

Non-industrial, Smallholder, Small-scale and Family Forestry: What's in a Name?

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This issue represents the launch of a new forestry journal, published under the auspices of IUFRO Working Unit 3.08.00 Small-scale Forestry and sponsored by Joensuu University (Finland) and The University of Queensland (Australia). This journal has come into being from deliberations over a number of years by the members of Working Unit 3.08. The choice of journal title and fields of interest involved much debate, creating a focus for resolving issues concerning the nature and scope of the journal, intended targeted audience and intended contributors.

IUFRO Working Unit 3.08.00 – Small-scale Forestry – is dedicated to the dissemination of information on research problems, continuing research efforts and research results related to the management of small-scale non-industrial private forest woodlots. The group was formed in 1986 at the IUFRO XVIII World Congress held in Ljubljana, Yugoslavia. Since that time, the group has been highly active and has staged a series of well-attended and memorable annual symposia at diverse locations. This diversity is well illustrated by the groups most recent meetings being held in tropical northern Australia in summer in 2000 followed by next meeting in snow-covered Finland in late winter 2001. A strong sense of camaraderie has developed amongst members, hence there was strong sentiment in favour of the title *Journal of Small-scale Forestry*.

It is apparent that small-scale forestry means different things in different countries, hence it was necessary to select a name which would give a clear indication on the scope of the journal for forest professionals and academia. Since choice of a journal title drives the perception of the journal to potential contributors and readers, this became a matter of serious debate amongst members of the small committee formed at the symposium in Joensuu in Finland in 2001 to provide directions for the proposed journal.

This paper reports on some of the issues which were canvassed in arriving at a title and focus for the journal, summarises results of a survey of delegates at the Joensuu symposium of opinions about the desirable role and nature of the journal, and indicates the priority areas in which papers are sought.

CONCEPTS AND DEFINITIONS OF SMALL-SCALE FORESTRY

Throughout the world, there appears a trend to move away from industrial forestry towards landholder-based forest management and community forestry. This trend is especially clear in developing countries where community forestry and small-scale (often referred to as ‘smallholder’) forestry is of growing importance. For example, in the Philippines Mangaoang (2002, p. 1) noted:

In the recent years, the focus on forest management and conservation has significantly shifted from the highly technical commercial forestry to a more people-oriented social forestry orientation. Gone are the days when forestry is looked upon as solely management and utilization of trees by large-scale timber-product-oriented logging corporations to meet demands for wood and wood-based products. The more recent scenario is a paradigm shift in the forestry sector to small-scale, multiple-product-based, people-oriented and community-based sustainable forest management.

In most developing countries, community forestry is more closely aligned with the small-scale forestry than with industrial forestry. While community forestry often involves the management of large areas of forest relative to the average size of that managed by individual smallholders, the areas are still small relative to most industrial estates (100s of hectares compared with 1000’s of hectares). Furthermore, the focus on multiple use management is strong in both community and smallholder forestry compared with the focus on timber production in the industrial estates. In many ways, community forestry can be viewed as an aggregate of smallholders managing public land to produce multiple private and community benefits.

In developed countries, access to additional land for industrial forestry has become increasingly difficult, though large industrial forests continue to be established. But at the same time there has been an upsurge in relatively small privately-owned plantations, typically established with a greater emphasis on multiple goals than industrial plantations, e.g. see Reid (1996), Emtage *et al.* (2001).

Although plantation forestry as such is not a major forestry issue in most of Europe, private non-industrial management of forests is dominant, particularly in Western Europe. Private ownership has roots far back in the history, when royal families and aristocrats owned the land. Through government action along with the democracy process, and out of economic necessity, large landholdings were fragmented, hence more people became owners of forest land. Along with democracy processes, governments distributed or shared the land for private estates. Currently private forests contribute most of the industrial timber as well as other wood and non-wood products. Due to the significance of private ownership, small-scale landowners are an integral part of forest policies, forest management planning as well as in forest extension in much of northern and central Europe.

