johan Schei

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Preface

This is a report from a workshop held 23–24 May 2006, in the form of a Theme Forum on Biodiversity and the Millennium Ecosystem Assessment, convened during the 26th annual conference of the International Association of Impact Assessment (IAIA) in Stavanger, Norway. The workshop was hosted by the Norwegian Ministry of Environment, chaired by Peter Johan Schei of the Fridtjof Nansen Institute; and Christian Prip, Ministry of Environment, Denmark.

The event gathered a wide range of expertise including indigenous peoples, people with hands-on and research experience from community based natural resource management, International Institute for Environment and Development (IIED), IUCN, World Resources Institute, UNEP, UNDP and the World Bank. The workshop focused on the role of natural resource management by local communities and indigenous peoples in the follow-up of the Millennium Ecosystem Assessment (MA) findings and recommendations with regard to environment and development policy, or more specifically, implementation of Multilateral Environmental Agreements and actions to achieve the Millennium Development Goals. Another report prepared by IIED for the workshop summarises some of the experiences and necessary conditions for community conservation to contribute to these global targets, and was published by IIED in 2006.

It needs to be stated from the outset, of course, that as a Ministry of the Environment, we are not concerned only with the role of local communities in maintaining ecosystem services and poverty reduction. Strengthening international environmental governance, greening the rules governing world trade and private sector investments, and building institutional capacity at national level for implementing obligations under the Multilateral Environmental Agreements remain as crucial as ever. When the Ministry of Environment takes a particular interest in the potential contribution of local communities and indigenous peoples to the global environmental targets as well as poverty reduction, this is related to the particular attention devoted to the capture of global and national benefits from conservation and sustainable use of biodiversity by local communities as a response option in the MA, as well as recent policy interest in the role of communities and indigenous peoples in environmental governance.

The workshop formed part of the Nordic Council of Ministers' efforts to make sure that the knowledge generated, and the policy recommendations made by the MA are acknowledged in relevant international fora, including the multilateral environmental agreements, and in development policy and practice. This report, which takes the form of Chairman's

Conclusions from the workshop, highlights lessons from community based natural resource management, sub-global assessments and the role of the Millennium Ecosystem Assessment in the implementation of the Multilateral Environmental Agreements and achievement of the Millennium Development Goals. A diversity of style of presentation is represented here, where some contributions represent short summaries taken during the proceedings of the workshop, whereas others, such as Steve Bass' important contribution on the MA and the development agenda, represent abridged versions of full manuscripts submitted. The views presented are those of the presenters, and may not represent official policy of the Norwegian Ministry of the Environment.

Acknowledgments

The workshop was organised by Leif John Fosse from the Norwegian Ministry of the Environment, assisted by a team consisting of Tone Solhaug and Marianne Gjørsvik also from the Ministry, Dilys Roe and Ivan Bond from the International Institute for Environment and Development, Christian Prip from the Danish Ministry of the Environment, Maria Berlekom from SwedBio, Gunn Paulsen and Frank Eklo from the Norwegian Directorate for Nature Management, Thor S. Larsen from Noragric at the Norwegian University of Life Sciences, and Mariel Aguilar Støen from the Oslo University Centre for Development and the Environment. The report was edited by Leif John Fosse and Peter Johan Schei, Director of the Fridtjof Nansen Institute, assisted by Gunn Paulsen and Frank Eklo from the Norwegian Directorate for Nature Management. Credits are due to Deputy Directors Guri Sandborg and Ingvild Swensen of the Ministry of Environment for "thinking outside the box" and allowing significant resources to be devoted to the planning, execution and follow-up of this workshop. This is in the spirit of the MA, which challenges us to identify new approaches for achieving integrated management of land, water, and living resources while strengthening regional, national, and local capacities. Generous financial support for the workshop was provided by the Nordic Council of Ministers.

Leif John Fosse

Chairman's Conclusions

Peter Johan Schei, Director Fridtjof Nansen Institute

1. Biodiversity and ecosystem services is the living basis for human well-being

Everyone in the world depends on nature and ecosystem services to provide the conditions for a decent, healthy, and secure life, but it is particularly important for poor people dependent on subsistence agriculture and who are living “closer to nature”, that the key ecosystem functions are maintained. Biodiversity benefits people through more than just its contribution to immediate material welfare and livelihoods, it also contributes to long term security, resilience, good social relations, cultural and spiritual identity, health and freedom of choices and actions. Ecosystems provide essential goods and services (regulating, supporting, provisioning and regulating and cultural) for sustainable livelihoods around the world. Non-degraded ecosystems are shown to be more robust and protecting against natural disasters.

2. The findings of the Millennium Ecosystem Assessment are important for improvement of resource management for sustainable development

To improve human well-being and reduce poverty the ecosystem functions providing the needed services have to be maintained through more targeted biodiversity conservation. It will be necessary to strengthen response options that are designed with the conservation and sustainable use of biodiversity and maintenance of ecosystem services as the primary goal. These responses will not be sufficient, however, unless the indirect and direct drivers of change are addressed and the enabling conditions for implementation of the full suite of responses are established.

We need to integrate the values of biodiversity and ecosystem services into the overall economy. Even today's technology and knowledge can reduce considerably the human impact on ecosystems. They are unlikely to be deployed fully, however, until ecosystem services cease to be perceived as free and limitless, and their full value is taken into account. Managers need to be informed and trained and understand the values of ecosystem services. There must be an operationalization of the ecosystem approach as a basis for good resource management.

3. Ecosystem services and poverty reduction:

- Research is needed to understand the links and promote the right balance or trade-offs between various ecosystem services
- Provisioning services should not dwarf supporting and cultural services

There is a need both for short-term creation of jobs and opportunities for nature based livelihoods and long-term maintenance of the essential ecosystem services. The World Resources Institute's seminal 2005 Report has three key conclusions that are relevant in this regard;

- The poor are overwhelmingly located in rural areas and natural resources are their most important asset
- Poverty alleviation must account for the environment, and ecosystem protection must accommodate the ambitions of the poor
- The catalyst of the achievement of both is governance

There is a need to develop fine-tuned trade-off mechanisms and participatory procedures for achieving these balances in practical resource management where local communities can contribute and have a fair say.

4. The role of local communities in conservation and sustainable use of biodiversity for poverty reduction

Local communities can play an essential role in conservation and sustainable use of biodiversity. Participation in decision-making and creation of ownership to solving biodiversity problems at local level is required for lasting solutions. Traditional knowledge and management practices are important factors in sustainable natural resource management and should be developed in tandem with new technologies and scientific research. Government must play an active role in bridging local communities and modern science. This is particularly important for meeting the challenges that emerge from global development processes (climate change, habitat fragmentation).

The legal framework that regulates indigenous peoples and local communities' rights and access to natural resources should be in place. This is, however, rarely the case. There are provisions for indigenous and traditional communities' rights and access to natural resources and benefit-sharing from sustainable use of these resources in the almost universally ratified Convention on Biological Diversity (CBD). However, only 18 countries, all Latin-American except Fiji, Norway, Denmark and the Netherlands have ratified the ILO Convention 169 Concerning Indige-

nous and Tribal Peoples in Independent Countries, which has legal implications for the ratifying countries.

Devolution of responsibility for natural resources management is a rigorous and very demanding process, which requires transparent, accountable, equitable and democratic management. Processes must be highly disciplined. Together with devolution of responsibility there must be training, education and capacity building, and there must be positive economic and social incentives in place to promote sustainable decisions. Very often measures to conserve natural resources are more likely to succeed if local communities are given ownership of them, share the benefits, and are involved in decisions regarding their management.

The workshop noted that there appears to be evidence that community conservation can help address the direct drivers of biodiversity loss and poverty at local level. Community conservation cannot solve these huge and interlinked challenges at global level. Without local action and commitments, however, the international targets set within the CBD and the MDGs are likely to be at best irrelevant and most likely, unattainable. Specific recommendations in this regard for the donor and partner countries as well as the conservation and development communities, then, would be to;

- Recognise the contribution of community conservation to the achievement of the CBD and other MEAs, as well as the MDGs. Community conserved areas – including indigenous territories, communal lands and sacred groves – should be given the necessary recognition and support, to complement formally recognised protected areas.
- Establish national mechanisms for enabling community participation in decision-making processes within the CBD (and other MEAs). Community conservation is not just about the practical involvement of communities in conservation activities, but their full and active participation in conservation planning and policy-making.
- This could also include a role for communities in the monitoring of natural resources and ecosystem services, as well as in the design and carrying out of Environmental Impact Assessments and Strategic Environmental Assessments. The latter is gaining increasing importance in this time of budget support and sector programming.

In short, *“there must be something in it for the local communities!”*

5. The economic sectors

It is essential to integrate environmental concerns into sector policies and actions to ensure a balanced promotion of ecosystem services for conservation and development

Traditional biodiversity conservation through establishment of protected areas and protection of endangered species is important but not sufficient to achieve the objectives of CBD. There is a clear consensus on the need to strengthen sector responsibility and integration of biodiversity concerns into decision-making and actions within the economic sectors. This is also an obligation under art. 6 of the CBD. Better protection of natural assets will also require coordinated efforts across all sectors of governments, businesses, and international institutions. The productivity of ecosystems depends on direct actions and influences from human activity but also on policy choices on investment, trade, subsidy, taxation, and regulation, among others.

There is a need to engage high impact players like Ministry of Finance, ministries responsible for planning, regional development, infrastructure, fisheries, agriculture as well as those concerned with management of natural resources and the environment. Development requires increased asset productivity, including increased natural resources productivity. Investments in ecosystem services will pay off if a long-term horizon is applied. Despite findings and recognition of the value and need for investments in ecosystem services, the environment often remains an externality and ecosystem services are largely unowned, unpriced, unregulated, untaxed, unenforced, uncertain in the traditional economic sense. Champions of the environment are often neglected and ministries of environment are traditionally weak. The investment vehicles for pro-poor ecosystem services should include focal sectors with big budgets where environmental degradation is a threat (health, energy, and infrastructure). There is also a need to raise new funds (environmental fiscal reform; long-term finance models).

6. Implementing international goals and treaties

It is necessary to bring together the conservation and development agenda in order to achieve poverty reduction

Both the MDGs and the obligations of biodiversity related conventions and treaties should be integrated when countries develop their Poverty Reduction Strategy Papers (PRSPs). The MDGs represent the overall framework we have for addressing conservation and development issues in a concerted way. The importance of attaining the 2010 Biodiversity goal as a step towards the 2015 MDGs was highlighted during the workshop. The incorporation of the 2010 goal as an intermediary target under MDG 7 by the 2006 UN General Assembly was therefore duly noted. There is a general need for closer cooperation between conservation and development planning, and also a need for better horizontal coordination and cooperation between the various MDGs. Both at the international and

national level countries must take action for improving the mechanisms for such cooperation.

