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Informacija za pomoč pri uporabi standardov ISO 14001 in ISO 14004 za  
uporabo v gozdarstvu in kmetijstvu

Information to assist forestry organizations in the use of Environmental Management  
System standards ISO 14001 and ISO 14004

## iTeh STANDARD PREVIEW

Information pour assister les organismes forestiers dans l'utilisation des normes ISO  
14001 et ISO 14004 relatives aux systèmes de management environnemental

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# TECHNICAL REPORT

# ISO/TR 14061

First edition  
1998-12-15

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## Information to assist forestry organizations in the use of Environmental Management System standards ISO 14001 and ISO 14004

*Information pour assister les organismes forestiers dans l'utilisation des  
normes ISO 14001 et ISO 14004 relatives aux systèmes de management  
environmental*

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## ISO/TR 14061:1998(E)

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The main task of Technical Committees is to prepare International Standards, but in exceptional circumstances a technical committee may propose the publication of a Technical Report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an international standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an international standard;
- type 3, when a technical committee has collected data of a different kind from that which is normally published as an international standard (“state of the art”, for example).

Technical Reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

ISO/TR 14061, which is a Technical Report of type 3, was prepared by Technical Committee ISO/TC 207, *Environmental management*, Working Group 2, *Forestry*.

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The following excerpt from Resolution 11/96 of TC 207 identifies the relationship between this Technical Report and other important normative aspects of the subject:

“The report must be consistent with the following:

It must not specify performance levels for forestry, and therefore the Report in itself cannot form the basis for performance claims.

It must not create a product label.”

The Working Group was directed to conduct its work through an open and inclusive consensus process and in liaison with ISO/TC 207/SC 1.

## Introduction

Sustainable forest management (SFM) has emerged as a major global issue. Forest management issues came into sharp focus during the 1992 United Nations Conference on Environment and Development (UNCED). A non-legally-binding authoritative statement of principles for a global consensus on the management, conservation, and sustainable development of all types of forests was adopted. Since UNCED, there have been numerous governmental and non-governmental initiatives involving interested parties addressing forest management, including the development of SFM principles, and intergovernmental Criteria & Indicators. Forestry is unique in the degree to which it has been subject to the development of international and domestic principles, criteria, and indicators for sustainable management. All international initiatives define SFM in broad terms that include ecological, social, and economic aspects.

Concurrent with the UNCED process, the ISO Strategic Advisory Group on the Environment (SAGE) recommended the establishment of ISO Technical Committee 207 (TC 207) to develop the ISO 14000 series of International standards addressing environmental management systems and tools, applicable to all kinds of organizations. ISO 14001 provides the requirements, and ISO 14004 the guidance, for implementation of environmental management systems that contribute to better management of an organization's significant environmental aspects and impacts of its activities, products, and services.

In response to the developments outlined above, forestry organizations can implement ISO 14001 while seeking consistency with the various intergovernmental and non-governmental sets of SFM principles and criteria and indicators. This Technical Report seeks to preserve the integrity and applicability of the generic ISO 14001, while providing forestry organizations with informative reference material outlining international and national developments in the forestry sector that can assist forestry organizations in implementing the generic International Standard for an environmental management system.

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# Information to assist forestry organizations in the use of Environmental Management System standards ISO 14001 and ISO 14004

## 1 Scope

This Technical Report is designed to be used in conjunction with ISO 14001 and ISO 14004. It provides a link between the management system approach of ISO 14001 and the range of forest policy and forest management performance objectives, including SFM principles and intergovernmental Criteria & Indicators, that a forestry organization can consider. It also provides references to the ISO 14000 series of International Standards, application of forestry laws and regulations, and the other matters that a forestry organization can take into consideration as it implements an environmental management system.

This Technical Report, like ISO 14001, does not propose any forestry-specific requirements. Its content is not normative in any sense, but is intended to be informative. Moreover, it does not establish performance levels for forest management. This Technical Report therefore cannot form the basis for environmental performance claims and does not create a product label.

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## 2 Terms and definitions

For the purposes of this Technical Report, the terms and definitions given in ISO 14050 and the following apply.

