



Distr.: General 18 February 1999

Original: English

Commission on Sustainable Development Intergovernmental Forum on Forests Third session Geneva, 3–14 May 1999

# **Programme element II.d (vi)**

Matters left pending and other issues arising from the programme elements of the Intergovernmental Panel on Forests process

Issues that need further clarification: economic instruments, tax policies and land tenure

Report of the Secretary-General

### Summary

Economic instruments are market-based tools which, by manipulating economic incentives, can modify behaviour in support of a given policy objective. To be most effective in achieving sustainable forest management, economic instruments should be designed with a specific policy objective in mind; they should also be well integrated into the broader macroeconomic and multisectoral policy context. Tax policies, another type of economic instrument, can modify behaviour but have the additional purpose to collect a fiscal revenue which then can be reinvested in forest management or other appropriate public programmes. The collection of forest revenue from publicly owned but privately managed forests is another economic instrument which generates revenue and modifies behaviour. For either instrument to work, however, institutions must be in place to assess and collect such taxes and/or fees.

A comprehensive, well designed forest programme will include a mix of regulatory and economic instruments. Together, these can manipulate the predictable and powerful motivation of self-interest to promote sustainable forest management, thereby sustaining the broad-based benefits of forests at the local, national, and international levels. The

allocation and enforcement of user rights and land tenure should be considered a fundamental basis for policies intended to ensure sustainable forest management, and tenure arrangements will influence the effectiveness of any economic instrument.

Efficient collection of revenues for publicly owned forests can be a source of financial resources for investment in improved forest management. Well designed revenue systems, as well as resource and land use taxation programmes, can also make important fiscal contributions. Taxes applied to other related sectors can also be an important source of revenue.

For some forest products and services, developing and regulating markets can be an option for collecting an economic return. Success in using this tool to promote improved forest management will depend on the existence of mutually supportive and effective management institutions; the political will to implement appropriate policies (including regulation); and physical parameters, such as the level of sustainable harvest and cost of production.

International and bilateral organizations, through financing and the exchange of experience and information, can support increased and effective use of these instruments, and address issues of the broader macroeconomic context and policies in other sectors.

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# I. Mandate and scope

#### A. Mandate

1. At its first session, the Intergovernmental Forum on Forests (IFF) emphasized the need to build on the results of the Intergovernmental Panel on Forests (IFF). The Forum defined programme element II.d (vi) as follows: "Consider other issues arising from the programme elements of the IPF process needing further clarification ... inter alia ... the use and application of the range of economic instruments, including tax policies and land tenure arrangements as a means of promoting sustainable forest management ..." (see E/CN.17/IFF/1997/4, para. 7, category II.(d)).

### B. Scope

- 2. Economic instruments, including tax policies, refer to a variety of generally market-based policy tools that provide financial incentives or disincentives to producers, consumers and others whose decisions affect the condition and use of forests. With respect to forest management, issues of land tenure are among the institutional considerations that are central to the ability to design and effectively use these policy tools.
- 3. The report addresses the importance of an appropriate overall policy environment as fundamental to the design and effective use of economic instruments for sustainable forest management, as well as the impact that other sectors have on forests and their management.
- 4. The topics covered in the present report are closely related to two other topics for consideration at the third session of IFF: (a) financial resources (see E/CN.17/IFF/1999/4); and (b) valuation of forest-related goods and services (see E/CN.17/IFF/1999/12).
- 5. Progress in achieving sustainable forest management will depend on effective integration and coordination of local, national, regional and international actions related to these topics in addition to main economic instruments, such as direct economic incentives (subsidies and charges), tax policies, resource rent capture and regulation of land tenure.
- 6. The present report, prepared by the IFF secretariat, is based on inputs received from the World Bank in collaboration with member organizations of the informal, high-level Inter-Agency Task Force on Forests, as well as an in-kind contribution by the Government of the United States of America.

# II. Introduction

7. The use of economic incentives to modify behaviour is implicit in economic instruments, tax policies and land tenure. Policies contain intended or unintended economic incentives by either increasing the cost of undesirable behaviour or increasing the economic returns of desirable behaviour. Establishing, enhancing or regulating markets for forest goods and services provide the prospect of economic benefits for producers (forest owners and managers), and therefore enhance the prospect of sustaining a broader range of forest types, goods and services. Whether directly (taxes, fees or subsidies) or indirectly (securing tenure, or creating and regulating markets), forest policies can harness the power of economic incentives to promote and support sustainable forest management.

