

Chapter 8

Village Commons, Livelihoods and Governance: An Assessment of Karnataka's Experience

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8.1 Introduction

Over the past several decades, researchers have argued that common property land resources (CPLRs) are important because of the high dependence of rural households on them, the particularly high dependence of the poor among them. CPLRs act as sources of fuelwood and fodder and other products that are critical to rural livelihoods and as safety nets during times of agricultural stress. Moreover, they also are sources of other environmental services to the local and global economy. Some of the pioneering studies on CPLR dependence and effects of CPLR loss have come from Jodha's work across several states in India (Jodha 1990, 1987, 1986). These have been followed by more studies at state or regional scales (Iyengar 1989; Nadkarni 1990; Beck and Nesmith 2001; Beck and Ghosh 2000) and more recently again at the national scale using data from the National Sample Survey Organisation (NSSO) (Chopra and Dasgupta 2008; Menon and Vadivelu 2006). Most of these studies focus on the question of economic dependence, within the framework of poverty alleviation, arguing that if CPLRs turn out to be economically important for the poor, then they should be maintained as such.

There was perhaps some receptivity to this perspective at the national policy level in the 1990s, as seen in the joint forest management programme for forested areas and

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in the watershed development programmes for semiarid areas that included significant support for ‘treating’ and regenerating CPLRs. At the same time, state-level policies have generally been quite divorced from this perspective. While central intervention by the Forest Conservation Act 1980 stopped the trend of wholesale handing out of forestlands for cultivation, CPLRs are still thought of as land banks by the state governments, sometimes for the poor but increasingly for mining, wind farms, garbage landfills or real estate and industrial development. With the introduction of the concept of paying net present value for conversion of forests, there is a possibility that forest conversion will also be dictated by economic calculations. And it is hard to argue against the economic logic of converting uncultivated CPLRs to development projects, as the ‘net’ economic benefits to society of conversion may often be higher, although the distributional impacts may be quite regressive. There is also the concern, voiced occasionally in some studies, that dependence on CPLRs (even of the rural poor) may in fact be diminishing (Menon and Lobo 2008; Kiran Kumar et al. 2008; Baviskar 2012). It appears therefore that there is a need for clarity on at least three points. Firstly, what is the normative frame through which one views the question of CPLRs and their conversion—is the concern about aggregate economic welfare, environmental benefits only or social equity, or about the process of decision-making? Second, how appropriate is it to use economic analysis and the calculus of opportunity costs to even estimate benefits and costs when the institutional context is not conducive to standard valuation? And are there ways forward to better governance?

To answer these questions, we use the case of CPLRs in Karnataka. We begin by clarifying the normative frame(s) through which CPLRs may be looked at (Sect. 8.2). We then provide an overview of the types of CPLRs in Karnataka, their spatio-temporal distribution and current condition (Sect. 8.3). We then summarise the empirical evidence as to the trends in CPLR dependence, particularly the arguments about declining dependence that undermine a role for local governance and lead to a liberal conversion policy. We conclude with observations on alternative approaches to CPLR governance.

8.2 Conceptual Framework: Potential Stakes (and Stakeholders) in CPLRs

We use the term CPLR to mean all land resources to which the public or part of the public have legitimate stakes or have de facto access, regardless of the legal status. Thus resources that are managed by the community itself as well as resources owned either by the state or by private persons with de facto open access to multiple groups are considered to be CPLRs. These would then include forest and grazing lands, mineral resources, privately owned but openly accessed fallows, irrigation tanks, rivers, tank and river beds, and urban public lands. However, in the context of land resources and for the purposes of this chapter, we confine ourselves to *rural uncultivated lands owned by the state*.¹ These lands may be exclusively managed by

¹We do not include ‘commonly held or managed’ agricultural lands, as there are almost no examples of this left in Karnataka state today. We also do not include seasonally open access

the state (as in the case of reserve forests), might be de facto open access (as in the case of protected forests and many other lands) and may occasionally be under (mostly informal) community management. In effect, we are saying that the 'CP' in 'CPLR' may refer to common access,² not common property.

The reason for such an inclusive (or permissive) definition is as follows. Admittedly, if one follows the hierarchical classification of regimes as 'authorised users', 'authorised claimants', 'proprietors' and 'owners' (Schlager and Ostrom 1992; Agrawal and Ostrom 2001),³ then including all situations where there are authorised users, regardless of their management and exclusion rights, would be tantamount to equating CPLRs with simple easements. But one must recognise that the present property rights regime in India is an artefact of the colonial period, in which the higher level rights (of management and exclusion) that rested earlier with local communities were by and large obliterated and that this trend continued in the post-independence era. Therefore, it is better to include all commonly accessed resources, keeping in mind the possibility that communities may actually lay managerial claims to them, given a chance.⁴

Having clarified our definition, it is useful to begin by asking whether there should be any public policy on CPLRs and, if so, why. Motivations that historically drove public policy on CPLRs (such as appropriation of the forests by the British in order to control timber and generate revenue) may no longer be valid. Unless the motivation for management (and hence for state policy-making) is clearly identified, most debates would be infructuous.