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### 2.1

#### environmental aspect

element of an organization's activities, products or services that can interact with the environment

**NOTE** A significant environmental aspect is an environmental aspect that has or can have a significant environmental impact.

### 2.2

#### environmental impact

any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products or services

### 2.3

#### environmental management system

##### EMS

the part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy

**NOTE** For the purposes of this Technical Report, the abbreviation EMS is used specifically in reference to ISO 14001:1996.

### 2.4

#### forest

generally considered to be a plant community of predominantly trees and other woody vegetation growing together, its land, flora and fauna, their interrelationships, and the resources and values attributed to it

**NOTE** Forests vary greatly around the world depending on the climate, soil, history and culture of the country involved. Many countries have a definition of forest included in legislation.

**2.5****organization**

company, corporation, firm, enterprise, authority or institution, or part or combination thereof, whether incorporated or not, public or private, that has its own functions and administration

NOTE For organizations with more than one operating unit, a single operating unit may be defined as an organization.

**2.6****principles, criteria and indicators**

international, national and private sector initiatives, whether governmental or non-governmental, provide a common hierarchical framework including "Principles, criteria and indicators" for evaluating progress towards achieving SFM

NOTE 1 In some initiatives, the principles are considered to be included in the criteria.

NOTE 2 For the purposes of this report, the term Criteria & Indicators is used specifically in reference to the sets of Criteria & Indicators of Sustainable Forest Management developed through the intergovernmental processes (4.2).

**2.6.1****principles**

fundamental rules which serve as a basis for reasoning and action

NOTE Principles are explicit elements of a goal such as SFM.

**2.6.2****criteria**

characteristics that are considered important and by which success or failure can be judged

NOTE The role of criteria is to characterize or define the essential elements or set of conditions or processes by which sustainable forest management may be assessed.

[Source: Intergovernmental Seminar on Criteria and Indicators for SFM (ISCI)]

**2.6.3****indicators**

quantitative, qualitative or descriptive measures that when periodically evaluated and monitored show the direction of change

[Source: Intergovernmental Seminar on Criteria and Indicators for SFM (ISCI)]

**2.7****sustainable development**

meeting the needs of the present without compromising the ability of future generations to meet their own needs

[Source: The Brundtland Report]

**2.8****Sustainable forest management**

NOTE While there is broad agreement on the concept of SFM, there are variations in the definitions developed through the various national and international initiatives. Two definitions of SFM have been included here so that the user of this Technical Report can understand the scope of the concept and the ways it has been defined by people from two different regions of the world.

**2.8.1****sustainable forest management****SFM**

process of managing permanent forest land to achieve one or more clearly specified objectives of management with regard to the production of a continuous flow of desired forest products and services without undue reduction of its inherent values and future productivity and without undue undesirable effects on the physical and social environment

[Source: International Tropical Timber Organization (ITTO)]

## 2.8.2 sustainable forest management SFM

stewardship and use of forests and forest land in a way and at a rate that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological, economic, and social functions, at local, national, and global levels and does not cause damage to other ecosystems

[Source: Pan-European (Helsinki) Process]

## 3 The ISO 14000 series of standards

### 3.1 General

The International Organization for Standardization (ISO), comprising more than 110 national standards bodies and many international liaison organizations, is a world-wide non-governmental organization founded in 1946. Its purpose is the development of International Standards to improve international communication and collaboration and to promote the smooth and equitable growth of international trade. All International Standards are developed through an open, consensus-based process and their application is voluntary.

At present, the ISO 14000 series of International Standards addresses environmental management systems, environmental auditing, life cycle assessment, environmental labelling, and environmental performance evaluation. These International Standards have potential application to forestry organizations. Additional background information on four of these standards (other than ISO 14001 and ISO 14004) can be found in annex A.

### 3.2 ISO 14001 and ISO 14004 environmental management system standards

An environmental management system is a means by which an organization addresses the significant environmental aspects and related impacts of its activities, products and services. It enables consistent management based on the organization's knowledge of its environmental aspects, related impacts, and its legal and other requirements. This is accomplished through the integration of views of interested parties, allocation of resources, training and assignment of responsibilities, and ongoing evaluation and modification of practices, procedures and processes.