- 8. Economic instruments should be considered within the broader context of the forest policy objectives that define sustainable forest management at the local, national, regional and international levels. It is useful to recognize the following three broadly different but mutually supportive approaches to sustainable forests management: (a) economic instruments that induce direct payments (subsidies) or charges; (b) regulations, codes of practice, and concession terms and agreements; and (c) diverse (public and private) ownership and management of resources.
- 9. Within countries, there are differences in preferences and opportunities to select among these approaches. Economic instruments are increasingly attractive due to their effectiveness in modifying behaviour, their compatibility with an expanded role for markets and the private sector, their efficiency in terms of the use of public resources, and their reduced reliance on direct government intervention.
- 10. For forest policy objectives, the relevance and efficacy of these policy approaches depends on (a) the nature of the problems to be addressed; (b) the institutional, economic, and social context for decision-making; and (c) the ability to ensure that consistent economic incentives are provided to all relevant sectors through the compatibility of forest policies with other policies. The suitability of economic instruments depends on the nature of the policy objective(s), the structure of markets, how effective public institutions can design and implement such policies, and the effectiveness of the actions and efforts (such as regulations) that must be mutually supportive.

# III. Guidance from previous discussions

- 11. The conclusions and proposals for action of IPF illustrate the importance of economic instruments and land tenure. IPF stressed the importance or role of:
- (a) Secure land tenure arrangements as components of national forest programmes, and the contribution of tenure patterns to forest use and access, as well as to deforestation and degradation;
- (b) Secure tenure in assuring the protection of traditional forest-related knowledge, and long-term tenure as a factor to encourage investment in sustainable forest management, especially private sector investment;
- (c) Market-based instruments, such as taxes, in generating financial resources for investment in sustainable forest management;
- (d) Further studies on how to best use markets and economic instruments to promote sustainable forest management;
- (e) Further studies on the means of establishing full-cost internalization for wood products and their substitutes, and the implications of this for sustainable forest management.
- 12. Discussions at the first two sessions of IFF have continued to reflect recognition of (a) the importance of economic principles in designing effective policies, (b) the role of secure, well-defined land tenure in resource management, and (c) the possible benefits of using markets to promote sustainable forest management. IFF, at its second session:
- (a) Stressed that decisions with respect to land tenure need to consider a wide range of factors, including the role of indigenous people, local communities and gender in resource management;
  - (b) Suggested that more attention be given to land tenure and economic incentives;

- (c) Requested comparative analyses of alternative economic instruments and tax policies;
- (d) Requested further analysis of the regulation and taxation of logging, and concrete examples of the impacts of other sectors' policies and actions.

# IV. Overview and issues related to economic instruments

- 13. For many countries, economic instruments, tax policies and land tenure arrangements form the core of the policy tools and mechanisms used to achieve the management, conservation and sustainable development of forests. The policy tools and actions to be considered in the present report include:
- (a) Economic incentive-based mechanisms that are used to motivate a desired action or discourage undesired actions. In some cases, impacts are indirect, as in the case of land taxation:
- (b) Economic instruments applied in other sectors, including structural adjustment policies with direct or indirect impacts on forest resources;
- (c) Economic benefits and capture of economic returns that result from the creation of or improvement of markets for forest-based goods and services;
- (d) The "enabling environment" for natural resource and economic policies, which includes, for example, property rights, resource governance, and the legal framework within which economic and management decisions are made.
- 14. As important complements to economic instruments, the forest policy "tool box" includes the definition and delegation of user rights, regulation and enforcement, and tax policies. These are tools that can be and often are used to accomplish forest policy goals at the local, national, regional and international levels.
- 15. The use of economic instruments has constraints that often originate in broader-scale policy failures or institutional weaknesses. Ineffective or mismanaged public sectors or poorly chosen macroeconomic policies are just some examples of the types of barriers to the successful implementation of virtually any forest policy means, whether economic instruments or other approaches. Institutional arrangements relating to tenure are included in the present report since they are essential to the effective and efficient transfer of economic signals, i.e. the creation of economic incentives to shift land and forest uses. These policy tools and approaches can be broadly divided into "macro" and "micro" scale activities, referring to both geographic scope and the generality of policy tools.
- 16. At the scale of the forest sector as a whole, relevant considerations include:
  - (a) Establishing and guaranteeing stable and reliable tenure arrangements;
- (b) Ensuring effective institutions of local and national government, e.g., the role of government in collecting and redistributing royalties and taxes, enforcing laws and regulations;
- (c) Ensuring mutually supportive macroeconomic policies since they often affect exploitation of natural resources;
- (d) Altering prices and costs in the forest sector and related sectors (e.g., agriculture, energy and transportation) in order to encourage conservation and promote environmentally sensitive management practices. Regulated timber prices can result in underpricing of the forest resource and eroded prospects for sustainable forest management.

