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An International Instrument on Forests


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FOREWORD

Forests have emerged as a priority in international politics and on the policy agendas from economic, international trade, environment, social and cultural perspectives. While nations have the sovereign right to conserve and utilize their forests to meet their national policy objectives, many aspects of forests have significant implications internationally. These include: the role of forests in the regional, global ecological cycles; the need to protect world's forests as the richest reservoir of the world's biodiversity and as a major carbon sink; and the protection of migratory wildlife species dependent on forests and wooded land. Other important aspects are the functioning of international trade in forest products in response to green consumerism in the international marketplace; the increasing concern to the magnitude of forest degradation and deforestation; the need to provide a large range of goods and services from forests to meet current and future needs; and the necessity to reduce the harmful impact of that originates outside the forest-based activities such as transboundary air pollutants and anticipated global warming.

Part I provides a rationale for an International Instrument on Forests (IIF) including: the policy framework of the development and conservation of forests world-wide; current international instruments relevant to forests; and processes presently engaged towards an International Instrument on Forests. Comments on the cross-linkages with two other Conventions currently under negotiation, namely, Biodiversity and Climate Changes are included. Part II suggests a range of options on various components of an IIF. It refers to title, format, preamble, interpretation, purpose and objectives, possible commitments to collaborate under an IIF and to procedural aspects.

The document has been elaborated jointly by the two authors during the period January to June 1991 based on their interest and experience in international policy development respectively forest law and environmental legislation. It is a contribution to the ongoing Preparatory Process for the United Nations Conference on Environment and Development, UNCED which takes place in 1992 and at which the protection of forests and forestry development will be important issues of the international debate.

The preparation of the document has greatly benefited from discussions with José Carvalho and Stanley Johnson.

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PART I: CONSIDERATIONS ON THE NEED FOR AN INTERNATIONAL INSTRUMENT ON FORESTS

1. INTERNATIONAL CONTEXT

During recent years, maintenance of healthy “global commons” such as oceans and atmosphere is recognized as the collective responsibility of nations. Accordingly, several international instruments and agreements have been negotiated to facilitate international cooperation to attain this collective objective. Another area that has been the subject of international agreements among nations concerns protection and equitable sharing of resources such as migratory species and water from international rivers. In the context of international cooperation and associated agreements, forests occupy a unique position. For example, while forests are anchored in the soils of sovereign nations many function they perform are transboundary (i.e., habitat of migratory species and watersheds of international rivers) and regional and global in scope (i.e. ecological circles, such as carbon, oxygen, hydrological etc.). Many environmental benefits extend beyond the national boundaries and it is in the collective interest of all beneficiaries that forests are protected and sustainably used. Nations, as owners of forests in their territory as well as the international community collectively face the challenge of harmonizing domestic interests with international responsibilities of nations, with expected obligation of transboundary, regional and global beneficiaries.

While many international agreements negotiated to date, impact directly or indirectly on forests, there is no overarching framework that deals with forests in a cohesive, comprehensive and holistic manner. Forests constitute a major component of our global surroundings play a significant role in our economic, environmental well-being. It is in our common interest to maintain this environment in a healthy state. Accordingly a formulation and implementation of an international instrument on forests is proposed.

1.1 Existing Forest Related Instruments

Several international legal instruments which relate to forests are presently in force. These instruments (Annex III) can be divided into three categories:

- instruments dealing exclusively with forests;
- instruments dealing with forests within the context of natural resources conservation and management including wildlife and wildlife habitat;
- and instruments dealing with pollution control having impact on forests.

The conventions and agreements, which in one way or another relate to forests, focus on specific aspects such as trade in tropical timber, forestry research, the protection of certain endangered species, and the protection of certain types of forest environment such as wetlands. Others are of regional coverage only and attempt to set general guidelines for forest development and conservation within the overall framework of the conservation of nature and natural resources. The lack of a proper framework at the global level, dealing with all types of forests and all aspects of forest management, and of an international consensus on policies
and targets to be applied in forest development and conservation has resulted in increased pressure on the world's forest resources. This lacune is critical at a time when the economic and environmental values of this renewable resource and its impact on numerous aspects of man's environment is receiving increased recognition.

1.2 Proposed Forest-Related Initiatives

In preparation for the UN Conference on Environment and Development (UNCED) to be held in Brazil in 1992 ("Brazil '92") a number of proposed international initiatives would have a significant impact on the conservation, management, utilization and development of forests around the world, as well as in various specific geographic regions or within individual countries. Those of particular interest include:

- A possible protocol on forests in the proposed framework International Convention on Climate Change (ICCC). This would deal with the need to increase the role of global forests as carbon reservoir;

- A possible protocol on forests in the proposed International Convention on Biodiversity (ICB). This would deal with the need to protect global forests around the world as a rich source of genetic material and as wildlife habitat;

- An International Instrument on Forests -IIF- ("Instrument" covers a wide range of alternatives including: Declaration; Charter; Agreement; Framework Convention; Convention) which is envisaged to promote sustainable development and conservation of forests and to provide a comprehensive framework to formulate mutually supportive, current and future, forest-related international initiatives.

While work on the Climate change and on the Biodiversity Conventions has been in progress since 1988, the IIF has emerged on the scene rather recently (Annex IV). A Forest Convention was proposed in the June 1990 Report prepared by the Independent Review Committee on the Tropical Forestry Action Plan (TFAP) established by FAO. The idea received a significant political support in the Houston Declaration, signed in 1990 by the G-7 leaders and by the President of the European Commission. Also, through the Houston Declaration, the initial focus of concern for tropical forests was expanded to global forests by inclusion of concern for the temperate and boreal forests and thereby global forests emerged prominently on the international political agenda. While there is a varying degree of support for the proposed IIF (i.e. enthusiastic to some reservation), the initiative has received attention in many international forums, including the following:

- The European Council, at its meeting in Dublin in June 1990, requested the Commission to formulate proposals to deal with the threat to the tropical forests, in consultations with the concerned countries.

- The first Preparatory Committee meeting for "Brazil'92, held in Nairobi in August 1990, requested the UNCED Secretariat to provide further information and analysis on a wide range of forest-related issues and on mechanisms for coordination;
• At the first UNCED PrepCom Meeting the Japanese Government proposed an international World Forests Charter;

• In October 1990, the ASEAN Ministers of Agriculture and Forestry agreed to contribute towards the preparation of a comprehensive report on forestry as requested by the first PrepCom Meeting of the UNCED;

• Both the Forestry Task Force Report and the "Conference Statement" at the Second World Climate Conference, held in Geneva during 29 October to 4 November, 1990, recognized the need for an IIF. The Ministerial Declaration following the Second World Climate Conference recommended that "the protection and management of boreal, temperate, and sub-tropical forest ecosystems must be well coordinated";

• The FAO Council in November 1990 endorsed the concept of an IIF and agreed that FAO would make substantial contributions to the development of such an instrument.

• At the Second PrepCom meeting for UNCED held in Geneva during 18 March - 3 April 1991, the Committee requested the UNCED Secretariat for additional technical information on the economic, environment social role of forests, proposed five principles for the consideration at the Third Preparatory meeting and identified a few issues crucial to sustainable development of forests. The Committee further decided that upon thorough assessment of the additional information requested, the Committee "will at its third session be in a position to examine all steps toward and options (including at a minimum, taking into account the special situation and needs of developing countries, a non-legally binding authoritative statement of principles) for a global consensus on the management, conservation and development of all types of forests, either as an integral part of the proposed earth charter or separately, while noting that the completion of this work may best be decided upon at UNCED 1992".

In order to deal with a wide range of issues and opportunities related to the development and conservation of forests world-wide, there is now increased momentum to establish an international policy and institutional framework, within an International Instrument on Forests. Some views on the need for such an Instrument, its possible scope, benefits and activities, possible legal format and the process leading to its formulation are elaborated in the following sections.