There are two EMS International Standards: ISO 14001, *Environmental management systems — Specification with guidance for use*; and ISO 14004, *Environmental management systems — General guidelines on principles, systems and supporting techniques*.

ISO 14001 shares common management system principles with the international quality assurance standards ISO 9001, ISO 9002, and ISO 9003. The ISO 14001 specification provides and describes the required core elements of an EMS, based on the Plan-Do-Check-Act principle (see Figure 1), and thus incorporates the concept of continual improvement. Organizations can use ISO 14001 for internal purposes and self-declaration of conformance with the standard. ISO 14001 is the only standard in the ISO 14000 series against which an organization's environmental management system can be certified following an independent third-party audit.

The ISO 14004 Guideline provides additional background on what an environmental management system comprises, and may also prove useful for organizations that do not have an environmental management system in place, or that wish to improve an existing system. The ISO 14004 Guideline is not a specification document, and is not intended to be used for auditing and certification purposes. However, it may prove to be useful for organizations which choose to go beyond the requirements of ISO 14001.

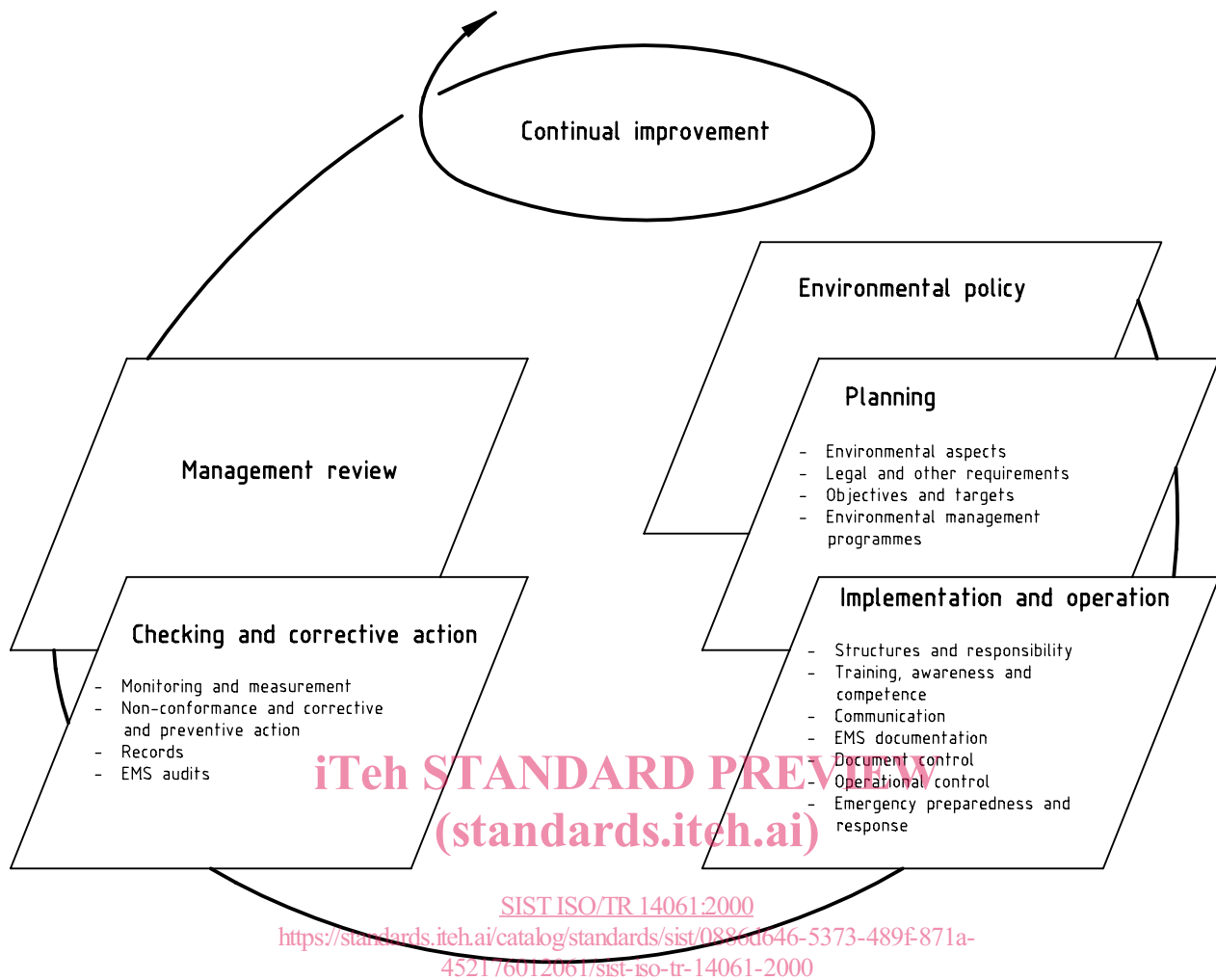


Figure 1 — Environmental management system model from ISO 14001:1996

## 4 Reference material for forestry organizations

### 4.1 General

This clause highlights reference material that can assist a forestry organization which has chosen to incorporate SFM principles into its ISO 14001 policy, objectives and targets. Sustainable forest management issues including ecological, social, and economic aspects have developed progressively over the past two decades and have addressed concerns at the global, regional, national and sub-national levels. The reference material in annex B is intended to provide information on a range of policy options for forest managers that are most appropriate for their organization. Annex B presents this information in a manner ranging from general global and intergovernmental forestry initiatives to information appropriate for a specific forest area.

### 4.2 Intergovernmental initiatives

There has been significant development of multi-lateral agreements among nations addressing environmental issues and the sustainable management of natural resources. The movement gained momentum with the 1980 publication of the World Conservation Strategy and the 1987 report of the Commission on Environment and Development, "Our Common Future," often referred to as the Brundtland Report. The forestry debate came into sharper focus during the UNCED process with "Agenda 21" and a set of "Forest Principles" being adopted at the Earth Summit in June 1992. These documents embrace the concept of sustainable management of the world's forests.