To begin with, it is important to identify what is at stake and who are the stakeholders when talking about managing CPLRs. For ease of exposition, one may categorise the benefits/beneficiaries of CPLRs into local and nonlocal benefits/beneficiaries. At one level, CPLRs have the potential to provide both product and service benefits to local users, particularly those households living in forest fringes, in several ways:

(a) Resources complementing household production and reproduction activities

1. The provision of organic material like leaf manure and new soil for agriculture
2. Fodder and grazing material for livestock held by farmers
3. Fuelwood for domestic purposes and cottage/small-scale industries

(b) Resources directly providing income-generating livelihoods

4. NTFPs and other minor forest produces
5. Grazing for livestock held by pastoralists
6. Timber

resources, such as post-harvest agricultural lands, which may be important in some states and for some communities (Beck and Ghosh 2000), but seem still a smaller part of the issue of CPLR management and conversion. Finally, we do not focus on urban parks or other urban commons, and also do not include underground mineral resources in any direct discussions.

²Or common pool, which makes exclusion difficult and de facto access easy.

³Which corresponds to whether the user has only 'rights of withdrawal' or also 'of management', 'of exclusion' and of 'alienation'.

⁴As is now beginning to happen under the Forest Rights Act 2006.

(c) Local social-ecological services

7. Places of cultural and religious significance and recreation
8. Soil conservation and hydrological services
9. Habitat for wildlife and biodiversity that are locally valued

At another level, CPLRs are also vital in meeting regional and global ecological and economic needs. These include the following:

1. Wildlife/biodiversity habitat
2. Watershed services (including hydrological regulation and soil conservation)
3. Carbon sequestration

Under the current dispensation, CPLRs are also often a source of meeting the mineral, timber and pulpwood demands of the regional government and private industries.

Thus, CPLRs have the *potential* to provide substantial product and service benefits to a range of local and nonlocal stakeholders. In terms of public policy, one major concern then is to maximise these product and service benefits. But in doing so, the state must also look at the opportunity cost of leaving the CPLR in its current state vis-à-vis converting it into a non-CPLR, which means (given our terminology) either cultivation or non-vegetative uses (mining, quarrying, dams, roads, real estate).

Besides the opportunity costs involved, there may be at least two other public concerns: sustainability and equity. Since the actual stakeholders include both the current generation of users and the future generations of users and given the nature of the ecosystem functioning (e.g. slow regrowth of forests), sustainability over time becomes an important concern, including adaptability to future environmental shocks such as climate change.

The question of equity in the distribution of benefits, both *within* what we have loosely defined as ‘local stakeholders’ and between local and global stakeholders, is equally important. If landless and marginal landowning households depend more heavily on CPLRs for subsistence needs, then social justice norms require that their needs be given priority. Similarly, the rights of nomadic pastoralists are often unrecorded but strongly supported by custom and tradition. In decisions about management and/or conversion of CPLRs, rights of these communities who are often not part of the resident (and voting) population need special treatment. At the same time, since CPLRs also generate regional-/global-scale environmental benefits, fairness also requires that CPLR management not be entirely dominated by local needs and priorities.

We believe all these concerns are relevant to the formulation of public policy on CPLRs. In practice, the policy on CPLRs has tilted towards regional/global stakeholders since the colonial period. The colonial state took control of most CPLRs to meet its own narrow interests of resource control and revenue generation, although it left some lands earmarked for local uses, especially in princely states where the colonial power exercised only indirect control. Subsequently, in

the case of forests, although local needs have been recognised, the idea of the ‘environmental role’ of CPLRs (especially forests) continues to have an overbearing influence on policy. In practice, the forest bureaucracies do not want to give up control, especially over valuable timber resources, even if they cannot limit access fully. On the other hand, the revenue department that controls non-forestlands exercises its power in the form of permission for conversion to private/developmental uses. Thus, in one case the global stake is emphasised and full state control is recommended, and in the other case the absence of any significant stakes is emphasised, and state-controlled conversion is recommended. In either case, then local interests seem to become irrelevant. Indeed, the argument is increasingly being made that locally used CPLRs are a vestige of the past. We now consider these arguments in the context of Karnataka state.

8.3 CPLRs in Karnataka

8.3.1 *Legal Categories of CPLRs in Karnataka*

In Karnataka, CPLRs are spread across diverse administrative categories, with diverse local nomenclatures and forms, and controlled by various arms of the state, including the Forest Department (FD), Revenue Department (RD) and, to some extent, the local Gram Panchayats (village councils created under the 1992 constitutional amendment). This diversity in nomenclature and administration of various categories of lands probably exists in most other states of India but is perhaps extreme in Karnataka because the state was formed by aggregating regions from five different pre-independence administrations (British provinces and princely states). Although unified legislations were passed after the formation of Karnataka state (in particular, the Karnataka Land Revenue Act and the Karnataka Forest Act), no real attempt was made to rationalise these categories. For example, within the Western Ghats forested region, where most public lands are or were covered by forests, there is a wide range of individually controlled regimes with different names in each district (*soppina bettas* in Uttara Kannada (UK); Shimoga (SHM) and parts of Chickmagalur (CHM); *sagu* and *jamma baanes* in Kodagu; *haadis*, *kumkis* and *kaane-baanes* in Dakshina Kannada (DK)/Udupi districts) with different rights, allocation rules and administrative responsibilities (see Srinidhi and Lele 2001 for details). Other common lands are again under different categories, with minor forests dominating in Uttara Kannada, *gomaals* in Shimoga, assessed wastelands in Dakshina Kannada and *paisaris* in Kodagu. Different categories dominate in the eastern plains (Maidan) region, particularly *gomaals*, *amruth mahal kavals* and reserve forests in the southern Maidan and *hullu-banni* and reserve forests in the northern Maidan regions.