7. Consequences for development cooperation strategies:

The forum identified a number of recommendations for consistency, capacity-building, mainstreaming and ownership of the development process

Major policy issues to be considered;

- Integrate decision-making processes between different departments and sectors
- Increased coordination among multilateral environmental agreements and between environmental agreements and other international economic and social instruments
- Eliminate subsidies that promote excessive use of specific ecosystem services to the detriment of others.
- Promotion of sustainable intensification of agriculture
- Correction of market failures and internalization of environmental externalities that lead to the degradation of ecosystem services
- Include sound management of ecosystem services in all regional planning
- Empower marginalized groups that are key to local conservation needs
- Operationalize the principles of the ecosystem approach

A key recommendation of the MA is that substantial changes in governance, institutions, economic policies and incentives are direly required. The values of ecosystem services, and the rights and involvement of local communities, must be fully acknowledged and factored in into decision-making in all key development sectors – from agriculture and forestry, fisheries, minerals, to infrastructure, industry and energy. The move to budget and sector support provides an important opportunity for high-level knowledge-based dialogue on exactly these issues, and for encouraging and supporting that this development takes places – far more so actually than more limited project-specific support. There is, however, a clear precondition for success in such budget support. The critical dialogue and economic incentives must be clear and support the multiple objectives for development cooperation financing.

This can and should take place both in the processes concerned with developing and implementing the PRSPs, including associated tools such as Poverty Monitoring Systems (PMS) and Public Expenditure Reviews (PER), and in different sectors, through e. g. , using tools such as Strategic Environment Assessments. The National Biodiversity Strategy and Action Plans (NBSAPs) have not been efficient nor applied to any great extent in the national development planning processes, mainly due to lack of ownership among those involved with national implementation of the

core planning instruments such as PRSPs. NBSAPs need to be reassessed and refocused to contribute effectively to safeguarding of biodiversity concerns in PRSPs.

Introduction

Leif John Fosse, Norwegian Ministry of the Environment

The following represents an overview of the challenges given to workshop participants to consider in their presentations and discussions. The main point of reference is the Millennium Ecosystem Assessment (MA). MA involved contributions from 1360 researchers, and should become as important in terms of raising awareness of the socio-economic importance of ecosystem services and their degradation, as the UN International Panel on Climate Change has proved to be on the serious effects of climate change.

The MA delivered its first set of overall analyses and recommendations in 2005, as well as specialised reports in the fields of biodiversity, drylands, freshwater, health, business and industry. It continues to produce technical, methodological and policy volumes which are most useful in taking our understanding of environment and development issues further. Only two sub-global assessments reports have been published so far (Southern Africa and Colombia). When more of these become available, they should become useful tools for applying the global analysis to local contexts and learning from local experience of changes in ecosystem services.

Perhaps most importantly, the MA provides us with a language to talk about economic, social and cultural values of the environment in a way that makes it plain that all of us, rich and poor alike, are critically dependent on the goods and services provided by healthy, functioning or intact ecosystems. These include provisioning services such as food, water, timber, and fibre; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling. The human species, while buffered against environmental changes to various extents by culture and technology, is fundamentally dependent on the flow of ecosystem services.

Following four years of study (2001–2005) the assessment team concluded that approximately 60% (15 out of 24) of the ecosystem services evaluated were being degraded or used unsustainably:

- In a number of cases provisioning services are being used at unsustainable rates;
- Human modification of ecosystems has adversely affected regulating services such as climate and disease control;

- Waste production has exceeded the capability of ecosystems to adequately process it;
- Ecosystem modification and societal change have diminished cultural benefits.

Policy Convergence on Ecosystem Services and Poverty Reduction

The five biodiversity related conventions, in a message to the 2005 UN Summit on the Millennium Development Goals, noted that the services we use from ecosystems, such as clean water, food, fuel and fibre, medicines, and climate control, cannot be provided without biodiversity. Failure to conserve and use biological diversity sustainably will perpetuate inequitable and unsustainable growth, and result in deeper poverty, new and more rampant illnesses, continued loss of species, and a world with ever-more degraded environments which are less healthy to people. And, we may add, a world less able to provide people with livelihoods and daily sustenance.

An important outcome of the MA process is the emerging recognition among environment and development agencies of the relationship between poverty, natural resource management, governance and capacity-building. UNDP's Human Development Report 2005 emphasized the importance of sustainable natural resource management for reaching the Millennium Development Goals, preventing conflict over limited natural resources, reducing the vulnerability of the poor to natural disasters, and equipping them to be able to adapt to the effects of climate change. The same year, World Resources Institute's Report *The Wealth of the Poor*, highlighted the links between ecosystems and poverty reduction. It posited that "income from ecosystems can act as a fundamental stepping stone in the economic empowerment of the rural poor". In 2006, the 61st UN General Assembly incorporated the 2010 biodiversity target as a new and more specific target towards ensuring environmental sustainability by 2015, the seventh Millennium Development Goal. UNEP's and UNDP's Poverty and Environment Initiative is based on the assumption that the MDGs will not be attained unless the concept of ecosystem services becomes integral to national poverty reduction strategies.

These are global challenges which must be addressed also at the local level. A recurring theme in many of the poverty-environment initiatives is the need for local level management of land and resources. This is in line with the adoption by the CBD of the ecosystem approach which includes a principle of decentralisation to the lowest practical unit of management.

What role for community based natural resource management?

On this background, contributors to the workshop were invited to pay critical attention to experience with community based natural resource management as a vehicle for poverty reduction and achievement of the Millennium Development Goals. Contributors were further invited to propose application of the MA in environment and development policy and practice, and where impact assessments might fit into this picture.

According to the MA, many of the measures needed to maintain vital ecosystem services would stand a better chance of success if communities were given ownership of natural resources, allowed a greater share of the value added by sustainable management of them, and had greater say in decision-making relating to natural resources. Local communities are not mere spectators, but active managers of the capacity of ecosystems to deliver services, the MA further notes in one of its technical volumes. Rural communities play a significant role in the maintenance of crucial ecosystem services including biodiversity, carbon sequestration, pollination, and water resource management.

Contributors were therefore asked to identify conditions enabling communities to conserve, manage and use natural resources sustainably. Of particular interest to international environmental governance would be the potential that community based natural resource management might hold for practical implementation and further development of the biodiversity related conventions. IUCN has recommended following up the MA with specific measures at regional and local level. The sub-regional MAs undertaken in various places around the globe are important references in this regard.

Contributors were also invited to provide experiences with how poor communities are affected by, and adapt to the changes in ecosystem services documented by the MA. The World Resources report underlines the importance of access to forests, fishing and agriculture as a safety net for the poorest, three quarters of whom live in the countryside. Rural poor people, the MA notes, are a primary target of the MDGs, tend to be most directly reliant on ecosystem services and therefore most vulnerable to changes in those services. Biological diversity is used by many rural communities directly as insurance and coping mechanism to increase flexibility and spread or reduce risk in the face of increasing uncertainty, shocks, and surprises.

Finally, workshop participants were challenged to consider the proposition that in countries characterised by a limited reach of the state over its citizens, and where environmental management tends to be weak, natural resource management is, practically speaking, left to communities. Poor governance, political marginalisation and lack of secure access

to these natural resources, it is argued, today prevent poor communities from exercising this responsibility in a sustainable manner.

One response option the MA recommends looking into is the development of tools for valuation of ecosystem services and payment or compensations to communities for maintaining these services. Views and assessments of the utility of this sort of market-based approach as opposed to institutional approaches to environmental incentives were invited. A related question considered by the workshop was whether payment for ecosystem services could contribute to a more sustainable basis for community based natural resource management.

Capacity-Building and an Enabling State

The Convention on Biological Diversity, in its ecosystem approach, states that the management of natural resources should take place at the lowest possible appropriate level and be based on people's cultural understanding and traditional use of natural resources. Capacity building in natural resource management, it may be argued, should be directed towards the local level when possible and beneficial for the overall and long-term management of natural resources.

Recent experience from Southern Africa highlighted in the literature and again during the workshop indicates that investments made at this level run the risk of being undermined by tendencies towards recentralisation. Seeing that some of the experiments in devolution of authority for the management of natural resources have instilled potentially threatening ideas of rights, democracy and governance in local communities and in some cases enabled them to add significantly to their livelihoods, some governments in the region have retracted from their former willingness to experiment with local level management, and have started to recentralise the authority to manage natural resources as well as the income generated from local management of natural resources.

Some of the most important lessons from 15 to 20 years of experience with community based natural resource management, then, are that coherent, enabling legislation at national level, rigorous and transparent procedures, training, education and capacity building are important pre-conditions for devolution of appropriate authority for management of natural resources to communities.

Presentations

Opening address

Morten Wasstøl,

Political Adviser, Norwegian Ministry of the Environment

In his opening address, Mr. Wasstøl highlighted the link between ecosystems and livelihoods and emphasised the importance of both conservation and sustainable use of biodiversity. He called for a comprehensive approach to management of ecosystems and pointed to the need to bridge the gap between new science and traditional knowledge.

He referred to the Millennium Ecosystem Assessment (MA) that states that more changes have occurred to the world's ecosystems in the last 50 years than in the whole of human history. It is the most comprehensive appraisal of the state of the world's ecosystems that has ever been undertaken. The MA clearly shows that all human beings depend on the goods and services provided by nature. This is the case in rich welfare states, although we tend to forget it. This is certainly the case for the world's poor and indigenous peoples, for whom the ecosystem services represent the very bottom line and safety net of their everyday existence.

It is, in other words, the poor that suffer the most when ecosystem services are degraded. In fact, the MA found that most of the ecosystem services were already disturbed to such an extent that reaching the goal of a significant reduction in the rate of loss of biodiversity by 2010, or indeed the Millennium Development Goals by 2015, could prove impossible unless remedial action is taken urgently.

Wasstøl saw the Theme Forum on the Millennium Ecosystem Assessment as an excellent opportunity to look closer into and discuss how the MA can be followed-up in environment and development policies. How can concepts such as sustainable development, poverty reduction and ecosystem approach best be translated into practical action?

Wasstøl pointed to the fact that the report from this meeting would feed into the next meetings of the Nordic Council of Environmental Ministers, the evaluation of the MA which had been commissioned by UNEP, and the further development of the ecosystem approach in the CBD. He also mentioned that the experience and knowledge gathered in Stavanger would specifically feed into the fifth Trondheim Conference (in Norway) in support of the Convention on Biological Diversity in 2007. The conference is expected to take stock of where we are at with progress towards the 2010 target on biodiversity and relevant Millennium Development Goals.

In closing Wasstøl highlighted some questions that he would challenge the participants to look at during the workshop;

- What is the role of the local versus the global level in this matter?
- How can the poor get a greater share of the value added by sustainable management of natural resources?
- How can they have a greater say in decision-making relating to natural resources?
- What about the incentives for sustainable natural resource management at the local level?