2. RATIONALE FOR AN INTERNATIONAL INSTRUMENT ON FORESTS
2.1 Role and Importance of Forests

Forests are nature's most bountiful and versatile renewable resources. They cover a substantial part of the earth's surface (Annex I), are indispensable to mankind's existence and are capable of meeting a wide range of present and future economic, social, environmental, cultural and spiritual needs.

Economically, forests are a major source of development, industrial activity and employment in many countries around the world (Annex II). With economic development, the demand for wood products also increases to meet the industrial, social and cultural needs of a society. Wood products are environmentally friendly, biodegradable and many are recyclable.
Environmentally, the role of forests as wildlife habitat, control of desertification, in soil and water conservation and for local and regional climatic stability is well recognized. More recently, the role of forests in global carbon, oxygen, nitrogen, hydrological and climatic cycles, is receiving increased world-wide attention, so is the importance of forests in maintaining the biodiversity for the production of inter alia, food fibre and pharmaceuticals.

Socially, forests are important for the maintenance of social and cultural diversity, particularly for people living in and around forests and for other communities depending on them.

New forests can be developed to serve as a basis for sustainable development both for the subsistence and welfare of local communities, as well as for forest industries to serve national and international markets.

The use of forests by man in the developed countries has shifted with changing socio-economic needs and evolving technological capacities. Historically, forests served as a major source of food, fibre and shelter in pre-agricultural societies. Subsequently, large tracts of forest land were harvested and cleared to meet the need for economic development and capital generation, as well as to create arable agricultural land to produce food for expanding population. This historic sequence of events, described above for developed countries, is now being replayed in many developing countries and perhaps at a considerably faster pace and with increasingly powerful technologies. At the same time, the environmental values of the tropical and temperate forests are receiving a world-wide attention.

Today the forests of the earth have become of considerable interest and value to mankind as a whole. Moreover, human activities are threatening the existence and stability of certain forest ecosystems to an extent which may have serious impacts at the transboundary, regional and possibly global level. It is in this context that the growing concern of the international community for an effective protection of the forest cover, for sustained forest resources development as well as for maintaining biodiversity and conserving part of the forests in their natural stage, has to be viewed.

There is now increased recognition of a need to shift our approach to forestry from "sustained yield" aimed at maintaining an annual flow of wood, to "sustainable development" which includes both wood (i.e. as an economic output) as well as other benefits such as wildlife habitat, soil and water conservation (i.e. as environmental outputs). Attaining this shift in the outputs and values would also involve an associated shift in forestry practices, i.e. from "forest management" to "forest ecosystem management".

The concern for future generations is emerging as an ethical issue. Environmentally sustainable economic development is seen as a societal value to ensure that we leave a legacy of a healthy environment and adequate natural resources to meet the needs of the future generations.
Within this ethical context, the following principle concerning sustainable development of forests is proposed:

Sustainable development of forest land and its multiple values and benefits involves maintaining without unacceptable impairment, the productive and renewal capacities, as well as species and ecological diversity of forest ecosystems.

Practicing sustainable development of forests requires a two-pronged approach. First, to adjust forestry practices to local conditions in order to maintain the renewal and productive capacities as well as species and ecological diversity of forest ecosystems. Secondly, to protect forest ecosystems from the consequences of other stresses associated with non-forest based industrial and human activities such as air pollution, acid rain and global warming.

2.2 Emergence of Forest Issues on the International Policy Agenda
During the past two decades, the scale, scope and complexity of environmental issues has been increasing from local and national to regional and global levels. Within this broad context, forest-related, economic and environmental issues have recently emerged as a priority on the agenda of world leaders. This is because of the concern for and the need to:

1. satisfy the anticipated increase in demand by rapidly increasing world population for forest products and for other forest-based economic, environmental, social, cultural and spiritual values in a sustainable manner while recognizing the roles and rights of local populations depending on forests;
2. facilitate an orderly international trade in forest products;
3. address the issue of constantly shrinking forest cover and the consequent soil erosion, general environmental and watershed degradation. Tropical and sub-tropical forests have received particular attention in this context;
4. protect forests world-wide because of their environmental role in global carbon, oxygen, nitrogen, hydrological and climatic cycles;
5. protect and conserve forests for their biodiversity and heritage value;
6. expand the global forest and forest biomass to increase the terrestrial carbon reservoir (by sequestering atmospheric carbon dioxide) and to decrease the concentration of atmospheric greenhouse gases, keeping in mind that forest harvesting and deforestation are neither the main cause of the anticipated global warming, nor are reforestation and afforestation the principal solution. The role of boreal and temperate as well as tropical forests, in the global carbon cycle is now receiving a special worldwide attention;
7. prevent forest soil acidification and forest decline associated with airborne pollutants, in most industrialized countries, particularly in Europe; protect forests from the negative impacts of the anticipated global warming.
It is important to note that the right of sovereign nations to conserve, manage and utilize forest resources within their jurisdiction is unquestioned and must continue to be recognized universally. However, with the recognition of sovereignty follows responsibility to join consultation, cooperation and solidarity on the global and transboundary levels. It also involves responsibility to maintain and develop the productive potential, renewal capacity and ecological diversity of land to be inherited by future generations. In an increasingly interconnected and interdependent world, the transboundary and global environmental consequences of forest-related activities in individual countries have evoked interest and concern in neighbouring countries and by the global community. Consequently, through mutual agreement, financial and technical assistance, investment and trade arrangements, nations, both individually and collectively, are searching for appropriate framework to cooperate and assist in the conservation, management, development and utilization of forests at both the regional and global levels.

The forestry community\(^1\) around the world now faces the challenge to meet the anticipated increase in demand for forest products, while responding to the need to maintain the forest environment values. Sustainable development and conservation of forests that harmonizes both the economic and environmental benefits is the most pressing challenge facing the forest managers and forest policy makers at the national as well as international levels.

### 2.3 Need for International Cooperation

A review of the current and posed international initiatives shows clearly that forest-related issues are addressed in a fractionated, piecemeal manner. In view of the overwhelming economic, environmental and social significance of forests at local, national, regional and global levels, forest-related issues need to be treated within wider, all encompassive forests framework, that is cohesive and comprehensive and one, that accommodates social, economic and environmental dimensions. It is crucial to harmonize various forest policy objectives and to formulate a range of mutually supportive actions to meet these objectives. This must be accomplished through international consensus, collaboration and cooperation. Addressing forest-related issues in a fractionated manner would be inefficient, less cost effective and undesirable. Furthermore, it is politically imperative and technically possible to harmonize social, economic and environmental dimensions of forestry. An International Instrument on Forests promoting sustainable development and conservation of forests would provide the necessary policy and institutional framework to guide international collaboration and collective action in an efficient and effective manner. It will also provide a clear focus to address forest issues and opportunities world-wide.

Depending on the consensus among the participating countries on the scope, an IIF should provide a policy and institutional framework to accomplish a wide range of activities in order to:

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\(^1\) This term includes professional foresters, forest and forest environment scientists, forest policy makers and all those engaged in the protection, management and utilization of forests.
2.4 Issues and Opportunities to be Addressed

Conservation and sustainable development of global forests, that harmonizes economic and environmental objectives, is at the heart of an International Instrument on Forests. Such an IIFF will provide the necessary policy as well as institutional framework for international consensus and collaboration. There are several possible approaches to address the issues and opportunities related to the sustainable development and conservation of forests around the world.

