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Certification

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Introduction

Certification provides a means by which the quality of forest management may be independently assessed to agreed standards. It offers credible evidence that enables the forest manager to obtain benefits, notably access to markets that demand sustainably-produced forest products. Several certification schemes have experienced rapid development and certification is now routine practice. This article reviews the process in general, the key players, and the early achievements of certification in light of its implicit assumptions.

Definitions and Description of Forest Certification Processes

Certification

Certification is the procedure by which a third party provides written assurance that a product, process or service conforms to specified standards, on the basis of an audit conducted to agreed procedures. Certification may be linked with product labeling for market communication purposes. It comprises a variety of mechanical tasks that aim to produce highly objective assessments. However, it tends to have market and political implications, because it results in a judgement of whether a product, process or service is acceptable or not. The International Organization for Standardization (ISO) has set precedents in the various tasks of certification, standardization, and accreditation that are outlined below, and most certification schemes in any sector have chosen to adhere to them. This is partly because ISO standards tend to be recognized by the World Trade Organization (WTO) as not creating unnecessary barriers to trade. Certification of social and environmental performance is already changing the rules of the game for many industries. It has occupied a key role in the 'organic' and 'fair trade' niches of food production for some time; it is emerging in fisheries and tourism; and it is being explored for mining. Certification has had a particularly rapid evolution in the forest sector, where it is becoming routine practice.

Forest Management Certification

Forest management certification is the process by which the performance of on-the-ground forestry operations is assessed against a predetermined set of standards. This is voluntary, at the request of the forest owner or manager. If the forestry operations are found to be in conformance with these standards, a certificate is issued, offering the owner/manager the potential to bring products from the certified forest to the market as certified products. This market potential is realized by a supplementary certification, which assesses the chain of custody of wood (see below). In this sense, forest certification is market driven – aiming to improve forest management through market-based incentives, and to improve market access and share for the products of such management. It addresses the quality of forest management, as opposed to the quality of forest products. In addition, systems for the certification of wood quality exist (see below).

Standards

Standards used in forest certification schemes are of two general types:

- performance standards
- management system standards.

Performance standards look for specified outcomes to be achieved, notably social, environmental, and economic outcomes: these may be expressed as thresholds. In contrast, management system standards look for specified elements in the management system, notably target setting, monitoring, and review, that ensure that performance continuously improves from whatever base. The latter are typified by ISO9000 quality management or ISO14000 environmental management standards. However, all forest certification schemes include some elements of both performance and management standards.

Procedures

Procedures for conducting forest certification can take several months from initial inquiry to issuance of the certificate. At the request of the forest owner or manager, typically the auditor conducts, in the following order:

- an (optional) preassessment or 'scoping' visit
- confirmation of the standard by which the forest will be certified or (if necessary) development of an interim standard
- consultation with stakeholders
- an independent formal audit of the quality of forest management in a specified forest area, under one management regime, against the specified standards, by assessing documents that prescribe and record management, together with checks in the forest and interviews with staff and stakeholders,
- writing the assessment report and, usually, peer review
- a decision to issue a certificate for a period

and/or

- corrective action requests (CARs) – a formal document which details noncompliances identified and remedial measures required within a specified time
- a public summary of the certificate placed on the certifier's website
- regular (annual) audits thereafter to ensure continued compliance and action on CARs, which process maintains the validity of the certificate.

Chain of Custody Certification

Chain of custody certification is a frequent supplement to forest management certification. It verifies the chain of responsibility through which a product passes, e.g., from the forest, through timber processor to manufacturer, to importer, to distributor, to retailer. The result is a certified origin of the forest product concerned.

Forest Product Labeling

Forest product labeling refers to the quality of forest management and the origin of the raw material of which the product is made. It is based on (1) certification of forest management, and (2) verification of the chain of custody. It may be displayed on the physical forest product itself. The same information can also be communicated off-product, i.e., in various promotional materials and communication media. Certification schemes operate strict rules regarding the use of on-product or advertising labels, which are usually trademarked.

