

## Diversity of rural forests in central Western Ghats (India): views from different stakeholders

Christelle Hinnewinkel, Sylvie Guillerme, Ajit Menon, Siddartha Krishnan,  
Nitin Rai, Eric Maire, Claude Garcia

► **To cite this version:**

Christelle Hinnewinkel, Sylvie Guillerme, Ajit Menon, Siddartha Krishnan, Nitin Rai, et al.. Diversity of rural forests in central Western Ghats (India): views from different stakeholders. Small-scale Rural Forest Use and Management: Global Policies versus Local Knowledge, Jun 2008, Gérardmer, France. 13 p. hal-02617440

**HAL Id: hal-02617440**

**<https://hal-univ-tlse2.archives-ouvertes.fr/hal-02617440>**

Submitted on 25 May 2020

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**Small-scale Rural Forest Use and Management: Global Policies *versus* Local Knowledge**

- *International Symposium* - Gérardmer, France, 23-27 June 2008

Date of the Manuscript: 20/04/2008

Manuscript Word Count: around 7000 words

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**Title:** Diversity of rural forests in central Western Ghats (India): views from different stakeholders

**Authors**

Christelle Hinnewinkel\*, Dr. Geography, University of Lille, [christelle.hinnewinkel@univ-lille1.fr](mailto:christelle.hinnewinkel@univ-lille1.fr)

Sylvie Guillerm\*, Dr. Geography, CNRS Toulouse, [guillerm@univ-tlse2.fr](mailto:guillerm@univ-tlse2.fr)

Ajit Menon, Dr. Political Sciences, MIDS, Chennai, [ajit@mids.ac.in](mailto:ajit@mids.ac.in)

Siddhartha Krishnan, Dr Sociology, ATREE, Bangalore, [sidharth@atree.org](mailto:sidharth@atree.org)

Nitin Rai, Dr Ecology, ATREE, Bangalore, [nitinrai@atree.org](mailto:nitinrai@atree.org)

Eric Maire\*, Dr Remote sensing, CNRS Toulouse, [mair@lmtg.obs-mip.fr](mailto:mair@lmtg.obs-mip.fr)

Claude Garcia\*, Dr Ecology, CIRAD, [claud.garcia@cirad.fr](mailto:claud.garcia@cirad.fr)

*\*Researchers affiliated to French Institute of Pondicherry*

**Abstract:**

Decentralised conservation is an influential discourse in India which is gradually being translated into policy. Underlying such discourse and policy is the recognition of a substantial dependence of Indian rurality on forests. Consequently the rural character of forests is subject to historical extraction and alteration by rural cultures. This paper highlights the diversity of what might be called ‘rural forests’ in the central Western Ghats area of south India. It also attempts a typology of such forests. Rural forests mean different things to different people according to their disciplinary and professional backgrounds. Competing views exist with regard to what criteria a rural forest should meet, namely in terms of ecological structure, local and supra-local needs, property rights and management. The paper highlights some plural and conflicting representations of rural forests based on discussions with Forest Department officials, indigenous community members and on expert views that emerged from a workshop of academics, practitioners and field-workers.

**Keywords:** rural forest, domestic forest, stakeholders’ representations, Western Ghats, India

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The forests of Western Ghats have been inhabited for centuries and M.D.S. Chandran (1997) suggests that cultivation in these forests predates even the spread of iron tools, 3000 years ago. The advent of forest policy (Imperial Forest Policy of 1894 and National Forest Policy of 1952) and scientific forestry at the end of the 19<sup>th</sup> century marginalized local people from forest management decision making processes which became dominated by experts in scientific forestry, employed by the State (Rangarajan, 1996; Poffenberger M. & McGeanB., 1996).

The National Forest Policy of 1988 marks a major shift in the Indian Forest Policies; it discontinues with the existing commercial orientation of Indian forestry in order to reverse the degradation of forest resources in India. This still in force policy focuses also on involving people in forest management. The priority of this policy is to “ensure environmental stability and maintenance of ecological balance” but also to “meet the requirements of the rural and tribal populations”. This new approach witnesses the re-emergence of discussions about the

meaning of the concept of forest in India. Adding the adjective “rural” will lead to a more nuanced and plural understanding of what forests mean to rural constituencies and what this means to understanding the forest structure and dynamics. This would open the way to debate on how to locate forest in rural system rather than autonomous objects. This will contribute to the discussion on participatory forest management. As Forest Departments are talking about decentralization and involving people, there is a need to understand what types of forests local people use and how they manage it.

With the Indian highest density of trees in rural area and a long history of human-forest interactions, the Western Ghats offers an interesting case study to analyse the diversity of “involving people forests”. Today, this 160 000 km<sup>2</sup> of mountain is considered as one of the 25 biodiversity hotspots of the world (10 000-15 000 species of organisms and among them 40% are endemics)<sup>1</sup> by scientists in ecology, and is the homeland of an important population (the population density is higher than 100 hab/km<sup>2</sup> and reach nearly 1500 hab/km<sup>2</sup> in Kerala). The combination of those two characteristics generates a debate about the functions and uses of the forests of Western Ghats.