This growth in relative importance of non-industrial forestry has been the motivation for formation of IUFRO Working Unit 3.08.00 in 1986, and for a follow-up of that work, the initiation of this journal. In designing the journal, considerable attention was given to the choice of title. In particular, there was consideration of including the adjectives ‘small-scale’, ‘non-industrial’, ‘farm and community’ to describe the type of forestry on which the journal would focus. The variety of terms encountered made choice of a journal title difficult. The discussions over journal title revealed a number of criteria that are relevant to this decision:

1. As an initiative of IUFRO Working Unit 3.08.00, the title must be consistent with the objectives of the Working Unit. The purpose of the IUFRO Working Unit 3.08.00 'Small-Scale Forestry' is to exchange information on research problems, ongoing research efforts and research results related to the management of *small-scale non-industrial* private forest woodlots. Also, it was seen desirable that the title reflects the disciplines and interests of the members of the Working Unit. Membership of the group comprises forest economists, natural resource management specialists, rural sociologists and other specialists, in universities, research institutes, government and the private sector, and the search was designed to arrive at a shared view of the title in IUFRO Working Unit.

2. A title was needed which has wide appeal, for the journal to attract a large number of subscriptions from a wide range of countries, i.e. the title was seen also a critical marketing issue. The purpose of any journal is to disseminate information to those that are interested in the topic. As such, the name should be as meaningful and have as much appeal to as many people as possible in the target audience.

3. The choice of the title also affects the number and type of contributors. In this context, the selection of the title is crucial as it affects the decision of authors to (or not to) select the journal for publishing. This in turn affects the quality of the journal, since the more contributors the greater the choice of papers and the higher the average quality of accepted papers is likely to be.

4. For those working within a university or research environment, there is always an imperative to demonstrate that what one is doing is 'mainstream' within the discipline, both for personal recognition and to gain access to resources to support journal production. In this context, 'small-scale forestry' could easily be (mis)interpreted to mean a form of forestry which is not very important, and a fringe research area, rather than the reality of the major direction of expansion in forestry.

Perusal of *The Dictionary of Forestry* (Helms 1998, compiled under authorization of a joint FAO/IUFRO committee) reveals no definition for either 'small-scale forestry' or 'farm forestry'. However, the latter is cross referenced to 'agroforestry', which is defined as a land-use system involving trees and other woody perennials 'in crop and animal production systems to take advantage of economies or ecological interactions among the components' (Helms 1998, p. 4). Nonindustrial private forestry (NIPF) is defined as 'forest land that is privately owned by individuals or corporations other than forest industry and where management may include objectives other than timber production' (p. 124). A definition of 'community forest' is provided, as 'a forest owned and generally managed by a community, the members of which share the benefits' (p. 33).

Small-scale forestry systems differ in many ways from industrial systems, in aspects such as motivations for establishment and management, basis for species selection, social and economic objectives of key stakeholders and the likely markets for products. In this respect community forestry shares many similarities with farm forestry. Research relating to industrial or large-scale forestry cannot be simply transferred to small-scale forestry.

No rigorous scientific journal currently exists that is dedicated to publishing research articles relating to small-scale forestry. A number of journals do exist that publish forestry-related articles including *Forest Ecology and Management*, *Forest Policy and Economics*, *Journal of Forestry* and *Australian Forestry*. However, these

journals have a strong focus on industrial or large-scale forestry or on one area of forestry such as policy or silviculture. Many journals and newsletters are published which provide information about farm or small-scale forestry; however, none of these have the rigour associated with a scientific journal containing peer-reviewed research articles.

Small-scale Forest Economics, Management and Policy seeks to address the gap that currently exists in respect to a journal dedicated to publishing research articles about small-scale forestry.

CONCEPTS OF SMALL-SCALE FORESTRY IN VARIOUS COUNTRIES

Trends in forestry development vary considerably between countries, and useful insights may be gained by examining differences of concepts of small-scale forestry in a number of countries and regions. Some of these experiences are examined below.

Small-scale forestry in the USA

The term usually adopted for small-scale forests in the USA is non-industrial private forests (NIPF). These are usually thought of as forestlands owned by farmers, other individuals and corporations that do not operate wood-processing plants (Zhai and Harrison 2000). As noted by these authors, NIPF accounts for about 59% of the total timberlands in the USA, and contributes nearly 50% of US timber production. There are in total about 7 M NIPF landowners, though only about 600,000 with holdings larger than 40 ha (who contribute 80% of the NIPF harvest).