There are at least three geographic scales of forest-related issues and opportunities i.e. (1) national, (2) regional and (3) global, that require attention and collaboration, at the corresponding (1) national, (2) multinational and (3) international levels, respectively. Also, there are three types of forest-related issues and opportunities, namely socio-economic, environmental and policy. This geographic and subject area approach (i.e. "Three-three approach") with a few examples is described below:

1. National Issues and Opportunities

   Economic: balancing of macro-economic and trade issues with micro-economic and subsistence considerations to assure local involvement and support.
Policy: formulation, implementation, assessment and revision of national forest and related policies within the framework of national economic, environmental, social and cultural objectives, incorporating national equity and participatory approaches.

Environment: ensuring a cross-sectoral approach on environmental issues that would on the one side allow for nature conservation and on the other side for sustainable utilization of traditional forest products as well as non-wood forest products.

2. Regional and Transboundary Issues and Opportunities

Economic: collaborative management of wide-spread insects, diseases and fires in contiguous countries, that cause economic losses by, for example, sharing expensive suppression technologies; developing regional monitoring and early warning systems, and collaborative activities towards the optimization of resource production and its rational use, including industrial utilization, in recognition of biological and industrial capabilities of contiguous nations.

Policy: formulation of complementary policies for mutual benefit; provision of timely and credible information on forests and forest-related issues; sharing of technologies, knowledge and, for example monitoring systems.

Environmental: as the management of forests in the conservation of international watersheds as well as of wildlife habitat, particularly of species that migrate across national boundaries; prevention of transboundary air-borne pollution that causes soil acidification and forest decline; a collaborative action towards the protection of biodiversity in contiguous states.


Economic: provide the basis for unrestricted international trade in forest products, particularly from forests managed under internationally recognized norms of forestry practices. These norms would have to be formulated by international consensus. Guidelines for management of tropical forests developed by ITTO could be used as a starting point.

Policy and information: provision of credible and timely information on the state of world's forests to permit sustainable forestry practices; harmonization of policies; priority setting; transfer of funds, technologies and sharing of knowledge.

Environmental: research on global environmental issues associated with the role of forests in global carbon, oxygen, nitrogen, hydrological and climatic cycles; conservation of biodiversity; formulation of response strategies to global warming.

The wide geographic range of complex issues are obviously inter-connected and require collaborative and mutually supportive actions.
3. PREPARATION OF AN INTERNATIONAL INSTRUMENT ON FORESTS

3.1 Options with Regard to the Legal Form

The international momentum behind some form of an IIF is growing and there is every likelihood that eventually, there will be an International Instrument on Forests. What needs to be explored is the range of options available and a consensus on the form most acceptable. There is a range of forms that an IIF could take, i.e. Declaration, Charter, Agreement, Framework Convention or Convention. There are two basic categories that may be considered:

- The first would be a formal legal convention, which would impose legally binding commitments on its contracting parties. These commitments could be general and hortatory (i.e. make best efforts to...) as in the 1985 Vienna Ozone Convention; or they could be specific targets and schedules (i.e. reduce by X percent by Y date), as in the 1987 Montreal Ozone Protocol. Like the two ozone instruments, a legally binding forest convention could be drafted with general commitments, which then permitted more specific protocols to be negotiated at a later date.

- The second would be a political charter or declaration of principles, agreed by all the members of the international body that negotiated the text. Such a charter would then provide guidelines for conduct. Countries that participated in promulgating the charter would be morally or politically obliged to follow its guidelines, but it would not establish legal obligations between the contracting parties. The UN's 1982 World Charter for Nature, or UNEP's 1985 Montreal Guidelines on Land Based Sources of Marine Pollution are two examples of this latter approach.

These two approaches can be described as the"hard law" and the "soft law" options. The hard law option clearly registers a greater degree of commitment on the part of governments; and it makes clear which states consider themselves bound by its provisions and which do not.

Perhaps the best approach would be a third option, between a full international treaty and a simple charter or declaration of principles. We could maintain the form of a legally binding legal convention, which required states to ratify it and become formal members. But a high level of voluntarism could be introduced into the convention, by allowing signatory states to set the targets they wish to meet. This would facilitate negotiating its provisions and permit a smaller number of ratifications before entry into force.

3.2 Options with Regard to the Preparatory Process

Whilst one can formulate elegant conceptualization and visionary objectives that would lead to the conservation and sustainable development of world's forests, the real challenge lies in developing a common understanding of the issues and opportunities and in developing concepts, guiding principles and an approach which is shared by most participants. This shared vision has to be developed by consensus. The consensus building process is a valuable product by itself.
Following an agreement among countries to draft an International Instrument on Forests, its scope and intergovernmental process leading towards it, will have to be defined. There are at least the following three options concerning the process leading towards an IIF:

1. The UNCED PrepCom III could take the decision to begin negotiations at the third session, in Geneva in August 1991. This would provide a very limited opportunity for negotiations prior to the UNCED 1992.

2. Another alternative would be to launch the initiative in the General Assembly of the United Nations (UNGA) in Autumn '91. A decision by UNGA to start a negotiation process and to establish a secretariat servicing the negotiations would be analogous with the model created for negotiating the International Convention on Climate Change.

3. A third option would be to adopt a "step-by-step approach", i.e., work towards a framework convention by UNCED 1992, focusing on guiding principles and identifying areas of common interest for collaboration among various countries and through consensus an agreement on a timetable and a schedule of events leading to an international instrument on forests after "UNCED 1992"

3.3 Cross-Linkages to the Proposed Climate Change and Biodiversity Conventions

Forests are seen as a source of economic development and an important terrestrial carbon reservoir as well as a rich source of biodiversity. The common denominator among the three proposed instruments are the forest ecosystems which can and do provide other services as well (e.g. soil and water conservation, bioenergy, fibre and fodder, wildlife habitat etc.). For example, a tree planting program in support of the Climate Change Convention may be undertaken on the watershed of an international river. The multiple benefit of this action would be the creation of a carbon reservoir, rehabilitation of a watershed and associated soil and water conservation through bi-national and multilateral cooperation. The choice of plantation species could further enrich this initiative by utilizing species that provide other benefits (e.g. food, wildlife), even if it means accepting somewhat less biomass production. These trees can eventually be harvested to meet local and national economic needs such as fuel and fibre.

Last but not least, if the reason that the forest disappeared in the first place, is not removed, any plantation effort will have little or no long term effect. Since subsistence necessities is a common if not prevailing such reason, the local population must at least perceive that, firstly the benefits of the plantation is going to be equitably distributed and secondly that their customary rights are not infringed. - Any protocol that is not incorporating these fundamental developmental and social dimensions is likely to be at best less efficient, but most likely unsuccessful.

Depending on the primary and the secondary objectives, and imaginative choice of sites and species, it is technically possible to attain multiple economic, environmental, social and cultural benefits from anticipated investments in forestry. Focusing narrowly on an initiative with only a
single purpose, would deny ourselves the multiple benefits of precious investment. Given appropriate policies and institutional framework at both national and international levels the professional and technical forestry expertise is capable of delivering multiple services from forest ecosystems. It is therefore crucial that the forestry community to be actively engaged in this initiative and to help formulate and manage the international forests agenda.

Launching a process leading to an International Instrument on Forests will consequently not impede the progress on the proposed Biodiversity and Climate Change Conventions. The objectives of the three instruments are mutually supportive and complementary.

The current work on the drafting and negotiation of the other two conventions can proceed without any interruption. What is urgently needed is to set up a formal institutional mechanism and a process to start formal intergovernmental consultations on an International Instrument on Forests. First priority for an Intergovernmental Working Group would be to formulate a set of Guiding Principles and general objectives that accommodate both the economic and environmental dimensions in a mutually supportive manner. These economic and environmental dimensions would receive further reinforcement in specific actions and guidelines dealing with more specific objectives on, for example, carbon sequestering and conservation of biodiversity. An International Instrument on Forests should provide the necessary linkage between biodiversity, carbon sequestering and sustainable development and conservation of forests.

