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FOREST TENURE REGIMES IN THE KARNATAKA WESTERN GHATS: A COMPENDIUM*

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Abstract

Forest tenure regimes in the Western Ghats region of Karnataka are complex and poorly understood. We present first a framework for understanding such regimes. A detailed description of the regimes prevailing in this region, including the layering of products and actors, operational and constitutional rules, tenurial security, geographical distribution and extent, basis in the law, and administering agency for each distinct regime follows. We also comment on the original role of the regimes, their evolution and the implications for forest policy.

Background

In 1995, the Institute for Social & Economic Change and the Pacific Institute for Studies in Development, Environment and Security initiated a major research project to look at the relationship between tenurial and economic factors on the one hand and people's use and the ecological outcome on the other in the Western Ghats forest region of Karnataka State in peninsular India. As one of the first steps in this effort, we began a study to understand the diversity of forest tenure regimes prevailing in this region. Our initial enquiries into the nature of forest rights in the Karnataka Western Ghats region produced a rather confusing picture. On the one hand, official documents such as the Annual Reports of the Karnataka Forest Department (KFD) indicate only

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five legal categories of forests: Reserve Forests, Protected Forests, Unclassed Forests, Village Forests, and Private Forests. Further, they suggest that the vast majority of forests are under the direct control and management of the State forest department, because the area under the first two categories is 84 per cent of the total 'forest' area reported by them, while that under the last two categories was only 1.2 per cent¹. On the other hand, observations made by us during visits to the field and discussions with local persons and bureaucrats indicated a much more complex situation. Terms such as *soppinabettas*, *kumkis* and *baanés* cropped up repeatedly. Furthermore, people talked about various other privileges, supported by Government Orders (G.O.s), High Court decisions, and other obscure rules. But it was very difficult to both authenticate and place these in the overall context of the region.²

This was not really surprising. The Western Ghats region of Karnataka State has inherited systems of land and forest tenure from four different administrations of the British period: Bombay Presidency (in Uttara Kannada district), Madras Presidency (Dakshina Kannada), Mysore Princely State (Shimoga, Chickmagalur and Mysore) and Coorg Princely State (Kodagu). The result is a bewildering array of 'rights', 'privileges' and other forms of tenure that are governed by a complex set of Acts, Rules, executive orders, administrative practices, court judgements and customs. What is surprising, however, is the absence of a source of comprehensive and detailed information on the exact nature of all forest tenure regimes and their distribution on the ground.

The Karnataka Forest Act and Rules completely gloss over most of the regimes. The closest to a comprehensive source is the Karnataka Forest Manual (Chetty, 1976), but even this did not cover many of the regimes we encountered in the field, nor did it provide the legal basis for the regimes nor their geographical distribution or spatial extent.³ Discussions with local activists and bureaucrats indicated that, like us, many of them were also hampered by the lack of information on these regimes. Their problem became particularly acute when they participated in pan-Karnataka or pan-Indian debates on issues such as Joint Forest Management: each came with partial knowledge about the regimes prevailing in their locality and almost no understanding of the larger picture. It became apparent to us that, in addition to helping our study and larger project (for which an understanding of forest tenure regimes was essential), a proper compilation of this

information would be useful for its own sake and would meet a felt need in various quarters.

Objectives

With the above in mind, we present in this paper a compendium of forest tenure regimes in the Karnataka Western Ghats. This compendium is targeted primarily at the layperson, activist or bureaucrat who is interested in understanding the manner in which access to and control over the forested landscape of the Western Ghats in Karnataka are allocated. It will also presumably provide the raw material for the pursuit of several academic enquiries.⁴ We do not aim to reproduce or explain all the details of existing Forest Laws or Rules as such (cf. Shetty, 1981). Rather, the idea is to provide an overview of tenure arrangements prevailing in the region in terms of key characteristics that are likely to influence their operation and their social and ecological outcome and hence are relevant to discussions on how forest tenure should be revised.

The choice of such 'key characteristics' is of course not made in a vacuum but is based upon some theoretical preconceptions of what might matter. Indeed, in our opinion, debates on forest policy suffer as much from a lack of a common and well-developed framework for conceptualising forest tenure as from a lack of detailed information about the field situation and legal complications. We therefore felt it necessary to precede our description of the forest tenures with a brief explanation of the conceptual framework that we have used to characterise these tenures.

The objectives of this paper therefore are:

- a) to present briefly a conceptual framework for understanding forest tenure regimes, viz., what the salient dimensions of any forest tenure regime are and how they might (theoretically) influence the social and ecological outcome of the regime;
- b) to document in detail the different regimes of forest tenure prevailing in the Western Ghats region of Karnataka in terms of these tenurial dimensions;
- c) to provide information on the geographical location, extent, legal basis and case law, administrative arrangements, demarcation and reporting problems, and *de facto* condition of these regimes wherever possible;

- d) to compare and contrast across the regimes and across the Western Ghats region in order to draw some immediate policy recommendations.

Definitions and Scope

We use the term 'tenure regimes' to denote the set of rights and responsibilities that are associated with the use and management of a piece of land or resource and which grant the tenure-holder access to a stream of benefits from that resource. We prefer the term 'tenure regime' over terms such as 'property rights' (which suggests physical property that can be owned exclusively), 'rights regimes' (which does not convey the notion of responsibilities that go along with the rights) and 'institutional arrangements' (which we interpret more broadly to also include the administrative machinery and structures through which these rights/responsibilities are enforced, conflicts resolved, discretionary activities initiated, and the fiscal arrangement through which such enforcement and development are funded). For the sake of brevity, we may occasionally use 'rights' as shorthand for 'rights and responsibilities'. We do not make the legalistic distinction between 'rights' and 'privileges' that is made in Indian forest law. We use the term 'right' throughout, but indicate the level of security enjoyed by that right and the manner in which it can be revoked, which is what essentially distinguishes 'privileges' from 'rights' in the Acts.

The terms 'forest' and 'forest land' are highly confusing and contentious. In official documents, the term 'forest land' usually refers to the legal rather than physical status of the land, and hence to land in the control of the Forest Department only. However, many lands that are not officially declared a Forest of some sort may have (or till recently had) natural tree growth of some sort; these include public lands controlled by some other department (typically Revenue Department) and even some fully private lands not designated as Private Forest in the law. Our enquiry into forest tenure covers all forested lands, which we define broadly as any land covered with some form of uncultivated tree vegetation as also tree plantations created on public lands (thus excluding farm forestry or other private tree plantations).

Spatially, the scope of this study is limited to the Western Ghats region of Karnataka State, comprising of the six districts that contain most of the hilly, forested landscape of the region,

viz., Uttara Kannada, Shimoga, Chickmagalur, Dakshina Kannada, Kodagu, and Mysore⁵. Hassan and Belgaum districts have been left out because only one taluka or so of each district can be said to be hilly and forested. This exclusion has not, to the best of our knowledge, resulted in the exclusion of any distinct regime in our compendium.

Classification and dimensions of tenure regimes

We are all brought up on a simple binary classification of tenure, viz., 'private property' vs 'public property'. This classification captures the distinction that is most apparent to people in their daily transactions in modern society. Subsequently, one may notice that some resources may also be owned and controlled by a group of individuals (e.g., community grazing lands or even jointly held family property), and in other cases the control of a resource may be undefined (e.g., ocean floor or outer space). Hence, a more sophisticated classification of resource rights regimes is typically presented as:

- a) private property
- b) communal property
- c) state property
- d) open-access,

where the last refers to situations where no well-defined individual, group or state organ has been assigned rights to the resource.

This classification has long been the framework within which popular and even academic discussions about the tenurial arrangements for forests have occurred. However, while useful as a pedagogical device, this categorization is not adequate for policy discussion. The categorization focuses only on the type of actor on whom rights are conferred. It suggests that resources typically are (and should be or can be) owned and managed exclusively by either individuals or communities or the state, and the debate gets limited to which of these is most appropriate as the exclusive manager/owner for a particular situation. In fact, however, there is almost nothing like 'complete and exclusive' ownership of a natural resource being vested in any one individual, firm or state organ. Virtually all lands, forests or other resources have overlapping ownership, claims or jurisdictions. For instance, private lands are not only subject ultimately to the state's 'eminent domain' but also to various zoning and other regulations. Conversely, even

fully state-owned-and-controlled lands usually have to allow for some customary rights of local communities, e.g., rights of passage. Moreover, the concept of 'ownership' hides the different forms of rights and responsibilities that could be conferred on different actors. Thus, it would be more useful to think of forest tenure as consisting of multiple dimensions:

- 1) the part or component of the resource to which specific rights are granted,
- 2) the type of right(s) and responsibilities granted,
- 3) the social category and organizational form to whom they are granted,
- 4) the spatial location and extent of the regime,
- 5) the duration and security of the tenure, and
- 6) the location of operational and constitutional rule-making rights.

We shall now briefly explain the meaning of each of these dimensions and how (theoretically) they might influence forest use and its outcomes.

1. Component of the forest resource over which control is granted

What is superficially thought of as 'one' resource may often contain many components or products: 'land' includes soil, rocks, surface or ground water, the vegetation on that land, and so on. This is particularly true of forests. 'Trees' consist of stemwood, twigs, leaves, flowers, fruit, gum, etc. 'Forests' also contain shrubs, grasses and wildlife, water bodies, and soil. They also provide aesthetic or religious value and ecosystem services. A particular tenure regime may give certain rights over all or only some of these components of the forest resource.

Splitting rights by resource component has advantages and disadvantages. It may increase efficiency and equity by assigning rights over specific components to those who can best utilize them or most need them. But the management of different, but ecologically interconnected components of a resource by different agents might also result in negative externalities. Further, it is generally assumed that more the components to which extraction and other rights are extended, more the 'disturbance' to the forest ecosystem and hence more the likelihood of negative environmental externalities. According to current thinking, timber

extraction in particular is the most environmentally disruptive of extraction activities, so when environmental conservation is the primary objective, timber extraction generally ought to be curtailed.⁶

2. Kind of right, responsibility or degree of control granted

If tenure is a right to a benefit stream, then the extent of benefits obtained depends upon what kind of control one is given over the resource: simply to use it for self-consumption, to sell the products or to sell the resource base itself. Tenure can thus be seen as a 'bundle of rights to control [the benefit stream]' (Ciriacy-Wantrup, 1963, p.141). The 'strands' of this bundle that are particularly relevant to forest resources would be

- (a) the right to have access to the resource,
- (b) the right to exclude others from accessing the resource,
- (c) the right to sell the products,
- (d) the right to modify the fundamental character of the resource, and
- (e) the right to sell/alienate/transfer any of the above rights to others.⁷

Several points need to be noted here. Firstly, what degree of control should be granted in what context is a very difficult question. Economists have usually argued that economic efficiency requires that the bundle of rights be maintained intact (McKean, 1998, p.31). However, if use is to be regulated or limited in certain ways (such as not allowing 'forests' to become 'non-forests') in the larger interest, then it becomes necessary to 'unbundle' the strands.

Secondly, there is an approximate hierarchy or nestedness in these rights: one cannot meaningfully have the right to sell a product [right (c)] unless one also has the right to access it in the first place [right (a)]. Thus, movement from right (a) to right (e) might be equated with 'increasing control' on the resource, with (e) being equivalent to what is conventionally called full private ownership or proprietorship.