Along with this diversity of regimes, there is enormous diversity in the physical condition of the CPLRs ranging from dense seminatural forests to managed tree savannas to pure grassland to barren hillocks. Today, many CPLRs are covered with monoculture plantations taken up under social forestry programmes or subsequent joint forest management. The use of CPLRs also ranges from firewood collection, leaf collection, grazing and fodder collection to NTFP collection, timber harvesting and water harvesting.

Nevertheless, one may broadly group the rural CPLRs into three categories:

- (a) Forest-related CPLRs: The different legal forest categories which local communities typically have access to and would therefore be characterised as CPLRs in our definition, including reserve forests, minor forests, protected forests, village forests, individual or group access forestlands like *soppinabettas*, *kumkis* and *baanes* and (in cases where there is villager access) even parts of wildlife sanctuaries and national parks.
- (b) Major non-forest CPLRs: The legal categories of revenue lands coming under CPLRs, including *gomaal* (grazing lands), *amruth mahal kavals* (grazing lands reserved for state use), *hullu-banni*, *paisaris* and assessed wastelands ('waste' because they do not generate revenue).
- (c) 'Minor' non-forest CPLRs: These include *parambog* (permanently open for public use—rivers and roads), *gundu-thopu* (small plantations) and smaller and functionally specific common lands like *gramthaans* (settlement areas), *kere-angala* (lake foreshore), *smashaana* (crematoriums/graveyards) and *daari* (road) that are typically under the control of the Gram Panchayat (see Nadkarni 1990; Krishna Murthy 1989; Srinidhi and Lélé 2001 for details).

The first two categories hold the major amount of land and shall be the main focus of our discussion hereafter.

It might appear that there would be a high correlation between a CPLR being 'forest related' (some form of forest vegetation) and being managed by the forest department or being legally declared as forestland and others being declared as revenue lands and managed by the revenue department. But there are significant deviations and complexities. Firstly, departmental control may vary quite a bit—with some legal forestlands managed by the revenue department and the forest departments managing revenue lands. Secondly, the physical status also varies significantly within each category: legal forestlands may be grasslands or in various stages of degradation or modified vegetation and some revenue lands may actually be physically forested. It is difficult to provide rigorous estimates of resource condition disaggregated by legal type, because the condition of land records is enormously confusing and spatially referenced ownership boundaries (even for the broad category of 'state-owned lands') are not available. Individual studies have managed to provide information at the village level or multi-village level (Lélé et al. 1998; Lélé 2001; Nagendra and Gokhale 2008), using which we present some broad observations on tenurial category, location, the categorisation in government statistics, the manner of state control and local rights and the physical condition for the forest-related CPLR categories in Table 8.1.

Table 8.1 Different tenure regimes of CPLRs in the Western Ghats districts (Based on Srinidhi and Lélé 2001)

Tenure and location	Land use type (DES ninefold)	Access	Controlling department	Rights	De facto situation
Minor forests (UK district)	Forests (RF)	Largely open	FD	Fuelwood, fodder for self. cons. MFP, timber, etc. (FD/contractors)	Physical status is mixed; rights curtailed some times; government allots housing sites
Assessed wastelands of DK and Udupi districts	Misc. trees and groves, pastures, barren?	Largely open	RD	Fuelwood, fodder for self. cons. MFP (RD)	Significant fractions encroached for cultivation, otherwise degraded
Soppina Bettas of UK district	Forests (PF)	Private or groups of households	FD+RD	Fuelwood, fodder for self. cons. MFP (FD) Pepper cultivation allowed	Varies from dense trees to tree savanna to pure grassland
Soppina Bettas of CM, SHM districts	Pastures, forests, Misc. trees and groves	Private or groups of households	RD	Fuelwood, fodder for self. cons. MFP (FD), but sold privately too Pepper cultivation allowed	Vegetation varies. Some joint patches have been divided
Haadis of DK, Udupi district	Misc. trees and groves, forests	Private or groups of households	RD+FD	Fuelwood, fodder, leaves, timber, MFP	Significant tree cover, but some are cashew plantations
Gomaals (most districts)	Pastures, barren? Misc. trees and groves	Largely open	RD	Fuelwood, fodder	Barren except if brought under social forestry; often allotted for developmental projects, housing or land distribution

Note: Acronyms refer to different districts and departments of Karnataka: see text *self. cons.* self-consumption

Table 8.2 Percentage of various land use/land tenure categories in different regions of Karnataka

Particulars	Year	Regions				
		Coastal and Ghats	Mixed/transitional	Northern Maidan	Southern Maidan	State total
TGA	2004	2.15	19.32	36.83	23.69	100
Permanent pastures	1986	9.39	4.38	1.79	11.1	5.94
	1996	8.58	3.49	1.72	9.66	5.27
	2004	8.53	3.79	1.7	7.96	5.00
Forests	1986	42.16	15.09	5.49	7.56	16.09
	1996	42.14	15.08	5.54	7.56	16.08
	2004	43.09	16.92	5.77	8.61	16.12
Permanent fallows and cultivable wastes	1986	5.44	3.4	3.31	7.09	4.56
	1996	5.46	3.79	3.35	5.98	4.39
	2004	5.03	4.73	3.02	6.29	4.7
Cultivated area and current fallows	1986	28.08	67.07	80.88	57.93	60.94
	1996	28.36	67.19	80.54	59.76	62.26
	2004	27.34	62.99	80.93	59.81	61.17