- 17. In summary, there is a need to recognize the importance of critical fiscal and regulatory institutions, and to use economic concepts in the development and implementation of forest policy strategies.
- 18. At smaller scales, relevant considerations include:
- (a) Designing and applying specific forest revenue collection, i.e., applied to publicly owned but privately managed forest resources;
- (b) Providing incentives for producer and consumer decisions consistent with sustainable forest management objectives, e.g., cost-based incentive payments (e.g., compensation of opportunity costs of low-impact logging), performance bonds (e.g., a deposit refund with control of compliance with a "code of forest practice") or environmental taxes (e.g., charges on land conversion);
  - (c) Establishing or regulating markets for forest-based goods and services.
- 19. As with all policy tools, economic instruments and regulations intended to provide incentives for sustainable forest management should be:
  - (a) Targeted and appropriate;
  - (b) Feasible and efficient;
  - (c) Possible to monitor and enforce;
  - (d) Transparent and fair to all stakeholders.
- 20. Selected economic instruments must be matched to the desired scale and type of activity. Some instruments, designed and implemented at the local level, may be applicable to specific management decisions, e.g., for the design of a forest concession. However, it may be neither feasible nor desirable to design economic incentives at an international scale to regulate the details of forest management, such as the harvesting cycles, logging methods and spatial distribution.

### A. Forest revenue systems

- 21. Forest revenue collection represents the capture of the value of the economic value (rents) of publicly owned forest managed by the private sector, e.g., through a concession arrangement. However, there is a trade-off between the relative amount of revenues captured and the cost of putting a system in place to collect them. For example, in the case of timber production, the most differentiated and targeted rent capture system is based on a stumpage appraisal that requires substantial information and thus imposes specific costs in order to be operational.
- 22. Less differentiated approaches include volume-based royalties or area premiums which may collect less of the potential economic value but may be more easily and less expensively managed. The lessons learned from administrating systems for collecting fees from timber production have broad applications for collecting fees from non-timber forest production.

### Types of forest fees and charges

Service or service provider	Type of fee or charge		
Concessions	License fee		
	Annual ground rentals		
	Fees based on timber volume, annual allowable cut or forest asset value		
	Auctions		
Timber harvested	Per tree royalty		
	Volume-based charges		
	Stumpage fees		
Non-timber forest products	Fees on forest products other than timber		
Transport	Transport fees may be included (for the use of the infrastructure)		
Forest products processing	Charges on processed forest products		
Trade	Export charges on logs and forest products		
Productive factors	Charges on equipment or labour force		
	Land or property taxes, wealth or capital taxes		
Companies	Corporate income tax, taxation of the right to do business and license fees		
Government participation	Joint ventures or full government ownership of concessions, logging operations or processing plants		
Service charges	Service charges are earmarked charges for specific services or activities, e.g., reforestation fees and stamp duties		