In conclusion it may be stated that UNCED '92 has opened a unique opportunity to speed up the process of sustainable developing and conserving world's forests, improving forest management world-wide and strengthening forestry agencies. An IIF would provide the necessary policy and institutional framework and the technical basis for unimpaired international trade in forest products, collaborative international action; international transfer of funds and technologies; and sharing of knowledge and expertise. There is an urgent need to establish a formal intergovernmental process to attain this objective. The whole-hearted involvement of the forestry community in this initiative is crucial to its success.
PART II: POSSIBLE STRUCTURE AND CONTENT OF AN INTERNATIONAL INSTRUMENT ON FORESTS

4. GENERAL ASPECTS

4.1 Scope and Structure of an Instrument

The need to address the many and complex problems related to the maintenance of the forest cover and its biodiversity, as well as to provide new opportunities for increased and sustained utilization of forest resources, in a concerted framework of national, regional and global, policies and programmes, is the fundamental reason for developing an International Instrument on the Protection, Development and Conservation of Forests. Such an instrument would offer a common international platform for the necessary exchange of credible and timely information, the harmonization of national policy objectives by mutual agreement, the coordination of policy measures and action programmes that are of relevance in a transboundary, regional or global context, and for international cooperation in relation to technical and financial assistance.

Appropriate solutions for the protection of forest ecosystems and forest lands, as well as for their conservation and development, can only be found, if they are based on a balanced and mutually agreeable approach, that respects the principle of national sovereignty and stewardship, with regard to the utilization of forest resources and which, at the same time, promotes the principle of international solidarity. National forest problems need national efforts and solutions and if necessary, the support of the international community for their implementation. Regional and transboundary forest problems require a coordinated approach at the regional level, leading to mutually agreeable procedures to address issues of common concern. Global forest problems need global efforts and collective measures by the international community as a whole.

An institutionally structured multilevel approach is needed, in order to address forests and forestry, and to conceive and implement concerted policies for maintaining and developing forests for the benefit of people, nations and mankind as a whole. Such an approach will have to be based on three pillars. These are: national commitment to the objectives of such policies, regional and where relevant global measures for coordination and cooperation, and international solidarity in order to support national and collaborative efforts.

The instrument would have to be process-oriented in as much, as it allows the elaboration of solutions by a process of discussion and consent, the exchange of information of common interest as derived from regular monitoring systems, the setting of common definitions and standards by mutual agreement, and the launching or strengthening of collaborative programmes on the transfer of expertise and technology, research, human resources development, as well as on the transfer of financial resources.

In structuring the sequence of issues that may be addressed by the instruments, different designs are possible. One is to choose a problem oriented approach as relevant to the purpose of the instrument for organizing the respective provisions. This might be done by referring to
such issues as forest development and forest conservation as well as to programmes for the establishment of new production and protection forests. An alternative approach is to structure the sequence of problems and opportunities in accordance with the overall institutional framework and the various policy and intervention levels. In view of the multiple linkages that exist between forest protection, development and conservation, it may be advantageous to choose an institutionally orientated approach.

The structure and content of the instrument should reflect this multilevel and process orientated scope. It should allow for phased policy formulation and implementation, as commensurate with the socio-economic conditions of particular countries and the specific aspects of certain forest ecosystems or geographical zones. Moreover commitments under the instrument should be consistent with an expanding transfer of resources and technologies, in accordance with the principle of a common international solidarity.

The following format is suggested for an instrument:

- Title
- Fundamental Principles
- Preamble
- Purpose and Objectives
- Interpretation
- Issues related to international coordination and cooperation
- Issues related to national policies
- Issues related to development assistance
- Arrangements for the implementation of the instrument
- Supplementary instruments such as protocols for the purposes of implementation
- Reference to provisions to other relevant international instruments
- Final Clauses.

4.2 Title of an Instrument

Suggestions made to date have generally identified forest development and forest conservation as the two substantive elements to be reflected in the title of an IIF. It may, however, be appropriate to include in the title the concept of protection of forests.

The title of an instrument should be explicit and indicate the three major components that have to be addressed. The first is the protection of forests from uncontrolled clearance and destruction as well as from harmful effects of fire, pests and pollution. The second component is sustainable development of forest resources to meet an increasing demand for goods and services, as well as the rehabilitation of degraded forests and the afforestation of new production and protection forests. The third component is the need to maintain the biological diversity of forest areas, as well as to conserve representative and unique types of the existing forest ecosystems in their natural state.
The terms "forest protection", "sustainable forest development" and "forest conservation" are used in different ways. Moreover, there is also the term "preservation" that can overlap with "conservation" and "protection". Thus, it will be important to choose the most internationally acceptable and understood terminology for the three suggested components and to formulate appropriate definitions, for the purpose of interpretation of the instrument.

4.3 Fundamental Principles
This section should refer to principles which are relevant in the context of forest protection, development and conservation and which would govern the general content and specific provisions of an IIF and its implementation.

The following principles are suggested for consideration:

**National sovereignty and stewardship:**

of states over the management, protection and utilization of forests under their jurisdiction

**Responsibility of mankind:**

to ensure the conservation and wise use of forests for the benefit of present and future generations, with particular reference to their global environmental and economic importance

**Equitable sharing of responsibilities by the countries and the international community:**

of the responsibilities and costs for forest protection, development and conservation, including the application of appropriate trade arrangements, financial support to forest development programmes and financial compensation mechanisms, and to off-set opportunity costs of forest conservation without commensurate use.

**Phased Implementation:**

of the commitments under an IIF, having regard to the resource and technology constraints among participating countries, and based on objectives, targets, timetables and programmes, as established by national policies and mutual agreement.

4.4 Reasons and Motives for an IIF
The preamble should present the principle reasons and motives that led to the need for an instrument. It would refer in particular to the economic, environmental, social, cultural and spiritual values of trees and forests and to the need to improve their utilization and sustainable development, as well as the need to increase protection for trees, forests and forest lands.

The following statements might, therefore, be considered on this context:

**Linkage between sustainable forest development and conservation:**

- acknowledgement of the close links between sustainable forest development and conservation
• acknowledgement of the increasing world-wide demand for forest products and environmental benefits of forests, and of the need to harmonize economic use and environmental conservation

• acknowledgement that given appropriate policy and institutional frameworks, the necessary scientific and technical expertise to practice sustainable forest management exists

Need for the protection of forests, trees and forest lands:
• acknowledgement of the necessity to protect the existence and stability of forests and trees from harmful effects in particular from air pollution, as well as to protect trees and forests from indiscriminate clearance and destruction

• acknowledgement of the need for effective environmental protection and improved land use policies, in order to ensure the protection of such forests as are to be maintained on a permanent basis

Contribution of forest resources utilization to socio-economic development:
• recognition of the contribution of forest resources utilization to sustainable socio-economic development and to the satisfaction of basic human needs, including wood, non-wood products, food security and fuel

• recognition of the need to formulate policies and practice rules that consider the needs of the present and future generations

Contribution to rural and socio-economic development:
recognition of the importance of forest resources utilization and management to rural and socio-economic development, of the importance of trees in integrated agroforestry production systems, and of the importance of forestry as a supportive element to agricultural production

Importance of traditional forest users and uses:
recognition of the importance of traditional forest uses for people living in and around forests, who have a close dependence on and a deep knowledge of, practical values of forests and a vested interest in their sustainable use

Social and cultural values:
recognition of the cultural and spiritual values of trees and forests and their importance for maintaining social and cultural diversity

Environmental importance of forest ecosystems:
recognition of the environmental importance of forest ecosystems, in particular in contributing to stable climatic conditions

Soil, Watershed and Groundwater Protection:
recognition of the protective role of forests, in particular with regard to the protection of soil, watersheds and groundwater and the need to protect, rehabilitate and develop effectively such watersheds

**Biological Diversity:**
recognition of the importance of forests for maintaining global biological diversity

**Phased approach:**
recognition that countries at various levels of economic development will have to choose a phased approach in implementing the objectives of the instrument

4.5 Purpose of the Instrument
This section would describe the purpose of an IIF, to make clear the reasons for the necessity of an instrument and what it should accomplish. This would then determine the various objectives and alternatively the objectives of the instrument would be reflected in the defined purpose. Both should be consistent with the preamble and the fundamental principles of an IIF.