Thirdly, rights are usually accompanied by responsibilities: responsibilities to use the resource in a particular manner, to help in protecting and regenerating the resource, to not exclude other

rightful users, to sell products to prescribed buyers or at prescribed rates only, to pay certain taxes or charges, etc. What responsibilities are assigned can set limits to how the rights can be exercised.

3. Organizational form and social category to which control is granted

Specific rights and responsibilities pertaining to specific products or services may be granted not to everybody, but to specific actors. Here, focussing on the type or organizational form of the actor typically leads us to the four possibilities: individual, community, state-organ, or everybody. Note, however, that other types of actors or organizational forms also exist: households, cooperatives, non-profit trusts and societies, commercial firms/companies, etc. Forest rights and responsibilities may be assigned to these types of actors also.

Within each type or class of actors, the tenure regime may further specify a subset to whom specific rights accrue. For instance, certain rights may be granted individually but (say) only to those who own land or only to the landless. Similarly, the term 'community' lends itself to a variety of interpretations: a joint family, hamlet, revenue village, colony in a town; etc. Finally, we are used to thinking only of the national or provincial governments as the 'state' in India, but this need not be the case: village, municipal or district-level forms of the state (constituted independently of the other forms) also exist and could have a role in forest tenure.

The implications of choice of organizational form for resource management have of course been greatly debated. Broadly speaking, arguments revolve around perceptions of efficiency gains from individual assignment versus equity advantages of community assignment, the need for community or state control for indivisible resources, and the need for a (larger-than-village) state to legitimize and enforce any particular tenure arrangement and also to protect the interests of off-site stakeholders. Several doubts about these simplified statements, however, remain (see Lélé, 1998). The implications of allocation to a particular sub-class within a particular category are equally complex. Assignments made only to landholders within the local community might represent an attempt to fine-tune the match between needs and rights, but are always susceptible to criticisms of inequity.

4. Spatial extent and location of tenure

Rights to a resource may be granted to different actors in different areas. Thus, the spatial extent of particular rights granted will determine both the total quantum of benefits (or, in the case of responsibilities, costs) flowing to the tenure-holder as well as the implications for the forest ecosystem and off-site stakeholders, i.e., will determine the distribution of benefits. Location also matters: giving rights for extraction of timber on steep slopes may be much more disruptive of the ecosystem than timber extraction rights on flat lands.

5. Duration and security of tenure

Although one is used to thinking of property rights as somehow fundamental and hence immutable, in the broader conceptualization of tenure that we are using in this paper (which includes 'privileges', 'liens', 'easements', 'leases', etc.), the assignment of rights and responsibilities may be for a specific duration (term) and/or may be more or less immutable (secure). Generally speaking, short-term insecure tenure leads to more ecologically unsustainable behaviour (due to less investment in resource protection and higher rates of resource extraction, more destructive/careless extraction) than long-term secure tenure.

Although it is easy enough to determine the duration of an arrangement if it is specified, the security of tenures is more difficult to assess. Usually, the security of the tenure can be inferred from the legal status of the regime. For instance, constitutional provisions are more secure than legislative ones, and the latter much more so than rights granted under executive orders. The security of customary tenures varies from context to context and often depends upon philosophies currently adopted by the judicial system or political power of the tenure holders.

6. Rule-making rights

Within any tenure regime there is always some room for decision-making regarding day-to-day management of the resource. Rules made regarding this aspect are called operational rules. There is then the question of who or, more precisely, what social process makes these operational rules. At another level, there is the question of who or what process determines the structure of the tenure regime itself, i.e., who makes the constitutional rules?⁸

According greater flexibility in making operational rules to the actual user(s) of the resource is likely to lead to more efficient and even more sustainable (as in ecologically well-adapted) resource management. Similarly, adopting a constitutional process that is participatory and transparent is likely to lead to much greater social acceptability of the rules and hence increases the chances of the rules being observed, reduce conflict and the associated costs.

Summary of dimensions of tenure

To summarize, forest tenure has to be characterised by much more than just the nature of the tenure-holder. Different rights to different or the same components of the forest resource may be assigned to different social groups, organizations or levels of the state. The duration and security of the tenure and the social process through which it is created are also important characteristics. We shall use this framework to characterize the forest tenures of the Western Ghats region of Karnataka State.

Note that although the above characteristics and the possibilities under each may lead mathematically to a very large number of combinations, in practice only certain combinations of type of tenure-holder, type of rights, constitutional rules, etc. exist. Thus, in the Karnataka context, there are essentially three types of tenure-holders—the state government, the village community, and the individual—amongst whom most rights and responsibilities are distributed. And when there is a preponderance of one of these (or none) in the control of the resource, the regime may resemble one of the conventional categories: state-controlled, community-controlled, privately controlled, or open-access.

Forest tenure regimes in the Karnataka Western Ghats

In this section, we describe the characteristics of the tenure regimes that govern the access, control and management of forested lands in the Western Ghats of Karnataka. We sort them into convenient categories and rankings, club together essentially identical ones, and present detailed information on the conceptually distinct ones in the form of a table. We then briefly outline the historical rationale for each regime and describe the manner in which it operates on the ground. We concentrate only on legally recognized regimes, because in our experience, there are very few unrecognized or

informal regimes (eg., *devara bana*, *naga bana*), and they do not occupy a significant portion of the landscape.

Nominally, there are about 40 different regimes prevailing in forested lands in the region⁹. However, a few of these are different only in name or with very slight difference in the structure. Conversely, several conceptually distinct regimes may have the same name or may be reported under the same administrative name; these need to be separated¹⁰. Eventually, we are left with 31 conceptually distinct regimes. For ease of understanding and given the preponderance of certain actors in certain regimes, they can be grouped into four broad categories:

- i) largely state-controlled,
- ii) largely open-access,
- iii) largely community-controlled,
- iv) largely privately-controlled.

A fifth category might be possible, viz., truly mixed regimes that have an equal role for the village community and the state—Joint Forest Planning and Management arrangements are an example of such a regime. But we have included these in the category of 'largely community-controlled' regimes.

Complete details of each of the 31 regimes are presented in Table 1. The regimes are listed columnwise, with the columns grouped into the four broad categories. Within each category, the regimes are arranged left to right in approximately increasing order of local (community or private) control vis-a-vis state control. Information is provided on all the dimensions identified in the previous section. In addition, the broad rationale for each regime, its geographical location in the region, the department having administrative control, the estimated extent of land under the regime in the 6 Western Ghats districts, and some comments on the *de facto* operation of the regime are outlined. A more detailed listing of the sections of law and executive orders that spell out the operations of each regime is given in Table 2. Thus, Tables 1 and 2 form the basic compendium of forest regimes for the Western Ghats and can be used as a ready reference by the reader without reference to the rest of this paper. We shall now highlight some of the key features of these regimes within each broad category and then across the categories:

Table 1: Forest tenure régimes in the Western Ghats districts of Karnataka State: Characteristics and Distribution

BROAD CATEGORY OF ELEMENTS OF TENURE REGIME	LARGELY STATE CONTROLLED				LARGELY OPEN ACCESS				
	National Parks (NP)	Sanctuaries (WLS)	Reserve Forest (RF) Excl. NP, WLS, & MF in UK	Amrut Mahal Kaval	Protected Forest (PF)/ District Forest/ Minor Forest	Minor Forest (MP) in UK District	Paisari	Assessed Waste land (AWL) or Sarkari Anad-heena	Gomaals/ Hulgavaku/ Danagalige Muphattu
Regime Numbers	1	2	3	4	5	6	7	8	9
Location	All Western Ghats districts	All Western Ghats districts	All Western Ghats districts	SMG, CMG, Hassan district	All Western Ghat districts except UK	UK district	Kodagu district	Dakshina Kannada district	Gom. in all WG dists, Hu.in Kodagu, DM in SMG/ CMG dist.
Controlling Department	Wildlife wing of FD	Wildlife wing of FD	FD	FD+Animal Husband. Department	FD (earlier RD)	FD	RD	RD	RD
Products Harvestable for Self-Consumption	None	Regulated grazing	Dead twigs & fodder by locals	Fodder by locals in Jooly (buffer) kaval by paying cess	Fuelwood & fodder	Fuelwood & fodder	Fuelwood & fodder	Fuelwood & fodder	Fuelwood & fodder

Contd.

Regime Numbers	1	2	3	4	5	6	7	8	9
Products Harvestable for sale	None	MFP by FD or contractors/ lessees	MFP, timber and fallen by FD or contractors /lessees	MFP, timber and dead & fallen by FD or contractors /lessees	MFP, timber and dead & fallen by FD or contractors /lessees	MFP, timber and dead & fallen by FD or contractors /lessees	MFP by RD or contractors /lessees	MFP by RD or contractors /lessees	MFP by RD or contractors /lessees
Right to Cultivate	No	No	No	No	No	No	No	No	No
Other Rights/ Notes on Rights	Entry for study, research, tourism, photo-photography at discretion of Wildlife Warden	Entry for study, research, tourism, photo-photography and MFP harvesting at the discretion of the WL Warden	Felling of natural trees suspended since 1983. Some usufruct to neighbouring villages	Ban on green felling since 1983	Ban on green felling since 1983	Ban on green felling since 1983			
Right to convert to Patta (Pvt. holding)	No	No	No	No	No	No	After Darkhast	After Darkhast	No
Alienability of Land to which rights assigned	NA	NA	NA	NA	NA	NA	NA	NA	NA

Contd.

Regime Numbers	1	2	3	4	5	6	7	8	9
Responsibilities of Assignee	Ecosystem/ wildlife/ biodiversity conservation	Ecosystem/ wildlife/ biodiversity conservation	Production and conservation; local people must help put out fires, report offences	Cattle breeding service	FD: to protect trees; RD: to protect land ownership; local people; fire control, report offences	FD: to protect trees; RD: to protect land ownership of Govt.	RD: to protect the land ownership of Govt.	RD: to protect the land ownership of Govt.	RD: to protect the land ownership of Govt.
Assignment Criteria and Quantity	Any land considered essential for wildlife conservation	Any land considered essential for wildlife conservation	Land with dense natural tree growth, or historically declared as RF	Historical	Assignment criteria not clear	Generally 2 acres for every head of cattle in the village at the time of settlement	Waste or unassigned lands left after settlement	Waste or unassigned lands left after settlement	Assigned to all villages at approx. 30 acres per 100 cattle in the village
Land Revenue Payable	NA	NA	NA	NA	NA	NA	NA	NA	NA
De facto Situation	May contain tribal and even non-tribal settlements within its boundaries	May contain tribal and even non-tribal settlements within its boundaries	May be open access in certain areas, also subject to some encroachment for cultivation	Highly encroached for cultivation, management distributed among FD, AHD and UAS	Rights may be curtailed in FD plantations; FD may fell timber; fuelwood is harvested by headloaders	Rights may be curtailed in FD plantations; FD may fell timber; Govt. allotments; fuelwood headloading is common	Historically, Govt. has auctioned or granted parcels for cultivation; fuelwood headloading to town is common	Fuelwood headloading to town is common; significant fractions are illegally cultivated	Dense forest; open savanna; degraded scrub; now many SF or MPM plantations; much illegal cultivation

Contd.