- 23. The primary objective of both traditional fiscal instruments and forest fee collection is to collect an economic revenue. However, by incorporating external costs of management and extraction activities, both revenue collection and promoting improved management practices can be achieved simultaneously. Charging users for the use of forests is also likely to have some effects, for example, by encouraging more efficient resource utilization. However, the incorporation of "environmental taxes" as part of revenue systems is often more of a challenge because it is difficult to specifically identify and target the site-specific external costs of extraction. As an alternative, specific environmental considerations (e.g., leaving riparian buffer zones) can be included as part of concession management contracts, and a regulatory framework can provide broader guidelines on appropriate forest management practices.
- 24. Designing single policy instruments to address multiple objectives simultaneously is often not feasible, and may even compromise their effectiveness to achieve the separate goals.
- 25. While the appropriate design of concession management and forest revenue collection systems is crucial, it is equally important to ensure that the responsible institution(s) are capable of monitoring and enforcing public policies and standards, and regulating activities on both public and private forests. To help ease the obligations of government institutions which are often weak, supplementary objectives, such as social issues, resource theft management, protection of environmentally sensitive areas, and planning can be included as part of private-sector contracts, allowing the exploitation of public resources. One effective approach supporting this effort is the specification of "performance bonds" that identify outcome-based standards with adequate economic penalties for failure to achieve these standards.

#### **B.** Forest taxation

- 26. Forest taxation encompasses both the fiscal regulation of the private sector (corporate income taxation, taxation of assets and earnings) and the collection of forest fees (taxation of resource rent from concessions managing publicly owned forest resources). Taxation and forest fee structures provide incentives that influence the management of forest resources and will alter the value (or income-generation potential) of forests. Even small changes can sometimes be important in shifting the relative value of alternative uses of forested lands.
- 27. The ability of taxation instruments to help reach policy objectives depends in large part on the existence of effective institutions for tax collection. The tax instrument will have little effect in countries where, for example, corporate and land taxes are levied but not collected.
- 28. Land taxation has an impact on the relative value of forested lands and the alternative land uses. Tax reduction for forest land may provide an incentive to maintain forest areas on marginal agricultural land and encourage afforestation. Conversely, tax breaks or subsidies provided for alternative land uses, such as cattle ranching, can bring the forest frontier under pressure or retain land in agriculture and discourage afforestation.

# C. Land tenure

- 29. In most countries, forest resources are owned by Governments, corporations or individuals. However, the actual use of forest resources may be defined by customary rights or even a presumption of open access. Poorly defined user and tenure rights or a lack of consensus on rights of access are likely to lead to economic welfare loss through dissipation of resource rents, i.e., the resource is exploited beyond the sustainable level and economic returns from the resource are drastically reduced.
- 30. The allocation and enforcement of user and property rights to forest resources is a fundamental basis for policies intended to ensure sustainable forest management. Although land tenure issues fall within the competence of national Governments, it is useful to examine and compare approaches to ownership and use of forest resources. Indeed, within countries there is often a wide variety of tenure arrangements with respect to forests and related land uses.
- 31. No clearly defined tenure arrangement currently in use can be said to be inherently inconsistent with sustainable forest management. However, it can be concluded that the clarity, equity and stability of any tenure arrangement will ultimately determine the extent to which it assists or hinders efforts to practice sustainable forest management.
- 32. The absence of clarity in tenure often leads to overuse and misuse of resources, and/or a reluctance to invest in sustainable forest management. Inequitable distribution of resources or access to forest land and forest-based goods and services leads to inadequate attention to the social and economic dimensions of sustainable forest management, pressure on management systems and institutions, and further environmental externalities. Secure tenure, given both transparency and equity, is more likely to lead to investments in resource management and the long-term conservation of forests.
- 33. Land tenure arrangements also influence the distributional consequences of the economic incentives for sustainable management. In an open-access regime, for example, compensating one person in order to prevent conversion of a piece of forest land can be

useless since others will still have the option to convert the same piece of land. Economic incentives are unlikely to function efficiently if resource tenure is not defined and enforced. Defining the legitimate user and property rights to forest resources, including non-timber goods and services, is a key issue for the functioning of economic incentives and marketing of forest resources.

#### Box 1

### Private sector involvement in joint forest management

In a pilot project near the village of Gwira Banso in Ghana, the right to exploit the timer resources of a 16,000 hectares (ha) off-reserve forest has been shared between the *de jure* owner, Ghana Primewood Products Ltd., and the de facto users, the local village with the joint partnership of the foreign commercial timber trade partner and official development assistance for private sector development. Planning, sustainable harvesting, reinvestments and revenue-sharing are a joint effort which in the end may benefit everyone. Although some suspicion remains in the minds of local farmers, the incentive for participation is in the prospects of an improved value of the local forest resource and improved welfare. The example also suggests learning experiences for the management of forest resources outside designated forest reserves.