In his final remarks he referred to his recent visit to the Xingu in the Amazon, where indigenous groups have been able to protect vast areas of rainforest, in stark contrast to the green desert of the soy bean plantations found outside the indigenous area. The people of Xingu protect and use this biodiversity rich area, for their own good reasons, while contributing to the global good, and much more effectively than any state protected areas. What lessons can we draw from this experience? Should perhaps international environmental agreements pay more attention to collective rights to natural resources?

The Millennium Ecosystem Assessment: What, why and how relevant to international policy processes

Bob Watson, Chief Scientist, World Bank

The Millennium Ecosystem Assessment (MA) is a critical assessment of what is the state of the ecosystems in the world, the consequences of ecosystem change and an exploration of alternative scenarios and policy responses. The MA was authorized by governments from 95 countries through 4 Multilateral Environmental Agreements; in addition it was supported by the business community. It had a multi stakeholder Board.

The MA can be used to: i) Identify priorities, ii) Serve as a benchmark, iii) As a framework and tools for assessment, planning and management, iv) To provide foresight concerning consequences of decisions affecting ecosystems, v) To identify response options, vi) To build capacity, vii) To guide future research

We do not lack information to protect, conserve and manage ecosystems; it is the political will we are missing. The key messages from the MA can be summarized as follows:

- Biodiversity benefits people through more than just its contribution to material welfare and livelihoods, it contributes to security, resilience, social relations, health and freedom of choices and actions.

- Ecosystems provide the same types of goods and services (regulating, supporting provisioning, regulating and cultural) around the world, in other words, no matter what type of ecosystem we look at, it provides goods and services within the categories mentioned above.
- Changes in biodiversity due to human activities were more rapid in the past 50 years than at any time in human history, and the drivers of change that cause biodiversity loss and lead to changes in ecosystem services are either steady, show no evidence of declining over time, or are increasing in intensity. Under the four plausible future scenarios developed by the MA, these rates of change in biodiversity are projected to continue, or to accelerate.
- Many people have benefited over the last century from the conversion of natural ecosystems to human-dominated ecosystems and from the exploitation of biodiversity. At the same time, however, these gains have been achieved at growing costs in the form of losses in biodiversity, degradation of many ecosystem services, and the exacerbation of poverty for the other groups of people.
- The most important direct drivers of biodiversity loss and ecosystem service changes are habitat change (such as land use change, physical modification of rivers or water withdrawal from rivers, loss of coral reefs and damage to sea floors due to trawling) climate change, invasive alien species, overexploitation and pollution.
- Improved valuation techniques and information on ecosystems services demonstrate that although many individuals benefit from biodiversity loss and ecosystem change, the costs borne by society of such changes are often higher.
- To achieve greater progress toward biodiversity conservation to improve human well-being and reduce poverty, it will be necessary to strengthen response options that are designed with the conservation and sustainable use of biodiversity and ecosystem services as the primary goal. These responses will not be sufficient, however, unless the indirect and direct drivers of change are addressed and the enabling conditions for implementation of the full suite of responses are established.
- Trade-offs between achieving the 2015 targets of the Millennium Development Goals and the 2010 target of reducing the rate of biodiversity loss are likely. There are also many potential synergies between the various internationally agreed targets relating to biodiversity, environmental sustainability, and development.
- Coordinated implementation of these goals and targets would facilitate the consideration of trade-offs and synergies between the various international agreed targets related to biodiversity, environmental sustainability and development.
- An unprecedented effort would be needed to achieve by 2010 a significant reduction on the rate of biodiversity loss at all levels.

- Short-term goals and targets are not sufficient for the conservation and sustainable use of biodiversity and ecosystems. Given the characteristic response times for political, socioeconomic and ecological systems, longer-term goals and targets are needed to guide policy and actions.
- Improved capabilities to predict the consequences of changes in drivers for biodiversity, ecosystem functioning, and ecosystem services together with improved measures of biodiversity, would aid decision-making at all levels.
- Science can help ensure that decisions are made with the best available information, but ultimately the future of biodiversity will be determined by society.
- The valuation of ecosystems should be assessed both by its market value and non market value.

In conclusion, Watson identified the following major policy issues to be attended to:

- Integrate decision-making between different departments and sectors
- Increased coordination among multilateral environmental agreements and between environmental agreements and other international economic and social institutions
- Eliminate subsidies that promote excessive use of specific ecosystem services
- Promotion of sustainable intensification of agriculture
- Correction of market failures and internalization of environmental externalities that lead to the degradation of ecosystem services
- Include sound management of ecosystem services in all regional planning
- Empower marginalized groups
- More protected areas (with special emphasis on marine protected areas)
- Use all forms of knowledge

Millennium Ecosystem Assessment and Development: The case for Investment in Environmental Services

Steve Bass, Senior Fellow,

International Institute for Environment and Development

1. Why should development organizations respond to the Millennium Ecosystem Assessment?

The MA assessed ecosystem-people links. This led it to conclude that drylands are a priority – since many poor people are vulnerable to the poor soils and limited water supply – rather than the coral reefs or tropical rainforests that one might expect to head a list of ‘environment’ priorities. The assessment is organized in terms of the services that people obtain from ecosystems: ‘provisioning’ services like food, fresh water and fibre; ‘regulating’ services like climate and flood regulation; ‘supporting’ services like soil formation and nutrient cycling; and ‘cultural’ services like spirituality, aesthetics, education and recreation. The MA offers a unique catalogue of “response options” proven to make better and more sustainable use of ecosystem services. Although the more dramatic MA messages are negative, it also offers many ‘can-do’ ideas and experiences. Finally, the MA offers a conceptual – and potentially a political – bridge between the too separate worlds of environment and development. Although it was launched by environmental conventions, its dual focus on human and ecosystem well-being offers a real link to institutions concerned about the MDGs.

2. What do the MA’s conclusions tell us about development?

The MA’s main message is that we are spending the Earth’s natural capital at excessive rates, straining its ability to support everybody in current and future generations, but particularly poor people. Most worryingly, the MA notes that while millions of people have benefited from ecosystem transformation and species exploitation (the increase in food production from modern agriculture has been a major societal benefit) the benefits have not been equitably distributed. The harmful effects of the degradation of ecosystem services are being borne disproportionately by the poor, are contributing to the growing inequities and disparities across groups of people, and are sometimes the principal factor causing poverty and social conflict. The problem is one of trade-offs. Modification of ecosystems to enhance one service generally comes at a cost to other services and these impacts affect different people in different ways. Poor people are more directly reliant on ecosystem services to support their day to day livelihoods and, with limited other resources, are more vulnerable to their degradation: “...people with low resilience to ecosystem changes – mainly the disadvantaged – have been the biggest losers and witnessed the big-

gest increase in not only monetary poverty but also relative, temporary poverty and the depth of poverty” (MA 2005b: 40). The MA confirms the finding of the UN Millennium Project that ‘the environment is the foundation on which strategies for all MDGs must be built’. It implies that much more investment is needed to secure that foundation, but few details are offered. Now is the time to identify key investments, their costs, and the returns they can offer.

3. What is the case for investing in environmental assets?

Good development entails increasing the asset base and its productivity per person, empowering poor people and marginalised communities, reducing and managing risks, taking a long-term perspective including subsequent generations. The environment is central to all four of these requirements. Poor people are disproportionately dependent upon soils, water, wildlife, and other environmental assets. At national level, this accounts for 26% of the wealth of low-income countries – disproportionately higher than the 2% they provide in OECD countries (World Bank 2005). At household level, poor people with limited access to financial, human, or physical assets often have only environmental assets on which to base their livelihoods. These assets can at the very minimum act as safety nets – preventing people slipping further into poverty – but sometimes offer ‘stepping stones out of poverty’ (WRI 2005). Overall, environmental assets provide roughly two-thirds of household income for the rural poor (WRI 2005). In spite of this role, environmental assets are under-supplied: OECD levels of environmental wealth per person are four times that of low-income countries (World Bank 2005).

Finally, the sheer size and market value of economic sectors that are environmentally sensitive, including food production, timber industry, marine fisheries and aquaculture, is reason enough to warrant regular environmental accounting and investment in countries that depend upon them for development. High levels of dependency and vulnerability of these sectors would suggest that returns to environmental investment could be high. Reviews of 400 separate economic assessments for the Poverty Environment Partnership indeed found this to be the case (Pearce 2005). Furthermore, investment in social capital, such as common property regimes that improve the management of environmental assets, is also promising. However, a range of policy, institutional, market and information constraints tend to reduce the apparent rate of return and establish a bias against environmental investments. Clearly, several things need to change if under-investment in environmental assets is to be tackled.

We propose the following agenda;

4. 1 Information – getting environmental information to the heart of development planning and action

The MA framework, with its focus on the utility of environmental assets for people's well-being, is increasingly identified as an excellent way to keep track of key assets on which poor people depend. The challenge is both to generate demand for this information, and to structure information systems so that they inform policy and action. Ultimately, the preparation of new forms of national wealth accounts that take into account produced capital, natural resources, and human capabilities is desirable to identify the relative – and changing – status of national environmental assets.

4. 2 Institutions – capacity strengthening and reform to integrate environment and development

Although the MA was largely a technocratic process, and did not delve into issues of power and politics, it offers enough evidence to suggest that we are going to have to 'rewire' the institutional landscape if we are to secure the environmental foundations of development. Firstly, most of the effective 'Response Options' identified by the MA require multi-stakeholder or multi-level interactions. Secondly governments need to create incentives for poor people and businesses to invest in environmental assets, and then encourage them to use these assets wisely, thus creating a sustainable revenue and tax base. A large part of this conducive environment will comprise recognizing and supporting local groups' rights to environmental assets, their local environmental management knowledge, and their 'voice' on environmental values.

4. 3 International cooperation – improving international payments for ecosystem services and aid for pro-poor investment

In the medium term, there is much to be done to develop means to pay for global public goods, building on the very limited experience of the Clean Development Mechanism and the Global Environmental Facility. In the shorter term, there are several key starting points that international cooperation is well placed to tackle:

- Benchmarking aid against MDG7 and increasing support to those environmental investments that offer high returns for poverty reduction – given how far off-track progress is on MDG7.
- Including poverty-environment indicators in MDG7 and the other MDGs – notably indicators that are missing such as climate change vulnerability, learning from what countries are voluntarily reporting to the United Nations.

- Encouraging use of the MA framework in ‘MDG based national strategies’ and other development plans – building on UNDP’s lead in this area.