Source: Based on land utilisation data from Department of Economics and Statistics, Government of Karnataka. Table design based on Nadkarni (1990). Ghat refers to mountainous region, and Maidan refers to plains region

8.3.2 Spatio-temporal Distribution of CPLRs in Karnataka

The CPLRs and their categories described in the previous section vary in their location and extent across Karnataka. Exact data on the village-wise, taluka-wise or even district-wise extent of each of the above-mentioned legal categories are absent.⁵ We have to make do with the ninefold land use data compiled by the Directorate of Economics and Statistics and end up with two categories of public lands (forests and pastures) and one category of mixed public and private land (fallow/cultivated waste). The spatio-temporal trends in these statistics are given in Table 8.2. We have used the four major agroclimatic zones of Karnataka: the coastal and mountainous high-rainfall zone, the transitional zone of medium rainfall (900–1,500 mm) and the northern and southern dry (<900 mm) plains (*maidan*).

We see that CPLR endowment varies significantly across different eco-historical regions of Karnataka. For example, the southern Maidan regions have traditionally had more permanent pastures as well as permanent fallows and cultivable wastes than other regions. The northern Maidan region has had the least amount of CPLR endowment. Note that these official figures do not correct for lands which have actually been encroached for cultivation or other private activities. Thus, the actual extent of CPLRs, especially in the pasture and cultivable waste category, is smaller than that reported here (Nadkarni 1990; Damodaran 1987).

⁵ Some data have been compiled for just the Western Ghats districts by researchers (Srinidhi and Lélé 2001; ISEC and NST 1998). Unfortunately, the recent award-winning programme for Land Record computerisation (called Bhoomi) failed to record these diverse categories.

In understanding the interregional variation in the extent of CPLRs, two factors, namely, physiography and history, emerge as important. The local physiography often decides whether agriculture is able to spread into inaccessible or steep areas which earlier constituted CPLRs. This kind of terrain is a natural deterrent for cultivation, except in the case of crops like coffee or tea which require sloping lands. On the other hand, even between ecoclimatically similar regions such as the northern and southern Maidans, there is a big difference, which has to be largely explained by history. The southern Maidan has had a long history of princely state policies that have fostered the existence of gomaals and amruth mahal kavals.⁶ On the other hand, the Nizam's regime that previously held much of the northern Maidan region appears to have favoured the expansion of cultivation so as to increase land revenues. This variation comes out sharply when village-level data are used to depict average CPLR endowment as a fraction of the total area of the village (Fig. 8.3).

One can see from Fig. 8.1 that even within the same region, there is significant variation in the endowment of CPLRs across villages. This reflects micro-level differences in physiography but also that the use of village-wise statistics masks the fact of shared use of the commons by multiple villages. This has important implications when one discusses the question of assigning use or management rights across communities.

In spite of the limitations of the data, it is indisputable that, all over Karnataka, the CPLR area has gradually declined. This 'officially recorded' decline in CPLRs is mostly due to implementation of land grant programmes (Nadkarni 1990) as well as conversion of Common Property Resources (CPR) lands for purposes like mining, dams, wind farming and other industrial activities (Nadkarni et al. 1989). Permanent pastures, which are administratively the easiest to 'give away' because they do not come under central regulations such as the Forest Conservation Act 1980, show a rapid decrease in area in all the four regions of Karnataka.

Similarly, all studies and discussions with officials indicate that the extent of encroachment of CPLRs is quite significant. Encroachment for cultivation, illustrated in Fig. 8.2, is possibly the single biggest cause for declining extent of CPLRs, although the beneficiaries in most cases (excepting big encroachments for coffee cultivation in the forested Western Ghats) are equally likely to be large or small farmers or landless (Robinson 2008). A more recent trend has been the legal conversion or encroachment of CPLRs for illegal mining and quarrying (Anonymous 2010), as illustrated in Fig. 8.3.

Encroachment has been so widespread and persistent, and driven partly by poverty, that some government officials suggest that other than periodic regularisation and legalisation of such encroachments, there is no other effective way to actually prevent encroachments. Pessimistic estimates often mention that all

⁶ Whether the kavals ever served as commons in the true sense is debatable given that they were set up to meet the needs of the king's special livestock (Nadkarni 1990). It has been argued, however, that the specially bred livestock served as a public resource (for breeding) and that some grazing was permitted in these lands (Krishna Murthy 1989; Bandyopadhyay et al. 1988).