34. Changes in existing patterns of land tenure, especially reforms in land tenure intended to address equity as well as resource management concerns, are difficult and time-consuming processes. Yet since such reforms are so critical, there is a need to consider interim, preliminary and collaborative measures for immediate implementation. These interim measures can be designed to improve the conditions of tenure and access rights, even as a more ideal or complete reform is ongoing. It is equally important that, in parallel, externality issues are addressed.

# D. Market development

- 35. Being able to offer a wide variety of forest goods and services for sale in open markets can be one of the most powerful incentives for sustainable forest management. The existence of markets enables the forest owner, user or manager to capture economic returns from the forest.
- 36. Apart from timber, attention to marketing forest-based goods and services has focused mostly on non-timber forest products. The collection of and in many cases trade in non-timber forest products is an important activity for subsistence and a potential source of income for local uses of forests.
- 37. Although the existence of markets and the revenue that they may provide to forest owners and managers can contribute to efforts to manage and sustain forests, it is important to recognize that the creation of markets for non-wood goods or services is not sufficient to assure sustainable forest management. In some cases, the identification of new or commercial products from forests can even disrupt patterns of traditional use and lead to unsustainable levels of use or damaging management practices since, for example:
- (a) For many extractable, non-wood commodities, sustainable production levels are not well known;

- (b) Even when sustainable production levels are known, opportunities to market commodities may encourage production beyond sustainable levels;
- (c) Markets can create opportunities to collect revenue from forests, but the existence of markets cannot assure that even some of this revenue is invested to manage and sustain forests.
- 38. For forest-based services, the greatest attention at the local and national scale has been paid to hydrological services and similar environmental functions. Such services are typically localized and therefore not ideal for possible international trade. The solution is the creation of management plans that bring together relevant stakeholders, i.e., losers and winners of alternative management strategies who among themselves (with facilitation) work out appropriate transfers. When costs and benefits are predominantly local, implementation of the preferred management and allocation decisions can be based on local needs and resources.
- 39. When appropriately combined, a marketing option, the internalization of externalities and the delegation of forest resources to local communities can secure revenue to local users of forest resources and create economic incentives for a sustainable resource use. An example with fuelwood from the Niger is an innovative case of the creation of a local market that ensures local participation, ownership, revenue collection and management.

#### Box 2

#### Rural fuelwood markets in the Niger

Most of the Niger's natural woodlands occur as strips or patches of vegetation interspersed with areas of hard, impervious and denuded soil or "tiger brush". A World Bank household energy project initiated in 1986 included a supply component focused on the fuelwood catchments of Niamey and other major towns, and a demand component concentrated on the promotion of substitute fuels and fuel efficiency to curb growth in fuelwood demand. The concept of a "rural fuelwood market" was developed as a centrepiece of the supply component. Under this plan, local communities would be given formal control of their own areas of natural woodland and exclusive rights to all fuelwood produced. In return, the communities would sign an agreement to manage the woodland sustainably. A quota was established for each rural market with the aim of maintaining fuelwood extraction to sustainable levels. Villagers might overharvest for short-term benefits; some communities may eliminate their natural resources for shortterm gain or because they cannot self-organize the regulation. A differential tax system was proposed that taxed urban fuelwood supplies from controlled markets at a substantially lower rate than supplies from the open, natural woodlands, thus providing the traders with a financial incentive to use the rural markets. The critical point is the enforcement of the differential tax where regulation required that fuelwood lorries entering the urban areas be checked to see whether the driver had the appropriate cutting permit.