4. 4 Investment – improved advice, budgeting and finance vehicles that support long-term environmental management

Severe under-investment in environmental assets needs to be tackled, especially in environmentally sensitive sectors and livelihoods. To increase market led investment, the key issue is to support stable ecosystem service markets – requiring good science (for example to assure reliable production of the service in question) and equitable legal and policy regimes (including considering the needs of poor people as producers or consumers of environmental services). To increase governmental investment, innovative long-term finance models need to be developed, e. g. as suggested in the UN’s New Public Finance (UNDP 2005). Three starting points include:

- Reviewing the budgets and investment sources of major sectors that are environmentally sensitive, such as health, infrastructure, energy, tourism and agriculture. Such sectors may be a more effective starting point than a fully comprehensive approach to ‘environmental mainstreaming’.
- Identifying easy gains in environmental fiscal reform. A recent review has revealed many ways in which tax reform can both protect key environmental assets and realise revenue for poverty reduction. National exploration of these win-win potentials is overdue (OECD 2005).
- Constructing ‘Millennium Ecosystem Budgets’, globally and nationally. The MA did not go as far as postulating a ‘Millennium Ecosystem Budget’ – and neither did the Millennium Project which ‘costed’ all MDGs comprehensively, with the exception of MDG7. The key platform on which national budgets can be constructed should be national ecosystem assessments conducted along the lines of the MA. Sachs and Reid (2006) suggest that it will cost just \$0. 2 billion over five years to conduct national assessments in developing countries – an excellent initial investment.

5. Conclusion

Following its launch in 2005, it would be fair to ask how the MA’s intensive efforts are being followed up. The MA closely follows the model used by the Intergovernmental Panel on Climate Change (IPCC) – a scientific assessment that has been critical to formulating climate change policy. It is hoped that the MA will be similarly influential in realising a step change to ensure that development practice acts on environmental

potentials and limits. But there is one difference. The IPCC's mandate continues, enabling policy and practice to adapt to new scientific findings. In contrast, the MA has already come to a close.

Why do Ecosystems Matter? Building on the Results of the Millennium Ecosystem Assessment

Jeffrey A. McNeely, Chief Scientist, IUCN

McNeely started his presentation by highlighting the links between biodiversity, ecosystem services, and human well-being and described trade-offs among ecosystem services. Watershed protection services have multiple benefits, such as provision of water for hydropower and navigation, water storage to buffer floods and droughts, and control of erosion and sedimentation. Watershed protection is important for maintenance of river channels, in order to maintain coastal vegetation, to control groundwater levels, and for reducing salinity in groundwater freshwater sources. Intact ecosystems can provide protection against extreme natural events. In the 2005 Pakistan earthquake, forested slopes suffered less damaging landslides than did slopes that had been deforested.

He illustrated trade-offs among ecosystem services by referring to mangroves, which are important nursery and adult fishery habitat, supplier of fuelwood and timber and important for carbon sequestration. Mangroves trap sediments, detoxify pollutants, and act as protection from erosion and disasters (such as tsunamis). Converting mangroves to e. g. shrimp ponds can have significant external costs such as coastal erosion, increased floods, vulnerability to storms, and other extreme natural events.

Given their high value, why are ecosystem services being lost? One major reason is the excessive and continuous conversion of natural habitats into domestic habitats. The process of land conversion continues to accelerate, sometimes encroaching on legally protected areas. Changes in climate add to this, with impacts upon natural ecosystems and agriculture alike. Invasive alien species (IAS) cause human disease, threaten human safety and can have severe impacts upon natural ecosystems (e. g. water hyacinths which deplete oxygen from water and which can block navigation by boats). Annual costs associated with IAS are estimated at US\$ 7 billion for South Africa, US\$ 12 billion for the UK, and as much as US\$ 116 billion for India.

We are also witnessing excessive harvesting of valuable marine fish species (too many ships chase too few fish). The collapse of the Canadian cod fishery after 1970 is well known, and more recently we are witnessing reduced table fish catches in the North Atlantic. Degradation of such ecosystem services often causes significant harm to human well-being. The total economic value associated with managing ecosystems more

sustainably is often higher than the value associated with conversion. But conversion may still occur because immediate private economic benefits are often greater for the converted system. Poor people, who are most dependent on ecosystem services, are most vulnerable to degradation of the resource base.

Per capita food production is declining in sub-Saharan Africa and the number of undernourished people worldwide is increasing. Water scarcity affects 1 in every 3 people worldwide and 1.1 billion people lack access to improved water supply. Drylands are a critical concern. They constitute 40% of the world's land surface and have more than 2 billion inhabitants. 10–20% of drylands are degraded, and they provide only 8% of the renewable water supply.

McNeely outlined eight responses to these challenges:

- *Response 1:* Help local people capture benefits from ecosystem services, and he used an example from Costa Rica to illustrate how this could be done.
- *Response 2:* Integrate ecosystem services into regional planning, and he illustrated this by referring to the water cycle and dryland salinity.
- *Response 3:* Encourage private sector involvement in biodiversity conservation, e. g. integrating biodiversity conservation into oil and gas development.
- *Response 4:* Include biodiversity issues in agriculture, fishing and forestry.
- *Response 5:* Design governance that supports ecosystem services. Decentralization needs a supporting national framework, sound information about trade-offs and synergies, and appropriate tenure arrangements.
- *Response 6:* Education and communication will inform the public about the issues of sustainable development.
- *Response 7:* Promote international cooperation through conventions and other means.
- *Response 8:* Continue active public goods research linking biodiversity with agriculture.

McNeely's closing remark was that responding to the loss of ecosystem services may cost money. But not responding is likely to cost even more.

Community Based Natural Resource Management in the Context of MA Findings

Janet Ranganathan,

Director People and Ecosystems Program, World Resources Institute

The distribution of world poverty has significantly changed over the past 25 years, due in large part to a drop in the number of poor in East and South Asia. Other parts have showed little or no progress. The number of poor in Sub-Sahara Africa nearly doubled over the last 25 years. Improvements in poverty at the national scale mask important differences between the numbers of poor in rural areas versus urban areas. 75% of the world's poor live in rural areas.

- In China, a rural resident is 10 times more likely to live below \$2 a day than an urban resident
- An Indian boy living in the city receives close to 4 more years of schooling, on average, than his rural counterpart
- An urban African family is two times more likely to have access to safe water and adequate sanitation than a rural family.

On average, environmental income (income derived from using the services of nature such as food, fuel wood, fibre, and fish) accounts for roughly two-thirds of household income for the rural poor (including income from agriculture activities). Given the dependency of the rural poor on income derived from the services of nature, the recent findings of the Millennium Ecosystem Assessment are cause for grave concern. The World Resources Report 2005, *The Wealth of the Poor*, has three key conclusions that are relevant to the development of foreign aid policies of Nordic Council Ministers:

- The poor are overwhelmingly located in rural areas and natural resources are their most important asset
- Poverty alleviation must account for the environment, and eco-system protection must accommodate the ambitions of the poor
- The catalyst of the achievement of both is governance

Drawing on two on the ground examples – shrimp aquaculture in Southern Thailand and Watershed Restoration in Dwardi, India, Ranganathan illustrated what policies, governance measures, and organizational changes could foster ecosystem health.

Shrimp Aquaculture – Southern Thailand

A study in Southern Thailand by Sathirathai and Barbier found that aquacultures had a Net Present Value of \$8,340 per hectare compared to only

\$820 for an intact mangrove. However, from a fuller cost accounting perspective the economics of shrimp aquacultures are not so rosy. Intact mangroves provide a number of important services that are not captured in the market place. These include the provision of nursery habitat for marine life supporting off-shore fisheries as well as storm protection for coastal communities. Shrimp aquaculture, on the other hand, has a number of environmental and societal costs not typically borne by the farmer, including water pollution and land degradation. The productive life of a typical commercial shrimp farm in Thailand is only five years, after which yields dramatically decline and disease increases. They are then abandoned for another location, leaving behind a wasteland that is unfit for further productive use. Aquaculture also enjoys a number of input subsidies including nominal land rent and taxes. Taking these additional factors into account, a fuller comparison of the economic value of intact mangroves and shrimp farms reveals that the net present value of intact mangroves to be in the range of \$35,921 per hectare versus negative \$-5,447 for shrimp aquaculture. Even if the mangrove restoration costs are excluded the mangrove benefits are still greater than an aquaculture.

The shrimp aquaculture example illustrates weaknesses in governance, for example:

- Lack of relevant information on ecosystem services;
 - a) Ecosystem services trade-offs relative to nurseries and shoreline protection probably not factored into the decision to invest in the aquaculture,
 - b) Lack of regular monitoring to identify resulting declines in fish catch and increases in storm damage,
 - c) Much of this would have been missed by EIA at the single project level– points to the need for EIA to be coordinated with Strategic Environmental Assessment at the sector level as well as incorporate information from a social impact assessment.
- Weak rights of local communities dependent on nurseries, off-shore fisheries and storm protection services of mangroves. Mangroves controlled by Royal Thailand Forest Department, but basically used on an open access basis. Lack of secure tenure prevented communities from taking action. Also, points to the need for decentralization of the management and control of mangroves to local communities.
- Accountability and financial incentives not aligned with ecosystem stewardship. Aquaculture owners not held accountable for their destructive impacts on mangroves. Inequitable distribution of costs and benefits. Costs borne mostly by poor communities dependent on mangroves for a significant part of their livelihoods. Most of the benefits derived from the destructive practices flowed out of the community to more well-off people who could afford the initial investment needed to start an aquaculture. In addition, aquaculture farmers enjoyed

many input subsidies and were not held responsible for the pollution clean up or restoration costs after the shrimp farm had reached the end of its life after only five years.

Dwardi Village, India – More Water, More Wealth

This example drawn from WRR 2005 illustrates how a three-year village-based watershed restoration projects can be an effective route to restoring vital watershed functions and increasing the productivity of local ecosystems, increasing farm income and making available more forest products that directly benefit village livelihoods and builds their local economies. Today in Dwardi, farm-based employment is available 9–10 months (compared with before 3–4 months), and agricultural wages has doubled. More crop varieties are now grown due to extensive new irrigation, and the value of cultivated land has quadrupled. This example of village-led watershed restoration linked to sustainable rural livelihoods has been replicated in 145 villages in 24 districts of Maharashtra, India. The Dwardi watershed restoration example illustrates the implementation of the action agenda, for example:

- Development and use of information on ecosystem services
- Monitoring on the condition and trends of ecosystem services conducted by community.
- Trade-offs associated with watershed restoration assessed up front and mitigation or compensatory mechanisms put in place.

Decision making Processes

- Recognized rights of local people. Decentralize decisions by representative village body
- Action coordinated across village, district and national levels.

Aligned financial incentives with ecosystem stewardship

- Penalties for violating grazing bans.
- Access to ecosystem services secured.
- Transition funding available with exit strategy.
- Restoration of watershed created new revenue streams.

Summary Recommendations

- Develop and use information on ecosystem services
- Recognize local rights to use and manage services and coordinate action across levels.
- Coordinate actions across levels

- Make private and public decision makers accountable
- Align financial & economic incentives with ecosystem stewardship
- Integrate biodiversity into rural development goals
- Emphasize community-based restoration of ecosystems in support of sustainable rural livelihoods

Community Based Natural Resource Management: Lessons from the Southern African Millennium Ecosystem Assessment

Constancia Musvoto,

Institute of Environmental Studies, University of Zimbabwe

The Southern African Millennium Ecosystem Assessment (SAfMA) is one of the sub-global assessments of the MA. It assessed services provided by ecosystems and their implications for human well-being in Southern Africa, and explored how local, regional as well as national, formal and informal management systems could be combined to regionally manage ecosystems in a sustainable way. The African sub-global assessment was conducted in 19 countries in Africa south of the equator, and involved three scales: regional, basin and local.