Regime Numbers	1	2	3	4	5	6	7	8	9	
District-wise extent										
U.Kannada	250	477	5001	0	543	2000	0	0	211	
Shimoga	0	828	926	12	1289	0	0	0	1371	
Chickmagalur	600	492	339	43	184	0	0	0	869	
D.Kannada	0	335	1785	0	1564	0	0	1769	315	
Kodagu	643	389	41	0	27	0	1364	0	178	
Mysore	874	635	2367	0	3	0	0	0	646	
Total Extent in sq.km.	2368	3157	10458	55	3610	2000	1364	1769	3592	
% of total forested area	7%	9%	31%	0%	11%	6%	4%	5%	11%	
Notes on area figures		MFs of UK district are excluded, only RF (proper) included; area of NP&WLS deducted in all cases		Kavals also in Chitradurga, Hassan and Tumkur districts		MFs in UK are reported under Reserve Forests		Earlier called Govt. Paisari	Area for Kundapur taluka is not included	Most gomaals in hilly regions are thickly wooded. Area estimate is for such gomaals only.
Source of area figures	KFD Annual Reports 97-98	KFD Annual Reports 97-98	KFD Annual Reports 97-98	Kunaji (1998)	KFD Annual Reports 97-98	KFD Records	DC Office, Kodagu	Jambandi	DES	

Contd.

Table 1(Contd.) : Forest tenure regimes in the Western Ghats districts of Karnataka State: Characteristics and Distribution

LARGELY COMMUNITY CONTROLLED							
BROAD CATEGORY -->	Devarakadu	Urduv	Panchayathi Mandu/ Ambalas/ Uruambale	Devara Mandu/ Urumandu	Village Forest (VF)	Social Forestry (SF)	Joint Forest Planning and Management (JFPM)
Regime Numbers	10	11	12	13	14	15	16
Location	Kodagu district	North-eastern parts of Kodagu district	Kodagu district	Kodagu district	CMG, SMG and UK districts	All Western Ghats districts	CMG, SMG and UK districts
Controlling Dept.	FD	FD	FD	FD	FD	FD	FD
Products Harvestable for Self-Consumption	Fuelwood, fodder, MFP & timber for temple in the Devarakadu	Fuelwood, fodder, MFP with prior permission from the FD	Fuelwood & fodder	Fuelwood & fodder	Fuelwood, fodder & MFP, timber	Fuelwood, fodder, MFP & timber	Fuelwood fodder, MFP & timber
Products Harvestable for Sale	MFP and timber by FD	MFP and timber by FD	MFP by RD or contractors/ lessees	MFP by RD or contractors/ lessees	Fuelwood, fodder, MFP & timber by panchayat	Fuelwood fodder, MFP & timber	Fuelwood fodder, MFP & timber
Right to Cultivate	No	No	No	No	No	No	Forest species & some plantation crops

Contd.

Table 1(Contd.) : Forest tenure regimes in the Western Ghats districts of Karnataka State: Characteristics and Distribution

LARGELY COMMUNITY CONTROLLED							
BROAD CATEGORY -->	10	11	12	13	14	15	16
Regime Numbers	10	11	12	13	14	15	16
Other Rights/ Notes on Rights	Ban on green felling since 1983;	Ban on green felling since 1983;	Conducting village assembly/ meeting	Conducting festival for goddess Bhagavati/ Huttan festival		Sharing of profit between FD & community	Sharing of profit between FD & community
Right to convert to Patta (Pvt. holding)	No	No	No	No	With the consent of panchayat	No	No
Alienability of Land to which rights assigned	NA	NA	NA	NA	NA	NA	No
Responsibilities of Assignee	FD: to protect timber growth; local people must help put out fires, report offences	FD: to protect timber growth; local people must help put out fires, report offences	RD: to protect the land ownership of Govt.	RD: to protect the land ownership of Govt.	Protection & sustainable use of forest	Protection & sustainable use of forest	Conservation, planning and management for sustainable use of forest

Contd.

Table 1(Contd.) : Forest tenure regimes in the Western Ghats districts of Karnataka State: Characteristics and Distribution

BROAD CATEGORY -- -->	LARGELY COMMUNITY CONTROLLED						
	Devarakadu	Uruduve	Panchayathi Mandu/ Ambaias/ Uruambale	Devara Mandu/ Urumandu	Village Forest (VF)	Social Forestry (SF)	Joint Forest Planning and Management (JFPM)
Regime Numbers	10	11	12	13	14	15	16
Assignment Criteria and Quantity	Assigned to village deity or temple; area is determined by custom	Assigned when no Baane lands in the village; no specific proportion	Historical	Historical	Assignment as per the provision of the KVP & LB Act.	In lands like Gomaal, C&D, canal sides, road sides, etc.	FD Land with less than 25% of canopy cover
Land Revenue Payable	No	No	No	No	No	No	No
De facto situation	Declared as Reserved Forest after 1985, but customary use is permitted	Some encroachment for cultivation	Some encroachment for cultivation	Some encroachment for cultivation	None of the VFs are active except three in UK.	Mostly failure due to lack of coordination between FD & Beneficiaries	Old SF Plantations are now transferred to JFPM in many cases.

Contd.

Regime Numbers	10	11	12	13	14	15	16
District-wise extent							
U.Kannada	0	0	0	0	21		
Shimoga	0	0	0	0	14		
Chickmagalur	0	0	0	0	8		
D.Kannada	0	0	0	0	0		
Kodagu	31	26	1	1	0		
Mysore	0	0	0	0	0		
Total Extent in sq.km.	31	26	1	1	42	NA	NA
% of total forested area	0%	0%	0%	0%	0%	NA	NA
Notes on area figures		Sometimes included in Paisari	Sometimes included in Paisari	Sometimes included in Paisari	Actual area of the 3 operating VFs is much less	Total area under SF in govt. land is over 41,000 ha, which includes SF plantations in different tenures given in this table.	584 VFCs have been formed in UK & SMG, 925 VFCs in Karnataka as a whole, covering 81350 ha.
Source of area figures	KFD Kodagu	DC Office, Kodagu	DC Office, Kodagu	DC Office, Kodagu	KFD Annual Reports 97-98	World Bank, 1993	KFD

Contd.

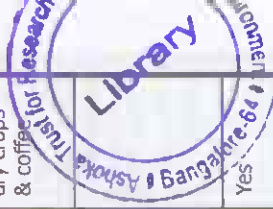
Table 1(Contd.) : Forest tenure regimes in the Western Ghats districts of Karnataka State: Characteristics and Distribution

LARGELY PRIVATELY CONTROLLED								
BROAD CATEGORY -->	Soppina-bettas of UK	Soppina-bettas of CMG & SMG	Khathe Kaans	Gerekadu/Kuruvas/Strip Grants	Kaane-Baane	Kumki	Sagu Baane	Jamma Baane
Regime Numbers	17	18	19	20	21	22	23	24
Location	UK district	Hilly areas of SMG and CMG districts	SMG, CMG, & DK districts	G/K - Kodagu; Strip Grant: UK	Sulya Taluk of DK;	Dakshina Kannada district	Kodagu district	Kodagu district
Controlling Dept.	FD + RD	RD	RD + FD	FD	FD + RD	RD	RD	RD
Products Harvestable for Self- consumption	Fuelwood, fodder, MFP & timber	Fuelwood, fodder, MFP & timber	Fuelwood, fodder, MFP & timber	Fuelwood, fodder, MFP & timber	Fuelwood, fodder, MFP & timber	Fuelwood, fodder, MFP & timber	Fuelwood, fodder, MFP & timber	Fuelwood, fodder, MFP & timber
Products Harvestable for Sale	MFPs (supposedly by FD, in practice by betta-holders)	MFPs (supposedly by FD, in practice by betta-holders)			Fuelwood, Fodder, MFP & in Kaane and baane, timber only in Kaane	Sale of <i>H. wightiana</i> for fuelwood	Fuelwood, Fodder, MFP & timber	

Contd.

Regime Numbers	17	18	19	20	21	22	23	24
Right to cultivate	Pepper in understorey	Pepper in understorey	Pepper & Cardamom in understorey; +dthar < 0.5ac	Horticultural/ dry crops	Pepper & Cardamom only in kanne	Horticultural/ dry crops	Horticultural/ dry crops & coffee	Horticultural/ dry crops & coffee
Other Rights/ Notes on Rights	Soil removal, cattleshed & drying yard construction, well-digging	Cattleshed & drying yard construction, well-digging						
Right to convert to patta (Pvt. holding)	No	No	No	No	Yes, in Kaane by applying for darkhast	Yes, by applying for darkhast	Yes, almost automatic	Yes
Alienability of Land to which rights assigned	Goese with corresponding agricultural land	Goese with corresponding agricultural land	No	Goese with corresponding agricultural land	Goese with corresponding agricultural land	Goese with corresponding agricultural land	Special permission required	Could not be sold prior to 1997
Responsibilities of Assignee	Maintain min. tree density of 100/ha (of size > 30 cm gbh), including all reserved trees	Maintain reserved trees	Maintain reserved trees	Maintain reserved trees	Maintain reserved trees	Maintain reserved trees	Maintain reserved trees	Maintain reserved trees

Contd.



Regime Numbers	17	18	19	20	21	22	23	24
Assignment Criteria and Quantity	4ac (coastal) or 9ac (up-ghat) per acre of orchard land held at time of settlement	Assigned to entire village, no specific proportion	Assignment in evergreen forest at discretion of govt.	Strip along edge of wet-land: 16-30' wide in Kodagu, 80 to 160m in coastal areas	1 ac Kaane and 2 ac Baane per ac of Kadeem land	300'- wide strip In AWL to owner of adjoining lands that were filled in AD 1865	Assigned to Sagu holders in ratio 2ac to 300ac per acre of sagu (pvt. wetland)	Assigned to Jamma holders in ratio 2ac to 300ac per acre of acre of jamma
Land Revenue Payable	Included in Areca assessment	No	Yes	No	Rs. 0.50 per ac of kaane, nil for Baane	No	Coffee rates if area cultivated > 10ac	Coffee rates if area cultivated > 10ac
De facto situation	felling by FD resisted by betta-holders; RD permitting house construction	Most jointly assigned patches have been divided up, except for some remote patches	Though this land tenure was repealed, some farmers are still paying assessment	Location of these grants is unclear	Mostly converted to Rubber Plantations	Many Kumkis converted to hort, crops; land sales also reported; HC Judgment suggests Kumki = <i>patta</i>	Most of the Baanes have been converted in to coffee plantation	Most of the Baanes converted in to coffee plantation; clandestine sale of land is common

Contd.