The United Nations Commission on Sustainable Development (UNCSD) has the task of promoting the implementation of Agenda 21. An *ad hoc* Intergovernmental Panel on Forests (IPF) was established in 1995. One of its functions was to facilitate international cooperation in developing Criteria & Indicators for the ecological, social and economic aspects of SFM. The work of the IPF was reported to the UN in February 1997 and will be continued through a new Intergovernmental Forum on Forests (IFF). The IFF will report in 2000.

As part of these initiatives, a number of intergovernmental processes have developed Criteria & Indicators for SFM, most of which are for use in assessing trends in the condition of forests at the national level. The intergovernmental Criteria & Indicators processes are listed below and further details and comparisons are listed in annex B:

- International Tropical Timber Organization
- Pan-European (Helsinki) Process
- Montreal Process
- Tarapoto Proposal
- Dry Zone Africa Initiative
- North Africa and Near East Initiative
- Central American Initiative of Lepaterique
- African Timber Organization Initiative

Criteria define the essential elements of sustainable forest management, while indicators provide a basis for assessing actual forest conditions. When combined with specific national goals, intergovernmental Criteria & Indicators also provide a basis for assessing progress towards SFM. Criteria and indicators can therefore play an important role in establishing the goals of national forestry programs and policies, and evaluating the effectiveness of implementation.

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All major intergovernmental initiatives mentioned above include Criteria & Indicators that address the following forestry issues:

- extent of forest resources
- health and vitality
- productive functions
- biological diversity
- protective and environmental functions
- developmental and social needs
- legal, policy and institutional framework

[Source: Intergovernmental Panel on Forests]

The interrelationship of the ecological, social, and economic aspects of sustainable forest management as defined by Criteria & Indicators developed under the Pan-European (Helsinki) Process is presented in Figure 2 as an example. This approach has been applied at the national level within Europe.

National and sub-national efforts are underway in some countries to adopt the criteria and to modify, refine, and adapt the indicators for use at the specific forest area level. Modified intergovernmental Criteria & Indicators are generally more useful at the local level in identifying significant environmental aspects an organization can consider in establishing its policy, objectives, and targets aimed at the goal of SFM.