The assessment found a high dependence on natural resources for survival in local communities, and that the survival of people in those communities was highly coupled to ecosystem services (food, shelter, medicines). Households in the region have a wide livelihood portfolio encompassing a range of activities, mostly based on the utilization of a variety of natural resources. It was also evident that rural people adapt to ecosystem change, are reactive to unanticipated circumstances and are proactive in optimizing opportunities and minimizing risk. Local people are knowledgeable about natural resources around them and manage those resources through indicators of quality and forecasting ecological events.

People value ecosystem diversity and actively promote it as a risk management strategy. Culture and tradition play an important role in resource management; they have values attached to specific species and landscapes and some spiritual/cultural values coincide with other use values for example medicines, fuel, and water supply.

Responses in the form of policies, strategies and interventions to address specific issues, needs or problems make a difference to livelihood outcomes. To respond it is necessary to understand the system and to recognize complexity as one factor that needs to be taken into account for appropriate responses. Responses also need to be integrated so that synergies between social development and ecosystem rehabilitation can be created.

For CBNRM to succeed it is necessary for managers and decision-makers to:

- Understand the system and how drivers interact before making management decisions.
- Strive to create synergies in the decisions taken.
- Examine all resources simultaneously and in an integrated manner.
- Careful choice of options carefully so as to minimize costs.
- Understand the links between human well-being and access to, and benefits from natural resources
- Take advantage of the role culture and tradition could play in management of natural resources
- Promote local leadership
- Promote the participation of rural people in decision-making in policy development
- Value ecosystems both by its economic value as well as other types of values
- Incorporate non-market values of ecosystems in decision making
- Integrate natural resource management goals within other sectors

The rural people in Southern Africa have a role in implementation of MA recommendations and Millennium Development Goals. Because the way of life of rural people is highly dependant on natural resources, and rural people constantly interact with those resources, they could play an important role in the sustainable management of natural resources. The CBD provides a framework for including local people in natural resource management and biodiversity conservation at the local, national and regional level.

In order to fulfil their role the rural people should:

- Have the possibility to participate in decision making
- Under appropriate conditions contribute with their knowledge to ecological and social impact assessment, to the development of indicators for regulating development, and to the conservation of genetic agro-biodiversity.

Can Community Conservation bring International Goals Down to Earth? Community Conservation, the MDGs and the CBD

Dilys Roe, Senior Researcher,

International Institute for Environment and Development

The potential for community conservation has been highlighted by the Millennium Assessment (MA) and by several other recent studies. There is significant Nordic investment in community conservation, and particularly in Southern Africa. The Nordic Council of Ministers wants therefore to follow up the recommendations from the MA. The question is, however, how these recommendations should be taken forward to other international policy fora.

The MA, the Millennium Development Goals (MDGs) and the Convention on Biological Diversity (CBD) have several common priorities. All of them highlight the importance of biodiversity and ecosystem services for human well-being. The outcome of the MA has made it clear, however, that most ecosystem services have been disturbed to such an extent that reaching the CBD 2010 target or the MDGs could prove impossible unless remedial action is taken urgently. Could community conservation be part of that remedial action?

The MA's conclusion is that community conservation can provide win-win opportunities and can be part of the solution. Under such schemes, community resource ownership is required, as is true local participation in decision-making. The MA is positive on this when stating that "Measures to conserve natural resources are more likely to succeed if local communities are given ownership of them, share the benefits and are involved in decisions." And "... a number of community-based resource management programs have slowed the loss of biodiversity while contributing benefits to the people. . ." However the MA also warns that "... while "win-win" opportunities for biodiversity conservation and local community benefits do exist, local communities can often achieve greater economic benefits from actions that lead to biodiversity loss."

It is commonly recognised that community conservation contributes to human well-being by provision of jobs, added income, local empowerment and overall livelihood security. Indirectly, community conservation also encourages biodiversity conservation and provides ecosystem Namibia can serve as a good example. The country has today 29 registered communal conservancies, which embrace 70,000 km², whilst there were none in 1997. There are another 50 emerging conservancies, which will add 60,000 km² to this. Income to the communities from the Namibian CBNRM programme increased from almost nil in 1994 to more than 14 million Namibian dollars in 2003. Communal conservancies have played important roles for the recovery of populations of important, and some of

them endangered, wildlife species, e. g. black rhino, springbok, oryx and zebra.

But community conservation is far from a panacea. Conflicts over land and resource use are common within communities. There are opportunity costs, e. g. when land is set aside for conservation, and community conservation can often lead to reduced access to some resources. Human/wildlife conflicts may increase, and there are disputes over equitable benefit sharing, over protection of traditional knowledge and over intellectual property rights. Costs may sometimes outweigh benefits, e. g. as exemplified by rhino conservation in Botswana.

In Southern Africa, formal government community projects are often donor driven with much focus upon wildlife. Wildlife can be of less importance in other regions, e. g. in India and in Latin America where forest resources and soil conservation can be more relevant. Community conservation will often address the needs and priorities of local, direct drivers, but indirect drivers are often out of reach. Community conservation cannot solve huge global challenges, but CBD and MDG targets are likely to be irrelevant and unattainable without local commitments and action.

In order to enhance community conservation there is a need to move beyond isolated initiatives and projects, and to work for a broader understanding of local as well as universal opportunities and constraints. We must create recognition of the roles which community conservation can play in achieving the MDGs, and in particular MDG 7. Acceptance of MA framework requires community participation in policy, planning and management. It is important for donors to break free from the traditional and short (often three year) project cycle. It takes 20 years or more for community projects to become viable and sustainable. Sectoral coordination is crucial, i. e. better dialogues and more coherent planning between a country's Ministry of Environment, Ministry of Finance and Ministry of Planning. The term community conservation is a major turn-off for mainstreaming within ministries. There is, however, nothing new in this. We have heard it before, and we will hear it again. Terminology is a problem.

Lessons, Experiences and Critical Conditions for CBNRM

Brian Child, Associate Professor, University of Florida

Brian Child opened his presentation by asking why the implementation of community based natural resource management (CBNRM) often is failing the concept. In his view, the conditions required to empower communities to manage their own ecosystems are recognition of social values, market values (real and tangible), but also non-market values, including what enables local people to capture the payments for environmental services. Institutions must govern the allocation and management of natural resources. Institutional and policy failure leads to poverty and environmental degradation.

He then compared benefits, which accrue from livestock production and from use of wildlife in Africa. Livestock can be described as a sedentary, monoculture production system where the main benefits come from the sale of meat. Wildlife is, on the other hand, a multi-species production system, which is highly mobile, and which allows species to utilise fodder and water where available. Through co-evolution, indigenous wildlife species do not need to compete for food (e. g. browsers versus grazers), and they are disease resistant. Wildlife also produces meat, but revenues from tourism (including safari hunting) can be much higher. More often than not, however, policy failures have driven down prices of wildlife based enterprises whilst the agro-extractive sector has been subsidized. Getting such policies right is therefore crucial. We can predict and manage the transformability of land between biodiversity-rich (wildlife) and agro-extractive uses (livestock) by studying power relations, devolution of rights and proprietorship, history, ethnicity, governance and confidence in institutions. CBNRM is a complex process, which we all too often try to manage through short-term projects and blueprint planning and without effective cultivation of success stories and good lessons learned. Although we have the technical knowledge to implement CBNRM with a high probability of success, we are failing to apply these principles. This is detrimental for poor people and for the environment.

Examples and lessons learned from Zimbabwe (CAMPFIRE) and Zambia (LIRD/ SLAMU) were presented. Both programmes aimed to optimize monetary benefits from wildlife, and through appropriate revenue distribution to establish the local organizational conditions that are required for success. Full participation by the local communities is crucial, and community membership lists must therefore be checked. Community membership should not exceed +/-150 persons in order to allow for much needed transparency and true participation in discussions and decision-making at meetings. At such public meetings, all community members are presented with lists of wildlife animals that have been shot (by safari hunters), and the income thereof. If e. g. revenues from wildlife

total \$ 60, 000, the community may agree that each household is entitled to \$400. First, members get their full share in cash. Then, each person pays part of that back into buckets, which represent joint community projects as agreed by the meeting. The meeting can e. g. agree that each member keeps \$ 200 as cash, but also that \$ 170 shall be spent on a grinding mill, \$ 30 for the school, etc. What is important is that the community has free and full choice of how to use their money. Devolution is a rigorous and very demanding process, which requires transparent, accountable, equitable and democratic management. Processes must be highly disciplined. Rights of benefits, allocation and sale, and management must match responsibilities. There must be conformance with sound organizational and democratic procedures. The local implementing committees should always be elected and thereafter be instructed by the community. The community committee must have a constitution, and must provide accounts and records of decisions for everybody to see. Processes that ensure transparency protect the rights of the weak and which facilitate effective decisions are thus important. But outcomes should not be dictated, i. e. how money and quotas are used, etc. Sound procedures such as accountable, equitable, participatory decision-making and control, and achievement of performance should also be required. Budgets, which reflect key allocation decisions, shall be agreed by the whole community and recorded. The community shall have full choice in allocating revenues, including cash for households, but also contributions for common projects, conservation and administration. It is important to ensure that everyone knows what is happening with the finances, which therefore shall be reported and accepted by the community quarterly. Performance shall be presented to, and accepted by the community at least annually. Each community shall have a bank account, double entry cash book systems and clear filing of invoices and receipts. Furthermore, and in order to maintain sound democratic participation, the community committee shall face re-election annually.

The presentation was summed up by stating that defined rights and responsibilities should be recognised as the basis for institutional evolution rather than being held out as its reward. It is a fallacy to build community capacity out of a system with no rights in the hope that they will somehow evolve. Sound financial/economic foundation and information and transparency within and between communities are a must. There is need for rigorous performance monitoring. Persistence is required, i. e. it will take more than 10 years for a project to become sustainable. There is also a need for partnership with the private sector for product development, marketing and sales of wildlife based tourism and safari hunting. All this must be coupled with consistent facilitation, and competence and capacity building. The sign of a healthy business is its ability to attract young people, which must be encouraged. Community organizations must have a leadership which stands for action, innovation and accountability, and

who is able to provide added value. The community, with the user rights, should for their part be prepared to pay for monitorable added value from use of land and natural resources and for business performance.

Platforms for Sustainable Livelihoods and Woodland Conservation. Experiences from Shinyanga, Tanzania

Wendelin Mlenge, Manager,

Natural Forest Resources Management and Agroforestry Centre

The HASHI/NAFRAC approach focuses on involving local communities through participatory approaches in order to revive and further develop indigenous forest resource management practices (Ngitili). Ngitili refers to enclosures owned by either individuals or communities and were developed by the Sukuma people of Shinyanga in response to acute animal feed shortages caused by droughts, the loss of grazing land to crops and declining land productivity.

