

## Final draft

Summary of the workshop discussion

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The last session of the workshop took the form of an open discussion. This focused on three major topics of the workshop namely:

1. Sustainability – its meaning, Indicators and practical application;
2. Economics factors and mechanisms to ensure sustainable forest management, including forest certification and carbon credits;
3. Legal issues in relation to sustainable ecosystem use.

### **SUSTAINABILITY**

One suggestion put forward was that sustainability could be loosely defined as the protection of nature. Another suggestion defined sustainability in terms of those properties of the environment that must be maintained forever. Two alternative anthropogenic definitions were also put forward. The first was that sustainability was the maintenance of natural systems essential for human survival. The second took a wider view and include human spiritual, cultural and aesthetic needs. To a degree any society or interest group tends to have its own perception of sustainability and its own priorities. All definitions raise issues in terms of spatial and

temporal scale in both natural and managed ecosystems. The spatial scales could range from trees over one or more hectares to microorganisms in a cubic meter of soil, with temporal scales of a year to a forest rotation.

Another issue relates to assessing the resilience of a forest to different forms of disturbance before its sustainability is significantly reduced. A lot of work has been done on the criteria for indicator systems of sustainability, however there is still a long way to go in relation to ecological sustainability. It must be known at what point the criteria show that a forest is being managed unsustainably. The test parameters must show the critical limits beyond which the forest cannot suffer more disturbances before becoming unsustainable. The foresters at local level need to know how the criteria should be applied or implemented in their forest management. The question was raised as to whether plantation forestry especially with exotic species can be considered sustainable in an ecological sense.

It was suggested that local communities should have the power to decide how to cope with the problems, because the environmental problems are seen in local environment. Another view was that population pressure coupled with the natural aspiration of people to improve their often very low standard of living, coupled to local and global free markets are creating environmental problems not perceived at the local level. This can result in conflict since a community may perceive that the local forest as large and therefore see no reason to limit their use of it. As a result the communities may be carrying out the unsustainable use of a scarce global resource. In parts of Africa the situation has now changed due to such pressures so that traditional systems of shifting cultivation are no longer sustainable. The local communities are feeling the pain but at a global level it is too late the resource has been lost. Parallels can be drawn with western industrial societies where pollution problems have been solved locally, reducing the pain, but diffused globally, spreading the pain. Global warming will result in positive and negative impacts in different regions. The countries mainly responsible for this climatic change should be held to account for the problems caused in other regions.

## **ECONOMIC FACTORS**

Economic factors relate to the extra costs incurred or returns foregone in maintaining or restoring the sustainability of forests. Society at all levels has to decide the targets for sustainability and how the resulting economic gains and losses are allocated.

There is no easy answer for financially sustainable forest management since there will be a financial cost for maintaining non-timber services and rehabilitating the ecological functions. Sustainable forestry needs a secure financial approach with governments recognizing and supporting as necessary the non-market goods and services provided by forests. Germany was given as an example where forestry management is economically and ecologically integrated without subsidies.

The problem of only using simple economic tools such as discounting generally results in unsustainable management since vital earth support systems five to six centuries hence can be shown to be virtually worthless now. If the integrity of nature is to be maintained there needs to be, not a short-term but a long-term view of economics. Economic instruments must operate within a rational framework. Society has to decide the targets for sustainability and accept and allocate the costs incurred such as taxes and increased timber prices.

The economic tools or instruments must be holistic because the problem is global.

All forests must be managed in a sustainable way to avoid the irretrievable loss of world forests. Were the system to be applied at only regional level, the result would be massive deforestation elsewhere. Examples were given for both North America and Southeast Asia where royalties and costs were set well below those needed for sustainability. These forests are being effectively mined as opposed to being sustainably managed. The solution of setting costs to ensure sustainable forest management only works if the resulting money is used for sustainable forest management and applied globally.

**Certification** is one approach to encouraging sustainable forest management by increasing the value of timber from well managed woods and creating an embargo on those operated unsustainably. Problems arise in the Basque Country in areas with many owners managing small areas within sub-divided woodland. The use of certification is needed/only works if the markets demand it. In the Basque Country the exporting companies are asking for it while the local market does not.