### 4.3 Non-governmental initiatives

Non-governmental organizations are active in developing sets of principles, criteria, and indicators for good forest management. These organizations include forest owners, forest product trade associations, environmental groups, certification bodies, and many others. Internationally, the Forest Stewardship Council (FSC) has developed 10 Principles and associated Criteria for "Well Managed Forests", upon which more detailed forest assessment

standards, for use at the specific forest area level, are based. At the international and national levels, forest industry trade associations have developed “Codes of Practice” to guide the management of forests.

Also, the Center for International Forestry Research (CIFOR) evaluates and tests various intergovernmental Criteria & Indicators of SFM and those developed by a variety of organizations. Local citizens and community groups have also developed forest policies and principles addressing the management of forests.

All of the above non-governmental initiatives provide valuable information about the views of interested parties that forestry organizations can use in the development of their environmental policy, objectives, and targets. These initiatives are referenced in more detail in annex B.

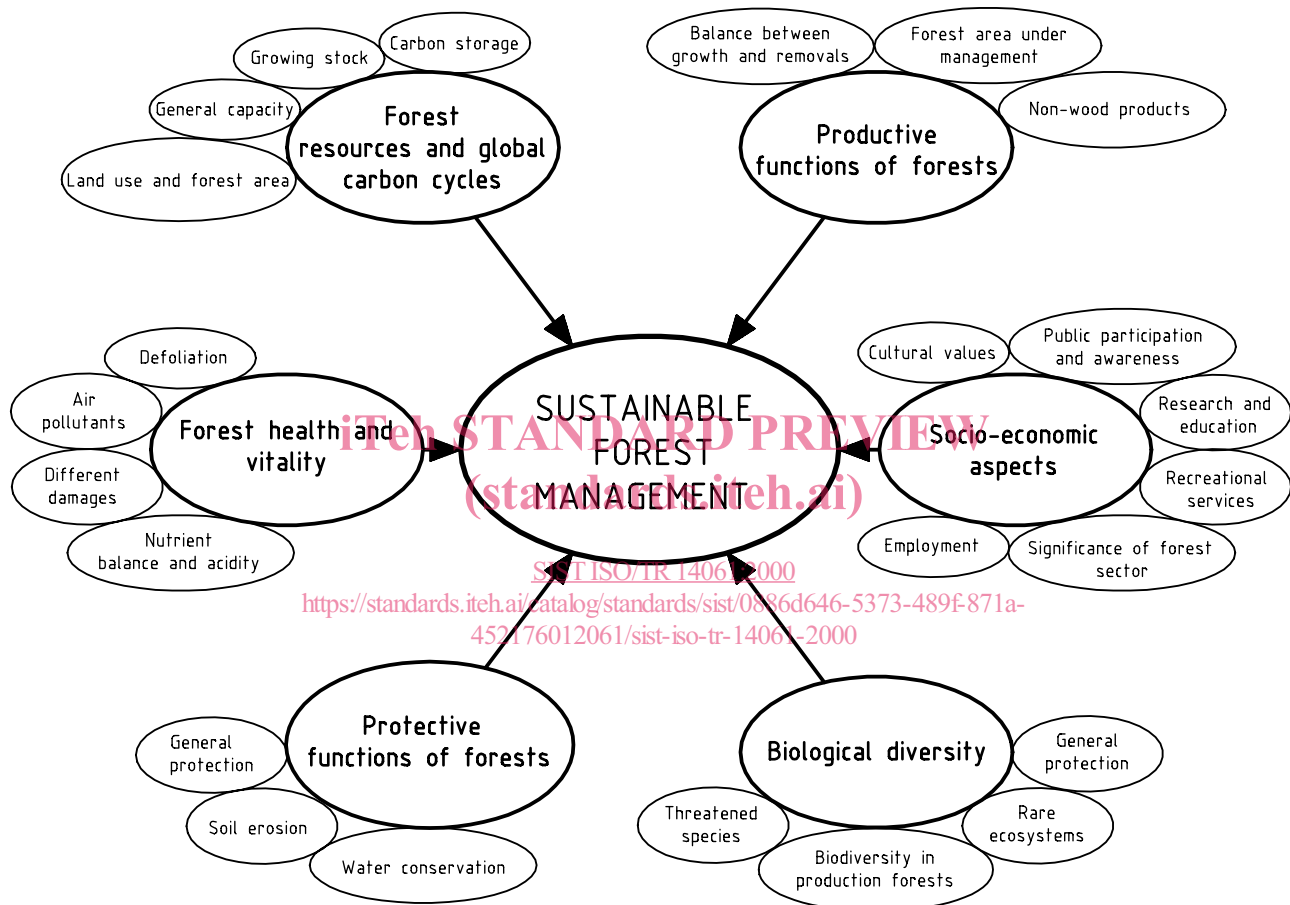


Figure 2 — Pan-European Criteria & Indicators for SFM

## 5 Relationship between SFM principles, intergovernmental Criteria & Indicators and a forestry organization's environmental management system

### 5.1 General

This clause provides information on the relationship between forestry performance measures, including the SFM principles and intergovernmental Criteria & Indicators, and the elements of an ISO 14001-based EMS. Organizations that wish to make a commitment to the goal of SFM can incorporate principles and intergovernmental Criteria & Indicators (see annex B), appropriate to the scope of the environmental management system, into their policy, objectives and targets.



The SFM principles and intergovernmental Criteria & Indicators do not establish what the performance requirements are for a specific forest, nor how these should be achieved. They are intended to provide a common framework for evaluating a country's progress toward achieving sustainability at the national level. Consequently, they will need to be adapted to local conditions in order to be incorporated into the objectives and targets of an organization's environmental management system. Integration of specific forest management performance criteria into an environmental management system provides a framework within which a forestry organization can improve its forest management towards the goal of SFM.

The basic relationship between forestry principles, intergovernmental Criteria & Indicators and the ISO 14001 EMS requirements is provided in Figure 3. More specific examples of this relationship can be found in annexes D, E, G, H, and I.

The various international sets of SFM principles and intergovernmental Criteria & Indicators focus on the broad differences between climatic regions and forest types as shown in annex B. For example, the Montreal Process Criteria and Indicators deal with temperate and boreal forests, while the Tarapoto Proposal covers the tropical forests of the Amazon basin.