Regime Numbers	17	18	19	20	21	22	23	24
District-wise extent								
U.Kannada	543	0	0	NA	0	0	0	0
Shimoga	0	203	192	0	0	0	0	0
Chickmagalur	0	108	0	0	0	0	0	0
D.Kannada	0	0	0	0	NA	981	0	0
Kodagu	0	0	0	NA	0	0	894	711
Mysore	0	0	0	0	0	0	0	0
Total Extent in sq.km.	543	311	192	NA	NA	981	894	711
% of total forested area	2%	1%	1%	NA	NA	3%	3%	2%
Notes on area figures	Reported under Protected Forest figures in this district	Area estimate does not include area in Tirthahalli which information was not available	Area estimate for Sagara and Sorab taluks only	Area figures not available	Area figures not available	Official estimate of Kumki area in Belthangadi taluk is used as base for estimating for whole district	Sale of timber permitted only in Redeemed Sagu Baane. Area figure includes coffee under Baane also	Area figure includes jahgir,umbli, Jodi, para-dheena, utara baane area and also coffee in all jamma Baane
Source of area figures	KFD Sisi	Jamabandi	KFD Records	No data available	No data available	Calculated from DES & Taluka abstract	DC Office, Kodagu	DC Office, Kodagu

Table 1(Contd.) : Forest tenure regimes in the Western Ghats districts of Karnataka State: Characteristics and Distribution

LARGELY PRIVATELY CONTROLLED							
BROAD CATEGORY -->	Hittalmane-dala	Plantation Lease	Jammamalai	Genimalai	Hakkals and Hangami Laagan lands	Private Forest	Haadis
Regime Numbers	25	26	27	28	29	30	31
Location	Kodagu district	CMG, SMG & DK district	Kodagu district	Kodagu district	UK district	DK district	DK; southern part of coastal UK
Controlling Dept.	RD	FD & RD	FD	FD	FD	FD	FD & RD
Products Harvestable for Self Consumption	Fuelwood, fodder, MFP & timber	Timber from plantation for paper mill	Fuelwood, fodder, MFP & timber	Fuelwood, fodder, MFP & timber	Cultivated crops	All products	All products
Products Harvestable for Sale	Fuelwood, fodder, MFP & timber	All products except reserved trees if any	Cardamon	Cardamon	Cultivated crops	Fuelwood fodder, MFP & timber	Fuelwood fodder, MFP & timber
Right to Cultivate	Horticultural/dry crops	Acacia, Casuarina, pine, bamboo	Cardamon	Cardamon	Seasonal crops	No	Full, but under KTPA rules.

Contd.

Table 1(Contd.) : Forest tenure regimes in the Western Ghats districts of Karnataka State: Characteristics and Distribution

LARGELY PRIVATELY CONTROLLED							
BROAD CATEGORY -->	25	26	27	28	29	30	31
Regime Numbers	25	26	27	28	29	30	31
Other Rights/Notes on Rights	Same privileges as in Baane	Grass and tops below 5 cm diameter to villagers free of cost		Rights as in RF		All rights as in patta lands with regulation of KTPA, KFA & KFR.	All rights as in patta lands with regulation of KTPA, KFA & KFR.
Right to convert to Patta (Pvt. holding)	Yes	No	No	No	No	NA	NA
Alienability of Land to which rights assigned	Goes with corresponding agricultural land	No	No	No	No	With FD permission	Yes
Responsibilities of Assignee	Maintain reserved trees	Maintain reserved trees	Maintain reserved trees; help put out fires	Maintain reserved trees; help put out fires	Maintain reserved trees	Maintain reserved trees; Replant if felled for timber/fuelwood	Replant if felled for timber/fuelwood

Contd.

Table 1(Contd.): Forest tenure regimes in the Western Ghats districts of Karnataka State: Characteristics and Distribution

LARGELY PRIVATELY CONTROLLED							
BROAD CATEGORY -->	Hittala-mane-dala	Plantation Lease	Jammamalai	Genimalai	Hakkals and Haagan Laagan lands	Private Forest	Haadis
Regime Numbers	25	26	27	28	29	30	31
Assignment Criteria and Quantity	Portion of Baane land allotted for dwelling places and farm yards	Degraded land to MPM on lease by signed MOU between KSFD & MPM	140 parcels assigned to 60 persons by the Coorg Rajas	Short-term lease initially given in 1886 for 21 years but always renewed	Hakkals assignments not clear, HL lands allotted under land grants rules	Historical	Private dry land where forest tree species were originally maintained
Land Revenue Payable	Sagu rates, if area cultivated > 1 ac	Nominal rate per acre	Yes	Yes	Yes in HL	Yes	Yes
De facto situation	Mostly converted to coffee plantation	Traditional grazing areas lost to plantation, sometimes good dense forest also converted	As per Kodagu working plan condition & composition of tree cover in Jammamalai is deteriorating very fast.	As per Kodagu working plan, these areas are damaged severely due to bad management	Hakkals and HLs are fully cultivated	Mostly dense natural tree cover, some rubber plantation	Many haadis have dense natural tree growth, others converted to cashew plantations

Regime Numbers	25	26	27	28	29	30	31
District-wise extent							
<i>U.Kannada</i>	0	0	0	0	32	0	0
<i>Shimoga</i>	0	65	0	0	0	0	0
<i>Chickmagalur</i>	0	7	0	0	8	0	0
<i>D.Kannada</i>	0	0	0	0	0	89	1429
<i>Kodagu</i>	NA	0	32	14	0	0	0
<i>Mysore</i>	0	0	0	0	0	0	0
Total Extent in sq.km.	NA	72	32	14	32	89	1429
% of total forested area	NA	0%	0%	0%	0%	NA	4%
Notes on area figures		The land leased is already counted under some other category (gornaal betta, etc.)			HL areas are part of RF/MF figures		
Source of area figures	No data available	MPM	DC Office, Kodagu	DC Office, Kodagu	KFD records, Canara Circle	KFD Annual Reports	Calculated from Jamabandi & DES

Notes: FD=Forest Department, RD=Revenue Department, SMG=Shimoga District, CMG=Chickmagalur district, UK=Uttara Kannada District, DES= Directorate of Economic and Statistics, DC= Deputy Commissioner, NA=Not applicable, MFP=Minor forest produce, WL=Wild Life, AHD=Animal Husbandry Dept., UAS=University of Agril. Sciences.

Table 2: Details of the legal bases for forest tenure regimes		
REGIME NAME	ACTS, RULES OR EXECUTIVE ORDERS THAT DEFINE THE REGIME	OTHER REFER-ENCES
National Parks	S-2(21), 19(26), 27, 28, 30, 31, 32, 33, 34, 35(1-7), 38 of The Wildlife Protection Act, 1972	
Wildlife Sanctuaries	S-18/1, 18/2, 19, 21, 22, 23, 24, 27, 28, 29, 30, 32, 33 of The Wildlife Protection Act, 1972	
Reserve Forest (RF) excluding NP, WLS, UK-MF, etc.,	S-3 to 28 of The Karnataka Forest Act, 1963, S-3 to 21, 84 of The Karnataka Forest Rules, 1969, S-2 of Forest (Conservation) Act, 1988, S-120 of The Karnataka Forest Manual	
Amrut Mahal Kaval	S-33 of The Karnataka Forest Rules, 1969	Kunaji, 1998
Protected Forest (PF)/ District Forest/Minor Forest of SMG & CMG	S-33/2/ii, 33/4, 35 of The Karnataka Forest Act, 1963, S-24 to 31 & S-84 of The Karnataka Forest Rules, 1969.	
Minor Forest of Uttara Kannada	Code of Forest Privileges sanctioned for Kanara district, 1944	Collins, 1924
Paisari	S-83, 87, 88 of The Coord Land and Revenue Regulation & Rules, 1899	
Assessed Waste land or <i>Sarkari Anadheena</i>	<i>Not clearly known</i>	
<i>Gomaals</i>	G.O. No.-20588-RF, 139-92, dt. 1 June 1893, G.O. No.-R973-89 Ft 88-15-22, dt. 27th July 1971 S-72 of The Karnataka Land Revenue Act, 1964, S-97 of The Karnataka Forest Rules, 1966, The Mysore Land Revenue Act, 1902	
<i>Devarakadu</i>	S-32, 142 of The Karnataka Forest Rules and S-120 of the Karnataka Forest Manual	

REGIME NAME	ACTS, RULES OR EXECUTIVE ORDERS THAT DEFINE THE REGIME	OTHER REFER-ENCES
<i>Urduve</i>	S-32, 142 of The Karnataka Forest Rules, 1969 and S-120 of the Karnataka Forest Manual	
<i>Mandus and Ambalas</i>	S-142 of The Karnataka Forest Rules, 1969	
Village Forest	S-29 to 31 of the Karnataka Forest Act, 1963 and S-22, 23 of the Karnataka Forest Rules, 1969	
Social Forestry	G.O.No. FFD 75 FAP 83, dt. 23/1/86	
Joint Forest Planning and Management (JFPM)	S-31A of The Karnataka Forest (Amendment) Act, 1998; G.O.No. AHFS 232 FAP 86 dt. 12/4/93; G.O. No. FEE 94 FAP 93, Bangalore, dt. 16-12-1996	
<i>Soppinabetta - UK</i>	S-129, 84 of The Karnataka Forest Rules, 1969, S-79 of The Karnataka Land Revenue Act, 1964, Kanara Protected Forest Rules of 22 November 1902 (framed under Indian Forest Act, 1878) vide G.R.R.D. 8205 A& B of Bombay Government, S-131 of Karnataka Forest Manual	
<i>Soppinabetta - CMG & SMG</i>	S-79 of The Karnataka Land Revenue Act, 1964, S-84 of The Karnataka Forest Rules, 1969, S-120, 134/3 of Karnataka Forest Manual	
<i>(Khathe) Kaans</i>	S-79 of The Karnataka Land Revenue Act, 1964, S-120, 134/3 of Karnataka Forest Manual	
<i>Gerekadul/ Kuruvus/ Strip Grnats</i>	S-84 of The Karnataka Forest Rules 1969, S-131C of Karnataka Forest Manual	
<i>Kaane and Baane</i>	S-79 of The Karnataka Land Revenue Act, 1964, 138/2/a/ii of Karnataka Forest Manual	
<i>Kumki</i>	S-79 of The Karnataka Land Revenue Act, 1964, 138/2 of The Karnataka Forest Manual, S-84 of The Karnataka Forest Rules 1969, S-26 of Rule framed under the Madras Forest Act (5 of 1882), Standing Order No. 40 of Madras Board of Revenue	Sturrock, 1894

REGIME NAME	ACTS, RULES OR EXECUTIVE ORDERS THAT DEFINE THE REGIME	OTHER REFERENCES
<i>Baane</i>	S-79 of The Karnataka Land Revenue Act, 1964, S-120, 139/2 of The Karnataka Forest Manual, R-99, 100, 213, 214, 215, 217, 219, 188, Regulation-47/1 of the Coorg Land & Revenue Regulation & Rules, 1899	Anonymous, 1983
<i>Hittala-manedala</i>	R-103-105, S-221-223 of the Coorg Land & Revenue Regulation & Rules, 1899, S-138 of The Karnataka Forest Rules, 1969	Anonymous, 1983
Plantation Lease	S-2 of Forest (Conservation) Act, 1988, S-19/4 of The Karnataka Land Grant Rules, 1969	Hiremath 1997
<i>Jammamalai</i>	S-140 of The Karnataka Forest Rules, 1969, S-120, 141 of the Karnataka Forest Manual	
<i>Genimalai</i>	S-139 of The Karnataka Forest Rules, 1969, S-120, 140 of the Karnataka Forest Manual	
<i>Hakkals</i>	<i>Not Clearly Known</i>	
Private Forest	S-36 to 45 of The Karnataka Forest Act, 1963 and 44-49 of the Karnataka Forest Rules, 1969	
<i>Haadis</i>	S-36 to 45 of The Karnataka Forest Act, 1963 and 44-49 of the Karnataka Forest Rules, 1969	Murthy, 1994
Notes: 1) 'S' = section; see Table 1 for other abbreviations. 2) Karnataka Forest Manual only provides information on the tenure regimes, it does not itself constitute the legal basis.		