The inhabitants of the Western Ghats, who settled there at different periods in the history, depend on the forest resources and have developed different ways to use the forest resources. In parallel, the implementation of decentralised and participatory forest management by the Forest Departments highlights the question of involving people in forest management. For forest officials “*there are many terms for describing forestry activities involving rural community such as social forestry, community forestry, farm forestry, agroforestry, forestry for local community development, upland forestry, rural forestry, etc.*” (Vyas<sup>2</sup>, 2006). The variety of the terms used shows the multiple attempts of the Forest Departments to handle this question of involving people in forest management and the difficulty to name those forests.

Those two types of local people forest management (the prevalent local people uses and the “involving people forestry” by Forest Department) contribute to the rural economy and in this way constitute a “rural forest” which can take different shapes. The present typology of “rural forests” in the Western Ghats is based on field work in central Western Ghats, discussions with officials from Forest Departments in Tamil Nadu, Kerala and Karnataka and on expert views that emerged from a workshop of academics and practitioners (some work for wildlife protection and others for rural development’s NGOs) organized in Coimbatore on 29<sup>th</sup> and 30<sup>th</sup> of October 2007. From this, emerged the problematic of what a “rural forest” is and what it should be, in other words “what are the local people uses” and what is considered as “a good involving people forest management”. The idea of “rural forest” which questions the definition of local people forest management helps to distinguish forests according to their types of management: from forest managed by Forest Departments, to forests used by local people through co-managed forests and forests managed by local people.

### **1. To acknowledge local people forest management**

Throughout the world there appears a recent trend to acknowledge local people forest management which encompasses a large variety of forest types and practices. Two concepts have been formulated to address this issue: the “domestic forest” (Michon & al., 2007) which names all the forests shaped by local people uses and the “small-scale forestry” (Harrison & al, 2002) which names all the non-industrial practices involved to manage the forests.

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<sup>1</sup>R J Ranjit Daniels on the website of Western Ghats Forum: <http://www.westernghatsforum.org>

<sup>2</sup> G.P.D. Vyas is a Deputy Conservator of Forest.

### 1.1. *A forest used by local people*

The concept of “domestic forest” broadly covers local forests, community forests, traditional forests, sacred forests, peasant forests, forest gardens, agroforests, intermediate systems, and all forests characterized by the ethnicity of their managers. “*The term domestic forest aims at highlighting the close relationship the domestication process establishes between a specific human group, including its elementary units, i.e., the domestic units, and the forest, transformed and managed to fulfill the needs of that group. Domestic refers to both the process of domestication and the relation to a household or to a group of households*” (Michon & al., 2007). According to the definition “rural forests” are equivalent to domestic forests but this is questionable in the Indian forests context where more than 90% of the forests are owned by the State.

In Western Ghats, as the majority of the forest cover is owned by the State, the diversity of practices which shape the forests varies according to the ownership of the land (Table 1). The main stakeholders directly involved in those practices are the forest officials, the people living in or next to the forest, the environmental NGOs, the social activist NGOs and the forest contractors. Schematically, the roles are divided into two main domains of activities: protection and exploitation which are nowadays related to two different types of property: public and private. The main activities of the Forest Department are on state-owned lands. Since the 1988 National Forest Policy their role has been to protect the forest for ecological purposes. At the opposite, rural people are considered as exploiting the forest resource and these activities are restricted. Their main practices are normally limited to private lands where they manage private forests, plantations and agroforestry systems.

Table 1: Main forest uses that shape the forests of Western Ghats according to the land ownership

Land ownership \ Forest uses	State-owned lands		Private holdings
	Revenue lands	Recorded forests	
Protection for ecological functions		Reserved Forest	
Religious protection	Burial grounds	Sacred groves	
Afforestation, Restoration	<i>Social forestry</i>	<i>Afforestation programme</i>	
		<i>JFM (VSS, VFC)</i>	<i>Farm forestry</i>
Silviculture	TE and plantations		Private forestry
Collection of MFP		Areas in RF leased to LAMPS	Plantations or agroforestry
Collection of FW	on all areas with wooded vegetation		
Agriculture practices		Tribal agriculture lands in RF	Agroforestry

Dark grey: practices in force. Light grey: practices deserted during the last 15 years.

Italic: name of the schemes implemented by Forest Departments.

TE: Timber extraction; MFP: Minor Forest Products; FW: Firewood; RF: Reserved Forests; *JFM*: *Joint Forest Management*; LAMPS: LArge MultiPurpose Society.

But the roles of stakeholders are more integrated than this very simple typology. The Forest Departments used to implement also schemes for afforestation on revenue land (*Social forestry*). This is not anymore in force now but they implement afforestation schemes on private holdings (distribution of seedlings to farmers through *Afforestation programme*). Rural people may also manage sacred groves on private lands as well as on forest lands. Since the 1990’s, they have also been involved by the Forest Departments in the management of

degraded forest located in public forest lands through Joint Forest Management programmes (JFM). People also gather firewood on all types of land and some Minor Forest Products on private land but also on RF areas given in lease to the company allowed to buy and sell those products, the LAMP societies. Among the rural people, some live inside the Reserved Forests where they grow paddy or millet and sometimes cultivate tea, coffee, and pepper in multicrop system with yam and other tubers.