Accreditation

Accreditation is the process of recognition – against published criteria of capability, competence, and impartiality – of a body involved in conformity assessment. Accreditation formally recognizes the competence and impartiality of the bodies involved in certification of forest management and the chain of custody, and results in licenses to operate a particular certification scheme. In effect, it 'certifies the certifiers.' With a few exceptions, accreditation is granted by national accreditation bodies, which can be governmental or private. A notable exception is an international body in the case of the Forest Stewardship Council (see below).

Provisions for Specific Circumstances

Acknowledging the specific issues affecting certain product types and producers, certification schemes tend to make provision for:

1. Multiple source chain of custody to enable certification for paper and composite wood products. This may allow processors a mix of certified and uncertified material where this reflects local supplies and so reduces cost. It may also favor mixture with recycled materials.
2. Group certification of smallholders, to allow for several small enterprises to be covered by one certificate, which is held by the group manager. This can reduce certification cost, provided group members are sufficiently similar to create scale economies.
3. Forest manager certification for similar reasons to the above, where a professional manager is responsible for several small areas.
4. Recycled wood certification which accords certified status to reclaimed or recycled wood where chain of custody is known.
5. Ecological zone harmonization of national standards, to ensure that standards covering similar ecological zones, if they were developed separately

by different (national) stakeholders, can be rationalized.

6. Other issues that emerge through reviewing the practice of, and problems faced by, certification schemes. Many schemes operate working groups to identify and respond to such needs.

Thus forest certification is not one single operation, but a mix of mechanical and political functions (**Figure 1**).

The Rationale for and Evolution of Forest Certification

Forest certification has developed in response to the interests and incentives facing many different interest groups. However, its origins lie largely with environmental nongovernmental organizations (NGOs) and the timber retail business. During the 1970s and 1980s, environmental NGOs grew increasingly disillusioned with the failure of government authorities and regulations to improve forest management in tropical regions, with the inadequacy of intergovernmental efforts to tackle deforestation, and with the forest products trade's lack of discrimination in where it sourced its products. By the late 1980s, NGOs had concluded that both the Tropical Forestry Action Plan and the International Tropical Timber Organization (ITTO) had failed to halt asset-stripping approaches to forestry. In Western Europe and North America in particular, NGO campaigns led to the emergence of consumer bans and boycotts against tropical timber, claiming that much of it

derived from deforestation. Many retailers could not make counterclaims as they had no idea where their wood came from.

The timber retailers' alarm was exploited constructively by some NGOs (notably the Worldwide Fund for Nature, WWF), who suggested the more attractive possibilities of developing markets for environmentally and socially sound forest products. This brought about one of the first alliances of environmental NGOs and businesses. They developed the idea of a mechanism to allow wood products to be traced back to their forest sources, to verify that the same forest was well managed, and to create market incentives that would make the mechanism viable. Forest owners and managers were then brought into the process. Like the retailers, they were motivated by the prospect that certification would offer a useful marketing tool in the face of consumer boycotts and competition with other materials. They expressed varied expectations ranged from premium prices, to reducing market risks, to maintaining or increasing market share, to product 'green branding' and differentiation to access further markets, to nonmarket motivations such as skills development and being recognized by forest authorities.