Efforts to address the environmental problems facing Shinyanga Region in the recent past go back to 1984 when a national conference was convened to discuss and identify strategies for intervention and the ministry responsible for natural resources was asked to spearhead the process. Initial efforts were inclined towards tree planting but later natural regeneration and community participation gained prominence, leading to very promising results through the project known as "Hifadhi Ardhi Shinyanga" (HASHI).

As the process has evolved well at the local level, it was decided that HASHI's successful experiences should be replicated and that it should mature into a national institution named as the Natural Forest Resources Management and Agroforestry Centre (NAFRAC) to spearhead the process and mechanisms for the conservation and sustainable utilization of woodlands nationally.

Important guiding principles for the project have been to start with the people themselves and to learn and listen and build on what they know. Through this approach the project has succeeded in gaining access to peoples' knowledge and the customary land care practices that now have been revived. Much emphasis has been placed on the process and it has been seen as vital to be able to gain trust and confidence with the local people. This has been enhanced by looking for soft entry points and quick wins.

The project has focused on strengthening the planning capacity of local institutions. The authorities facilitate the process and provide technical input from modern agroforestry technologies. NAFRAC works mainly with authorities at District levels and local communities, but also with other stakeholders.

Some of the achievements highlighted for the HASHI project were the restoration of more than 350,000 hectares of land, an increase in income for 64% of the households in the project area and a reduced workload for women. Mr. Mlenge also emphasised that the project had succeeded in building trust between authorities and local communities.

There is however some critical challenges that must be addressed in order to secure the long term sustainability of this approach. Some of the main challenges for the work of NAFRAC are;

- The agroforestry model that NAFRAC is promoting depends on a good working relationship between district authorities and local communities. The necessary capacity building at district level is a long term process that is important to the success of the model
- Uncertainty over land tenure and ownership is another important issue that may affect the success of this model. Scarcity of land is also a challenge. This is exacerbated by rapidly growing human and livestock populations
- Access to markets and marketing of forest products, particularly honey, is important to ensure necessary income generation. More involvement of private sector is necessary

The Millennium Ecosystem Assessment, Poverty and Biodiversity in Central America

Marianela Cedoño, IUCN-ORMA

Marianela Cedoño presented an overview based on the Millennium Ecosystem Assessment (MA) main findings. She related her presentation on these findings to impact assessments, and finally suggested some recommendations and conclusions related to further work.

According to the MA the changes that have been made to ecosystems have contributed to substantial net gains in human well-being and economic development at the cost of ecosystem services and the poverty of some groups of people. These problems and challenges, unless addressed, will substantially diminish the benefits that future generations could obtain from ecosystems.

Central America continues its fight to close the deep social and economic wounds left by many decades of armed conflict and economic crises. Its greatest concerns are;

- 22 million poor people that represent 50.8% of the 37 million habitants. 33.6% of urban residents are poor, while almost 70% of rural residents are poor.

- It is estimated that by 2025 the population of the region will have doubled.
- In spite of the fact that health conditions have improved in the last 20 years, there are still great deficiencies: In half of the countries life expectancy is below 70 years of age, have less than one doctor for every 1,000 inhabitants, infant mortality exceeds 30 for every 100,000 births.
- There are more than 30 indigenous ethnic groups, most of them of Mayan origin, and the great majority of them have their own language and cultural practices.
- For the next years, Central America will encounter political and economical challenges based on the region's needs and the commitment to facilitate the achievement of the Millennium Development Goals, including the goal of halving the proportion of people in poverty by 2015.

According to the MA, over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history, largely to meet rapidly growing demands for food, fresh water, timber, fibre, and fuel. This has resulted in a substantial and largely irreversible loss in the diversity of life on Earth. The degradation of ecosystem services could grow significantly worse during the first half of this century and is a barrier for achieving the Millennium Development Goals.

Despite the rich biodiversity in Central America, (e. g. having 17% of all terrestrial species in 0.5% of the world's territorial space), what once was a territory practically covered with forests, today possesses less than half of the original forest cover and only 10 percent of its primary forests. In the last 20 years, Central America has increased its land area dedicated to agricultural and range uses by almost 200,000 hectares per year. Besides the anthropogenic pressures that affect the region, it is afflicted by extreme geological and climate events that have a grave impact on the social, economic and environmental situation.

The challenge of reversing the degradation of ecosystems while meeting increasing demands for their services can be partially fulfilled under some scenarios that the MA has considered, but these involve significant changes in policies, institutions, and practices that are not currently under way. Many options exist to conserve or enhance specific ecosystem services in ways that reduce negative trade-offs or that provide positive synergies with other ecosystem services.

Costa Rica is one of the most advanced countries in the world in respect of Payment for Environmental Services. Payment is made by the state to the private owners of forests or plantations as a financial mechanism to preserve private forests. This is a system that represents a financial alternative for sustainable development in the forest sector.

Governments are at the moment negotiating new regional projects, new free trade agreements and private investments. The challenge for the next years will be to assure that environmental and social issues are taken into consideration as key elements of the economical development. The following regional impact assessment achievements were pointed out: a) Regional Harmonization of the EIA/SEA system, b) Regional Agreement on EIA, c) Transboundary impacts, regional impacts, d) SEA development, e) Modernization and Strengthening, and f) IUCN, CCAD, Dutch and Swedish Cooperation.

Recommendations/Conclusions

- Only with effective policies regarding environmental impacts will the region be capable of dealing with mega projects that can help alleviate poverty by means of job opportunities in rural areas and the need of improving education and health services.
- In order to meet the Millennium Development Goals and many other commitments that the region has committed to, all investment and actions have to be assessed on their possible impacts on the environment and social sectors that are the most vulnerable elements of economic development
- The actions toward the fulfilment of the commitments and goals acquired will force Central America, in general, to:
 - a) Seriously invest in projects to increase the coverage of the drinking water and sanitation services,
 - b) It will require promoting cleaner production schemes and seriously implementing actions to protect their water resources,
 - c) Investing in the increase of the vegetation coverage and the use and conservation of biodiversity will imply radical changes in the concepts of management and participation in decision-making,
 - d) Allotting resources to promote renewable energy sources using the possibilities that the Kyoto Protocol mechanisms offer, and
 - e) Promote land use in sustainable agriculture

Biodiversity, Poverty and Indigenous Peoples Rights in Southeast Asia

Viktor Kaisiepo, International Alliance of Indigenous – Tribal Peoples of the Tropical Forest

Kaisiepo underlined the symbioses between indigenous forest people and the forest. The identity among the people is often associated with the forest. He also underlined that the biodiversity of the forest is a security net against poverty for forest dwellers. The balance between biodiversity and cultural diversity need to be further addressed.

“Stop snorkelling – start diving, we need political will!” International conventions and agreements are good intentions, but there is a need for innovative action taking into consideration the people living in the forests.

Key messages:

- Current economic values of the forest does not address cultural and religious values
- Respect customary laws
- Create awareness at the local level (in the indigenous local societies) in order to take the right decisions
- Create awareness for and promote sustainable consumption patterns in the north
- Prior Informed Consent (PIC) has to be respected and used
- Full and efficient participation for indigenous peoples in actual and potential projects
- Need for capacity building projects at the local level

Deforestation is the key threat to forest living indigenous peoples. VK underlined that the root causes of deforestation have to be identified – and solved. Consumption patterns are important, and he explained how demand for timber to the summer Olympics in Beijing is giving additional pressure on the forest reserve in his local area in West-Papua.

Summary of comments and questions:

There is a need for rules and regulations giving poor societies the possibility to interact with the market/world at an equal level. Awareness raising is also important in order to make decisions at the local level by the inhabitants in the area.

Panel debate: Mainstreaming Biodiversity in the Millennium Development Goals

Participants: Olav Kjørven, UNDP (keynote speaker); Maria Berlekom, Swedbio; Marcus Lee, UNEP; Constanica Musvoto, Southern Africa Sub-Global Assessment; Viktor Kaisiepo, International Alliance of Indigenous Tribal Peoples of the Tropical Forest; Gonzalo Oviedo, IUCN. Chair: Steve Bass, IIED

Ecosystem approach and inter-sectoral cooperation

Ecosystem services bridges development and natural resource management, and is a good basis for taking the ecosystem approach further. Through the years there has been a traditional division between “conservation and natural resource management” and “development”. To achieve the Millennium development goals (MDGs) it is necessary to dissolve this division, conservation and natural resource management is one strategy within sustainable development.

Since governments need to plan for development, the MDGs should be mainstreamed in planning, but strong intersectoral coordination is required. It does not make sense to hire two consultants to do one strategy for each sector (one for a PRSP and one for the MDGs) and then staple together. It might be more relevant to talk to e. g. Ministries of finance and planning to discuss processes – initiate intersectoral processes rather than stand alone processes. Environmental ministers do not talk to “brown” departments. There is a need to convince all sectors to be involved.

Biodiversity and the development agenda (MDGs)

A political commitment has already been made at UN Summit to develop MDG-based plans for national development. It does not matter what we call them – PRSP, MDG etc as long as there is a seriousness to obtain the MDGs. There is plenty of scope to rethink the development agenda.

But it should not be assumed that poor people are not interested in economic growth. Poor people’s development aspirations are impeded by governments. Poverty reduction strategies should be about identifying and implementing enabling conditions to help people get out of poverty by their own efforts. In the World Resources Report (WRR) 2005 the governance agenda is key. The HASHI project in Tanzania is a good example of scoring on all three counts, i. e. biodiversity, governance and development.

MDG’s are just paper actions if they don’t translate into action at local level. New set of challenges emerging as focus moves to budget and sector support e. g. SEA. Need to make case why biodiversity matters by

relating it to core development agenda. MA framework is of help here. MDG planning process needs to demand info on diversity of needs at local levels – only then can it effectively deliver.

National biodiversity strategies

National biodiversity strategies and action plans have not gone anywhere because no resources have been available to fund implementation. Linking them to budgets is important so that implementation is secured funding.

Rights, roles and responsibilities

Access to and controls over natural resources facilitate the division of rights and responsibilities among the parties involved. It is necessary to acknowledge the importance of clarifying issues pertaining to access and control rights over natural resources at the local level. The State, non-governmental organizations and local communities have complementary roles in development and natural resource management; their different roles should be acknowledged.

Scale

Since development and social change occurs in a context, recognizing the relevance of this context will allow for better interventions. MA overcame the scientific challenge of scale – now we need to overcome the challenge of acting across policy and geographic levels. The links between governance, conservation and development need to be re-emphasized across levels of scale.