### *1.2. A forest managed by local people*

The concept of “small-scale forestry” focuses on the non-industrial character of the practices that shape the forest. This concept has been formulated in order to name the forestry practices which are acknowledged by the “*trend to move away from industrial forestry towards landholder-based forest management and community forestry*” (Harisson & al, 2002). Small-scale forestry covers private forestry, family forestry, farm forestry and community forestry which are practiced at a small-scale but there is no reference to firewood collection and minor forest products collection which are important activities for the local people living near the forests of Western Ghats. For instance, the ayurvedic industry, which mainly uses plants grown in forest, generates a trade of 35 milliars of Rupees in India (Dejouhanet, 2007) and gives a livelihood for many tribal people.

The confrontation of the concept of “small-scale forestry” with the Western Ghats context highlights the question of the meaning of forest management. Those practices of collection are sometimes not considered as a forestry practices or are considered as mismanagement. In India, many foresters still think that people have to be taught to manage properly the forests but those scientific forestry principles which they teach are in pass to change. With the contribution of the “small-scale forestry” concept, the scientific forestry can integrate the principles of the family, farmers or community forestry. A co-learning process between scientists and local people will give birth to new principles in forestry. This is the condition for a rich and creative local people forest management.

In Western Ghats, the current issue is to constitute a forest managed by local people. All the forests of the Western Ghats are domestic forests, they are shaped by current and deserted practices of local people and they contribute to the livelihood of the rural people even if many practices are considered illegal. The constitution of a vast state-owned forest territory has excluded local people from the making decision process of the management of those Recorded Forests<sup>3</sup>. It has restricted or prohibited many of their practices, but nowadays this situation is questioned by the new decentralised and participatory forest approach. Nowadays the Forest Departments work on involving people in forest management, in other words to constitute a forest managed by local people which could be called a “rural forest”.

## **2. Forest managed by the Forest Department for the requirements of local people**

With the National Forest Policy of 1988, industrial forestry on state-owned forests has been deserted. In this context, the trees outside recorded forests have been regularly assessed since 1991 by Forest Survey of India (FSI, 2003). This tree cover outside state-owned forest areas, named Trees Outside Forest (TOF), is acknowledged to contribute significantly to the socio-economic and ecological status of a country. For the FSI, TOF is of two types: blocks of forest cover bigger than 1 hectare and tree cover<sup>4</sup>. In India, the blocks represent only 3.4 % of

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<sup>3</sup> In India “recorded forest areas” are “Reserved Forest”, “Protected Forest” and “Unclassified Forest” defined by Indian Forest Act.

<sup>4</sup> Tree cover is the average number of trees on cultivable land. It is estimated through analysis of high resolution satellite data (FSI 2003).

the total area and the average tree cover is 12.3 trees/ha of land. Compare to other area in India, TOF is relatively important in Western Ghats: the density of trees is the highest in the country with 21.6 trees/ha and the blocks of forest represent 8.9 % of the area. This TOF is located on two types of land ownership: common lands and private holdings and is the result of different afforestation practices: “rural forestry” and also “farm forestry” or private forestry.

When extension forestry is conducted by Forest Department on common land in order to meet the needs of the rural population, the forest officials call it “rural forestry”, i.e. forests regenerated or raised ex-situ where the species involved is seen to contribute to subsistence needs and income and where such regeneration helps meet the forest cover targets prescribed in the national forest policy, which is 33 % for plains and 66 for hills. *It encompasses forestry activities on community and village lands, degraded forests, road and railway sides and canal banks for the benefit of rural people. It also includes restoration of derelict areas such as those bearing scars of quarrying, mining, road construction, brick manufacture, lime burning and the like* (Vyas, 2006). For the Forest Departments, those activities are similar to “farm forestry” but the afforestation schemes are implemented on common land and not on private holding as it is in “farm forestry”. The management of those plantations is named “rural forestry” because the plantation is supposed to improve the local environment (reduce the erosion, control the water flow) and a part of the benefit of the sale of the timber is allotted to the District in order to maintain roads or water supply system. The benefit is shared with local people but they are not involved in the management of those plantations.

This “rural forestry” comes under the concept of “social forestry” which was first recognized as an important component of forestry for meeting rural needs in the report of the National Commission on Agriculture (NCA) of 1972. During the 1970’s and 80’s, the objectives of social forestry were discussed and the scope of social forestry was not only the afforestation on common lands but includes also farm forestry, community woodlots and reforestation in degraded lands. In the 1980’s, the concept of social forestry was established as forestry “*for the people, with the people and by the people*”. It was a precursor of “involving people” schemes of the Forest Department recommended by the National Forest Policy of 1988.

### **3. Co-managed forests**

While forest blocks represent only 8.9 % of the total area of the Western Ghats, 45 % of the area of this eco-region is under state-owned forests (FSI, 2003). The Forest Departments involved local people in the management of limited part of this vast state-owned forests territory. As a major aim of the National Public Policy of 1988 is to increase the total forest cover of the country, an important part of the activities of the Forest Departments is afforestation on private or on state-owned lands.

#### ***3.1. Co-management on private land : farm forestry***

Afforestation on private lands is whether a private forestry or a scheme of the Forest Departments (*National Afforestation Programme*, NAP). According to forest officials the plantation of trees on private land with the help of the Forest Department come under the category “involving people forestry” and is named “farm forestry” (Vyas, 2006).