Thus the Forest Stewardship Council (FSC) emerged in 1993. (It was not the first forest certification scheme: in 1990 the Rainforest Alliance set up the Smart Wood forest certification program, which provided early lessons for, and is now accredited to, the FSC.) It has now certified forests in all continents, with an almost exponential increase in the area covered. However, numerous other
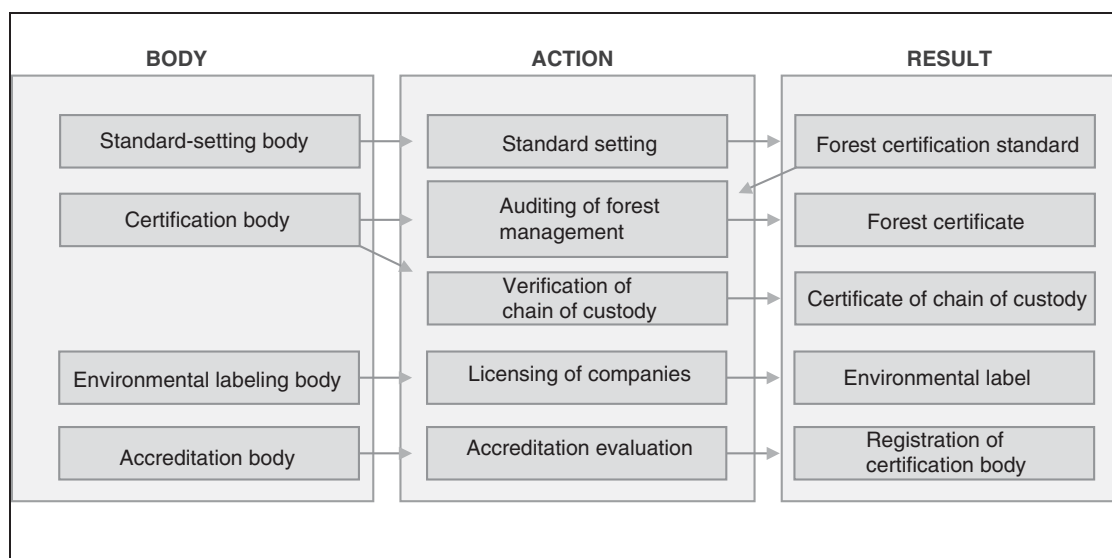

Figure 1 Elements of forest certification. From Bass S and Simula M (1999) Independent certification/verification of forest management. Background paper for WB/WWF Alliance Workshop, 8–9 November 1999, Washington, DC. http://www.worldbank.org/wwf/certwkshp.htm

international and national forest certification schemes have more recently emerged. Many local stakeholders wanted to take charge of the process of developing certification schemes, to ensure they were appropriate to their forest types, enterprise types and governance systems.

Whilst the problems of tropical deforestation were the main drivers of forest certification, certification is now commonplace in temperate and boreal forests as well. This was both in response to NGO and consumer worries about northern forests, and to the interest and opportunism of producers operating in these forests and retailers selling their products. Indeed, to date, more certificates have been awarded by FSC and other schemes to northern forests.

The Forest Stewardship Council

Until the introduction of the Pan-European Forest Certification Framework in 1999 (see below), the FSC was the only fully integrated, international system of forest certification. The FSC's objectives are to promote global standards of forest management, to accredit certifiers that certify forest opera-tions according to such standards, and to encourage buyers to purchase certified products.

The FSC is a membership organization, with decisions made through meetings of a General Assembly, which is divided into three equal chambers: social, environmental, and economic. All three chambers have Northern and Southern subchambers, each with half of the total chamber votes. Governments are not entitled to participate in the FSC's governance, even as observers, although government employees have been very active participants in some FSC national initiatives.

The FSC has a set of ten principles and related criteria (P&C) of forest stewardship, which apply to all tropical, temperate, and boreal forests, both natural forests and plantations, with the tenth Principle being exclusively for plantations (**Table 1**). These P&C serve as a basis for the development of national and regional forest management standards. Certification standards that are consistent with both the P&C and with FSC's process guidelines for standards development are eligible for FSC endorsement. Such standards have been developed by both FSC-organized national working groups and by independent processes, e.g., that of Indonesia. The

Table 1 The Forest Stewardship Council's ten principles of forest stewardship

Principle 1: Compliance with laws and FSC principles
Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.
Principle 2: Tenure and use rights and responsibilities
Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented, and legally established.
Principle 3: Indigenous peoples' rights
The legal and customary rights of indigenous peoples to own, use, and manage their lands, territories, and resources shall be recognized and respected.
Principle 4: Community relations and workers' rights
Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.
Principle 5: Benefits from the forest
Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.
Principle 6: Environmental impact
Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.
Principle 7: Management plan
A management plan – appropriate to the scale and intensity of the operations – shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.
Principle 8: Monitoring and assessment
Monitoring shall be conducted – appropriate to the scale and intensity of forest management – to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.
Principle 9: Maintenance of high conservation value forests
Management activities in high conservation value forests shall maintain or enhance the attributes which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.
Principle 10: Plantations
Plantations shall be planned and managed in accordance with Principles and Criteria 1–9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.