1. Largely state-controlled forest tenures

This category of regimes (regimes 1-4 in Table 1) consists of those where the state is not only the ultimate regulatory authority but also the day-to-day manager of the forested land and hence the holder of most of the rights and responsibilities. Amongst these, the stated purpose of National Parks (NPs) and Wildlife Sanctuaries (WLSs) is wildlife conservation, and hence the criterion for assigning certain forests to these regimes is somewhat clear¹¹. Reserve Forests (RFs, under different nomenclatures in different districts) were created by reserving virtually all dense forests for the state to carry out conventional forestry activities—extraction of forest products and planting. Given, however, the new priorities laid down in the 1988 National Forest Policy (Government of India, 1988), these activities are no longer important, and hence the very purpose of this regime is now open to question. Amrut Mahal Kavals, a peculiarity of erstwhile Mysore princely state, were forest-cum-grasslands earmarked to meet the fodder requirements of the royal Amrut Mahal cattle (which were then available to the public for breeding services); the Kaval lands also act as a source of fodder to local communities. Together, these regimes add up to the largest fraction of the forested lands in the region (47%).

In terms of kinds of activities permitted and extent of access granted to non-state actors, NPs are at one extreme, where virtually all human activity, except tourism, is prohibited, whereas Wildlife Sanctuaries permit some activities such as extraction of non-timber forest products (NTFPs), grazing and collection of scientific specimens also. In RFs, virtually all silvicultural operations, including clear- or selection-felling, thinning, replanting, extraction of fuelwood, fodder, NTFPs, etc. are permitted to be done by the state. Some access to fuelwood and fodder is granted to local communities, but the concessions are still subject to the discretionary authority of the FD officials. There is no policy of exclusive access in specific areas to specific villages, although the regime often enjoins the villagers to help in forest protection. Access to non-local actors is supposed to be strictly regulated through (usually auctioned) permits for specific activities, but in practice the Forest Department has not been able to prevent the smuggling of timber and other valuable products. Moreover, over the years the FD has been leasing out specific extraction rights (such as those to commercially valuable NTFPs) to private

contractors. Also, while forest use activities of local communities or common people are severely restricted, several other activities such as mining, quarrying and laying of transmission lines can be undertaken as per the Karnataka Forest Act & Rules. It is only the Forest Conservation Act 1980 that imposes some restraints on such activities in RFs.

Operationally, there is enormous discretion vested in the state agencies, with limits imposed by law directly in the case of NPs and WLSs (through the Wildlife Act, in which the limits are rather vague) and indirectly and slightly on RFs (through the Forest Conservation Act 1980). Operational rules are based either on ad-hoc executive orders (such as the green-felling ban) or on the basis of Working Plans (which are now legally required and which require Central Government approval, but which do not explicitly and clearly impose sustainability norms). Not surprisingly, the operations are often ecologically ill-advised—such as the large-scale felling of natural forests that took place till the green-felling ban came into place in 1983, the decimation of bamboo stocks due to their unregulated extraction by private companies for a pittance, or the more recent order permitting the extraction of dead and fallen logs in NPs and WLSs. [Government of Karnataka, 2000, dead and fallen]. Thus, the *de facto* condition of these land varies dramatically from place to place, due to both people's use and the activities of the state agencies.

Constitution of these regimes is also done exclusively by the state government. The RFs were mostly constituted during the colonial period, according to a settlement process wherein a Revenue Department official (Forest Settlement Officer) goes into the customary and other rights of local communities before determining the boundary. The process of constituting NPs and WLSs is essentially similar. In both cases, there is very limited access and information to the general public at the time of taking the decision to reserve forests or notify protected areas, and the process of settlement has often been insensitive to the rights of local communities. The process of settling many RFs is incomplete for decades. In the case of protected areas, a recent Supreme Court judgement was critical of the process followed in many places and asked that the process of 'settling' (i.e. identifying) rights of local communities in all NPs and WLSs be completed by end of 1999 (Anonymous, 1998a).

While the access conceded to local communities in all these regimes are subject to the discretion of the managing state agency, the rights of the state agency are of course much more secure in that they are assigned under the Forest Act. Nevertheless, they are not absolute or immutable. 'De-notification' of NPs and WLSs is quite possible (and happens frequently under pressure from different lobbies). In fact, a recent amendment to the Wildlife Act allows State/Union governments to de-notify even NPs by passing a resolution by simple present majority in the State/Union legislature without any due process (sec.35(5)). WLSs are exempt even from this requirement. Ironically, 'de-reservation' of Reserve Forests requires more process (at least for non-forest activities), since it is governed by the Forest Conservation Act (sec.2) and involves Central government approval.¹² The status of the AMKs is the least secure, as they can easily be de-notified by the state, unless these same judgements are made applicable to the AMKs by virtue of their being covered with significant natural tree growth.

Location and spatial extent. The bulk of Karnataka's forests are under these regimes. But there is an amazing variation in the fraction of total forested area that is under such predominant state control, being the highest in Mysore (86%, because of its NPs and WLSs), followed by Uttara Kannada (63%) and progressively lower in Chickmagalur (54%), Shimoga (36%) Kodagu (31%) and Dakshina Kannada (25%). This reflects the lack of clarity and consistency regarding the basis for bringing land under such regimes. The RFs (from which the NPs and WLSs were later carved out) contain the historically densest and most commercially valuable forests of the region. Although they include the most inaccessible (steep and remote) portions of the Western Ghats, they also include many areas which are or were under significant human use.

Practical administration. While the NPs and WLSs are managed by the Wildlife Wing of the FD, the RFs are managed by its Territorial wing¹³. The state may exercise its extraction rights either directly (such as when timber felling is done by the FD itself) or through intermediaries upon payment of some 'rent', such as auction of NTFP extraction rights on 2-year contracts. In the latter case, the 2-year limit virtually ensures that the contractee has little interest in sustainable use.

Demarcation in the field and records. One would have expected these regimes to be unambiguously demarcated in the

field, because most rights are in the hands of the state. However, there is substantial ambiguity about certain lands that were 'transferred' from other tenure categories to the forest department for creation of RFs. Typically, in the 1970s, 80s and 90s, so-called 'C & D lands' held by the Revenue Department under different tenurial categories such as *gomaals* were transferred to the Forest Department and were to be settled as RFs. But in many cases (for a variety of reasons including repeated cancellation and reiteration of these transfers by the State government) the land shows up with both or neither department's records.

2. Largely open-access forest tenures

The regimes in this category (regimes 5-9 in Table 1) are essentially those lands set aside for use by villagers where no agent is responsible for day-to-day management. The State forest department plays a role more akin to that of a regulator/monitor, concentrating on enforcing essentially the rules against tree felling (if at all). As the table shows, these regimes include Protected Forests¹⁴ (except the PFs of Uttara Kannada), District Forests (which appears to be a term used only in the Act), Minor Forests of Uttara Kannada (that are, due to a historical quirk, still reported as part of RFs)¹⁵, Pairsaris of Kodagu and Gomaals¹⁶ of Shimoga and Chickmagalur (which denote pasture but may often consist of dense forest or at least tree savannas), and Sarkari Anadheena or Assessed Waste Lands (AWLs) of Dakshina Kannada.¹⁷ They add up to a very substantial 37% of the erstwhile forested lands of the region (subject to the caveats regarding area estimates mentioned below).

The purpose behind all the regimes in this category is identical: to set aside forested areas that can be used by local communities to meet their subsistence requirements of fuelwood, leaf manure, small timber, fodder, etc. Thus, by and large, these products are legally available to the public from these forests, subject to some operational limits by the FD on manner of extraction or transport (as a way to regulate quantity extracted). The commercially valuable NTFPs are, however, vested in the State, usually in the Revenue Department, to be sold or contracted out by the Tahsildar (Karnataka Forest Rules (KFR), sec.96, Chap.XII). Extraction of whole trees and logs was permitted in large quantities under the Malnad Ryot Privileges and Canara Privileges till the

1970s, but then withdrawn because they seemed to lead to very excessive extraction (although the statutes still enable the State to grant such privileges vide KFR, sec.69).

The State, when creating these regimes, appears to be have been more concerned about reducing its enforcement efforts than about resource sustainability. Hence, although these regimes are loosely 'regulated', they are more akin to 'open-access' situations because a) *de jure*, fairly liberal rights are exercised by the entire population with no demarcation of who can extract from where, b) no institutional mechanism for the regulation of extraction levels to ensure resource sustainability, and c) the *de facto* situation that even the existing regulations, such as the ban on tree felling, are poorly enforced by the FD.

Operational rules, such as they are, are still made by the State, without consultation with the users. Access given to villagers may be temporarily withdrawn from certain areas. Lands may even be transferred from one agency to another and hence from one land-use to another without consulting villagers. E.g., *gomaals* and *pairsaris* were routinely transferred from the RD to the FD for afforestation activities under the so-called Social Forestry programme, with no regard to the grazing needs of the villagers. Gomaals, pairsaris and AWLs have also been routinely leased out to State-owned corporations such as Mysore Paper Mills and Karnataka Cashew Development Corporation.

The constitution of these forests was done by the colonial State on the basis of fairly loose notions of 'people's legitimate need', as modified by other considerations (whereby commercial valuable forests were invariably excluded from these regimes regardless of their importance to local communities). The specific criteria varied by regime and district: PFs were generally set up in areas of heavy use, MFs of Uttara Kannada were supposed to be in some proportion to the livestock population in the village as were *gomaals* in other districts, whereas AWLs seem to be simply lands that could not be assigned for cultivation and were also not so densely forested that they were seen worthy of RF status. The consequent assignments are fairly arbitrary, and have become more so following significant population growth, agrarian and technological change, and the loss of many of these forests to cultivation, plantations, urbanization, etc.

In terms of security of tenure, even though the bulk of these tenures were meant to meet the needs of local communities, the rights of the local communities to use these tenures are highly insecure—even officers at the level of Tahsildars can transfer or alienate *gomaals* without any due process (even though in setting them up, it is stated that they are for meeting the grazing needs of the villagers). Further, the State agencies managing these lands (typically RD) are simply custodians, with no stake in the condition of the land, and hence are willing to alienate them or transfer them to industrial or other land-uses as per the dictates of the political system. Whether the recent Supreme Court judgements that expand the ambit of the Forest Conservation Act (Anonymous, 1997d; Anonymous, 1997c; Anonymous, 1997b; Anonymous, 1998b) will in practice be applied to all these regimes remains to be seen.

Location and spatial extent. These lands are generally close to settlements and cultivation, but the sizes of the patches vary. Estimating the extent of these lands is very difficult, as explained below when discussing the nature of demarcation in the field.

Practical administration. The key restrictions, viz., on felling of trees and on the conversion of land-use to non-forest uses (and hence alienability or full proprietorship), are enforced by two different agencies: the FD takes care of the trees, but the RD is to take care of the land (both in the case of legal 'Forests' such as PFs or MFs, and also 'non-Forest lands' such as *gomaals*, *paisaris*, etc.) Consequently, these lands have tended to be treated more as 'no man's land', and both tree felling and encroachment for cultivation are rampant.