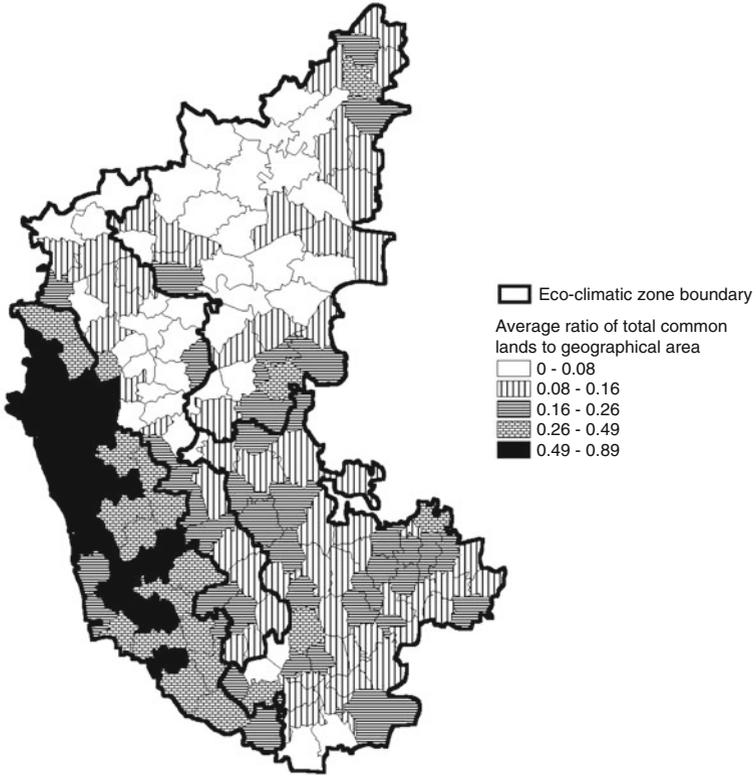


Fig. 8.1 Fraction of total common lands to total geographical area (Source: Lélé et al. 2005)



Fig. 8.2 Farming in erstwhile gomaal land in Davangere



Fig. 8.3 Quarrying on sloping *gomaal* lands

useful CPLRs have already been fully encroached. While we could not gather extensive data ourselves, our field experience in each of the regions is that this is true only if (a) one treats ‘useful’ as equivalent to ‘cultivable’, (b) one excludes forested areas from CPLRs and (c) one assumes that all encroachments are being productively used. In other words, although encroachment is a major issue, we believe there are still tens of thousands of villages in the 30,000 odd villages in Karnataka where *de facto* CPLRs are significant in extent.

8.3.3 *Current Condition of CPLRs*

If data on the extent itself are inaccurate, the data on condition are even fuzzier mainly due to a lack of benchmarks or reference points. But more importantly, before one gets into any assessment, one has to recognise that the assessment of ‘condition’ is closely tied to the use or benefit that one has in mind and the potential benefit possible in a particular ecological context (Lélé 1994). For example, a *gomaal* (grazing land) with zero canopy cover will look ‘degraded’ in the eyes of the forester and will register low on most measures of forest cover in satellite images (such as NDVI), but in fact this *gomaal* may be fully meeting local grazing/fodder needs through good grass growth. Not surprisingly, grasslands and tree savannas routinely get misclassified with ‘degraded scrub’ in official maps (Lélé et al. 1998). Similarly, the scrub thorn ‘forests’ of the dry regions may look ‘poor’ compared to the lush evergreen forests of the Western Ghats. Thus, we cannot use unidimensional ‘forest cover

assessments' of the type put out by the Forest Survey of India (FSI 2007) to arrive at a simplistic ranking of CPLR status.

If one uses field-level data and takes 'meeting local needs' as the primary objective, one may still conclude that many of the CPLRs are in various stages of degradation, i.e. they are unable to provide the material needs (e.g. fuel and fodder) of the local community at the level that they potentially could (Bhagavan and Giriappa 1987). In the forested regions, the main reason for this is de facto open access, leading to unregulated extraction and consequent decline in the productivity of the vegetation.

Degradation may also take other forms. Many of the drier regions in Karnataka are witnessing widespread invasion of *Prosopis*, an invasive tree species. This serves as a temporary relief in at least meeting fuelwood needs of rural households, but its long-term implications are not clear. Similar effects are being felt due to lantana invasion in the forested areas (e.g. Murali and Setty 2001).

Another form of 'degradation' that has taken place is where land use has been forcibly changed to better suit nonlocal needs. The implementation of Social Forestry programmes in the 1980s on non-forest CPLRs significantly curtailed access to area available for grazing either by converting such lands to softwood plantations or by preventing livestock access to grazing lands that lay further off from such plantations (Damodaran 1987; Nadkarni and Pasha 1993; ODA 1992). Under the Japanese Bank for International Cooperation-supported Joint Forest Planning and Management (JFPM) programme implemented in the eastern plains starting late 1990s, significant grazing areas were again brought under plantations (Lélé et al. 2005). The same thing happened with afforestation programmes in the Western Ghats, which targeted the meagre open-canopy areas (Saxena et al. 1997). Proposed policies to support the cultivation of biofuels such as *Jatropha* or *Pongamia* on common lands again run the risk of reducing access for other uses.

Interestingly, in many cases, neither regional, global nor local needs are met sufficiently, and even if particular stakeholder needs are met, there is no guarantee of these being met sustainably in the future. In very few cases where state control is total, as is the case of National Parks and Wildlife Sanctuaries, the resource has ceased to be CPLRs, and local needs of fuel and fodder are not met, while wildlife conservation needs are favoured (assuming there is no poaching). Finally, as mentioned earlier, illegal 'encroachment', which means conversion of CPLRs to other uses (usually agriculture, but increasingly also housing, quarrying and mining), is also a significant trend in the condition of CPLRs.

8.4 The Degradation of CPLRs: Administrative, Institutional and Social Reasons

The reason why CPLRs are being converted into private agricultural lands is relatively straightforward: the benefits that individuals (especially landless ones) can obtain from degraded and open-access lands are much lower than they may individually and

temporarily obtain from cultivating such lands, even though the costs imposed on (at least some members of) the larger community may be significant.