In 2007, the Tamil Nadu Forest Department has launched a vast scheme of farm forestry, the *Tree Cultivation in Private Land* (TCPL). The local people will manage those plantations and are allowed to sell the timber but they were not consulted to select the species. In Western Ghats, the forest officials have chosen a fast growing species, the silver oak (*Grevillea*

*robusta*). Seedlings were provided to farmers for planting them as intercrop in their fields (mainly as intercrop with tea). The co-management in this case takes the form of plantations initiated by the Forest Department and managed by the farmers. While the “rural forestry” can contribute to the requirements of all local people, “farm forestry” contributes to meet the requirements of only the landowners. Co-managed forests schemes on public land are more equitable in this sense.

### 3.2. Involving people in forest management of delimited part of the state-owned forests

For most of the forest officials only sacred groves, Reserved Forest leased for Minor Forest Products collection and forests under Joint Forest Management can be considered as rural forests. Even if they implement some schemes to involve people in the management of public forests, this remains on limited areas. For them the forest seems to be irreducibly a separate world which should be protected from the greed of people. The existence among forest officials of a minority in favour of involvement of local communities in conservation is as old in India as the Forest Department itself (Guha, 1993). Since the 1980's, the successful experiences of collective forest management have been carried out in many reserved forests, sometimes on those foresters' initiative (Pouchepadass, 2002).

The collection of Minor Forest Products (MFP) or Non-Timber Forest Products (NTFP) is a source of employment, income and subsistence for many agricultural labourers in the Western Ghats. The Forest Departments give lease to collect MFP on reserved forests and the products are sold to specific society allowed to purchase MFP, the LAMPS (LARGE MultiPurpose Society). The forestry sector provides 1.6 million of employment in NTFP activities and about 40 to 50 % of State forest revenues in India (Tewari, 1993 In Sudha & al, 1998). In the Nilgiri-Wayanad at the south fringe of Mudumalai Wildlife Sanctuary, the traditional herbalists among the Paniyan, Mountadan Chetty and other communities collect roots, rhizomes, barks, leaves, flowers, fruits, latex and seeds of medicinal plants growing in the moist deciduous forests of the area. Since 2000, Minor Forest Products<sup>5</sup> collection from protected forests has not been allowed by the Forest Department but as many tribal communities are agricultural labourers, they depend on those products for their livelihood and so still collect them though illegally (Ghatak, 2007).

Recorded forests are not only given in lease by the Forest Departments for collection of forest products, they are also managed with the participation of people. The involving people management forestry is implemented mainly for the management of some sacred groves and of degraded forests under the Joint Forest Management (JFM).

Sacred forests are patches of forest that either belong to a temple or are said to shelter a god or spirit revered by the local inhabitants. The sacred forests are not a space left outside the village life. In Kodagu, the neighbouring villagers do enter into *Devarakadus* (sacred groves) to harvest forest products they cannot find elsewhere near their houses: firewood, small poles and timber, and minor forest products<sup>6</sup>. In December 2001, the Karnataka State has decided to

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<sup>5</sup> The main items of minor forest products are Lavangam bark, avaram bark, reeds, shikakal (*Acacia officinalis*), medicinal plants, honey, bee wax, nellikay (*Phyllanthus emblica*), gall nuts, wild pepper, wild ginger, wild turmeric, wild mango (*Mangifera indica*), lemon grass (*Cymbopogon citratus*), kullirma bark (*Machilus macarantha*), dammar (*Shorea, Canarium, Vateria*), camphor.

<sup>6</sup> A great variety of minor forest products is collected from the sacred forests. Gums, resins (*Canarium strictum*), fruits (*Mangifera indica, Artocarpus heterophyllus, Garcinia gummi-gutta, Sapindus laurifolius*), wild roots, and medicinal plants (*Fabaceae climbers*) are extracted, and sometimes sold at the city market. Such production can supplement the household revenue. The nutrient-rich topsoil of the forests is sometimes removed and used for plant nurseries (Garcia, 2003).

implement Joint Forest Management Plan for the *Devarakadus*. Village committees in collaboration with the Karnataka Forest Department manage the sacred groves while the Forest Department is the owner. A Management Plan is prepared by the Committee and approved by the foresters. The members of the committee are the members of the traditional temple committee completed with several seats reserved for the women and the economically weak part of the population, scheduled castes (SC) and scheduled tribes (ST) (Garcia, 2003). This participatory approach for forest management is not new and unique in India.

Several experiences of participatory forest management of recorded forests were experimented in West Bengal in the 1970's but this approach was institutionalized in the National Forest Policy of 1988 and gained momentum with the Central Government Circular Concerning Joint Forest Management No. 6-21/89-P.P. This circular of June 1990 provides the framework for the implementation of Joint Forest management (JFM) programme: the aim is to protect, regenerate and rehabilitate degraded recorded forest, jointly with the Forest Department and the local communities. It is a decentralised approach which links people rights to use the forest resource with people responsibility to sustain the resource. It means the recorded forests cease to be purely state-controlled resource and become defined patches to which specific village communities would have exclusive and assured access (Lele et al., 2005).