FSC owns a trademark which may be used to label products from certified forests.

The Pan-European Forest Certification Framework

The Pan-European Forest Certification Framework (PEFC) is a voluntary private-sector initiative, designed to promote an internationally credible framework for forest certification schemes and initiatives. Its criteria are consistent with the intergovernmentally agreed Pan-European Criteria and Indicators for Sustainable Forest Management, thereby attracting considerable support from both European and national governments. National certification schemes that meet PEFC requirements can apply for endorsement and the right to use the PEFC trademark for product labeling. In contrast to accreditation by the FSC, PEFC leaves this function to national accreditation bodies. National PEFC governing bodies set standards and operate national schemes, and are represented on the PEFC Council Board.

The initiative was given strong impetus by Austrian, Finnish, French, German, Norwegian and Swedish forest owners, who wished to ensure that small woodland owners are not disadvantaged by certification, and that local conditions are catered for. It was supported by the national forest certification schemes that had been emerging in some of these countries yet which felt themselves to be individually too small to develop an adequate presence. The evolution of PEFC was rapid: it started in August 1998, and was launched in June 1999. Now there are many countries involved, extending into other continents. The rapid development of both country coverage and certified area has entrenched the position of some environmental NGOs; they believe that the ease of achieving PEFC certification, in countries which they perceive to have imperfect forest management, demonstrates that the scheme is not helping to improve forest management and thereby achieves little beyond attempts at market protection.

Regional and National Certification Schemes

At the level of individual countries, the number of certification schemes under development is increasing rapidly. They fall into three main groups:

1. Schemes aligned from the outset with either the FSC or PEFC.
2. Schemes that develop independently but aim for compatibility with the FSC and/or PEFC.
3. Schemes without any links to an umbrella scheme.

Where there is contention over any scheme, it tends to concern:

- the perceived dominance or exclusion of certain parties
- the lack of comparability between specific standards in a given region
- the degree of challenge or 'stretch' represented by the gap between normally applied legal standards and certification standards.

Observations on the Effectiveness of Certification

Forest certification schemes started on the basis of very little experience. Of necessity, they rested on a set of assumptions many of which have never really been made explicit. It is worth reviewing these assumptions in light of a good ten years of experience.

Assumption 1: One Set of Standards Can Apply to All Types of Forest

At the level of their basic principles, certification standards do seem to be applicable to many types of forest. Two observations support this: firstly, most certification schemes have been able to justify, develop, and apply one overarching standard; and secondly, there are considerable similarities in such standards between schemes. In many ways, therefore, certification has coped effectively with a tricky dilemma: how to deal with complexity (in standards and their interpretation) and yet also deliver a simple message to consumers and producers.

Assumption 2: One Set of Standards Can Apply to All Types of Forest Producer

In practice, larger producers find it easier to benefit from certification, as they have better access to information and markets, scale economies, formal management systems on simpler forest types, and an ability to bear risks and costs. The area of certified forest under community or small enterprise management is correspondingly much smaller. Recognizing this lack of uptake, many certification schemes have responded with special schemes for group certification of small growers. However, there are those who question why a small community group occasionally harvesting timber on its own land should be held as accountable as a major corporation harvesting 24 hours a day on leased public land. The fact that standards tend to be focused on performance forestry outcomes, and do not adequately recognize each step

achieved in the process of getting there, prejudices against many developing country practices, in particular where there are often many steps to be undertaken. Part of the problem derives also from the next assumption.

Assumption 3: Forest Management Standards Should Be Based on Scientific Principles of Forest Management, with a Strong Emphasis on Records and Clear Business Strategy

Certification is largely document-based, and is predicated on formal means of planning and monitoring. In practice, this assumption has prejudiced against the forestry norms and methods of traditional societies, and against part-time foresters. A national standard which may stretch to some 40 pages is intimidating to people with low literacy levels. Even if it is understood, some current certification standards and procedures cannot recognize good management in some of the complex land use systems of indigenous and community groups. Furthermore, the difficulties faced by certifiers in interpreting social standards in complex social contexts (or at least contexts which will be alien to the certifier) have meant that some inappropriate social CARs have been issued.