The more complicated question, however, is why the community permits such encroachment and equally or more importantly why the hitherto publicly held CPLRs are in a degraded condition or degrading (implying mis- or nonmanagement). Again, it is important to be sensitive to the definition of degradation before trying to explain it. We can relate the definitions to the categories of benefits described in Sect. 8.2, viz., local and nonlocal.

What then explains the current inability of CPLRs to meet *local needs* at the level that they could? Several explanations appear to hold simultaneously or for different regions/situations for this mis- or nonmanagement from a local perspective. We outline three possible arguments, which all assume that there is a local interest in CPLR management, but it is not properly articulated. In the next section, we consider alternative arguments that trace the role of economic development.

8.4.1 *Administrative Explanation: Fuzzy and Oversimplified Nature of Land Records*

The status of land records regarding public lands is extremely fuzzy and non-transparent in Karnataka. We have already described the complexity of tenurial regimes that it has inherited and the refusal to rationalise them so far. This complexity, coupled with the lack of maintenance and updating of these records, means that the exact status of many lands is under question. For instance, in the undivided district of Dakshina Kannada, a joint ISEC and NST study (ISEC and NST 1998) showed that the estimate of legal forest area in the district varied from 32 % (of total district area) as per Revenue Department records to 44 % as per Forest Department records. Many other instances of fuzziness of records have been noted by the Forest Department itself (Dilip Kumar et al. 2005). Moreover, cadastral maps which are essential spatial records of land ownership are out of date and inaccurate especially when it comes to boundaries of public lands. And unfortunately, the state government's otherwise innovative effort to computerise land records and make them publicly available has failed to pay due attention to public lands—they have not recorded any of the complex categories nor made these records accessible to the public, let alone trying to resolve contradictions in the records (Srinidhi and Lélé 2001).

Fuzzy and non-transparent land records have hampered proper governance of CPLRs in many locations or situations. Perhaps the biggest problem is the non-recognition of local rights. Often, this has enabled the Forest Department to claim lands that were legally reserved for grazing or local use (e.g. the transfer of common lands to pulp mills described in Hiremath 1997).⁷ In many other cases, it has

⁷The Forest Rights Act 2006 has the potential to rectify some of these missing rights, but it is not making any headway on this issue in Karnataka.

enabled the Revenue Department to hand out lands to well-connected or powerful encroachers (Someshwar 1995).

Clearly, the refusal to recognise pre-existing rights, to reconcile land records, to resurvey boundaries, to make records publicly available or to rationalise tenurial categories cannot be put down only to lack of knowledge or ‘mistakes’ in the *bhoomi* programme. The issue is perhaps not in the interests of the politically powerful classes, in which the land mafia plays a prominent role.⁸

8.4.2 Institutional Explanation: Historically Open-Access Situations and Poorly Designed Institutional Arrangements for CPLR Governance

The most important and widely applicable explanation is that in the British colonial state, CPLRs became state property and local institutions for their management disappeared and these institutions were not restored (in fact were further suppressed)⁹ by post-independence governments (Gadgil and Subash Chandran 1989; Nadkarni and Pasha 1993). The description of the current tenure regimes given in Srinidhi and Lélé (2001) bears out the fact that local users have access rights but not management rights,¹⁰ which vest with the Forest or Revenue Departments. This explanation holds good particularly for forestlands that are used by local communities but over which they have no control. This being the situation in most nonindividually controlled forestlands it explains the bulk of the degradation in the forested regions or pockets. It also explains the degradation of many gomaals, because the Revenue Department could not manage grazing practices but at the same time did not empower local institutions to manage them either.

Whenever attempts have been made to transfer management to local institutions, whether Gram Panchayats (under Social Forestry) or Village Forest Committees (under JFPM), the multiple institutional conditions for enabling successful local management have not been met. In the case of Social Forestry, the Gram Panchayats are too large and remote from the resource and do not have statutory powers to manage the resource, apart from the fact that the mandate given to them is restrictive.

In JFPM, the FD retains too much control, thereby imposing its own objectives (Saxena et al. 1997; Lélé et al. 2005). Moreover, it does not have statutory backing and does not bring all CPLRs under management, thus preventing communities from investing seriously in their management (Lélé 2001). Alternatively, the JFPM structures are such that they enable elite capture in collusion with the Forest

⁸For instance, the case of encroachment of forests by large coffee planters in Chickmagalur district involved powerful political figures and hence could not be pursued vigorously by the Forest Department, in spite of Supreme Court pressure to do so.

⁹For instance, even the Panchayat Forests that had been set up under Madras Presidency in parts of Bellary district and the Village Forests set up in Shimoga and Uttara Kannada were all dismantled after the passage of the Karnataka Forest Act in the mid-1960s (see Shetty 1988; Lélé et al. 2005).

¹⁰As Nadkarni et al. (1989) put it, communities were alienated from management, not from use.

Department, leading to generation of cash income for the elite at the cost of other livelihood needs of the marginal and poor households (see Lélé et al. 2005).