The general purpose of an IIF should refer to major processes and issues.

**Processes to be addressed:**
- to provide a framework for agreement on mutually acceptable solutions to forest problems, at the global, regional or transboundary level
- to stimulate and support appropriate national policies and programmes
- to strengthen international coordination and cooperation in order to ensure the implementation of binational, multinational and international policies and programmes
- to harmonize and expand international technical and financial cooperation relevant to the objectives of an IIF

**Issues to be addressed:**
- to ensure the protection of forests and wooded lands
- to advance the wise use of trees and forests in the common interest, based on sustainable forest development
- to maintain biodiversity and to ensure forest conservation for the benefit of present and future generations
- to collect and distribute credible and timely data on the state of forests and forest protection, conservation and management
- to establish, through consensus, targets for forest cover and forest biomass world-wide
- to establish internationally accepted norms for environmentally sustainable forest management
4.6 Objectives to be addressed
Depending on the consensus reached on the nature of an IIF, a wide range of objectives may be considered. If the purpose of an IIF is defined along the lines of the previous section, the objectives might be structured in the following manner:

**Protection of forests:**
shared responsibility of countries and of the international community to cooperate in order to protect forests from human activities which endanger their stability or existence at the global, regional or transboundary level.

**Forest development and conservation:**
shared responsibility of countries and of the international community to cooperate for the promotion of sustainable forest development and conservation policies and programs and to avoid negative environmental and economic impacts from the use of forest resources at the transboundary, regional or global level.

**Sustainable forest management:**
- shared responsibilities of countries and of the international community to cooperate for the promotion of sustainable forest management that:
  - harmonize the economic and environmental benefits to society by managing forests on environmentally sustainable basis, to provide for a wide range of goods and services
  - favour local participation in sharing such benefits and in decision making, with regard to the management of forests
  - integrates forestry activities into the overall context of rural development

**Maintaining biological diversity:**
shared responsibilities of countries and of the international community to cooperate in order to maintain the biodiversity of forest ecosystems and their important role for the conservation of nature, landscape and wildlife habitat

**Cultural values:**
shared responsibilities of countries and of the international community to cooperate in order to respect the cultural and spiritual values associated with forests and trees

4.7 Interpretation
This section should refer to important terms and definitions which are critical to the operations of an IIF. It should present comprehensive and unequivocal definitions of terms. Wherever possible, such interpretation should use or refer to accepted definitions, already in use internationally. The following are the terms and definitions that may require specific interpretation for the purposes of an instrument.
General Aspects of Trees, Forests and Forestry:
- trees, forests, forest ecosystems and wooded lands
- forest protection; forest development; forest conservation
- forestry and agroforestry
- forest industry and forest sector

Legal Status of Forests and Wooded Lands:
- protected forests and wooded lands
- permanently reserved forests and wooded lands
- demarcated permanent forests and wooded lands
- protection, production and recreation forests

Sustainable Forest Development:
- sustainable development; sustainable use of forest resources
- sustainable forest management; sustainable forest yield
- multiple use of forests
- forest rehabilitation and reforestation

Forest Conservation:
- genetic diversity, species diversity, biological diversity, ecosystem diversity, landscape diversity
- forest conservation areas; protected areas
- virgin and old growth forests
- endangered species; ecological reserves
- unique forest types; representative forest types

5. MEASURES TO BE ADDRESSED IN AN INSTRUMENT
5.1 Strengthening of the National Policy Framework
This section would deal with measures related to the formulation, revision and implementation of national policies, that are material to the purpose and objectives of an IIF.

National policies are obviously determined to a large extent by country and sometimes even site specific factors and requirements, including socio-economic, environmental and political considerations. The degree to which such policies and specific measures in the field of forest development and conservation would be of relevance to an IIF, has to be determined in relation to their international and/or transboundary impact or consequences. This implies that their impact should be related to the provisions of the instrument that deal with international coordination and cooperation. It also implies that measures, whether related to national policies or aimed towards improved international coordination and cooperation have to be mutually consistent and supportive.

In the present context the term "national policies" not only refers to specific forest development and conservation policies, but also to a wide range of other policies related to, for instance,
land ownership and usage rights, land use and land use planning, rural development, agriculture and grazing, environmental protection and nature conservation. Such policies, which may support or restrict forest development and conservation, are relevant to the objective of an IIF. On the other hand, specific forest policies may also be supportive of and contradictory to the broader objectives of rural development, environmental protection and nature conservation policies.

*With regard to the formulation or revision of national policies the following objectives appear to be of particular importance:*

**Multipurpose approach:**
harmonize ecological, socio-economic, cultural and spiritual dimensions to the conservation, development and use of forests

**Sustainable forest management:**
support to effective forest management as well as other forms of integration of trees, in sustainable land use, which contribute to environmental integrity and land productivity

**Creation of new forest resources:**
support the rehabilitation of degraded forests and the establishment of new production and protection forests

**Rural and social development:**
integration of forest activities in rural and social development and promote the use of trees in integrated agroforestry production systems

**Local benefits and participation:**
sustained or expanding flow of a fair share of direct and indirect benefits to people living in the vicinity of forest, and promote appropriate level of local participation in decision making, in the planning management and use of forest resources

*With regard to strengthening the framework of national policies the following aspects appear to be of particular importance:*

**Harmonization of national forest policies:**
adequate consideration of forest development and conservation within national priorities and harmonization of forest policies with rural development and environmental policies

**Integrated land use and land development decisions:**
comprehensice land use planning and consistent land use decisions which support sustained land development and forest management
**Integrated forest development and conservation policies:**
integrated approach in policy formulation in order to provide for a sustained production of wood, as well as non-wood forest products, to maintain or increase the protective and recreational values of forests and trees, and to maintain biodiversity of forest ecosystems

**Local benefits and participation:**
recognition of the needs of communities depending on forests, increased benefits from forest resources development to local people and local involvement in decision making on forest development and conservation programmes

**Strengthening of forest institutions:**
identification of a clear institutional focus for forest-related activities, strengthening of such institutions, and revision of applicable legislation

**Incentives and environmental impact assessment:**
use of incentives contributing to improved forest utilization, modification of tax regimes, subsidies and related provisions, and establishment of procedures concerning environmental assessments for projects with significant effects on forests

**With regard to international coordination and collaboration the following aspects could be considered:**
- formulation or revision of forest policies and other relevant national policies to harmonize with the purpose and objectives of an IIF
- exchange of relevant information and if necessary, implementation of cooperative action for ensuring adequate protection policies for forests and forest areas
- formulation of internationally acceptable standards for the preparation of forest development and conservation plans
- exchange of information on the objectives, targets and timetables of national policies and plans at the international level
- coordination of policies and plans with potential impacts at the transboundary or regional levels
- exchange of information and if necessary, the institution of incentives and the minimization of disincentives, as relevant to the purpose and objectives of an IIF, at the transboundary, regional and global levels
- exchange of information and if necessary, coordination and cooperation on the results of environmental impact assessments for large scale infrastructural projects, agricultural development programmes and industrial projects, which significantly affect the maintenance of forest cover at the transboundary or regional levels
• setting of mutually agreeable standards for the preparation of the environmental impact assessments

5.2 Coordination and Cooperation on Global, Regional and Transboundary Issues

This section would refer to issues addressed in a framework of international coordination and cooperation. The issues may be global, related to certain regions, ecosystems or geographical units, or linked to transboundary problems and opportunities.