Demarcation in the field and records. The demarcation of these regimes on the ground and in government records is poorer than that of fully State-controlled regimes. Transfers to other regimes are not always reflected in village records, and with illegal encroachment being rampant, the area figures here are probably overestimates. An additional complication in Dakshina Kannada is that most AWLs have some area in which *kumki* privileges have been granted. However, the *kumki* privilege areas have never been surveyed and demarcated. Hence, the total area reported as AWL in official statistics is significantly higher than the area legally available for use by all villagers. That the non-*kumki* AWL areas are also heavily encroached is another story.

3. Broadly community-controlled forest tenures

This broad category (regimes 10-16 in Table 1) includes regimes that are 'community-controlled' in the conventional sense, i.e., with the State playing only a regulatory role, and two regimes that are best called 'joint or shared control' regimes in which the State is involved in day-to-day management also.

Community-control regimes.¹⁸ Village Forests were the only full-fledged community forest tenure recognized under the Indian Forest Act, 1927. They enabled the formation of a Village Forest Panchayat of the villagers to manage forest use and solve the problem of open-access and free-riding. They permitted extraction of all the products permitted in open-access regimes, plus some regulated removal of timber (except sandalwood, rosewood, and teak), and even the quarrying of laterite bricks. The Village Forest Panchayat (later on merged with the Village Panchayat) was responsible for regulating use by the villagers and for protecting the VF from outsiders. All villagers were by default members of the VF.

VFs were set up in the 1930s in Uttara Kannada and Shimoga districts in several tens of villages. However, the basis on which only these villages were chosen and the hundreds of other villages containing open-access forests used heavily by the local community were not chosen is unclear. Subsequently, this regime was incorporated into the 1963 Karnataka Forest Act. But surprisingly enough, the already existing Village Forests were all de-recognised by the Karnataka government, thus undermining the notion that tenures with legislative support are more secure. Three Village Forest Panchayats in Uttara Kannada, however, contested this order in the High Court and were granted permission to continue operation, which they do till today (Shetty, 1988).¹⁹

All other forms of community-control tenures appear to exist only in Kodagu district. They seem to be concessions made to the religious beliefs of the local communities and constitute a very small fraction of the village landscape, thus not really meant to or capable of serving the purpose of meeting the villagers' forest product needs.

Administratively, both VFs and the various community tenures of Kodagu are (as in the case of open-access regimes) under the dual control of the Revenue and Forest Departments.

Since VFs are fully recognized under and notified as per the Act, they are generally clearly demarcated in the records; in fact, the de-recognition of most of the VFs in the 1960s has not prevented the FD from continuously reporting them as VFs till date.

Shared management regimes. The Social Forestry programme, started in 1985, envisaged the setting up of village-level committees to manage the plantations that were to be raised under the programme. However, although a large number of plantations were taken up, virtually none of these committees ever functioned in a meaningful manner (World Bank, 1993).

The Government of Karnataka then initiated the Joint Forest Planning and Management (JFPM) programme in 1993. Here too, village forest committees (VFCs) are to be set up, in this case to collectively manage degraded patches of legal forest land in the village (as against non-FD lands in the case of SF). Under JFPM, the villagers are supposed to get access to all fuelwood, fodder and leafy matter in the managed patch, in return for taking on the responsibility of protection of the patch. The products are meant only for self-consumption, but there is provision for sale of excess products to neighbouring villages (the method of determining 'excess' is however, complicated and impractical). In addition, the villagers are supposed to get a 50 per cent share in the net proceeds from the 'final' harvest of any timber grown in the area managed by them (see Karnataka Forest Department, 1994; KFD *et al.*, 1996 for details). The villagers do not, however get rights to products from (or responsibility of) the 'un-degraded' forests being used by them.

The VFC structure is open to all adult residents of the village, and the executive committee of the VFC contains reserved seats for disadvantaged groups. To ensure 'joint' management by villagers and the FD, the Secretary of the VFC is always the local Forester. But the relationship is lop-sided: the villagers do not have information on or say in the decisions of the FD, whereas the VFC can be recognized and de-recognized by the FD.

Operationally, the VFCs have some flexibility, but their actions are circumscribed by the management plan that they are supposed to prepare and get approved by the FD, and there are no guidelines as to the dos and don'ts in the management plan. The constitution of VFCs is on the basis of G.O.s, which do not

have any legal/statutory position. Thus, villagers cannot go to court to force the FD to recognize a VFC in their village. Moreover, neither the VFCs nor the agreements they enter into (and the rights they thereby acquire) have any legal standing, so the de-recognition of the VFC by the FD cannot also be challenged in any judicial forum. In an attempt to provide a statutory basis for JFPM, its tenurial arrangements and the VFC as an institution, the Government of Karnataka amended the Karnataka Forest Act in 1998. But this effort is inadequate both conceptually and legally. It does not address the basic design flaws in the JFPM model promulgated under the G.O., such as the narrow focus on degraded lands only, inadequate attention to forested lands outside FD control, no cognisance taken of existing individual rights, and not giving full and clear rights over NTFPs to villagers. It is also flawed legally, as it is introduced in the Village Forest chapter of the Act, which makes it applicable only to VF lands, not to RF or even MFs or other hitherto open-access lands (see LÉLÉ and Srinidhi, 1998b for details).

The JFPM programme was supposed to apply to the entire State, but has been taken up seriously by the FD only in those districts where special donor funds were available: Uttara Kannada, Shimoga and Chickmagalur (and recently some non-Western Ghats districts). Most of the VFCs are therefore located in these districts, and are managing small parcels (20-100 ha) of Minor Forest, District Forest or Reserve Forest lands. The area under JFPM is not shown in Table 1, as it is already counted in the original legal regime of that land.

4. Largely privately-controlled forest tenures

This broad category (regimes 17-24 in Table 1) includes a range of traditional usufruct regimes (which confer only rights to harvest certain products for self-consumption), fully private forests (which permit the selling of all the products and of the land), and forests leased to individuals or companies for understorey cultivation or plantation for a specific (but usually very long) period.

Traditional private usufruct and 'full' private ownership regimes. These regimes are rather unique in the Indian context, occurring (to the best of our knowledge) only in the Western Ghats region of Karnataka (and possibly Kerala and

bits of Maharashtra and Goa) and possibly in the North-East. But within the Western Ghats region, they are ubiquitous, occurring in all the districts under different names and guises: *soppinabettas* and strip grants of Uttara Kannada, *soppinabettas*, *haadyas*, and *khaate-kaans* of Shimoga and Chickmagalur, the *kumkis*, *kaane-baanes*, *haadis* and Private Forests of Dakshina Kannada, and two different *baanes* in Kodagu²⁰, adding up to about 16 per cent of the total forested area in the region.

These regimes all appear to have been constituted with the purpose of providing an assured source of biomass to the farmers to maintain the productivity of agriculture and livestock, while also meeting the farmers' fuel and small timber needs. They all confer exclusive access to individual households on the basis of their ownership of a particular piece of private agricultural land.²¹ And excluding non-tenure holders is made practically possible by permitting the building of fences, trenches or walls around the privileged area.

In terms of components to which rights are conceded, common to all regimes are usufruct rights (rights to extract for own use) over branches, twigs, leaves, and litter from general (non-reserved) tree species as well as grass collection and grazing rights. Silvicultural operations permitted to be employed by the households include pruning of tree branches. Moreover, there are *de facto* rights over commercial NTFPs as long as they are sold to the FD's authorized contractor. However, there are important variations in the case of other products and other types of rights. While the details are given in Table 1, key differences are:

- a) Full ownership (including right to sell) over timber/stemwood (arguably the most commercially valuable component) is given only in the fully private *haadis* of DK, the 'redeemed' *baanes* in Kodagu, and a small fraction of the *khaate-kaans* of Shimoga. This right was extended on-and-off to the *kumki*-holders of DK also.
- b) Elsewhere, some timber extraction is permitted if 'legitimate' domestic need can be demonstrated by the tenure holder.
- c) There is enormous confusion in most regimes about the right to the timber growth from trees planted by the tenure-holders in the tenured land.
- d) Soil removal rights appear to be given only in *soppinabettas* of Uttara Kannada and strip grants.

- e) Right to convert land-use is given in the fully private *haadis* of DK subject to regulation by the KPTA. But in the usufruct lands generally very limited cultivation rights have been granted in the usufruct lands (as in *soppinabettas*), or cultivation is permitted only after the tenure-holder applies for and gets full ownership of the erstwhile usufruct land (as in *kumkis*).
- f) The privileged or usufruct land cannot be sold (alienated) directly, but can only change hands along with the cultivated land to which it is 'attached'.

It should be noted that the policy of keeping the usufruct lands attached to some cultivated land made sense at the time it was initiated, where cultivators were (and in many cases still are) heavily dependent on the forest for leaf manure, grass, fuelwood and small timber. When, however, this dependence weakens or disappears, such as when the tenure-holder cultivates the erstwhile usufruct land itself, it makes little sense to treat the land as usufruct or to keep it 'attached' to the tenure-holder's original cultivated land, thereby denying full ownership rights to the erstwhile tenure-holder. In the *soppinabettas*, this problem is avoided by strictly restricting cultivation. On the other hand, in the *kumki* tenure, a provision was made to grant full ownership rights to the *kumki*-holders if they applied for it (*kumki darkhast*).

In the case of the *baanes* of Kodagu, however, the State adopted a peculiar approach that ultimately resulted in a lot of confusion. The baane-holder was permitted to cultivate coffee in the baane land, and would then be charged land revenue for the cultivated portion at the rate applicable for fully private coffee lands. However, the cultivated baane would still not be treated as fully private land (no ownership certificate would be issued), and thus could not be sold separately from the wetland to which it was attached. Not surprisingly, a recent judgement of the Karnataka High Court has held this to be incorrect (*Majumdar et al.*, 1993). The State's response to this judgement is simply to convert all baane lands to full private ownership (Secretary, Revenue Department, 1999; Chinnappa, 2000), an approach that overlooks the original purpose of the *baane* tenure as supporting land.

While on the face of it, the decision to fully privatize the baane lands would resolve the contradiction by making cultivated lands alienable, in the larger picture, this decision only further

aggravates the inconsistency in access to forest lands across districts and also the contradiction between forestry and non-forestry land-uses. Taken to its logical conclusion, the decision implies that all erstwhile forested lands with individual usufruct tenure should be privatised and opened up to cultivation. Although the government does say that the Forest Conservation Act's requirements will be taken into consideration while doing this, it is not clear whether and how the full protection of the FCA as reinterpreted by the Supreme Court will be accorded in the privatization process.

The specific responsibilities of the tenure-holder have not been spelt out clearly in most of the individual usufruct regimes, except of course the preservation of trees of 'reserved' species. In Uttara Kannada, the soppinabetta-holders are supposed to maintain a tree density of 100 trees/ha and the holders of strip grants 75 trees/ha, but there appears to be no enforcement of this rule. In some of the regimes (*soppinabettas* of Uttara Kannada, *khatekans* of Shimoga), the tenure-holder has the responsibility to pay some additional tax or assessment to State in lieu of the usufruct, but in any case the assessment is so nominal by current standards that there is no meaningful distinction between the regimes on this basis.