- 40. The capture of so-called "global externalities" through the creation of markets provides some prospects for capture of economic values of the forests. If such markets are created and persist, these revenues should be invested in the protection and sustainable use of forest resources. The following three notable examples are commonly mentioned:
- (a) The marketing of carbon emission permits from carbon sequestration in forests is a potential trading mechanism that may be developed under the clean development

mechanism of the Kyoto protocol on climate change. There are, however, considerable uncertainties that remain to be solved before this trading mechanism can be developed further;

- (b) The royalty of genetic compounds collected in nature and used as the basis for the development of pharmaceutical compounds. These values are particularly relevant for specific forest areas rich in biological diversity;
- (c) The development of and expansion of international tourism, including "eco-tourism", provides another possibility for converting international interest in forests into an economic return to countries that conserve and sustainably manage their forests.
- 41. There is scope for an internalization of some of the global external benefits of forests. However, it is important to consider whether revenues created from such transactions are captured and then invested in forest management. In addition, the extent and distribution of benefits from new and emerging markets for forest services may be limited. To date, market development and trading to capture broader values from forests has been confined to relatively few locations and may not be generally applicable for large areas in all regions. The prospect of marketing the services of forests in climate regulation may be an exception. Nevertheless, global trading mechanisms cannot substitute for national and local actions with respect to sustainable forest management. Moreover, efforts to secure global benefits may conflict with local objectives for the use of forests.
- 42. It should also be recognized that the existence of global benefits is neither a need nor a claim for global transfers. Global benefits may be produced simultaneously with local goods and services, and may not incur in any incremental costs for the resource owner. Solving forest problems at the national and local levels may add substantially to solving the global externality problem. The marketing of several goods and services from the same forest area may exceed the costs of protection of the area, and mechanisms created specifically to generate additional economic surplus should therefore disappear once markets are functioning properly.

### E. Macroeconomic policies

- 43. Macroeconomic policies of a country will have impacts on the forest sector. However, the type and magnitude of these impacts vary widely. In all countries, the forest sector will be affected directly and/or indirectly by both forest sector policies and other sectors' policies.
- 44. In recent years, some of the most dramatic macroeconomic changes in developing countries have resulted from structural adjustment programmes (SAPs). In many countries, the forest sector in particular the rate of deforestation have been impacted by developments in the agricultural sector. Although it has been well studied, there is no consistent indication of how SAPs have influenced the agricultural sector. However, the impact of these programmes on the forest sector may be determined by an intensification in agriculture or an expansion of the area in agriculture. In the past, SAPs have been heavily criticized for their impact on the environment and land use. Another impact is the reduced capacity in public regulations as a result of reduced public expenditure. A more recent and innovative use of SAPs has been to use them as a vehicle to ensure policy reforms with environmental benefits, such as restructuring the forest sector to discourage monopolistic behaviour, curbing illegal logging or improving transparency in concession management. The use of "environmental conditionalities" as a component of SAPs may yield significant benefits to sustainable forest management.
- 45. Many countries have found that developments in other sectors can lead to profound changes in the forest sector. Experiences with the links between technology, markets,

economic development and sectoral policies in energy, transportation and manufacturing have also shown the contributions of forests beyond that of a source of land, fuel, and/or industrial roundwood.

# F. Policy environment

- 46. The potential of economic instruments, tax policy and land tenure reform to promote sustainable forest management will not be realized without the appropriate institutional, policy, macroeconomic and social framework in which these forest policy tools will operate. As economic instruments are being developed and implemented, it is necessary to consider whether they are intended to supplement or substitute for existing policies, for example, whether they involve:
  - (a) Coherent, stable and successful macroeconomic policies and programmes;
- (b) Defined objectives, responsibilities, mandates and enforcement capabilities in a functional forest policy framework;
  - (c) Effective, empowered and credible forest agencies at the national and local level;
- (d) Transparent and sufficient financial flows to and from the forest sector (public and private) at the local, national and international levels;
  - (e) Delegation and enforcement of legitimate user and property rights.
- 47. Failures in these broader policies may themselves constitute a policy problem for the forest sector, and economic instruments and incentives are unlikely to solve these fundamental issues. Economic instruments, tax policy or land tenure arrangements cannot be expected to solve problems caused by policy or institutional failures. In a sector tarnished with market distortions and policy failures, economic instruments, no matter how carefully chosen and designed, are not likely to overcome other problems related to the policy environment. Addressing the mixture of these failures is a precondition for making economic instruments function effectively to promote sustainable forest management.