Local local participation and leadership

It is necessary to promote and support local leadership. Local participation in decision making is crucial, but the conditions should be facilitated for that participation. Local people have to be able to make the choices themselves – access to decisions is a key to success. Without functioning governance at local level nothing will happen. What is “environmentally friendly local development” and how do you do it without talking about the importance of ecosystem services to the livelihoods of the poor? MA is a useful tool. The MA provides tools for valuing market and non market values of ecosystems.

Empowering the poor and indigenous peoples

It is critical to take the MDG process to the level of poor and empower them. We also need to take into account that poor people are not all the

same – each situation is different – a lot of diversity in terms of needs and challenges faced. A strategy for MDGs in education is important, but it will not work for indigenous people, for example – need to achieve through culturally sensitive systems. Indigenous people – MDGs could lead to loss of land and resources and accelerate the loss of their culture. Indigenous peoples should be involved in dialogue on the MDGs.

Where do we go next with the MA in the CBD?

Christian Prip, Ministry of the Environment, Denmark

The MA has had a major impact on the work of the CBD. The main findings of the MA relevant to biodiversity have been summarized in a special biodiversity synthesis report, and the Global Biodiversity Outlook 2 published at the 8th Conference of the Parties to the CBD (COP8) in Curitiba, Brazil, March 2006 to a large extent builds on MA findings. The MA confirms and documents what has already been reflected in several CBD decisions, work programmes etc. on the close relationship between biodiversity and human well-being. However, as a result of the MA, the CBD work has gained more weight and credibility, and the MA has clearly justified the Ecosystem Approach as the primary framework for action under the CBD.

The MA is, however, not just a confirmation of what we already know. It also identifies emerging threats to biodiversity such as climate change and nutrient loading that so far have received less attention by the CBD. It is a wake up call for the CBD and its parties through the very gloomy picture it paints on the state of global biodiversity. This includes findings that the direct drivers of biodiversity loss are foreseen to remain constant or to increase, and that unprecedented additional efforts therefore would be needed to achieve the 2010 target.

At COP8 the Parties to the CBD adopted a decision on the implications of the MA findings calling for consideration of the findings in the implementation and review of CBD decisions, work programmes etc. At COP 9 in 2008 a number of issues relevant to the MA will be on the agenda such as in-depth review of national strategies and action plans, forests agriculture, invasive alien species, incentive measures and protected areas. The decision also expresses a wish of the CBD to be involved in the review of the MA in 2007 and the considerations on the need for another integrated assessment of biodiversity and ecosystems.

A consultative process on the need for an International Mechanism of Scientific Expertise on Biodiversity (IMoSEB) has been initiated by French President Chirac. The rationale of such a mechanism would be to bridge the gap between science and policy and bring the very fragmented scientific information on biodiversity together. Unlike climate change the scientific community on biodiversity has not managed to mobilize the

necessary political attention. The MA experience should be highlighted in this consultative process and one option for an IMoSEB could be an MA model which would enable the large network of scientists that has been established by the MA to continue and carry on the work.

Community Based Natural Resource Management and Indigenous Peoples Rights in the Russian Arctic

Ekaterina Khmeleva, The Foundation of the Russian Association of the Indigenous Peoples of the North

There are over 300,000 indigenous peoples in the whole of the Russian Federation's High North. They live in 23 regions, from Karelia to Kamchatka, and represent more than 30 different indigenous nationalities. Their traditional lifestyles are based upon sustainable use of natural resources, i. e. hunting (including hunting of marine mammals), fishing, reindeer herding and gathering of miscellaneous products from the wild.

The indigenous peoples of Russia's Arctic are to some extent organised. The most important indigenous peoples' institution is the Foundation of the Russian Association of Indigenous Peoples of the North (RAIPON), which was founded in 1989, and with headquarters in Moscow. Although there is a Russian Legislation on Indigenous Peoples Constitution, which is supposed to protect indigenous peoples' traditional rights and lifestyles, there is not any special state agency, which is responsible for the indigenous peoples' issues. Several articles in the Russian constitution and special Federal Law Acts pertain to indigenous peoples' access to natural resources.

The main rights of indigenous peoples in relation to natural resources are linked to their access to land and natural resources in places with traditional settlements; their participation in the control over natural resource usages; and their participation in ethnological impact reviews. They are to be compensated for damages to the traditional habitat caused by industrial activities, and they are supposed to have priority access to animal resources necessary for their personal use and for maintenance of their traditional lifestyles.

There is also supposedly to be established Territories of Traditional Nature Resource Use (TTNRU) for indigenous peoples. The overall objectives for the TTNRUs are to be protected territories with the overall objectives to maintain traditional lifestyles and for biodiversity conservation. TTNRUs could therefore be an important avenue for development of CBNRM initiatives in Russia, not least because TTNRUs would stimulate the establishment of co-management bodies with indigenous people's representation, which would safeguard sustainable use of natural resources. But so far, and five years after the law came into force, there are no TTNRUs established. Four court cases are now challenging the au-

thorities for the establishment of TTNRUs in different regions, as envisaged.

There are several other legal provisions, which address requirements for natural resources management in Russia. Natural resources are to be used and protected in ways, which recognize the life and activities of the peoples residing on the corresponding territory (according to Art. 9 of the Constitution of the Russian Federation).

The reality is, however, that Russian dependence upon economic development (e. g. from timber, oil, gas and other minerals) ultimately sets the political priorities. State Agencies responsible for environmental protection and natural resources management have been restructured four times during the last 15 years, which has led to a weakness of the state control. The legislation is sound and well developed, but implementation is lacking. Powerful interest groups have the capacity to exercise power and influence decision-making, whereby indigenous peoples' rights to land and resources as of legislation and regulations are all too often ignored. Local indigenous institutions are weak. There is, however, a growing awareness among indigenous peoples, who want to be advocates for their concerns and needs, and who request to be recognized and integrated into the modern world. More and more of them now demand to be considered as equal partners in decision-making processes.

Khmeleva mentioned three examples of successful CBNRM projects in Russia: 1): Revival of indigenous peoples' traditional ways of whale and marine mammal hunting in Chukotka, 2): Special agreements between the "Terneiles" logging company and the Indigenous Peoples Association in the Primorsky region, whereby the company compensates the damage upon animal resources and agrees that there will not be any illegal hunting or fishing by its workers. Furthermore, the company will provide work for the local population and will support social development for local communities. 3): In Kamchatka, the NDP/GEF project "Demonstration of sustainable biodiversity conservation in four Nature Parks" has involved the local population in biodiversity conservation, e. g. monitoring of salmon stocks and creation of a public board for co-management and biodiversity conservation in two nature parks, making use of traditional knowledge.

Khmeleva's conclusions were: In order to promote CBNRM and sustainable use of natural resources in Russia, there is a need to:

- Encourage implementation of existing legislation, including establishment of TTNRUs.
- Request proper performance of ethnological impact assessments.
- Seek and encourage the goodwill of the State and from the business community.
- Support indigenous peoples' activities and capacities in local communities.

All this should be pursued with all the possible measures: education, negotiations, actions and legal activities.

Community Conservation and Indigenous People's Rights in the High North

Johan Mikkel Sara, Vice President of the Sami Parliament of Norway

The High North has vast natural resources, renewable and non-renewable. These natural resources have set the stage for people's way of life, culture and development for millennia. This abundance of resources has also facilitated extensive commerce and trade between peoples in these areas. The increasingly rapid pace of technological development over the past century has indirectly resulted in a threat against indigenous cultures. While the opportunities to exploit natural resources, especially the non-renewable resources, are increasing, indigenous people's opportunities to influence and control these resources are diminishing.

In the future, indigenous communities in the High North will be to an even greater extent influenced by petroleum and mineral resources extraction. Reliable impact assessment systems throughout the Arctic should be developed and they should include indigenous people's traditional knowledge and rights. At the same time, it is important to pave the way for indigenous peoples to become genuine partners in impact assessment work and in decisions regarding development projects and encroachments on nature. Further, the indigenous dimension must be put in place right from the start. This means that substantive rules must be issued to recognise and strengthen indigenous people's rights and access to resources. Rules must be issued to ensure that indigenous peoples are always included and that adequate importance is attached to their views. And finally rules must also be issued to ensure indigenous peoples self- and co-determination in respect of resource management.

The Sami have a hereditary historical right to govern themselves. This right originates with the people themselves. It is based on the Sami's existence as a nation that lived in an organised society already long before the formation of the Nordic countries. Nature is the basis for Sami economic activities, the backdrop for Sami life, for their experience of the past, their knowledge and their way of life. Sami culture is particularly dependent on nature, the landscape and natural resources. Our basic values are derived from our understanding of the world, and Sami community life is closely associated with the values passed down by word of mouth from elders, family, relatives, parents and the community at large.

Traditional knowledge forms the basis of Sami traditions and customs related to rough pasturing, fishing, reindeer husbandry, etc. In the Sami language, these traditions have been handed down from generation to

generation, making language an integral part of Sami culture. Sami community's understanding of the goals of sustainable development must take its point of departure in the values and knowledge of the Sami people. It is necessary for the Sami as an indigenous people to be allowed to participate in decision-making processes that can have an impact on the nature that forms the very essence of their culture. Indeed: Preserving the lifestyles and cultures of indigenous peoples will help preserve biodiversity, and vice versa.

The Arctic Council has recognised traditional knowledge as one of the most important elements of initiatives to support sustainable development. Traditional knowledge will be an important source of information for assessing the impact of different initiatives on indigenous cultures. Such knowledge will supplement scientific knowledge and help enhance predictability when it comes to the consequences initiatives can entail.

The protection of natural habitats is one potential strategy for ensuring local use of lands and waters traditionally occupied or used by indigenous peoples. If the protection is based on the assumption that these are indigenous people's areas, with indigenous cultural values to protect, the protection will help safeguard the natural habitat from external pressure and consumption as the same time as it promotes cultural preservation and development. Indigenous peoples and local communities must participate in the conservation work on an equal footing with Central Government authorities and the administration.

The MDGs offer the world a historic opportunity to make real progress towards reducing poverty, but the current general framework for development, which includes the MDGs and national poverty reduction strategies, does not explicitly address poverty structured along ethnic lines in general and the poverty of indigenous peoples in particular. Moreover, this development framework does not address the obstacles that indigenous peoples face in connection with achieving their fundamental social, economic and cultural rights, in addition to self-determination.

In Norway we have recently developed some political initiatives aimed at improving the partnership between the Sami people and the State. These consultations are intended to establish the right of the Sami to be consulted on matters of direct importance to them. The consultation procedures cover all types of issues, including legislation, regulations, individual decisions, guidelines, initiatives and decisions but many challenges remain before all parties are entirely satisfied.

What follow-up in Development Policy?

Maria Berlekom, Programme Director, SwedBio

Maria Berlekom stressed that the findings and conclusions of the Millennium Ecosystem Assessment (MA) are of high relevance to the development cooperation policy and agenda. The fact that 15 of 24 ecosystem services are declining and that this in turn threatens achievement of the MDGs is a cause for serious concern. Hence donors need to fully respond to the MA's call for effective responses, e. g. through promoting the "substantial changes in institutions and governance, economic policies and incentives, social and behavioural factors, technology, and knowledge" required by MA, including ensuring the democratic rights, access and voice of local communities and indigenous peoples in managing ecosystems. What then could and should donors do?