All of these regimes are locally discriminatory in that they are only assigned to landholders or a subset therein. Those in Uttara Kannada are the most discriminatory, being assigned only to the traditional arecanut landholders, whereas those in Shimoga and Chickmagalur are assigned to both areca and paddy cultivators (but with more area for the former). Those in DK and Kodagu are least discriminatory in principle but more arbitrary. Note also that no new assignments of *soppinabettas*, *kumkis* or *baanes* are being made by the government. Only those individuals who got them under British rule continue to enjoy them by virtue of the 'savings' under the Karnataka Forest Act, and because the KFA did not specifically identify them and dissolve, reorganize, or modify them.

Discrimination or arbitrariness also exists at another level: the variation in extent and nature of control granted to a private usufruct holder across the Western Ghats region. The size of these assignments varies from 2 acres for every acre of cultivated paddy land in Sringeri to 8 or 9 acres in Uttara Kannada, and an arbitrary (but often higher) ratio in Kodagu and arbitrary (but generally

lower) ratio in the case of *kumkis* and *haadis* of DK. Simultaneously, there is significant variation across the region in the type of control enjoyed and the category of villagers enjoying this control. Thus, the almost full control on land-use and timber enjoyed by the *haadi*-owners of Dakshina Kannada or *sagu baane*-holders of Kodagu is in sharp contrast to the strictly usufructuary rights over small timber, twigs, leaves and grass enjoyed by the *soppinabetta* holders of Shimoga, Chickmagalur and Uttara Kannada.

In terms of location on the landscape, virtually all these regimes are characterised by the forest patches being (almost always) located adjacent to cultivation. Very often, boundaries delimiting individual control in the forest patch are extensions of the ownership boundaries in the adjoining cultivated land. In fact, the *kumkis* are demarcated strictly according to this manner.

These usufruct 'privileges' (as the forest laws call them) were granted under various earlier legislations such as the Mysore Land Revenue Act, the Coorg Land and Revenue Regulation, and so on. Although these laws were repealed by the Karnataka Forest Act and the Karnataka Land Revenue Act, the rights and privileges granted under them were 'saved' in these new Acts, and thus enjoy statutory support (since canceling them would require amendments in the Acts); they can, however, be modified to some extent under the Rules. The tenure-holders in the different districts have, through their political vigilance and active litigation, generally ensured that the rights granted through these regimes are not eroded significantly by the Rules. For instance, the right to 'redeem' hitherto 'unredeemed' *baanes* (i.e., the right of the baane-holder to get ownership of the standing timber in *baane* lands by paying a small amount to the government—a right granted under the Coorg Land & Revenue Regulation, 1899) was scrapped in 1974 by an amendment to the Karnataka Forest Rules²² but subsequent litigation has left a question mark because the High Court judgement has suggested that the redemption rights may still exist under the Land Revenue Act (Anonymous, 1976) due to the 'savings' clause in it. In the other regimes, although legally the timber belongs to the FD, the tenure-holders have in practice hotly contested this right; in fact, the origins of the so-called *Appikko* movement in Uttara Kannada can be traced to the FD's attempts to fell timber in *soppinabettas*. In some other cases in Dakshina Kannada, the courts have taken the view that the *kumkis* might be considered equivalent to fully private property (Anonymous,

1997a; Bhat, 1998), an indication perhaps of the inability of the courts to comprehend the layered notion of tenure and also the original purpose behind these usufruct privileges.

In the case of the fully private *haadis* and private forests (mostly in Dakshina Kannada), the felling of timber is regulated by the Karnataka Tree Preservation Act (KTPA). The KTPA is, however, quite vague²³. Thus, in practice, this has simply meant more paperwork and more 'costs' to the owner to obtain permits and hence reduced the return from the timber woodlots. In fact, although the KTPA rules do not say anything about requiring replanting of trees if land is to be cultivated, we found in the field that all *haadi*-owners were required to pay a 'replanting deposit' in order to obtain permission to fell.

Note, again, the inconsistent legal position of regimes with similar purpose. Some fall under the purview of the Karnataka Land Revenue Act (e.g., *baanes*) and others under the Karnataka Forest Act (e.g., *soppinabettas* of Uttara Kannada), with their position vis-a-vis the Forest Conservation Act being indeterminate²⁴.

Administratively, these regimes are under dual control: the trees 'belong' to the FD, and the land is the responsibility of the RD. This creates the usual 'no man's land' situation, with neither department owning full responsibility for regulation. This is reflected in the quality of demarcation and reporting: statistics on the extent and location of these regimes is very hard to obtain. The exception to this is the *soppinabetta* regime in Uttara Kannada district: these are, due to a historical quirk, considered Protected Forests and hence the land is considered FD land for reporting purposes. Also for this reason, the Uttara Kannada *soppinabettas* are the most clearly demarcated in the field and the records. In contrast, the *baanes* of Kodagu have been surveyed only sketchily, while the *kumkis* of DK have never been surveyed and are reported as a part of the open-access AWL.

Plantation and cultivation leases/rights. These occur in two forms: for forest plantations and for cultivation. The former are recent phenomena, being lands leased out to State-owned enterprises for softwood plantations (such as the lease of minor forests, *gomaals*, *bettas* and *kaans* to Mysore Paper Mills). But the latter includes several concessions granted out at the turn of the century: the *geni-malais* and *jamma-malais* for cardamom

cultivation in Kodagu, the leases for coffee plantations in Biligiri Rangana Hills in Mysore, and the *hakkals* for shifting cultivation and *hangami laagan* (HL) lands for annual crops in Uttara Kannada.

The primary motivation behind granting the cultivation leases, especially the *malais* and the coffee leases, seems to be the extraction of maximum revenue for the State. All except the *hakkals* are fixed duration tenures (ranging from 20 to 99 years) that grant exclusive use of the lands to individuals or corporations, but so far most of the 20-year leases have been renewed. While the cardamom leases only permit removal of understorey, the coffee leases have permitted virtually complete conversion of the forest, and the HLs and *hakkals* are lands which were in fact historically cultivated but taken over by the British FD.

The criteria for assigning these leases appears to have been often haphazard and context-specific, with only the cardamom leases being allotted by auction. The parcels vary in size from a few acres of HL or *hakkals* to hundreds of acres in coffee and cardamom leases, but on the whole these regimes add up to a very small portion of the forested landscape. In terms of location, they are often located in deep forest, making their monitoring difficult and their ecological impact much more than their size might suggest. Regulation by the FD seems to have been quite cursory: most cardamom *malais* appear to now cultivate coffee. The administrative control is again jointly with the RD. Most of these leases are now close to expiration, and there are efforts being made by environmentalists to prevent their renewal by the government. Similarly, the policy of leasing out erstwhile *gomaal*, *betta* and minor forest lands to even a State-owned corporation for pulpwood cultivation has been heavily criticized. In fact, a similar lease of notified forest lands and *gomaal* lands in Dharwad district was opposed by local communities and invalidated by the Supreme Court (Anonymous, 1995).

Summary

In the overall picture of forest tenure regimes in the Western Ghats region of Karnataka, the following features are noteworthy:

- a) In terms of fraction of the region's forested area, the predominant regime-types are the largely State-controlled ones (NPs, WLSSs, RFs, AMKs) and the largely (*de facto*) open-access ones (MFs, PFs, DFs, Gomaals, AWLs, Paisaris).

- b) Regimes granting control to the local community are almost non-existent²⁵; the few set up under the Village Forest chapter of the Indian Forest Act of 1927 have been dismantled after the formation of Karnataka State in the 1960s.
- c) The ubiquitousness of regimes of private exclusive usufruct, covering about 16 per cent of the forested landscape, is an intriguing and rather unique feature of this region.
- d) There are significant variations in the fraction of State-controlled areas (86 per cent to 25 per cent) vs open-access areas (18 per cent to 54 per cent) in the forested lands of the region. This indicates major inconsistencies and arbitrariness (or historical subjectivity) in the criteria for identifying areas for conservation and areas for communities. The extent of open-access forest available to a village also varies sharply within and across districts, especially when compared to the villagers 'needs', which have changed drastically since the century-old settlement.
- e) While private exclusive usufruct is ubiquitous, there are significant variations across the region in the size, extent of control and social category to which such control is granted.
- f) While the State was the manager and main user of State-controlled lands (and even some products from open-access and individual usufruct lands) in the past, the past few decades have seen an increasing tendency towards leasing out lands or specific products to the corporate sector.
- g) Legally, several issues stand out. Firstly, the lack of a definition of 'forest land' and the consequent treatment of most of the open-access and privately controlled regimes as 'non-forest' land has meant the non-application of the Forest Conservation Act to many forested areas.²⁶ Secondly, there is a lack of due process in the constitution and denotification of regimes meant for conservation (such as NPs and WLSs) as well as those meant for meeting local people's needs (such as *gomaals*). Thirdly, there is inconsistency in the treatment in the law of regimes constituted with similar purposes, as some fall under the Land Revenue Act and some under the Forest Act and some under both. Finally, the tenurial status of several of the individual usufruct regimes has become clouded or fundamentally altered by High Court and Supreme Court

judgements that appear to be forcing the government to grant full proprietary rights where only usufruct rights existed.

- h) Administratively, two common points emerge: Firstly, the tendency to keep open-access and privately-controlled regimes under the Revenue Department and only State-controlled regimes with the Forest Department deprives them of proper regulation from the forestry point of view, even though they are meant to be used primarily to satisfy the forest product needs of villagers. Instead, they become susceptible to encroachment and also the source of vote garnering through land grants programmes. Sporadic transfers of some (arbitrarily chosen) lands to the FD have only confused matters further.

Secondly, the extremely poor level of record-keeping for public lands in general and lack of demarcation in the case of many of the complicated forest tenures means that the status of public (forested and other) lands in the region is very hazily known to the State-level policy-makers, and even confusing to the local officials and villagers (see ISEC and NST, 1998 for a detailed study of public land records in Dakshina Kannada district). Even the KFD reports only 5 legal categories²⁷ of forests in its annual report, although its own manual discusses several other regimes and although its own Wildlife Wing administers two types of protected areas.

Some academic and policy implications

As we stated at the outset, the primary purpose of this paper is to present a comprehensive overview of the forest tenure regimes prevailing in the Karnataka Western Ghats for the use of the layperson, activist, bureaucrat and academic, and not really to conduct any theoretical or empirical analysis. Nevertheless, a few academic observations or at least hypotheses may be ventured. Firstly, the point of view of the 'property rights' literature, this compendium should serve to highlight the inadequacy of the 'conventional 4-way classification of property, and to demonstrate both the real-world existence and the conceptual usefulness for a layered or 'bundle' approach to understanding tenure in general and forest tenure in particular. It suggests that the real debate has been and ought to be about the distribution of the strands of

the bundle' between individuals, community and the State, and how they affect the economic and environmental outcome.

Secondly, the observed ubiquitousness of private or individual usufruct and even full private ownership regimes across the Western Ghats region lays open to question the populist claim that indigenous regimes of forest access and management are or were only 'communitarian' ones. Explaining the presence of such individual tenure regimes requires a more nuanced analysis of tenure and the context in which it evolves. For instance, such 'individualistic' tenure might be the outcome of the peculiar social geography of the region, where 'villages' are characterised by homesteads scattered throughout the landscape rather than a few tight clusters of households as in the plains or even in the Himalayas. The preference for individual control in day-to-day forest management may thus be a practical and cultural outcome of this pattern. The absence of communitarian regimes may also be related to the higher degree of social stratification in the Western Ghats region as compared to (say) the Himalayas, and the consequently biased allocation of rights to landowners, particularly horticulturists. This compendium should provide the basis for further exploration of these and other questions.