A huge investment in externally-assisted projects and through the allocation of central government funds defines JFM as a massive programme (Rao et al., 2004) and 26 % of the recorded forest areas are under JFM (Sudha et al., 2004). But the implementation of this programme is not easy and requires a major change in the mindsets of forest officers. Foresters find implementation of JFM difficult because they do not have sufficient knowledge and training on social systems and social skills for effective implementation of JFM. Many foresters do share their belief with the foresters of 1950s, that communities are heavily driven by their needs and degrade the forests. Further, foresters are unwilling to lose their authority by leaving behind their regulatory functions in favour of social functions (Sood & Gupta, 2007). This negative attitude seems to be related also to the bureaucratic and hierarchical organizational structure of Forest Department, which provides limited freedom to field level staff. P. Rishi (2007) suggests that continuous training programmes and supervision of senior officers can shaped the attitudes of forest officers. In order to build a mutual understanding between local people and foresters, forests managed by local people could be shown to the foresters.

#### **4. Forests managed by local people**

Local people can develop their own forest management on their own land and in some case on revenue land. While community forestry is considered as rural forest by many practitioners, the forestry on private land is denied to be a rural forest in the name of the principle of equity. But both forestry practices give a framework for the maintenance and creation of local knowledge related to forest and tree management.

##### **4.1. *Self-initiated community forestry on revenue land***

A study of Sudha et al. (1998) presents several types of community management systems that exist in Western Ghats. Among them, one community management system exists for about 100 years in Shimoga district in Karnataka, in order to manage forest patches on revenue land. In this area, people collect firewood, leaf litter as cattle bedding and manure in the crop fields but also medicinal plants, mushrooms, spices, bamboo shoots, berries for pickle mainly for self consumption in the surrounding forests. The Karnataka Forest Department is not involved



in this self-initiated community forest management; foresters have only provided fund for fencing. A management committee exists and the mode of protection is based on the assignment of guards from a household and a fence has been erected around a portion of the forest. There is no restriction with regard to the collection of leaf litter, fruits, flowers, nuts, seeds, medicinal herbs etc. from the protected patch at any time of the year. However, people are not allowed to cut any green twigs, branches, leaves or bamboo shoots from the patch.

Currently the sharing of costs particularly the human effort for protection is equal, but the cost of human labour for a poor landless and garden owner is surely different. The sharing arrangements are equal for every household has equal but limited access to fuelwood and other NTFPs seems inequitable. First, garden owners have their own large biomass resources and the community forest is only a supplementary source. But for the landless and non-garden owning households with no private biomass resources, community forest is a critical source of biomass and also the cost of alternate sources is very high for the landless and marginal farmers. Secondly, banning of extraction of bamboo will deprive raw materials to the basket weavers and such a regulation may not affect the landed households (Sudha & al., 1998).

There are not many possibilities to develop rural forest on revenue land due to land scarcity. A field study in Nilgiri-Wayanad (Gudalur taluk in Tamil Nadu) revealed that the *poromboke* (land owned by the revenue department) represents 14 % of the total area. Even if it is possible to find some lands available, as the forest blocks on private lands occupy less than 8.9 % of the area of the Western Ghats, it is certain that the main area outside recorded forest available to meet the requirements of rural people is the agricultural land.

#### 4.2. Management of trees on private holding: agroforestry and private forestry

In Nilgiri-Wayanad, the cultivated area occupies more than 50 % of the total area, mainly planted under agroforestry systems, from simple plantations of areca nut, coffee or tea to mixed agriculture with tea, coffee, areca nut, silver oak, pepper, yams and other tubers. Tea is the dominant crop. In the south and south-east of the area big plantations (more than 200 ha) are numerous but in between them small owners also grow tea. In the west of the area (near the Kerala border), the small farmers have developed agroforestry systems which are the consequences of complex cultural, legal and economic interstices. The farmers are predominantly Malayalam-speakers which explains the domesticity of forests. Economically the structure of these agroforestry systems i.e. tea and species cultivation interspersed with silver oak, areca nut and jack trees are, like in the neighbouring Kerala, production oriented in order to maximise income opportunities and minimise natural and market risks. Legally agroforestry systems are evidences for cultivation and occupation and moral economic statements reflecting migrant farmer ethic of migration, hard labour and subsistence. Those statements can be employed legally as proof of occupation and thus regularisation and also ideologically in resistance of evictions (Krishnan, 2004). In a way, the trees planted in those agroforestry systems symbolically represent the implantation of the migrant farmer into the rural system.

For some people, agroforestry systems are not considered as rural forest because it is on private holdings and not accessible to all the community. Only community forestry can come under “rural forest” because the benefit should be shared among the group and access to the resource should be free. However this understanding of rural forests is normatively constrained because equity seems to be a defining trait of the concept. But from a spatial perspective agroforestry systems if located in rural areas can also be called rural forests. Private owners of agroforestry farms may also be rural actors, albeit elitist.

For some academics in social sciences when agroforestry is practiced on a private holding, it is considered as community forestry because “*the community creates the framework of law and custom which gives the holder tenure in the land and trees and creates the mechanisms which protect tenure*” (Bruce, 1989). Even if private landholding system came into force after abolishing customary tenures and has disturbed the indigenous forestry and agriculture practices, it is not realistic to consider rural forest without taking into account tree planting on the agricultural holding. As the household which is making decisions about trees on his holding is involved in a farming system which overflows the holding into the common lands and sometimes into the Reserved Forests, the two systems (management of trees on private land and management of trees on common land) cannot be separated.