International coordination and cooperation may be action oriented and provide the basis for specific arrangements to establish targets and objectives or determine well described activities and measures. Alternatively, it may be process oriented by providing, subject to mutually agreed procedures, for the exchange of information, the setting of applicable standards and guidelines, coordination of national policy formulation, harmonization in the preparation and implementation of collaborative programmes and projects, as well as technology transfer.

Considering the wide range of forest ecosystems and site specific factors, the multitude of socio-economic needs in relation to the utilization of forest resources, and the evolutive nature of an international coordination and cooperation mechanism, it is likely that the initial emphasis will be on a process-oriented approach. This would facilitate the elaboration of flexible and dynamic solutions, that could be adjusted in accordance with regional and transboundary necessities.

Bearing in mind the suggested purpose and objectives of an IIF, the following measures of coordination and cooperation should be considered:

Forest resources monitoring systems:
• establishment of systems for regular monitoring, at the national, regional and global levels, on the state of forests, including parameters such as area, biomass, status and major uses
• setting of internationally acceptable standards for various kinds of monitoring systems in order to facilitate the compatibility of results and their synthesis
• regular and timely exchange of credible information, in order to provide for policy adjustments and specific measures at the national, transboundary and global levels

International collaborative programmes for technology transfer, research and human resources development:
• development of multinational cooperation in sharing knowledge, technology and expertise
• development of cooperative research programs to address issues of common interest
• strengthen of research systems and programmes on forest conservation and management, afforestation, agroforestry, forest products utilization, and related fields
**Sustainable forest development:**
- introduction of sustainable management of forests, in accordance with internationally developed and accepted norms for forest management practices
- exchange of information on experiences with forest ecosystem management in different geographical regions
- setting of internationally acceptable standards for the exchange of genetic material as necessary, to protect biodiversity and to increase forest productivity
- progressive reduction and eventual elimination of unsustainable forestry practices

**International trade in wood and forest products:**
- establishment of trade policies which encourage sustainable development of forests and which improve the terms of trade for wood and forest products, from sustainably managed forest resources
- setting of internationally acceptable identification standards for such wood and forest products
- removal of non-tariff barriers, such as quantitative restrictions, as well as other non-tariff barriers for wood and forest products in general
- facilitation of trade of forest products if consistent with internationally agreed measures of conservation

**Protection of forests and forest lands:**
- establishment of early warning and detection systems in particular at the transboundary and regional level, in order to minimize forest destruction by fire, pest attacks and other natural calamities
- coordination and cooperation among the participating parties to ensure the sharing of the necessary actions and the transfer of appropriate technology
- setting of transboundary, regional or multinationally agreed standards on specific objectives, targets and measures, for specific forest ecosystems or forest types
- coordination and cooperation among the participant parties in implementing agreed objectives, targets and measures
- setting of internationally agreed air quality standards to reduce air pollution, in order to avoid harmful effects on forests and forest lands
- coordination and collaboration at the global, regional and transboundary levels, in order to implement air quality standards

**Forest conservation and biodiversity:**
- exchange of information on existing and proposed forest conservation areas and protected areas in forests, their ecological condition and their legal status, in order to ensure the conservation of biodiversity at regional and global levels
• establishment of an internationally recognized status and a list under an IIF, for forests having a global or at least regional conservation importance, as part of mankind's heritage

• conservation of a reasonable proportion of representative and unique examples of natural forest ecosystems and of other forests of importance to maintain biodiversity in accordance with accepted international standards

• establishment of the necessary procedures to modify or expand such standards, if of particular importance to forest conservation

• establishment of procedures for the coordination and cooperation on specific transboundary issues, such as the conservation of watersheds, wildlife habitat or protected forest ecosystems contiguous countries

5.3 International Development Cooperation

This section would deal with issues relevant to the formulation, coordination and implementation of international development cooperation, as consistent with the purpose of an IIF.

Reference should be made to existing arrangements which provide a basis for addressing relevant issues and opportunities, and which allow for a coordinated approach between national objectives, policies and programmes, and international technical and financial assistance measures. The Tropical Forest Action Programme (TFAP) is perhaps the most relevant in this context. It is at present a widely recognized framework for assisting countries to formulate or revise their forest related policies and programmes. It also provides for a dialogue between such countries and the international donor community. In this sense the activities of the TFAP might be expanded and, if necessary, modified in accordance with the objectives of an IIF. On the other hand, an IIF would offer an appropriate institutional arrangement for continuing and strengthening the efforts of the TFAP and for inserting these efforts into the broader context of a world-wide network of cooperation.

Measures with regard to international development cooperation:

The parties might agree to pledge an expanding proportion of technical and financial development assistance, for bilateral and multilateral cooperative programmes relevant to the purpose of an IIF. The objective of such cooperative programmes should be supportive to the objectives of the instrument and in particular:

• encourage the transfer of technology and investment, in order to promote sustainable development of forests

• encourage complementarity development programmes and projects in agriculture and rural development, which have a positive impact on sustainable forest development and conservation

• refrain from development programmes and projects which have a negative impact on sustainable forest development and conservation respectively and have not been subject to an assessment of such impact
Measures of multilateral and bilateral development cooperation should in particular, be directed to:

- strengthen national institutional, scientific, technical and economic capabilities, in relation to forest protection, sustainable development and conservation
- support activities directly related to forest protection, sustainable development and conservation, conducted by international governmental and non-governmental institutions
- encourage participation in a world-wide network to develop, sustain and utilize appropriate technology, such as the proposed Global Forest Resources Monitoring Programme, to obtain accurate and timely information on the extent, health and economic potential of forests on a world-wide basis
- assist countries that are parties to an IIF to meet their obligations under it Reference to existing arrangements such as the Tropical Forest Action Programme
- facilitate international trade in forest products, particularly those derived from forests managed according to internationally accepted norms.

Measures related to an increase of international resource flows:

Parties to an instrument could agree to increase the international resource flows in order to assist countries to foster the objectives of the instrument. The transfer of resources could take different forms, in particular the following:

- increasing investment flows through existing mechanisms of multilateral and bilateral funding
- new sources of funds, such as a world-wide international fund for forest protection, development and conservation
- general debt relief operations and structural adjustment measures
- compensation systems to off-set the opportunity costs to the national economies for forests that are reserved for environmental protection reasons and in a regional or global context

Irrespective of funding arrangements and funding channels, the objectives and provisions of an IIF could provide guiding principles to establish priorities at national, regional and global levels.

6. PROCEDURAL ASPECTS OF AN INSTRUMENT
6.1 Statutory Bodies and Funding Arrangements

This section would contain provisions which allow for the functioning of an instrument and for its evolutionary modifications and for periodic review and adjustments.

At this stage, it seems premature to advance detailed proposals for the institutional arrangements necessary for the implementation of an instrument. This aspect would need to be fully developed when an adequate level of consensus has been reached, on the nature and the
substantive content of an IIF. The following are suggestions for consideration based on the general requirements of international instruments of this type.

**Conference of the Parties:**
A Conference of the Parties would be necessary as the supreme authority and decision-making organ. Membership and voting procedures would have to be determined. The Conference could meet at regular intervals, for example every two years in order to deal with statutory issues assigned to it by an instrument.

**Council:**
The Conference may wish to establish a Council as the highest decision making body active in between Conferences of the Parties, with delegated authority from the Conferences. The Council is normally composed of a prescribed number of elected representatives and responsible for current affairs, subject to the approval of the Conference.