Assumption 4: Most Progress in Sustainable Forest Management Will Be Made through Focusing on the Forest Management Unit

It is true that, before certification, 'sustainability' was characterized by too much discussion and too little action. Certification has shifted energies to real forests and real enterprises. Yet some environmental and social services are often realized at the landscape level. Thus the forest unit plays only a partial role, and cannot be responsible for a complete role. Although certification must focus on what the enterprise (or other certified entity) does, it needs to be improved to account for critical sustainability issues at other levels (such as the landscape or the nation), which may not be under the control of that entity but which require its active engagement.

Assumption 5: Voluntary, Market-Based Certification Would Be a Cost-Effective Complement to Traditional Administrative Regulation in Improving Forest Management and Ensuring the Protection of Forest Environments

This assumption is proving to be valid. In some countries, state forest authorities support certification as a 'privatized' form of forest monitoring, and are making incentives available. In countries where

regulation and enforcement is weak, certification has ensured that at least some producers are meeting not only legal requirements but also higher standards, and that this is monitored. The presence of evidently good forest management and scrutiny has had useful knock-on benefits locally, notably by improving forest policy debates and provisions.

Assumption 6: By Involving Consumers, Producers, and other Forest Stakeholders in Standards Development, Certification Would Be More Credible than Traditional Regulatory Instruments

In many countries, certification has certainly become as significant as traditional instruments: stakeholders now tend to pay as much attention to developments in certification as they do to developments in national and intergovernmental law. Certification offers broader standards that tend to reflect more stakeholders' needs, improving credibility in many stakeholders' eyes. The key ingredients are: focused participation in defining standards, and verification by third parties using tried-and-tested mechanisms with precedents in other sectors. However, there are some tensions between the values that drive some protagonists of certification and the need for objective scrutiny. This mean that accreditation of certifiers is essential for objectivity but fraught with difficulties. A further problem is the proliferation of certification schemes, which is leading to consumer confusion and a reluctance of firms to be certified at all. Fears of proliferation have prompted considerable efforts by the wood products industry to investigate the potential of mutual recognition or adjustment between schemes.

Assumption 7: By Being Voluntary and Not Involving Government, Certification Would Be Able to Avoid Charges of Trade Discrimination under WTO Rules, and Would Not Be Constrained by any Unprogressive Governmental Approaches to Forestry

In practice, there have been no serious challenges to certification under WTO; forests have been certified in countries where government controls and incentives are weak; and governments have been involved in some schemes. Indeed, the implications of a lack of government involvement in other schemes need serious consideration. This is because of the close relationship of certification standards to regulations, and the fact that some government bodies have direct interests as forest enterprises, as providers of environmental service, and as authorities concerned with the welfare of forest-dependent groups.

Assumption 8: Consumer Demand for Certified Products Will Be Strong Enough to Encourage Producers to Pay the Extra Costs of both Certification and the Necessary Forest Management Improvements

In practice, certified products command only a minority of the forest products market, with most market penetration in Western Europe. The market share of paper and construction timber/panels is particularly small. Consequently, only about 4% of commercial forestry is certified globally (as of 2003). However, all these figures are growing. Certified producers are gaining the benefit of market access, rather than a price premium (although a premium is available in some segments). More probably needs to be done to educate consumers about sustainable forestry and certification if the demand is to rise significantly. In addition, where market benefits have proven elusive, other incentives for certification might also be explored, e.g., access to resources such as land, finance, and insurance.

Assumption 9: Poor Forest Management and Deforestation Would Decline, as the Actors Involved Would Respond to the Incentive Effects of Market-Based Certification

In practice, the high threshold levels of certification standards (and FSC's in particular) have meant that certification has identified currently good practice, rather than improved bad practice. These 'good' producers now meet all current legal requirements, including those that they might normally not bother to meet. Most of them have also tightened management systems, especially for managing environmental impact. However, certification so far is only really inducing competition between excellent producers (just above the certified threshold), and good producers (just below the threshold). There are few incentives to cause the really bad producers to change behavior and be certified. Consequently, the worst forestry problems remain little affected by certification. The need for several thresholds (stepwise or phased approaches) is now being discussed, along with ways to complement certification with instruments to combat illegal logging.