Some further perspectives on nomenclature in the USA have been provided by Dr Michael Jacobson (2000), as chair of Society of American Foresters (SAP) Working Party on Private Forestry. He has reported attempts to change the name of the working group away from NIPF, since this name is negative in the sense of saying what forests are not, and not what they are. However, the name has become ingrained and there is no obvious alternative descriptor. The term 'small-scale' is rarely used, and is often inappropriate, as some landholders have forest areas in excess of 1000 ha. Some states use the terms 'family forestry' and 'farm forestry'. An alternative is the term 'private forestry', which includes commercial, industrial and nonindustrial private forestry. There appears to be growing support for the term private forest landholders (PFLs), as a description of the people growing trees rather than the type of forestry.

Small-scale forestry in Europe

In Europe, some of the traditional private forestry could scarcely be regarded as small, and a number of presenters at the 2001 IUFRO Working Unit 3.08.00 symposium in Finland adopted the term 'non-industrial' forestry. Lillandt (2001) noted that 'private ownership forestry' or 'family forestry' is of long standing in Finland, where there are now more than 600,000 family forest owners, controlling 62% of the total forest area. Sekot (2001, p. 216) presented a definition of 'small-scale farm forestry' in Austria as 'a private forest holding of between 1 and 200 hectares where the proprietor is a normal (and not juristic) person'. In the UK, the

terms 'farm woodlands', 'farm forest' and 'privately owned forests' are used (e.g. Hill 2000, Niskanen and Sekot 2001).

In Europe, small-scale forestry has perhaps the highest diversity in the World. In the Nordic countries of Finland, Sweden and Norway, private people own approximately 60-70% of forest land. In these countries, 'family forestry' has a long tradition of families managing the forests aside from their other economic activities such as agriculture and off-farm employment. The typical size of private forest holdings in the Nordic countries is 25 to 40 ha.

In Germany, like elsewhere in German speaking areas in Europe (Germany, Austria, Switzerland), the size of private forest holdings varies considerably. On the one hand, there exists a number of forest holdings of less than 5 ha (36% of forest land), while on the other hand, 29% of forest land belong to farms of more than 1000 ha (Nain 1998).

In United Kingdom, forestry has of relatively low importance due to small forest resources in the country, although there are substantial areas of commercial private forestry in Scotland. The total area of private woodlands, as in 1997-98, was 1.6 M ha, or twice that of Forestry Commission forests (Hill 2000). This included a number of estates with forest areas of about 300 to 500 ha.. The forests of the United Kingdom are used extensively for recreation, and often other uses are more important than wood production.

In Central and Eastern Europe (CEE), the political change from a communistic system in early 1990s has resulted in major changes in land ownership and forest management. Public ownership has decreased and private ownership increased with privatisation and restitution processes which are still continuing. As means and phases of privatisation vary greatly in the CEE countries, so also the share of private ownership different greatly. In Romania and Czech Republic, for example, private ownership on forests is 6% and nearly 60%, respectively. It is expected that, after the privatisation process, on average approximately 35-40% of forest land will be privately owned in CEE countries. Most of the holdings will be of only 2-3 ha in size.

Small-scale forestry in Japan

Japan has a long history of family owned forests, some dating back more than 300 years. Some unique and very high value products are produced, e.g. feature poles used in living areas. According to Ota (2001), of the 2.5 M forest households in Japan, 1.5 M hold less than 1 ha and another 0.78 M hold 1-5 ha. Nearly 90% of forest holdings are less than 2 ha, and the national average for the area of forest owned is 2.7 ha. In this context, 'small-scale' has little meaning in terms of discerning between forest holdings.

Small-scale forestry in Australasia

In Australia, there has been recent wide interest in growing trees on farm land, with *Pinus radiata* and eucalypt plantings in southern Australia, and *Pinus* species (including *P. caribbea* and hybrids), eucalypts and rainforest species in the north east. The term 'farm forestry' is widely used, and woodlots are common on commercial and lifestyle farms in the higher rainfall coastal areas. Over recent years, the rate of increase in private plantings has greatly exceeded that of government plantations (Herbohn 2001). The term 'agroforestry' is sometimes used to describe

these plantings, e.g. in the Joint Venture Agroforestry Program of the Rural Industries Research and Development Corporation. The logic behind this use of the term is that forestry is integrated into the farm business, generating revenue and environmental services which complement other enterprises on the farm. Notably, this definition is not consistent with that of Helms (1998) above, unless the forestry and other enterprises as integrated spatially.