**Secretariat:**
A Secretariat to an International Instrument would be necessary to prepare and service meetings of the Conference and of the Council. It would receive reports and other documentation and would disseminate information to governments, institutions and the general public as appropriate, on matters related to the instrument. This secretariat function could be entrusted to an existing intergovernmental body, possibly within the UN system, or to a new organization.

**Committees and Working Groups:**
Committees might be established by decision of the Conference, to deal with policy and technical issues at the global, regional or transboundary levels. Working groups could be established by the Conference or the Council, to deal with specific issues related to the purpose of the instrument.

**Funding Arrangements:**
Specific funding arrangements would be required to service the International Forest Instrument, to allow for the functioning of its statutory Bodies and Secretariat, and for central reporting and information exchange tasks. The necessary funds could be raised through mandatory payments by the Parties to an instrument, based on an agreed assessment method.

**6.2 Supplementary Instruments**
Since the legal form of an IIF has yet to be decided and will largely depend on the result of ongoing discussions in various international fora, the presented framework does not distinguish between obligations that would eventually be covered in an IIF itself and those forest related commitments that may become part of supplementary instruments to an IIF. Such distinctions would be possible only when the overall legal status and structure of an IIF and its relationship to other international undertakings, has been determined.
Measures under an IIF may be principally subject matter oriented and binding, i.e. provide for the implementation of certain specified acts and measures or for their interdiction. Measures may also be process oriented, i.e. refer to certain institutionalized procedures for information exchange, discussion and negotiations, in order to find mutually agreeable solutions for specific problems.

It is the use of a process oriented formulation approach that would determine to a large extent, whether an IIF would be a more detailed and regulatory instrument in itself or whether it would be an open ended framework instrument, that has to be completed through supplementary instruments. The more process oriented an IIF might be, the more it would have to be implemented by complementary instruments referring to specific global, regional and transboundary issues and opportunities.

In principle, the supplementary instruments to an IIF may consist of protocols covering agreements, guidelines, standards, definitions or defined practices. Through protocols, targets for specific measures could be set and reports on progress be requested. Guidelines, definitions and practices would mainly serve to achieve a common approach with regard to the purpose and objectives of the instrument.

6.3 Reference to Other International Instruments
This section would be designed to make reference to other international conventions, protocols and agreements that are of importance to the purpose of this convention. It would indicate the specific instrument and the particular provisions, and establish the necessary coordination and avoid duplication.

An IIF could provide specifically for the possibility and the statutory mechanisms, to transfer all or part of the content of certain provisions into the framework of an IIF, if this should be appropriate, subject to mutual agreement of the parties concerned.

6.4 Final Clauses
Entry into force: Following signature, entry into force would depend on accession, ratification or acceptance by an appropriate number of countries, possibly with minimum requirements from each major region of the world, covering all types of forest. This might also form the basis for a weighted voting system.

This section would also deal with other procedural aspects for operating an IIF such as:

- signature, ratification and acceptance
- accession
- settlement of disputes
- withdrawal
- depositary
- amendments
- authentic texts
References


Annex I: The Most Important Countries of the World in Terms of Forest Area in 1980

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Forest Area (in million hectares)</th>
<th>% of Total World Forest Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>USSR</td>
<td>739.9</td>
<td>20.53</td>
</tr>
<tr>
<td>2</td>
<td>Brazil</td>
<td>518.3</td>
<td>14.38</td>
</tr>
<tr>
<td>3</td>
<td>Canada</td>
<td>264.1</td>
<td>7.33</td>
</tr>
<tr>
<td>4</td>
<td>USA</td>
<td>226.4</td>
<td>6.28</td>
</tr>
<tr>
<td>5</td>
<td>Zaire</td>
<td>177.6</td>
<td>4.93</td>
</tr>
<tr>
<td>6</td>
<td>China</td>
<td>127.8</td>
<td>3.55</td>
</tr>
<tr>
<td>7</td>
<td>Indonesia</td>
<td>118.8</td>
<td>3.30</td>
</tr>
<tr>
<td>8</td>
<td>Peru</td>
<td>70.7</td>
<td>1.96</td>
</tr>
<tr>
<td>9</td>
<td>Bolivia</td>
<td>66.8</td>
<td>1.85</td>
</tr>
<tr>
<td>10</td>
<td>India</td>
<td>59.3</td>
<td>1.65</td>
</tr>
<tr>
<td>11</td>
<td>Angola</td>
<td>53.8</td>
<td>1.49</td>
</tr>
<tr>
<td>12</td>
<td>Colombia</td>
<td>51.8</td>
<td>1.44</td>
</tr>
<tr>
<td>13</td>
<td>Mexico</td>
<td>48.5</td>
<td>1.35</td>
</tr>
<tr>
<td>14</td>
<td>Sudan</td>
<td>47.8</td>
<td>1.33</td>
</tr>
<tr>
<td>15</td>
<td>Argentina</td>
<td>45.1</td>
<td>1.25</td>
</tr>
<tr>
<td>16</td>
<td>Tanzania</td>
<td>42.1</td>
<td>1.17</td>
</tr>
<tr>
<td>17</td>
<td>Papua New Guinea</td>
<td>38.2</td>
<td>1.06</td>
</tr>
</tbody>
</table>

17 countries account for three quarters of the total forest area of the world.

(3) Between 30 and 38 million ha of forests: Venezuela, Botswana, Central African Republic

(6) Between 20 and 30 million ha of forests: Congo, Gabon, Zambia, Sweden, Japan, Malaysia

(16) Between 10 and 20 million ha of forests: Chad, Guinea, Madagascar, Mozambique, Nigeria, Senegal, Zimbabwe, Ecuador, Guyana, Paraguay, Surinam, Finland, France, Cambodia, Laos, Thailand

N.B. Closed and open forests (> 10% crown cover) including man-made (plantations) forests.

Source: An Interim Report on the State of Forest Resources in the Developing Countries- FAO, 1988
### Annex II: Forest Products: Production, Value of Trade and Prices

#### Production

<table>
<thead>
<tr>
<th></th>
<th>WORLD</th>
<th>DEVELOPING</th>
<th>DEVELOPED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>average</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foolwood &amp; Charcoal</td>
<td>1668 1719 1741</td>
<td>1391 1448 1475</td>
<td>277 271 266</td>
</tr>
<tr>
<td>Industrial Roundwood</td>
<td>1586 1672 1676</td>
<td>378 401 402</td>
<td>1209 1271 1274</td>
</tr>
<tr>
<td>Sawlogs and Vencer, Conif</td>
<td>694 723 715</td>
<td>76 76 73</td>
<td>618 647 642</td>
</tr>
<tr>
<td></td>
<td>267 290 292</td>
<td>163 130 183</td>
<td>104 110 109</td>
</tr>
<tr>
<td>Pulpwood</td>
<td>397 424 433</td>
<td>48 52 52</td>
<td>349 372 331</td>
</tr>
<tr>
<td>Other Industrial Roundwood</td>
<td>228 236 237</td>
<td>90 94 94</td>
<td>138 142 143</td>
</tr>
<tr>
<td>Sawmwood and Sleepers</td>
<td>485 506 501</td>
<td>108 113 114</td>
<td>377 393 387</td>
</tr>
<tr>
<td>Wood Based Panels</td>
<td>117 127 129</td>
<td>20 24 25</td>
<td>97 103 104</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulp for Paper</td>
<td>147 159 162</td>
<td>19 21 22</td>
<td>128 139 140</td>
</tr>
<tr>
<td>Paper and Paperboard</td>
<td>202 225 231</td>
<td>30 35 36</td>
<td>173 191 195</td>
</tr>
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</table>