This is confirmed in Kerala where agroforestry systems present the advantage that it can cover most of the households’ needs for food and fuel, depending upon the size of the holding. The household's decisions about trees are made in terms of its overall access to tree products, whether on or off the holding. The Kerala forest gardens respond also to the desire to preserve a wooded area around the house. This “domestic forest” is considered by farmers to be more efficient than the “natural forest” whose trees grow slowly and do not provide as much useful products for a family in a limited area. It consists of trees selected according to the needs of farmers or as a “financial reserve”. Trees are perceived as “indispensable to man” and the home garden is regarded as a high value multifunctional production system (Guillerme, 1999).

As the agroforestry systems are the product of law and custom, the private forestry in India is also the product of socio-political context. The State Governments regulates felling of private trees and transit of forest product in order to protect forests and maintain ecosystem services. Those State Forest Laws that regulate user rights of the land and its product act as major disincentives of the private forestry (Sreedharan, 2005). For instance, the *Tamil Nadu Preservation of Private Forests Act* of 1949 prevents the destruction of private forest and the *Tamil Nadu Private Forest (Assumption of Management) Act* of 1961 gives the power to the State to take over a private forest and manage it for a period of time. The public perception that land under tree culture is liable to be acquired by Government and also the imperfection of the market discourage private initiatives (Sreedharan, 2005). The economic benefit of agroforestry systems and private forests are not shared among all the rural community but those forests contribute to some ecosystem services and interact with the other land uses and it is difficult to fulfill the criteria of equity. Equity is not warranty in community forestry, as Sudha & al (1998) explain about the Shimoga example and rurality cannot be reduced to equity alone. It is a culture with its own contradictions and knowledge that need to be understood to ensure sustainable forestry.

## **5. Forests used by local people**

The forests of the Western Ghats are recognised to “*sustain many rivers that are the lifelines of peninsular India and thus provide valuable ecosystem services not only in the form of water but also in the form of soil retention, climate regulation, carbon sequestration, and as reservoirs of pollinators and natural predators of pests*”<sup>7</sup>. Based on this scientific assessment the National Forest Policy in force stipulates the state-owned forests need to be protected from degradation in order to maintain their ecosystem services. At the same time, the Forest Commission states that “*the first charge of forest products must be in favour of the*

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<sup>7</sup> From the Western Ghats Forum

*neighbouring people. Sustainable management of forests and proper use of forest products can help in alleviating poverty of the forest dwellers. Low productivity is a result of unsustainable management and consequent degradation”.*

So for many forest officials rural forest should be developed in order to fulfil the needs of rural people and like thus reduce the pressure on the state-owned forests. In order to combine the two priorities of the forest public policy, they have created an essential dichotomy between forests dedicated to people requirements and protected forests which are dedicated to critical wildlife habitat and other ecosystem services. After many years of forest policies excluding local people from the management of forests, many uses of the forests are considered illegal and are pointed by many forest officials as the reason for the forest degradation. At the opposite, social academics question this “dichotomic representation” of the forest and suggest that this excluding policy prevents people from transforming their forest uses into an effective forest management.

#### *5.1. Firewood, a major need for local people*

There are millions of people in this country who depend upon wood as a source of energy for cooking and to a lesser degree for heat. The rural poor have no access to commercial sources of fuel and have no option but to collect firewood. Under the aegis of the Forest Act, 1927, the Forest Department used to permit the extraction of deadwood for the fuel needs of the people living within and around forests, for their personal bona fide use. About three decades ago, the State Governments started passing orders permitting sale of ‘head-loads’ of firewood and head-loads were defined as a quantity that could be transported by rail, truck, cart or bicycle.

The Ministry of Environment and Forests estimates that the forests in India can yield 40 million tones of timber on a sustainable basis while the current extraction is perhaps around 500 million tones. Unless alternate sources of fuel, wood or LPG, are made available to the population, particularly those dwelling in and around forest and protected areas, they have no option but to depend on forests and trees available They collect firewood on all wooded areas. FSI estimates that 51 % of the fuelwood is collected from the forest areas and 49 % from the non-forest areas of the country (Singh, 2005).

In term of uses, there is no a dichotomy in representation of the forests: firewood is collected on whether private land or common land or sacred groves or protected forests. Western Ghats rural communities depend on local vegetation for their biomass needs; they collect them in forests, land under tree crops, groves, plantations, permanent pastures, grazing lands, farms, homestead gardens etc (Sudha & al., 1998). Regarding these practices of collection, there are many interactions between forest area and other land uses. Those interactions are historically built and expressed in different ways according to the culture of the local people.

#### *5.2. A “non-dichotomic representation” of the forest*

The world of the Western Ghats’ forests and the agrarian society of coastal plains have been in continuous interaction for many centuries (Chandran, 1997). People living in the Ghats are not irreducibly ethnically distinct groups from people of the plains, and doomed to forest existence for ages. The forest is there, across the generations, as a space of social movement. It clearly has a long history of migration and colonization determined by the effects of wars and disasters, and the people who live there remember that they are often from elsewhere (Pouchepadass, 2002). This is, for example, well illustrated by the history of the Badaga, an

agriculturist community constituted in the Nilgiri Hills after several migration phases mainly from Mysore plateau.