The term 'farm forestry' is also widely used in New Zealand. There, farm forestry 'tends to take place within the context of the existing rural community, rather than displacing farming from the landscape and community' (Capill 2000, p. 125). Bawden (2000) examined definitions of a 'small-scale forester' in New Zealand from a financial investment perspective. Bawden suggested that an overall definition would be that the forestry investment is made at a level which supplements the investor's income rather than being a primary income source. In this definition, he included investors belonging to small companies and taking part in joint ventures, and farmers having up to several hundred hectares of trees, but not publicly listed forest companies.

Small-scale forestry in India

A variety of terms are used in India to distinguish other forms of forestry from industrial forestry. One form is 'joint forest management', which has been something of a social experiment, and involves the Ministry of Forests as an equity partner. MOEF (1988) noted the development by the Forest Survey of India (FSR) of field inventories of areas of the various forest types and of trees growing outside conventional forest areas, particularly plantations under various social forestry schemes. In these inventories, planted trees have been divided into eight classes: farm forestry; village woodlots; block plantations, road, pond, rail and canal side plantations; and others (collectively social and farm forestry). Block plantations are defined as compact plantings of more than 0.1 ha on private or government land, while farm forestry includes patches of up to 0.1 ha on private land. Some of these plantings are what can be called very small-scale forestry, i.e. a few trees along a fenceline or canal.

Small-scale forestry in the Philippines

Following extensive deforestation in the Philippines, and concern over environmental impacts, the Forest Management Bureau of the Department of Environment and Natural Resources has actively promoted reforestation. The initial emphasis was on industrial forestry, but in recent years the focus has switched to farm and community forestry. Of particular significance is the Community Based Forest Management (CBFM) program, which subsumes a variety of earlier government initiatives (Harrison *et al.* 2000), and the more recent and smaller Community Based Resource Management (CBRM) program, of which forestry is one element. These draw on external funding from the Asian Development Bank and World Bank respectively, to assist small communities in establishing production, semi-production and conservation plantings on common property land. Often there is a mixture of species, including both natives and exotics.

In the case of farm forestry, the plantings tend not to be woodlots so much as fenceline plantings, underplanting with other trees and multiple land-uses such as combinations of coconut, timber, fruit trees and vegetables, i.e. a form of

agroforestry. Mangaoang (2002) has suggested that a more appropriate term is 'smallholder forestry', which can include farm forestry, agroforestry and community forestry as practiced by families who have ownership or control over small parcels of barangay land and sometimes a share in the use of common property land.

Small-scale forestry in other areas

In China, the term 'small-scale forestry' creates confusion for forestry specialists; tree planting has been taking place on a large scale, with increasing involvement of the private sector, and the term 'forest farms' appears to be more accepted (Shenqi and Harrison 2000).

In Southern Africa, most countries are characterized by rural production systems and cultures, where small-scale agriculture provides a major livelihood. Forests are more generally publicly owned, or under community management. In Zimbabwe, for example, the state owns 12% of the total land area whereas communities own more than 40% on the basis of former Tribal Trust agreements (Tyynelä and Niskanen 2000).

JOURNAL FOCUS AND PRIORITY AREAS

As part of the efforts to define the scope of the journal, a survey was conducted of participants at the IUFRO Working Unit 3.08.00 symposium on *Economic Sustainability of Small-Scale Forestry* held in Joensuu in 2001. Almost all respondents strongly supported the formation of the journal, and indicated that they and/or their respective organizations would be willing to subscribe to the journal. Most preferred either two or three issues to be published per year. Respondents were also presented with a list of possible topics that could be covered by the journal and asked to state their opinions about whether they should be included. A Likert scale of 1 (strongly disagree) to 5 (strongly agree) was used. A summary of the ratings of potential topics is presented in Figure 1. On the basis of the Joensuu survey and other considerations, some areas of interest for the journal are listed in Table 1.