#### Value of trade

<table>
<thead>
<tr>
<th></th>
<th>US$ 1000 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roundwood Imports</td>
<td>8.84 11.46 13.06</td>
</tr>
<tr>
<td>Roundwood Exports</td>
<td>6.25 8.54 9.03</td>
</tr>
<tr>
<td>Sawnwood &amp; Panels Imports</td>
<td>19.06 25.52 27.70</td>
</tr>
<tr>
<td>Sawnwood &amp; Panels Export</td>
<td>17.65 24.05 26.77</td>
</tr>
<tr>
<td>Pulp &amp; Paper Imports</td>
<td>38.21 55.18 59.30</td>
</tr>
<tr>
<td>Pulp &amp; Paper Exports</td>
<td>35.74 53.22 57.80</td>
</tr>
<tr>
<td>All Forest Products Imports</td>
<td>66.61 92.84 100.74</td>
</tr>
<tr>
<td>All Forest Products Exports</td>
<td>60.28 86.68 94.59</td>
</tr>
</tbody>
</table>

**Pulp for Paper**

**Paper and Paperboard**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Coniferous Logs (Germany F.R.)</td>
<td>82</td>
<td>73</td>
<td>58</td>
<td>49</td>
<td>67</td>
<td>77</td>
<td>79</td>
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<td>Coniferous Logs (USA)</td>
<td>93</td>
<td>78</td>
<td>75</td>
<td>74</td>
<td>78</td>
<td>90</td>
<td>104</td>
<td>125</td>
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<tr>
<td>Tropical Logs (Cote d'Ivoire)</td>
<td>93</td>
<td>81</td>
<td>78</td>
<td>78</td>
<td>141</td>
<td>167</td>
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<td>148</td>
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<tr>
<td>Tropical Logs (Sabah)</td>
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<td>97</td>
<td>115</td>
<td>86</td>
<td>95</td>
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</tr>
<tr>
<td>Coniferous Sawnwood (USA)</td>
<td>93</td>
<td>123</td>
<td>112</td>
<td>114</td>
<td>119</td>
<td>126</td>
<td>129</td>
<td>146</td>
</tr>
<tr>
<td>Tropical Sawnwood (Pen. Malaysia)</td>
<td>222</td>
<td>237</td>
<td>222</td>
<td>182</td>
<td>215</td>
<td>237</td>
<td>247</td>
<td>347</td>
</tr>
</tbody>
</table>

**US$ / cubic meter**

| Wood Pulp (Sweden) | 338 290 363 | 327 344 462 | 551 608 |
| Newsprint (USA)    | 486 465 497 | 510 500 543 | 580 564 |
| Printing & Writing (Italy) | 900 799 201 | 739 932 1063 | 1097 ..... |
| Kraftliner (Germany F.R.) | 385 362 433 | 404 459 573 | 606 597 |

**US$ / ton**

Source: FAO 1991362
Annex III: List of Existing International Instruments Related to Forests

Forest Instruments
The only forest instrument operating on a global level is the International Tropical Timber Agreement (Geneva 1983). This agreement provides a framework for cooperation and consultation between tropical timber producing and consuming members, promotion of tropical timber trade, support to research and development, and encouragement of reforestation, forest management and wood utilization. The agreement is administered by the International Tropical Timber Organization (ITTO).

Natural Resources Instruments
Natural resources instruments operating on a global level are: the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar 1971); the Convention for the Protection of the World Cultural and Natural Heritage (Paris 1972); and the Convention on International Trade in Endangered Species of Wild Flora and Fauna "CITES" (Washington 1973). The first and second of these conventions apply primarily to areas, and the third to species, identified in each case according to certain criteria and designated for inclusion in lists that afford them special protection. All provide for contributions from the parties.

Natural resources instruments operating at regional level are: the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (Washington 1940); the African Convention for the Conservation of Nature and Natural Resources (Algiers 1968); the Treaty for Amazonian Cooperation (Brasilia 1978); the Convention on European Wildlife and Natural Resources (Bern 19/9); and the ASEAN Agreement on the Conservation of Nature and Natural Resources (Kuala Lumpur 1985). With differences attributable to their largely differing adoption dates, these legal instruments aim at the conservation, utilization and development of soil, water, flora and fauna resources from an economic, educational, cultural and aesthetic point of view. The modernity of the ASEAN Agreement is reflected in its close attunement to the principles of the World Conservation Strategy. The Treaty for Amazonian Cooperation, inspired as it is by the aim of promoting the harmonious development of the Amazonian region, goes beyond conservation to such topics as coordination of health services or freedom of commercial navigation.

Pollution Control Instruments
A pollution control instrument operating on a global level is the Convention for the Protection of the Ozone Layer (Vienna 1985), aimed at promoting observation, research and information exchange in order to counter the adverse effects of modifications in the ozone layer caused by man. "Adverse effects" are defined as changes in the physical environment of biota, including changes in climate which have significant deleterious effects on human health or on the composition, resilience and productivity of natural and managed ecosystems, or on materials useful to mankind. The Protocol on Substances that Deplete the Ozone Layer (Montreal 1987) provides a regulatory framework for reducing emissions of CFCs and halons.

A pollution control instrument operating on a regional level is the Convention on Long-Range Trans-boundary Air Pollution (Geneva 1979) aimed at limiting and, wherever possible, preventing air pollution and at protecting both man and his environment against it by cooperating in the conduct of research and the development of appropriate measures.

Source: FAO 1990 - COFO 90/3 (a)
INTERNATIONAL CONVENTIONS BEING DEVELOPED

Annex IV: Activity Schedule of the Three Conventions

1988
1989
1990
1991
1992

FORESTRY

CLIMATE CHANGE

BIODIVERSITY (UNEP)

UNEP GC SPECIAL SESSION (AUGUST)

UNCED (SEPTEMBER)

UNGA 45 (SEPTEMBER-DECEMBER)

FAO CONF (NOVEMBER)

WMO EXEC CTTEE (JUNE)

UNEP GC (MAY)

OTTAWA MTG (FEBRUARY)

UNGA 46 (SEPTEMBER-OCTOBER)

SWCC/GENEVA (OCTOBER-NOVEMBER)

1st WG MEETING (FEBRUARY)

WASHINGTON

FEDERAL CONFERENCE (APRIL)

UNGA 46 SPECIAL SESSION (JUNE)

G-7 DECLARATION (JULY)

FAO REPORT (MAY)

FAO CONF (NOVEMBER)

UNEP GC (MAY)

UNEP GC 18 (MAY)

ENVIRONMENT CANADA
October 1990
Explanatory Notes to Annex V

- Forests are complex ecological systems and composed of many species and soil types (Line 3), that provide a wide range of economic, environmental, social, cultural and spiritual benefits (Line 5).

- Nations have the sovereign right to develop and use the forest resource in context of their own national economic, environmental and social objectives (Line 2).

- Forests have now emerged on the international policy agenda. Forest-related issues and opportunities may be aggregated into three categories, i.e. national, transboundary regional, and global (Line 4). Addressing these issues and opportunities would require consensus and cooperation at national, multinational and international levels.

- A number of existing and proposed international and multinational legal instruments, at global and regional levels, aim to address forest related issues in a fractionated manner (Line 6).

- In view of the economic, environmental and social role of forests, there is a need to formulate an all encompassing forests framework, that is cohesive and comprehensive and one that accommodates both the economic and environmental dimensions. Sustainable development and conservation of forests is at the heart of an International Instrument on Forests (Line 1). Sustainable Forest Development involves the maintenance of the productive capacity, renewal capacity and biodiversity of forest ecosystems.

- UNCED ’92 provides a window of opportunity towards an International Instrument on Forests (Line 7).