There are also cultural objections to change. For example the question arises in the Basque Country as to whether the local population, government or market decides sustainability? The locals ask what is the need for them to change and get involved with extra rules and paperwork. There is a need for convergence of traditional management practices and certification procedures. Experience has shown that it is often counter-productive to impose rules from outside in order to change things. Local people should be consulted and their ideas integrated into the new system. The aim is to ensure that a practical solution is achieved and that the locals will willingly implement it.

In addition there is considerable confusion with the certification methods. The aim for forestry in the Basque Country and similar areas should be to ensure that the forest operations do not significantly affect the vital functions of the ecosystem. The problem is to define the functions and the indicators and produce a forest certification system that is easy to apply. Both Britain and the Basque Country need to address the problem of plantation forestry. Plantations are not ideal forms of forestry, ecologically, socially or economically, so they can hardly be judged to be truly sustainable. It was suggested that the concept of management for the protection of natural forests should be developed, and plantations transformed into more natural woodlands types. This would result in more diversity and be more sustainable economically.

The development of indicators is needed for at least two purposes. The first is at the industry level, namely the need for an independent certification scheme. Secondly for governments, since by their ratification of Agenda 21 they agreed to use indicators.

**Carbon Credits** are another way to encourage the development and management of sustainable forests. Some proposals on this topic seemed to concentrate on establishing forests as carbon sinks in developing countries with expanding populations and sometimes unstable political systems. This might present problems in gaining investment for the schemes since these factors threatened the long-term sustainability of the sink. The response was that the low cost of planting trees in these countries offset the greater risks. By setting the costs to the investors at developed country level, an income generating endowment could be created that would allow rent to be paid to the local communities. As a result they would be better off having trees on their land than if they cut them down. The operations would be spread over both developed and developing countries so that no one site was critical

## LEGAL ISSUES

The problem of forest sustainability lies in part with the owners who may make decisions not approved of by society. Economic tools are not the only means of encouraging sustainable forestry. Social behavior can be modified by education and by the legal framework. A major problem relates to defining and applying legal regulations for sustainable forestry in relation to existing property rights, cultural values and social pressures. There are obvious disparities in the ease of application of such laws between areas such as Britain and the Basque Country with well defined forest ownership, a strong legal framework and a well informed, rich stable population and some developing countries with ill defined legal ownership and very poor, rapidly expanding populations. Laws need to be drafted and criteria set to ensure the implementation of legal and physical measures so that sustainable forest management is achieved.

Problems arise in defining and applying legal regulations in relation to the right of everyone to an adequate sustainable environment. When does one human action violate this right by significantly reduce the sustainability of the environment and how is this judged in legal terms? One suggestion was that it could be judged on the principle that every individual has a right to an equal use of the biosphere. Then the basic legal test might be that if anyone carries out an action, the rest of the world's population should also be able to carry it out without causing environmental damage. It was pointed out that if this principle were applied today much of the developed world's industry and transport systems would be closed down.

The situation is that now, in a closely linked world economic system, scientists are becoming increasingly concerned that global environmental resources are not being used in a sustainable way. The resources problems particularly relevant to the workshop are the effects of man on the forest, and the atmosphere and climate. These resources have interest groups. In relation to the global commons of the atmosphere we see the start of international conventions and agreements in relation to pollution and man induced climatic change. In the case of forests the interest groups can be one or all of: individuals, local communities, national governments, multi-national companies and the world community. Every forest interest group will have its own perceptions, objectives, priorities and time scales. Nationally there are systems of rights, controls and rewards in relation to forest use and management. Internationally there are trade embargos, regional policies and international agreements. Certification can be seen as an independent assessment system to monitor forest management. As well as a control system can encourage sustainable forest management by adequately rewarding good forest management and at the same time alert consumers that certain forest products are damaging the world forest estate. Carbon credits are another means of encouraging long-term forestry by subsidies from industries and economies releasing carbon dioxide generated from fossil fuels. It is essential that such schemes are bone fide in planning and execution.

The workshop demonstrated some of the problems surrounding sustainable forest management at local and world levels. All parties need to agree to an adequate definition of sustainability since it is a prerequisite for the production of management and monitoring systems. It is perhaps salutary to observe that the workshop failed in this respect. Other related issues identified were the different perceptions of the various interest groups, their financial position and their legal frameworks. If the biosphere belongs equally to all human beings, then successful strategies for global sustainable forestry must not ignore the legitimate views and interests of developing countries and societies.