The badaga vocabulary to name the forest indicates this interpenetration between forest and agriculture worlds (Hinneuwinkel, 2002). Historically *sole* meant the sholas that was in between the folds of grasslands. It is this forest type they historically interacted with. The forest is also named by *bana* and *kadu* which refer to both forest and agriculture worlds. The first is a forest / a jungle / a grove and also a forest clearing / a forest garden. The second is used both for the wilder side of the forest (jungle / forest / wood / unknown area) and the domestic side of the forest (forest clearing / someone else's field). There is *pekadu* for wilderness and *kaduhola* or *solehola* for temporary fields. Since colonial advent they have settled largely as agriculturists and now as monoculturists. There is no dependence on natural forests now. The word *kadu* is now sometimes used in reference to tea gardens which is sometimes also called *tottam*, garden. Agriculture lands are called *hola*. Sometimes eucalyptus and wattle plantations where they collect firewood from are called *sole*. For Badaga, it seems that forest is a wild area, unknown, inhabited sometime by spirits or gods, and a cultivated area, and of course a reserve of land for agriculture (*tudi* is wood with fertile soil sometime crossed by a river). As domestic forests, *kadu* and *bana* are shaped by a variety of practices.

Is it possible to consider legally this domestic forest as rural forest? Forest officials have a negative answer and state that the practices related to those domestic forests have disappeared today, due to population growth. For them, if all the forests are legally considered as rural forest, this will lead to the overexploitation of the forest resources. At the opposite, many social academics argue that this situation is generated by the socio-political context and are in favour of an important change in forest public policies.

### **Conclusion**

The idea of "rural forest" helped to categorize the diversity of "involving people forests" and in this way to analyse the conflicting views regarding "involving people forests" which has been a main issue in India forest management since National Forest Policy of 1988. It highlights the confrontation between the normative approach of the forest which is recommended by the State, and the pragmatic approach based on forest uses of local people. While the first approach institutes a major dichotomy between forests to meet the requirements of rural people and protected forests, the second one questions the established order.

The definition of "rural forest" is more or less broad according to the stakeholders' views. Academics in social sciences, who attempt to consider the local practices and indigenous views, argue for a broader definition in order to question the meaning of a protected forest, of sustainable forestry practices, and of the share of resources. For them, forest management can be sustainable only if people needs are fulfilled. At the opposite, for some practitioners, rural forests are limited to the wooded areas in common lands. This view will be followed by many forest officials who could see the potential in rural forest as a mean to reduce the pressure on the state-owned forest that should be protected for its ecological value. In between this two views, joint forest management approach attempts to involve people, but how this new approach can be sustainable if the socio-economical and cultural needs of the local people are ignored? The integration of people knowledge about trees and forest management in the Management Plan of the forest under Joint Forest Management can be a way to reinforce a sustainable forest management instead of the afforestation actually practiced.

In sum up, according to the stakeholder representations, the typology of rural forests in Western Ghats is whether limited to forests managed by a community or includes all co-managed forests or includes all forests to meet the requirements of local people or includes all the domestic forests (Fig 1). If a rural forest is constituted to involve people in forest management, how to delimit/define it and is it sustainable to involve people in forest management without taking into account their needs and acknowledging their practices?

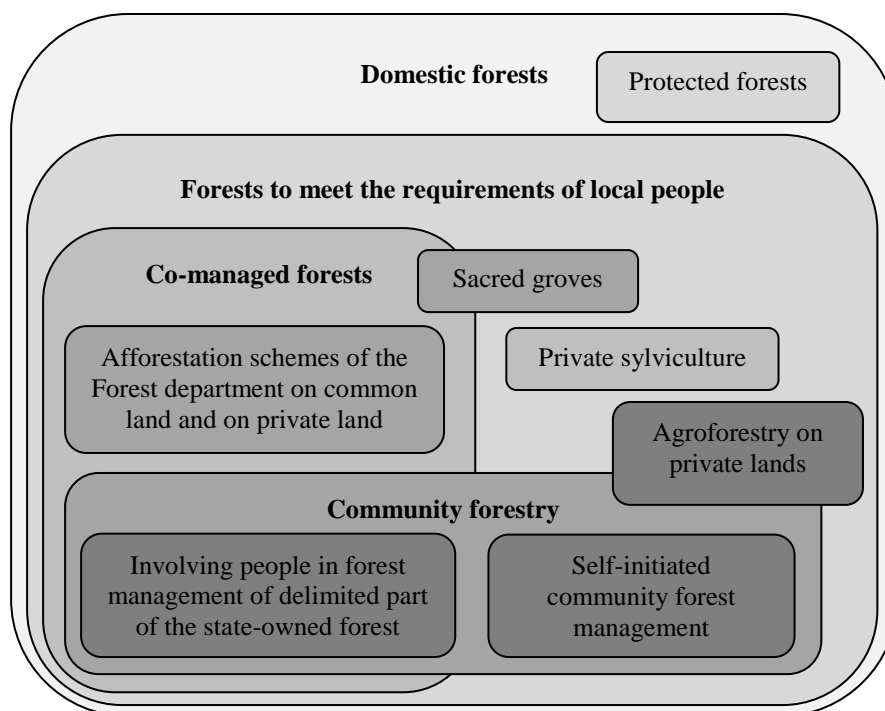


Fig. 1: Different representations of rural forests

### Acknowledgments

This work was carried out with the financial support of the « ANR- Agence Nationale de la Recherche - The French National Research Agency » under the « Programme Agriculture et Développement Durable », project « ANR-06-PADD-014, Popular ».