The journal will seek to be inclusive of a broad range of issues relevant to small-scale or non-industrial forestry, including farm and community forestry. The underlying requirement for articles to be accepted will be that they in some way relate to small-scale forestry and that they have been developed in a rigorous manner, based on an accepted quantitative or qualitative research methodology. While the primary focus will be on private and community forestry, this will not necessarily exclude government-owned plantings. Critical reviews of policy measures and small-scale forestry systems from different countries or regions can also be accepted. Articles should have a social or economic focus, although articles with a biological or silviculture focus are also considered if the management or policy implications are highlighted. Papers dealing with large-area plantings of dominant use production forestry are unlikely to be acceptable.

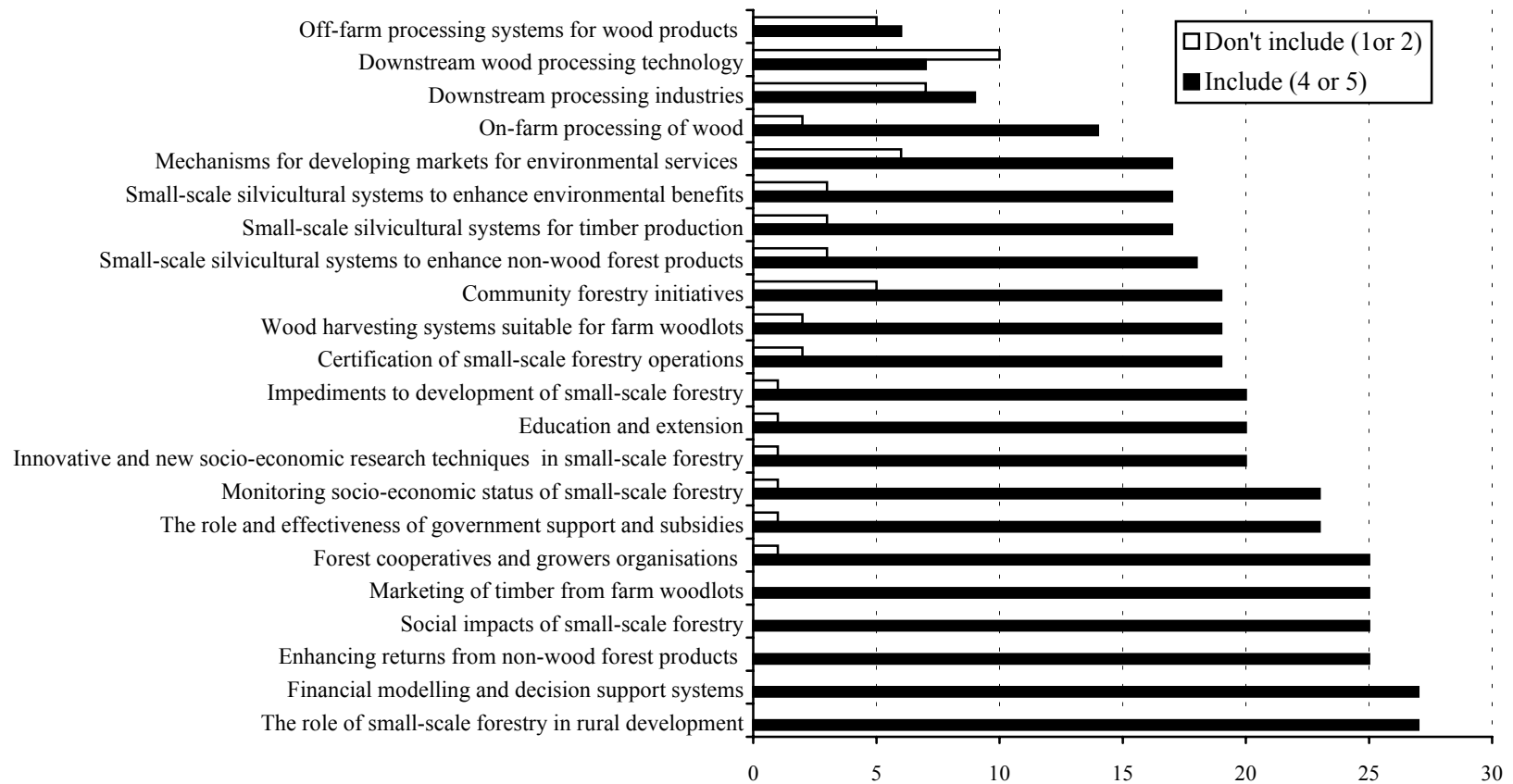


Figure 1. Ratings of possible topics that could be covered by the journal and asked to state their opinions about whether they should be included. A Likert scale of 1 (strongly disagree that should be included) to 5 (strongly agree that should be included) was used

Table 1. Some priority areas for the journal *Small-scale Forest Economics, Management and Policy*

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| The role of small-scale forestry in rural development |
| Financial modeling and decision support systems |
| Forest cooperatives and growers organisations |
| Financial returns from non-wood forest products |
| Social impacts of small-scale forestry |
| Marketing of timber and other forest products from farm woodlots |
| The role and effectiveness of government support and subsidies |
| Monitoring socio-economics of small-scale forestry |
| Innovative and new research techniques in small-scale forestry |
| Certification of small-scale forestry operations |
| Education and extension |
| Impediments to development of small-scale forestry |
| Facilitation of community-based forest management |
| Wood harvesting systems suitable for farm woodlots |
| Small-scale silvicultural systems to enhance wood and non-wood forest production and environmental enhancement |
| Mechanisms for developing markets for environmental services provided by small-scale forestry (e.g. carbon sequestration, improvement of water quality) |
| On-farm processing of wood and other forest products |
| Forestry at the rural/urban interface |
| Social and community forestry |

While it is the intention to produce two issues of this journal each year, scope also exists for special issues which provide a collection of papers on a common theme, and thus provide a valuable reference collection for researchers in specific aspects of forestry. It is envisaged that guest editors will be involved with these special issues. Themes for special issues will be considered on a case-by-case basis.