The same failure of institutional arrangements results in excessive conversion to mining or quarrying or other nonagricultural activities (highways), because these decisions do not involve any consultation with, let alone primary role for, local communities. It also means that local communities that have an interest in managing for biomass resources may not take up this task because they know that at any moment the state government can step in and reassign this land for a highway or some other 'developmental' activity which has only marginal benefits for them (Foundation for Ecological Security, statement in Bangalore consultation with subgroup VI of the group set up by the parliamentary subcommittee to look at the unfinished agenda of land reforms to submit report on the status of land reforms in Karnataka).

Even when nonlocal needs are prioritised, it is true empirically that the state often cannot exert adequate long-term control over the resource in the face of hostility generated from exclusion of local communities, because such control comes at a high cost. Policing of National Parks and Sanctuaries is a case in point. Social Forestry plantations which were protected by the state for the initial few years are a better example: as soon as state-controlled relaxed, local communities have often cut down these plantations (observations by the first author during a study of social forestry plantations in southern Karnataka in 1995–96).

8.4.3 Sociological Explanation: Social Conflicts Act as Barriers for Collective Action Among Local Communities

As discussed above, interest in CPLRs even at the local level is not homogeneous. Different communities or classes may have different interests in the CPLRs. In addition to, or independently of this material heterogeneity, there are many situations of socially generated conflicts, even though the community is dependent on them. Alternatively, the reduced dependence of the elite in a village setting where power is still differentially wielded means that the poorer groups cannot organise on their own to take over the CPLR that they may continue to depend upon. Further, Manor (2007) notes that in Karnataka, while caste hierarchies have been broken down, the divisions within villages based on caste identities have increased. This has made collective management difficult for CPLRs. What is not clear, however, is how much these difficulties are the product of the history of state bureaucratic control that has alienated communities from their management role.

8.5 Are CPLRs Still Locally Important?

All the previous explanations rest on the assumption of local dependence and seek to explain CPLR degradation that happens *despite* this dependence. Is it, however, possible that the dependence on CPLRs was a historical phenomenon,

with development leading to declining dependence? If so, CPLRs may be *accessible*, but are not being *accessed* very much and that too only because other land uses are not permitted. There are two strands to this argument: decline of historical dependence modes and increase in the value of alternative land uses due to development.

8.5.1 Declining Dependence on CPLRs Reduces Incentive to Manage Locally

In an early study, Kanbargi and Kanbargi (1991) argued that as a village becomes more prosperous, its Common Property Resources (CPRs) decline, and that this does not produce any adverse impact, but is in fact part of a ‘natural’ process of development. Dependence on CPLRs has also declined sharply in those forested regions where forests have been extensively converted to coffee, tea or rubber plantations (Lélé 2001, 2006). Similarly, studies in the dry region show that when agriculture undergoes a transformation from traditional to modern, with the spread of irrigation, use of chemical fertilisers and cross-breed animal husbandry, the dependence on CPLRs declines (Kiran Kumar et al. 2008; Purushothaman et al. 2009). This happens due to the fact that irrigation results in higher cropping intensities, and thus the quantity of agricultural waste generated increases providing more than enough fodder thereby reducing dependence for grazing. Similarly, adoption of modern animal husbandry techniques reduces grazing dependence since more and more fodder needs to be sourced from the market. Finally, demand for wage labour in irrigated agriculture increases, creating alternative sources of livelihood.

There is also some state-level evidence of declining importance of livestock-based livelihoods. The 17th Indian Livestock Census indicates that livestock population in Karnataka (other than cross-breed cattle and poultry) showed an overall decline of 10.18 % between 1997 and 2003. Adoption of external input intensive agricultural systems (like heavy use of chemical fertilisers and irrigation) lessens the consumption of leaf manure as well as farmyard manure effectively reducing the dependence on CPLRs. Increased income and better distribution systems allow a shift from fuelwood to kerosene and especially to LPG.

8.5.2 Alternative Uses of the CPLRs Acquire Much Higher Value

In recent years, certain CPLRs especially in the plains region have acquired enormous value for their granite or iron ore deposits or for special economic zones or urban residential expansion. This has put enormous pressure for their conversion. It is quite possible that even if the local community was fully in command of the CPLR, they might decide to convert it to mining or quarrying.

However, the key point to be noted is that the evidence in support of declining dependence uses a measure of dependence (=current economic benefits) that has major limitations. First, it refers to actual benefits derived, not potential benefits if the CPLR is regenerated. Given that the CPLRs are in a degraded condition in many places or have been shifted to other uses (as described in Sect. 9.5), what looks like lower level of benefits may simply be a result of non-availability of the desired benefits from CPLRs (Pasha 1991; Damodaran 1987). Conclusions about potential benefits and significance of CPLRs based on current benefits derived under conditions of open access would be erroneous.

Second, the low level of current return to local users is the result of restricted property rights. Specifically, local users do not have timber rights (except in some cases for limited domestic use). The same land, when converted to private land, would become available for farm forestry. So one is comparing apples and oranges—CPLRs with no timber rights versus private lands with timber rights—and concluding that CPLRs do not generate benefits comparable to private lands. At another level, rights of harvest may be given, but marketing may be heavily regulated, resulting again in lower benefits to local harvesters. The classic example is the marketing for non-timber forest products, which the state has tried to control through state-supported cooperatives. Improvements in the functioning of these cooperatives can lead to doubling of incomes for collectors (Lélé and Rao 1996; Lélé et al. 2004); estimates based on current functioning would then be gross underestimates of the ‘value of NTFP benefits from forests’.