Assumption 10: Certification Can Be a 'Magic Bullet' to Annihilate Multiple Forest Problems

Whilst it is clear that certification is an important innovation, there are many other prerequisites, complements, and alternatives that need to be considered in any given situation. For example, many certified community groups have expressed the opinion that better market information and

enterprise management capacity would have been higher priorities than certification – the latter having proven an inefficient means to acquire these assets. Further, policy prerequisites such as recognized forest and trade rights, and state protection of those rights, are necessary for the benefits of certification to be realized. Therefore the challenge is to understand and promote the right 'fit' of certification with other instruments for a given situation.

Conclusion

Because there are few surveys of what forest certification has achieved, the above observations are not definitive. Yet they point to some strengths and limitations that certification schemes, and their stakeholders, should keep under review. Perhaps the limits of the separate evolution of schemes have now been reached: it is important for all schemes to share the lessons and to develop responses together.

It is also important for all major government and multistakeholder initiatives to seriously consider what integral roles there might be for certification. Forest certification is based on concerns of both global and local imperatives for sustainable forest management and reflects the ongoing process of negotiation of the often conflicting ideas of what sustainable forest management is about. Where certification can manage these tensions creatively, it should certainly have an enduring role.

See also: **Genetics and Genetic Resources**: Forest Management for Conservation. **Harvesting**: Forest Operations in the Tropics, Reduced Impact Logging. **Operations**: Small-scale Forestry. **Plantation Silviculture**: Sustainability of Forest Plantations. **Social and Collaborative Forestry**: Forest and Tree Tenure and Ownership; Public Participation in Forest Decision Making. **Sustainable Forest Management**: Overview.

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Definitions, Good Practices and Certification

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Introduction

Non-wood forest products (NWFP) are found abundantly in tropical and temperate forests, range, and shrublands throughout the world. However, due to years of unwise use, the availability of certain NWFPs especially medicinal plants in desired quality, quantity, time, and place has become difficult. This raises serious doubts about their availability to meet both the local demand as healthcare products of local poor communities as well as growing demand of national and global phytomedicine industries. The sustainable production, conservation, and use of NWFPs are influenced by a number of factors, including those of a socioeconomic, technical, institutional, and policy nature. Unsustainable harvesting of the raw materials from the wild by untrained and poor collectors, mostly using primitive methods, and the lack of awareness of the real value of the resources are other important factors leading to widescale resource depletion. Rural people in developing countries derive a substantial portion of their income, and food and medicinal products for their basic needs from NWFPs gathered from forests.

This article presents conservation-through-use or sustainable conservation as a good practice to integrate biophysical and socioeconomic tools in the management of NWFP to reduce global poverty and enhance biodiversity conservation. The main premise is that NWFP resources are the natural capital of local people and their wise management can improve livelihoods of the rural people in the developing world who in turn will find incentives to conserve the global environment. However, this new approach to NWFP management needs to be properly and systematically monitored and linked to the prevailing national and global market conditions that permit the conversion of these natural resources into sources of gainful employment and the greater well-being of the local community. Mechanisms need to be developed and broadened to formalize the inclusion of market factors and good social and business behavior in the system of NWFP management. Procedures are needed for inspection of proper collection, cultivation, processing, packaging, marketing, maintaining market-demanded quality and schedules. These procedures should be governed by a certification system, which is scientific in operation and global in its acceptance. Central to this approach is the application of a value or commodity market chain method, which can be monitored by both the producers and consumers. Certification of quality product, good management, and fair trade based on the practices of good collection, cultivation, and management can lead to new and economic opportunities such as niche or green markets, price premiums for good social behavior, and a long-term producer–consumer relationship.

Definition, Scope, and Potential

Background

Non-wood forest products (NWFPs) are the other forest products apart from wood in its broadest sense. According to the Food and Agriculture Organization of the United Nations (FAO), NWFPs consist of goods of biological origin other than wood as well as services derived from forests and allied land uses. NWFPs are also understood as forest