The editorial committee welcomes feedback from interested persons on matters discussed in this paper.

CONCLUDING COMMENTS

In summary, there is a variety of concepts and definitions of small-area private and community forestry and these concepts and definitions differ between countries and are in some cases conflicting. For instance, in the above country studies, Sekot (2001) defines farm forestry as comprising areas of greater than 1 ha, while the MOEF (1998) in India defines farm forestry as areas less than 1 ha. The term 'small-scale forestry' fits particularly well for most European countries, but is not used to any extent in the USA, where private forestry plantings are not small by world standards, or Japan, where most forest holdings are micro-scale than small-scale. In some developing countries, common property forestry development such as joint forest management and community-based forest management are practiced, are not particularly small in aggregate, though financial interests of individual participants

are small. Forestry on private land in developing countries tends to be combined with other tree species (coconuts, fruit trees) and undercropping, and ‘smallholder forestry’ appears a better name. In Australia and New Zealand, the term ‘farm forestry’ is widely used.

Some difficulty arose in arriving at a journal name which conforms with the interests of the IUFRO small-scale forestry group, describes accurately the focus of the journal and the major discipline areas of targeted contributors, and is respectable in an academic environment. What is considered ‘small-scale forestry’ differs greatly between countries, and the term does not distinguish between industrial and non-industrial plantings. ‘Non-industrial’ says what forestry is *not* about, not what it *is* about. Given the lack of universally accepted nomenclature about forms of forestry, the title *Small-scale Forest Economics, Management and Policy* was arrived at as a best alternative between contrasting views. The motive in choosing this title was to say what the journal is about, in terms of discipline areas rather than in generic terms only.

In recent years, there have been huge advances in the planting of forestry for multiple uses on farms and, in developing countries, on common property lands. Small-scale forestry vastly outranks industrial forestry in terms of number of participants, and in many countries rivals industrial forestry in terms of volume of timber harvest. It is a much more sustainable enterprise on social and ecological grounds, and in our view offers great scope for interesting research. Hence this journal has the potential to fill a major gap in terms of publication outlets for research papers dealing with the management, economics and policy of small-scale or non-industrial forestry.

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