Third, information on the importance of local ecological services is scarce to non-existent, so it is difficult to assess whether the reduction in direct product dependence means there is no remaining incentive for local management. Studies on ecosystem services such as pollination services provided by forests to agriculture have begun to show that these CPLRs are still important for local communities (Rehel et al. 2009). Moreover, in many regions, forested or dry, the dependence of marginal and landless households is acute (Shaanker et al. 2004; Hegde et al. 1996). On the whole, we would argue that there are significant variations in terms of local dependence on CPLRs, both across and within regions and within villages. The dependence is still quite high in many parts of the forested region, in the transition belt, and in pockets of the dry regions where CPLRs are still available (Lélé 2001), although dependence may be highly stratified (Lélé et al. 2005).

Finally, the changing face of rural communities and economies may lead to a changing dependence, rather than nondependence. Agriculture may become less dependent for direct input of (say) leaf manure, but more dependent on hydrological services (as water becomes scarcer) or pollination services (as pollinator communities within agricultural lands get depleted). Recreation is a value typically attributed only to urban consumers, but there is no reason why, as rural communities prosper, they may not assign increasing importance to this benefit from their local CPLRs.

In short, while some trends in declining dependence are visible, the lack of local ‘interest’ in CPLRs as commonly managed resources is more a reflection of the institutional context rather than of a homogeneous, secular and inexorable decline in the importance of CPLRs for local communities (Lélé 2012). Local

dependence, especially of the poor, continues, and the reconciliation of local interests (and intra-local differences) with global stakes will have to be the focus of policy regarding CPLRs.

8.6 Conclusion: Towards Better CPLR Policy

We began by framing the question around CPLR governance in terms of the variety of potential stakeholders and concerns that might underpin policy on CPLRs. We then reviewed the empirical situation in Karnataka, pointing out the enormous diversity regarding the types of CPLRs, their spatial distribution and changes over time, their condition as seen from different vantage points and the possible reasons for this condition. Two clear threads emerge: one of physical degradation and conversion of CPLRs and one of persistent non-recognition of a local voice in managerial and conversion decisions about CPLRs. Since at least the 1990s, academics and activists have repeatedly linked the first to the second, i.e. the degradation of CPLRs is a result of local communities not being given rights to manage and govern them. Various state programmes and policies have sought to respond to these critiques with (relatively feeble) attempts to increase local control on CPLRs.

Recently, a third thread, the possibility of declining local interest in CPLRs, has emerged. Some of this literature may simply be pointing out heterogeneities in dependence and reverse causality (degradation of CPLRs leading to declining returns). Some of the development-induced trends in CPLR use may nevertheless be true. After all, the current trajectory of development is one of households moving away from forest-based livelihoods, pastoralism and even agriculture and therefore seeing a declining *direct* dependence on the uncultivated landscape.

The conventional interpretation of the evidence of ‘declining direct dependence’ has been to argue for a combination of state control over the ‘globally useful’ CPLRs (high-biodiversity forests), the conversion of low-biodiversity areas into commercial plantations¹¹ and the conversion of other low-value areas to either land for the landless or (more likely) lands for industrial development, mining, airports and special economic zones. These approaches to governance of CPLRs existed even when the evidence of high dependence was incontrovertible; it is just that signs of declining dependence are used to bolster the push for exclusive state control and/or conversion. We have, however, argued that the evidence for declining dependence is limited, and these declines are happening in certain institutional contexts, where communities exert no control on the direction of CPLR management or its quality and where local elite continue to capture any significant opportunity for decentralised control (e.g. Lélé et al. 2005).

At another level, there may be arguments for decentralisation that transcend the presence or absence of tangible local interest. They relate not to the *outcome* of

¹¹ Witness the repeated efforts by industries to gain ‘leases’ in common lands for commercial plantations.

CPLR management but the *process* of CPLR governance. In both global and Indian discourses on development and governance, there has been a strong emerging concern regarding the need for ‘democratisation’. The 1992 constitutional amendment that created three-tiered governance below the level of the states was the first official recognition of this concern in India. One may therefore argue that community-accessed land resources should become community-managed land resources regardless of the nature of the community’s dependence.

If the state’s normative concerns include not just the immediate land needs of the local poor but the overall and long-term benefits generated by CPLRs and a commitment to democratisation of governance, the implication may not be a simplistic proposal for common land management at the community level. Rather, a sophisticated, multilayered and regionally calibrated proposal is needed, that comprises of democratic governance of public lands (integrating forest and non-forest public lands), open recognition of multiple and partially conflicting stakes and particular sensitivity to the pressures of poverty on the poorest sections. Some elements of such a proposal might include the following:

1. A two-stage CPLR rights reform that accommodates the needs of the landless and pastoral nomads by preferentially giving them individual and secure usufruct rights—such as a ‘tree patta’ and ‘grazing patta’—in specific portions of CPLRs, nested within hamlet-level community management of the larger CPLR on the lines of the Forest Rights Act 2006
2. The devolution of regulatory power to district-level governments (not bureaucrats) regarding the conversion of CPLRs to other land use, but with the strict requirement of hamlet-level consent for such conversions
3. Implementation of the proposal through state-level legislation that bolsters the Forest Rights Act 2006 but is cognisant of state-specific variations in conditions and historical regimes

Such a proposal, which includes a subaltern perspective favouring an increase in the stakes of local communities in the governance of their immediate environment, will give a voice to these communities whose participation has been suppressed for the last two centuries.

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