### References

- Bruce J.W., 1989, *Community forestry – rapid appraisal of tree and land tenure*, Rome, FAO, 90 p. [Community forestry note 5]
- Chandran M.D.S., 1997, On ecological history of the Western Ghats, *Current Science*, vol 73, N° 2, pp. 146-155 [online] URL: <http://www.iisc.ernet.in/currsci/>
- Dejouhanet L., 2007, Les produits forestiers non ligneux et la gestion de la forêt kéralaise : droit d’usage et droit de contrôle, In Eberhard C., *Enjeux fonciers et environnementaux. Dialogues afro-indiens*, Pondicherry, French Institute of Pondicherry, pp. 407-440
- Forest Survey of India, 2003, *State of Forest Report-2003*, Dehradun, Forest Survey of India, 134 p.
- Garcia C., 2003, *Les forêts sacrées de Kodagu – valeur écologique, rôle sociale et implications pour la conservation de la biodiversité*, Université Lyon 1, thèse en Ecologie, 208 p.
- Ghatak S., 2007, Bio-diversity and sustainable development in a fringe village in Mudumalai Wildlife Sanctuary Nilgiri Biosphere Reserve – A case study, In Singh A.K., Patil

S., *Man in biosphere – a case study in Nilgiri Biosphere Reserve*, New Delhi, Gyan Publishing House, pp. 259-296

Guillerme S., 1999, *Pratiques agroforestières et stratégies paysannes au Kérala (Inde du Sud), dynamique rurale en contexte de forte pression démographique*, Paris, Université Paris I-Panthéon-Sorbonne, 441 p. (doctorat, géographie, UFR de Géographie, décembre 1999)

Guha R., 1993, Dietrich Brandis et les forêts de l'Inde : la voie délaissée, In Pouchepadass J. (ed.), *Colonisations et environnement*, Paris, L'Harmattan, pp.

Harrison S., J. Herbohn, A. Niskanen, 2002, Non-industrial, smallholder, small-scale and family forestry: what's in a name? *Small-scale forest economics, management and policy*, 1 (1), pp. 1-11

Hinnewinkel C., 2002, *La montagne convoitée - Contribution à l'étude des dynamiques environnementales et sociales dans les Nilgiri (Tamil Nadu, Inde)*, Bordeaux, Université Michel de Montaigne-Bordeaux 3, 345 p. (doctorat, géographie, UFR de Géographie et Aménagement, Décembre 2002)

Krishnan S., 2004, *Deforestation and conflict in the Nilgiri Wynaad: a sociological study of protest, resistance and legal dispute*, Chennai, Madras University, 228 p. (doctorat, sociology, department of sociology, January 2004)

Lele S., Kumar A.K.K., Shivashankar P., 2005, *Joint forest planning and management in the eastern plains region of Karnataka – a rapid assessment*, Bangalore, Centre for Interdisciplinary Studies in Environment & Development, 77 p.

Michon G., H. De Foresta, P. Levang, and F. Verdeaux, 2007, Domestic forests: a new paradigm for integrating local communities' forestry into tropical forest science, *Ecology and Society*, 12 (2): 1 [online] URL: <http://www.ecologyandsociety.org/vol12/iss2/art1>

Poffenberger M., B. McGean, 1996, *Village voices, forest choices*, New Delhi, Oxford University Press, 339 p.

Pouchepadass J., 2002, Introduction, In Pouchepadass J. & Puyravaud J-Ph, *L'homme et la forêt en Inde du Sud – Modes de gestion et symbolisme de la forêt dans les Ghâts occidentaux*, Paris, Karthala, pp. 7-33

Rangarajan M., 1996, *Fencing the forest*, Delhi, Oxford University Press, 245 p.

Rishi P., 2007, Joint forest management in India: an attitudinal analysis of stakeholders, *Resources, Conservation and Recycling*, 51 (2007), pp. 345-354

Sood K.K., Gupta H.K., 2007, Implications of Indian foresters' perspectives of Joint Forest Management, *Small-scale Forestry* (2007) 6, pp. 291-308

Sudha P., P.V. Rekha, V.S. Gunaga, S. Patagar, M.B. Naik, K.M. Indu, and N.H. Ravindranath, 1998, Community forest management and Joint Forest Management : an ecological, economic and institutional assessment in Western Ghats, India, Presented at "Crossing Boundaries", the seventh annual conference of the International Association for the Study of Common Property, Vancouver, British Columbia, Canada, June 10-14, available on *Digital Library of the Commons* [online] URL: <http://dlc.dlib.indiana.edu/archive/00000166/>

Singh P.P., 2005, Firewood from forests – How much worth is it? *Indian Forester*, November 2005, pp. 1496-1500

Sreedharan C.K., 2005, Policy initiatives for tree planting in private lands, *Indian Forester*, April 2005, pp. 499-503

Vyas G.P.D., 2006, *Community forestry*, Jodhpur, Agrobios, 258 p.