There are other major differences between types of forests which will influence the relevance and appropriate application of intergovernmental Criteria & Indicators of SFM. For example, the intensity of forest management and forest use is a continuum from intensively managed forests, including plantations, at one end of the spectrum to reserved areas at the other. Along this continuum there are many categories of forests which are quite different in their species composition, management objectives, ownership structure, and the goods and services they provide to an expanding world population. As a consequence, the nature and application of criteria and indicators may vary.

The management of these various categories of forests, with the application and achievement of appropriate SFM-related objectives and targets, collectively contributes to the overall goal of sustainable development.

## 5.2 Scope of an environmental management system applied by a forestry organization

ISO 14001 requires that the scope of any environmental management system be clearly identified (see ISO 14001:1996, clause 1). The forestry sector can be highly complex with many different kinds of operations, business units, and geographic locations. These operations may include activities associated with silviculture, harvesting, wood transportation, and the processing of products. A forestry organization may not control or have influence over all of these operations, and will therefore need to specify which of them it intends to include within the scope of its environmental management system.

This Technical Report describes reference material pertaining specifically to a forestry organization's resource management operations. These may involve: silviculture, harvesting of trees, road construction, wildlife habitat management, biodiversity management, and tourism and recreation needs.

Forestry organizations have varying levels of control over forest lands from which their products originate. In some cases, organizations may own and thus have direct control over their own lands and how they are managed. In other cases, a forestry organization may share the use of a forest area with one or more other activities, such as mining, oil extraction, agriculture, hydroelectric generation, or the harvest of non-timber forest products. The needs and rights of those other users may have to be considered within the scope of the organization's management system. Other organizations may have shared responsibility for lands that may be under management contract or agreements. Still other organizations purchase wood on the open market and have little knowledge of the origins of the raw material. In any case, organizations need to meet their own objectives and targets, while communicating their relevant procedures and requirements to their suppliers and contractors.

The following are examples of activities and operations where a forest organization's environmental management system might impact on other parties:

- a) the assessment of wood procurement systems to identify suppliers and contractors with which to communicate;
- b) the implementation of communication programs involving environmental education and training;
- c) the promotion of policy objectives with suppliers and contractors.