# V. Conclusions and preliminary proposals for action

- 48. An indication of the potential of economic instruments is illustrated by the role of prices and costs in a wide range of analyses to understand the root causes of deforestation. The importance of a functioning legal and regulatory framework is a prerequisite for sustainable development and a condition for the effectiveness of economic instruments. For all purposes of regulation of forests, such as taxation, registration of property rights or control of forest activities, it is advisable to devise economically appropriate systems that minimize data requirements.
- 49. It should be noted that a number of the conclusions and proposals for action listed in the present report are not new. In some cases, they repeat or reinforce aspects of proposals of IPF, or issues highlighted in previous discussions of IFF.

### Forest revenue systems

50. It is widely agreed that additional financial resources for the management of forests are needed for the implementation of sustainable forest management. There is, however, scope

for economic gains through improved management, including more effective collection of forest revenues.

#### 51. The Forum may wish to:

- (a) Encourage countries to recognize and use a variety of tools for achieving the objectives of forest policies, including the use of charges and forest revenue collection that also offer incentives for sustainable forest management practices;
- (b) Request that, for example, the Food and Agriculture Organization of the United Nations, in collaboration with other organizations, undertake an up-to-date review of contemporary revenue collection systems for the use of forest products and services. The Forum may also wish to encourage countries to contribute their experiences in this arena and to support this effort;
  - (c) Openly address governance, in particular corruption in the sector.

#### Forest taxation

52. There are a number of possible taxes but only a few can be targeted to regulating forest resources, although most have an indirect impact. Taxes levied on land uses and land management practices may in some cases be an effective means of encouraging forest conservation and discouraging forest conversion. The scope of tax policies that must be examined for their effects on sustainable forest management goes well beyond the forest sector.

#### 53. The Forum may wish to:

- (a) Encourage countries to recognize the actual and potential impacts of taxes as means of providing disincentives to engage in activities that degrade and convert forests;
- (b) Encourage international organizations to provide general and specific advice to countries on the design and administration of tax codes to promote sustainable forest management, and encourage countries to offer examples of notable successes in using taxes to advance the practice of sustainable forest management.

#### Land tenure

54. The allocation and enforcement of user and property rights to forest resources is a fundamental consideration of policies intended to assure sustainable forest management. It is the clarity, equity and stability of any tenure arrangement that will determine whether it supports or hinders the effort to practise sustainable forest management.

#### 55. The Forum may wish to:

- (a) Encourage countries to support policies that recognize, enforce and delegate legitimate uses and property rights, including intellectual property rights, while recognizing that institutionalizing tenure is a long-term process where interim measures are required;
- (b) Encourage countries to share experiences with private-sector and local communities in promoting efficient utilization of resources, while sharing responsibility for the protection and management of forests and the accomplishment of social and environmental aspects of forest policy.

#### Market development

56. The ability to offer a wide variety of forest goods and services for sale in markets can be an effective incentive for the management, conservation and sustainable development of

all types of forests. Additional information is needed on approaches that can be used to devise markets for forest products, and the role of the public and private sector in assuring that new or expanded markets are consistent with the social, economic and ecological components of sustainable forest management.

#### 57. The Forum may wish to:

- (a) Encourage countries to share knowledge and experiences related to the development of markets for non-wood goods and services;
- (b) Encourage countries to proceed carefully in the development of markets, especially in non-local benefits, in order to avoid conflicts with local resource users and customary/traditional rights.

#### Macroeconomic policies

- 58. The macroeconomic policies of countries have extensive and enduring effects on the forest sector. Given the importance of these policies, the incorporation of specific forestry concerns and objectives in programmes of macroeconomic structural adjustment is likely to provide a basis for promoting both sustainable economic growth and sustainable forest management.
- 59. The Forum may wish to encourage lending institutions to develop, and countries to endorse, the use of explicit goals and credible conditions in macroeconomic structural adjustment programmes for the protection and management of forest resources and forest policy reforms.

#### Policy environment

- 60. It has been the experience of many countries that developments in other sectors, including but not limited to the agricultural sector, can lead to unintended changes in the forest sector. Weak or inconsistent policies in other sectors, weak or ineffective public administration and other failures will undermine the use of any forest policy tools, including economic instruments, tax policies and land tenure reform, and will thus limit the effectiveness of economic instruments designed to promote sustainable forest management.
- 61. The Forum may wish to encourage countries to examine the role of policy failures in the forest and other sectors as a contributing factor in deforestation, forest degradation or unsustainable forest management, and to assist in developing mitigating policies.

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