Perhaps the question most relevant to policy is how socio-environmental outcomes vary within and across different regimes. A proper answer to this question requires substantial empirical research, which has been attempted in the larger project of which this study is a part. A full-fledged debate on forest policy must await the results of such empirical research. Nevertheless, it is possible to make certain policy recommendations on the basis of the observations made so far regarding the design, functioning and qualitatively observed outcome of these tenure regimes.

a) At the most elementary level, it needs to be acknowledged that the structure of forest tenure is much more complex than the simplistic schemes used by government agencies, such as the 'Forest/Gomaal/AWL/Parambok' classification used by the RD in Dakshina Kannada or even the 'RF/PF/VF/Pvt.Forest/Unclassed Forest' classification used by the FD. Indeed, both the official understanding of forest tenure and the official record-keeping about the actual tenurial situation of each piece of forested land need a drastic overhaul. From the lowest level—the Record of Rights maintained by the Village Accountant—to the highest—the reports and statistics

compiled by the Revenue and Forest Departments, there needs to be much greater detail and accuracy in reporting tenurial status and its distribution. This would require surveying of hitherto unsurveyed regimes such as *kumkis*, resurveying many others that have been encroached upon, reconciling the records of the RD, FD and Land Records offices, and ensuring that the Record of Rights (especially its computerized version currently being created in many districts) recognizes all these different regimes. Thus, generic labels such as *as aranya* (forest) or *sarakari anadheena* (unassigned government land) that are currently used in the Record of Rights must give way to specific categories (NP, WLS, RF, PF or *kumki*, etc.)

b) At the next level, if record-keepers are to recognize and record different regimes and if administrators are to administer or regulate their operation, their position in law requires greater clarification and some minimum rationalization. This means, at the very least, avoiding peculiar situations such as the non-alienability of cultivated and assessed *baanes* or the case where right to redemption of timber in *baanes* is removed by amending the Forest Rules but continues to be permitted under the savings in the Land Revenue Act. Thus, all usufructory rights related to forest or biomass products must come under the purview of the one (forest-related) legislation and removed from the purview of other (Land Revenue) legislation. Administratively also, all forested lands would have to be regulated (not necessarily managed) by a single agency (FD) rather than the confusing combination of RD and FD prevailing today. To achieve this, lawmakers will have to confront the issue of 'savings': a blanket and blind retention of rights and privileges granted under earlier legislation will prevent the State from subsequently modifying or deleting them. It therefore appears necessary to take a bolder position by explicitly identifying each regime created under earlier legislation, and modifying it to fit into the new legislation. Thus, for instance, the Karnataka Forest Act could have a chapter on 'individual usufruct forests', give them all a single name, say *soppinabettas*, frame a common set of rules for their operation and regulation, and then bring all erstwhile *kumkis*, *baanes*, *kane-baanes*, etc. under this regime. This would also require bringing about some parity in the areas

conceded, the criteria for assigning these rights, and the extent to which conversion to cultivation and hence to full proprietorship is permitted.

- c) Ultimately, the above rationalization and clarification of the laws and simplification of the regimes cannot really take place without a thorough re-thinking of forest policy objectives and tenure regimes as a means of achieving them. The tenurial arrangements prevailing today, which are essentially products of policy decisions taken and laws framed during the British period, are largely out of step with the directions in which forest policy has evolved over the past two decades (Lélie and Srinidhi, 1998a). For instance, the State-controlled RFs were originally meant to be managed primarily to provide timber, softwood or revenue to the State. If, however, revenue-generation or meeting industrial needs is no longer the primary objective of forest policy (as the 1988 policy states), the RF regime becomes a misfit, because it has no explicit conservation or other goals laid down for it.

Similarly, the loosely-controlled (*de facto* open-access) regimes such as MFs, PFs and Gomaals were perhaps not so inappropriate a century ago in very sparsely populated areas that were not linked to forest product markets²⁸. However, in the changed context characterised by high population densities and a policy favouring people's participation in management, these regimes are untenable. If local communities are to take on management responsibilities, they must be given clear and exclusive access to adequate areas. This will require the re-assignment of rights over virtually all the open-access areas (MFs, PFs, Gomaals, erstwhile VFs, etc.) and also over significant portions of today's RFs to some form of community-controlled and State-regulated tenure. And this process of re-assignment will have to take into consideration the multitude of individual usufruct regimes that exist, and that will either impede community-control, or render it unnecessary, or in fact lead to greater inequity if ignored.

In other words, a major overhaul of the forest tenure regimes in Karnataka is long overdue. Such an overhaul, however, will not be possible without thoroughly understanding the original purpose, legal intricacies and historical baggage of existing regimes on the one hand and the relationship between tenure and socio-environmental outcome on the other. It is hoped that this study has made a contribution to moving towards this larger goal.

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Notes

- 1 See Government of Karnataka (1997-98, p.69, Table 3: District-wise forest area by legal status).
- 2 For instance, although KFD reports more than 10% of forest land in the state as Unclassed Forest, it turned out that this category has neither any legal standing nor physical or administrative meaning, because it is not land legally classified or physically verified as forest but just assumed to be physically forested on the basis of guesstimates made at the time of forest settlement and repeated blindly from one annual report to another.
- 3 Other efforts by some committed foresters (Adkoli, 1993; Murthy, 1994) were more useful but limited to only a particular district or regime. Shetty (1981) contains detailed treatment of the legal issues in forestry for all of India, but is now out of date and in any case deals only with the categories spelled out in the Acts.
- 4 E.g., understanding the nature of the forest tenure regimes and organizing them along theoretically meaningful dimensions of tenure would enable the building of hypotheses about what ecological and social outcomes are likely under each regime. Understanding their location and spatial extent would enable the choosing of sample sites for empirical studies to test these hypotheses. The diversity and nature of the tenures granted in forested lands also require explanation from a historical point of view. An analysis of the fit between current forest policy and the prevailing tenure regimes is also possible (see Lélé and Srinidhi, 1998a).

- 5 In 1997, Dakshina Kannada district was divided into Mangalore and Udupi districts and Mysore district was divided into Mysore and Chamarajinagar districts. However, given that the bulk of our research was done prior to this division and (more important) official statistics and information are almost entirely along the pre-1997 boundaries, we shall refer to the undivided Dakshina Kannada district and Mysore district throughout this paper.
- 6 In many ways, how to distribute rights to various components of or benefits from the forest across various agents is the core problem of forest management (see Lélé, 1998 for a detailed discussion).
- 7 Although we evolved this framework independently, some similarity here with Schlager and Ostrom (1992) may be noted.
- 8 See Schlager and Ostrom (1992).
- 9 This is an underestimate for two reasons. Firstly, a strict taxonomy would require that many of the Kodagu regimes be counted twice because their 'redemption status' may vary, i.e., redeemed *sagu baane* and unredeemed *sagu baane*, redeemed *jamma baane* and unredeemed *jamma baane*, and so on. Secondly, we have left out a few regimes, primarily in Kodagu, where we could not get clear information on their characteristics.
- 10 E.g., Minor Forests in Uttara Kannada (controlled by the Forest Department) are somewhat different from those in Shimoga and Chickmagalur (controlled by the Revenue Department). Similarly, *soppinabettas* of Uttara Kannada are quite different from those of Shimoga and Chickmagalur.
- 11 Although still subject to criticism: e.g., the choice of sites and sizes is driven by an almost exclusive focus on protecting large, spectacular mammals such as tigers and elephants and occasionally birds, whereas protection of the diversity of other life-forms might require giving priority to other areas and smaller-sized areas such as sacred groves.
- 12 This requirement may also hinder improved protection, if, e.g., the state wanted to transfer some RFs to villagers for management. The state cannot convert them to VFs without Central Government approval.
- 13 Although with officers routinely rotating in and out of the Wildlife Wing, it is not clear that NPs and WLSs receive particularly specialised attention.
- 14 A rather misleading term, in that they are the less protected brethren of Reserve Forests, and also not to be confused with 'protected areas', which refer to WLSs and NPs.
- 15 See Collins (1924) for details.
- 16 The term 'gomaal' appears in the Mysore Land Revenue Act of 1902 but has been replaced by 'pasturage' in the Karnataka Land Revenue Act of 1964. However, in practice, the term *gomaal* continues to be used, even down to the Record of Rights at the village-level, and hence we prefer to use this term.
- 17 We should note that there is no legal category called 'C & D lands' that are often referred to in the discussion on public uncultivated lands. To the best of our knowledge, C and D are land capability classes corresponding to poorer quality (and hence usually uncultivated) lands.

- 18 We are not including informal regimes of community control that prevail in some villages in Shimoga district, the reasons being: (a) lack of any systematic features across them, (b) very limited regulation being implemented in most of them, and (c) the total number of villages in which they actually function is a few tens of villages at most (based upon our field visits).
- 19 It is not clear, however, why the Court did not set aside the entire de-recognition process. Little is also known about the extent to which villagers in other villages opposed the de-recognition, or about the manner of their management.
- 20 Not including the *Jahagir, Jodi, Bhattamanya* and *Umbli baanes* that were abolished by the Karnataka Certain Inams Abolition Act, 1977 (Secretary-Revenue Department, 1999).
- 21 In some of the *soppinabettas* in Uttara Kannada and more so those in Shimoga and Chickmagalur, the original assignments were made to a group of households (e.g., all the arecanut holders in a hamlet). However, in practice, in most villages the group has divided up the assigned patch of forest into individual patches for each household through mutual negotiation. Since there is no formal or informal mechanism of collective management, we have considered these regimes as largely privately-controlled, but ranked them as less privatized than *kumkis, baanes* or *haadis*.
- 22 Rule 137 omitted w.e.f.14-Feb-1974 vide notification no.AFD 425 FAD 72 dt.15-Jan-1974.
- 23 Rule 46: 'Cutting of trees for the purpose of bona fide cultivation of food crops or plantation crops' is permitted 'but DFO should be satisfied that there will be no denudation of forest [!] and no clearance of any tree growth on steep and precipitous hill slopes'. It is not clear how cutting of trees for cultivation cannot lead to denudation!
- 24 Although the Supreme Court judgement of 1996 expands the ambit of the FCA to cover all physically forested lands, much depends upon the affidavit filed subsequently by the KFD on the physical status of these lands; we have, however, been unable to obtain a copy of this affidavit.
- 25 Although there are scattered instances of communities protecting and managing forests through informal institutions, but these are neither recognized by the state, nor are they very numerous.
- 26 This is not to suggest that the Forest Conservation Act must be applied to them blindly, but that these lands also deserve to be treated as forested and hence integrated into a comprehensive forest policy. It is also not clear that even the Supreme Court judgement of 1996 will change the situation, since much depends upon the affidavit filed by the state FD (which we have not been able to obtain).
- 27 And even these categories (RF, Protected Forest, VF, Private Forest and Unclassed Forest) are not as per the Karnataka Forest Act, which talks of only four categories: RF, District Forest, VF, and Private Forest).
- 28 Although in most cases they were simply the outcome of imperial ignorance of and callousness towards people's needs.