The policy framework on environment and natural resources is well developed in the Scandinavian countries at the general level. Environment is identified as a key dimension or objective in overall policy documents for international development cooperation, and overall also receives high attention and support. In the case of Sweden, more than 50% of all support channelled through the Swedish International Development Cooperation Agency (Sida) concerns environment and natural resources, and Sida has a comprehensive framework for addressing environmental concerns through EIAs, SEAs etc. However, general policies and overall commitment is one thing, the proof of course comes when looking at the on-the-ground realities. These (as the MA as well as this workshop) largely show that far more need to be done.

First, to give meaningful suggestions and recommendations the present framework for international development cooperation must be understood. Today most donors are to a large extent moving away from project-based support to sector and/or budget support, in line with the Paris Declaration on Aid Effectiveness. The aim is to align priorities for development cooperation fully with national development criteria, as defined e.g. in Poverty Reduction Strategy Papers (PRSPs) or similar planning documents. Instead of involvement in specific projects and programmes donors therefore increasingly focus on identifying key issues for dialogue, and promoting enabling frameworks and good governance.

Accordingly, unless environmentally-related issues are identified in the PRSP (or similar document) it does not feature in the discussions for donor support. Obviously these trends pose a new set of challenges for addressing environmentally-related concerns, since environment – let alone biodiversity – seldom is a priority, and sometimes even hardly mentioned at all. Hence, this could negatively affect availability of support to environment-related projects.

Most donor agencies are decentralising their decision-making and/or planning processes to the local Embassies and/or development coopera-

tion offices in the respective partner country, and these local offices may in many cases not have adequate staffing capacity regarding environment and natural resources issues. Consequently, understanding of the importance of ecosystem services to poverty alleviation may often be lacking.

At the same time the move to budget and sector support does open up new opportunities. As noted above (and echoed in basically all the presentations through-out this workshop) a key recommendation of MA is that substantial changes in governance, institutions, economic policies and incentives are direly required. The value of ecosystem services, and the rights and involvement of local communities, must be fully acknowledged and factored in into decision-making in all key development sectors – from e. g. agriculture and forestry, to roads and energy.

The move to budget and sector support provides an important opportunity for high-level dialogue on exactly these issues, and for encouraging and supporting that this development takes places – far more so actually than more limited project-specific support. This can and should take place both in the processes around developing and implementing the PRSPs, including associated tools such as Poverty Monitoring Systems (PMS) and Public Expenditure Reviews (PER), and in different sectors, through e. g. , using tools such as Strategic Environment Assessment.

For this to really happen there is an obvious need for donors and partner countries to engage in a pro-active support and dialogue, upstream in development planning. In most cases this presently is not the case, and far more needs to be done, but there are encouraging examples. One good example is the UNEP Poverty-Environment Project in seven countries in Africa (supported by Norway and Belgium) that actively works on promoting inclusion of environment and natural resources in PRSP processes.

In summary, donors need in particular to:

- Support targeted interventions and pro-active dialogue to promote that the required substantial changes in governance, institutions, economic policies and incentives, including rights and roles of local communities, takes place (e. g. SEA, environmental analysis of PRSPs, addressing concerns within development sectors, and development of capacity on this etc)
- Supporting civil society, strengthening of community level organisations and that the voice of local communities be heard.
- Ensure adequate competence and capacity on these issues among own staff in the Embassies and/or the development cooperation offices.
- Clear directives to address the above concerns (e. g. in directives for country strategy processes and similar) from political and policy levels (e.g. Ministry of Foreign Affairs) are important.

Closing address

Morten Wasstøl,

Political Adviser, Norwegian Ministry of the Environment

In his closing address, Mr. Wasstøl pointed out that the MA represents a welcome set of new tools, a language for bridging the divide between environment and development. He saw CBNRM as a key to progress on implementation of the MEAs and the MDGs, but emphasised that it does not happen in a vacuum. The state plays an important role in enabling and facilitating CBNRM, and local peoples' rights must be secured in national policies that are implemented by regional and local authorities.

He then illustrated how international trade can frustrate and set aside local peoples' rights and functions in natural resources management by pointing to an example of illegal logging and export of merbau timber from the Indonesian province of Papua, and to the Xingu in the Brazilian Amazon where rights to the forest may be nationally secured, but actual resource use (soy plantations) in the surrounding landscape is influenced by global trade patterns. He further called for caution with regard to models for Payment for Ecosystem Services as the full range of the values of nature can never be fully captured by this approach.

In closing he pointed out that the new Norwegian government action plan on environment in development cooperation sets the priorities, but that the next step is to be specific about follow-up, e. g. on biodiversity. The MA will play an important role in the implementation of the action plan and Governance is a key word at national, NGO as well as community level. The lessons from this workshop will also feed into the implementation of the action plan.

Norsk sammendrag

IAIA workshop

Workshop om lokal naturforvaltning, tusenårsmålene, de internasjonale miljøavtalene og tusenårsevalueringen, holdt under en internasjonal konferanse om konsekvensanalyser i Stavanger, 23–24. mai 2006

Med støtte fra Nordisk ministerråd ble det 23–24. mai 2006 avholdt en workshop for oppfølging av ministerrådsvedtak om operasjonalisering av funnene fra Millennium Ecosystem Assessment (MA) i miljø- og utviklingspolitisk sammenheng. Et viktig formål var å få belyst hva slags bidrag lokal naturforvaltning kan yte i forhold til 2010-målet om vesentlig reduksjon i tap av biologisk mangfold og for tusenårsmålene om fattigdomsbekjempelse. Workshopen hadde form av et Theme Forum om biodiversitet og Millennium Ecosystem Assessment under den årlige konferansen til International Association of Impact Assessments, som ble åpnet av den norske miljøvernministeren, Helen Bjørnøy.

Blant konklusjonene fra workshopen er, at:

- Lokal naturforvaltning kan ikke i seg selv løse globale miljøproblemer. På den annen side er lokalsamfunn og urfolk ikke til å komme utenom for å nå målet om redusert tap av biologisk mangfold innen 2010 og tusenårsmålene på landnivå.
- Urfolk og lokalsamfunn kan spille viktige roller for iverksetting av Konvensjonen om biologisk mangfold så vel som forørkningskonvensjonen, klimakonvensjonen og andre miljøavtaler.
- Lokalsamfunn og urfolk kan under bestemte forhold spille en avgjørende rolle for forsvarlig forvaltning av naturressurser, vedlikehold av økosystemtjenester og biologisk mangfold av global verdi. Særlig gjelder dette i land med svakt styresett, der korrupsjon er et problem, og der miljøforvaltningen er svak og i liten grad klarer å gjøre seg gjeldende på lokalt plan.
- Rettigheter til naturressurser og biologisk mangfold utgjør et sikkerhetsnett mot dypere nød og fattigdom, og et godt utgangspunkt for verdiskaping og økonomisk vekst.
- Arbeid for å sikre urfolk og lokalsamfunns rettigheter til forsvarlig forvaltning av naturressurser og biologisk mangfold kan også gi viktige bidrag til utvikling av sivilt samfunn, demokratisering og bedre styresett, spesielt når lovverk og miljøforvaltningen legger til rette for delegering av myndighet for naturforvaltningen.

- Fokus for videre oppfølging innen miljø- og utviklingspolitikken bør være på bedre koblinger mellom nasjonale strategier for biomangfold og planer for fattigdomsreduksjon, og videre utvikling av økosystemtilnærmingen.

I avviklingen av workshopen trakk vi på et tyvetalls ressurspersoner og erfaringer fra UNEP, UNDP, Verdensbanken, World Resources Institute, representanter for forskningsmiljøer, lokal naturforvaltning og regionale studier under MA fra Arktis, det sørlige Afrika, Sørøst-Asia, Mellom-Amerika og India. Direktør for Fridtjof Nansens institutt, Peter Johan Schei, sto sammen med Christian Prip fra CBD SBSTTA/Miljøstyrelsen/dansk MD for faglig ledelse av workshopen. Morten Wasstøl, politisk rådgiver i det norske miljøverndepartementet, innledet og oppsummerte. Det norske miljøverndepartementet var ansvarlig for planlegging og gjennomføring, med assistanse fra International Institute for Environment and Development (IIED), Den internasjonale naturvernunionen IUCN, Swed-Bio, dansk MD, Direktoratet for naturforvaltning, Noragric ved Universitetet for miljø- og biovitenskap og Senter for Utvikling og Miljø ved Universitetet i Oslo. Nordisk ministerråd sto for finansieringen.

Nordisk nytte

Tiltaket har stått sentralt i det norske formannskapet i Nordisk Ministerråd, der lokal medvirkning og engasjement for miljø er et viktig tema. Økosystemtilnærming i naturforvaltning og MA har vært prioriterte mål og milepæler for nordisk innsats i internasjonalt miljør samarbeid, og en videreutvikling og konkretisering av disse som redskaper i av miljøkonvensjonene og kampen mot fattigdom bør være av interesse i utviklings-samarbeidet så vel som i miljøforvaltningen.

For nordisk miljøforvaltning er det særlig potensialet lokal naturforvaltning kan ha for praktisk implementering av sentrale målsetninger, anbefalinger og verktøy i miljøkonvensjonene, spesielt på biomangfoldområdet, som bør være av interesse. Dette forsøkte workshopen å bidra til, med særlig fokus på urfolks og lokalsamfunns deltakelse i naturressursforvaltning, og aktuelle perspektiver på verdisetting av økosystemtjenester.

Innlegg og anbefalinger fra workshopen er samlet i en rapport i form av Chairmen's Conclusions utarbeidet av Norge, for utgivelse av Nordisk Ministerråd. IIED ble forut for workshopen gitt i oppdrag av norsk MD å samle de mest relevante erfaringene og forutsetningene for at lokal naturforvaltning skal kunne bidra til iverksetting av miljøkonvensjonene og bli et effektivt redskap for fattigdomsbekjempelse. Presentasjon av resultatene fra denne studien sto sentralt under workshopen. Rapporten ble utgitt av IIED i 2006. ¹

Sentrale temaer fra diskusjonene på workshopen, som miljø og styresett, er siden fulgt opp i form av et invitert innlegg på EU og IUCNs kon-

¹ <http://www.iied.org/pubs/display.php?o=13534IIED&n=3&l=17&a=D%20Roc>

feranse om biodiversitet i utviklings samarbeidet, avholdt i Paris september 2006.² Rapportene vil være aktuelle i flere sammenhenger i tiden framover. Det vil være relevant å trekke på konklusjoner og anbefalinger fra workshopen i forberedelsene til neste Trondheimskonferanse om biodiversitet i november 2007, i Nordisk Ministerråd og i Vitenskapspanelet under Biomangfoldkonvensjonen.