

## Whose Co-operatives and Whose Produce? The Case of LAMPS in Karnataka [1]

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### Abstract

*Marketing co-operatives, which emerged primarily in the agrarian context, were adopted by the Indian state as the vehicle for tribal development. Twenty-five years after the initiation of these co-operatives (LAMPS), their performance leaves much to be desired. This case study of the LAMPS in Karnataka state reveals that this dismal performance is due not just to the bureaucratic interference that characterises all co-operatives in contemporary India, but also to the inattention to fundamental problems in transferring the co-operative model across sectors and social situations. Issues of property rights over produce, the nature of co-operation required, and the social context of co-operation are shown to be significant. The results are particularly relevant to the design of institutions for the collective management and use of rural natural resources.*

### 1. Introduction

In the decades after India's independence, the accepted paradigm was of economic development within a socialist framework. In this context, co-operatives were seen as a panacea, a quick-fix that would yield economic gains with equity.[2] Marketing of agricultural (and allied) products and rural credit were the two sectors where formal co-operatives had historically evolved, and where the greatest co-operative development took place in the post-independence period. The dynamics of these co-operatives are by now well documented (Attwood and Baviskar 1988; RBI 1989?).

The state also carried its enthusiasm for co-operatives to other sectors and locations. Tribal development, where the state was very active, if not overbearing, seemed to be an ideal ground for planting co-

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operatives for at least three reasons. First, with tribals suffering more than other producers at the hands of traders, middlemen and money-lenders (Fernandes *et al.* 1988), co-operative marketing seemed necessary for securing income gains. Second, tribal communities are supposed to have stronger traditions of communal ownership, production, distribution and living than mainstream rural communities (Vidyarthi and Rai 1977), thus increasing the chances of success. Third, collection of minor forest products seemed to be a naturally co-operative endeavour. The co-operative model was thus casually extended from agrarian to tribal communities and from agriculture to forest products. Co-operatives in tribal areas were in fact made the vanguard of overall tribal development.

What is the situation of tribal forest co-operatives a quarter of a century later? The few brief studies that exist suggest a generally dismal record (Naik and Patnaik 1986; Mahalingam 1987; Raju and Rao 1995), as do commentators discussing the trade of minor forest produce (Fernandes *et al.* 1988; TRIFED 1990; Mahalingam 1992). These analyses, however, provide limited empirical data, highlight only the proximate causes of the problem[3], and generally make little linkage with broader issues of co-operative policy and theory.

We present here a detailed empirical study of tribal forest co-operatives in Karnataka. We seek to evaluate and explain their performance (or lack of it). Where we deviate from conventional analyses is in using a broader measure of performance, in going beyond the proximate causes of failure into the political economy of co-operation, and highlighting the influences of the societal (tribal) and resource (forestry) contexts in which these co-operatives are located.

We begin with a brief history of tribal life generally in India, their changing but continuous relationship with the forest, the concept, structure and activities of the tribal co-operatives, and the methodology used in this research. We then evaluate the performance of the co-operatives along three dimensions: economic, social, and ecological. A framework for understanding the factors affecting this performance is then presented, and a detailed analysis follows. Finally, we discuss the broader implications of the study.

## 2. Background

### 2.1 Tribals and Forests

Historically, tribal communities were characterized by a lifestyle distinct from agrarian communities. They subsisted on some combination of shifting cultivation, hunting, and gathering of forest products: all activities closely linked with forests. Their cultures celebrated and fostered this close bond with nature, while also emphasising communal ownership and consumption, closely knit kinship structures, and minimal hierarchies (Vidyarthi and Rai 1977).

The British colonial rule can be said to be a watershed in the history of tribal communities, as the colonial government appropriated most of the subcontinent's forests and ruthlessly suppressed shifting cultivation. As a result, tribal economies and cultures were devastated and in some cases even decimated by disease and malnutrition; those who survived were forced into wage and even bonded labour in colonial timber operations or plantation agriculture, or exploited by settled agriculturalists (see, e.g., Rajan 1983).

During the post-independence period, state-led modernization--dam construction, mining, agricultural expansion and an industrially oriented forest policy--caused further dislocation. With the state's tribal development policy focused on bringing tribals into the (modern) mainstream, it is not surprising that this dislocation was ignored or even justified. Even the moves in the increased priority given to forest and wildlife conservation in the 1970s, which sought to preserve wild (often also tribal) habitat, only caused further misery: tribals were considered "external" to the ecosystems to be preserved and were evicted wholesale from national parks and sanctuaries.

### 2.2 LAMPS as Beacons of Tribal Development

The collection and sale of minor forest products (MFPs) such as honey, *tendu* leaves, *amla* fruit, soapnut, lichen, tree gums, etc. had been a subsidiary occupation of tribal communities right from the pre-British period. As shifting cultivation and hunting were banned and the tribals got pushed into a monetized exchange economy, their dependence on MFPs

for income increased, even as their access to forests declined. But they were at the mercy of middlemen and MFP contractors, who controlled access to markets, or forests, or both (Fernandes *et al.*, 1988).

Various governmental committees[4] on tribal development took cognisance of this dependence and exploitation, and looked to some kind of co-operative structure as a solution. Eventually, the Indian government adopted the recommendations of the Bawa Committee of 1971[5] and mooted the concept of Large-scale Adivasi Multi-Purpose Societies (LAMPS). These were to be co-operative societies for integrated tribal development through marketing of MFPs and provision of credit, agricultural inputs and rationed goods. By 1989, 2912 LAMPS had been established across the country, more than 80% of them in the five states of Madhya Pradesh, Bihar, Maharashtra, Rajasthan and Orissa that have large tribal populations (Mahalingam, 1992).

### 2.3 Structure and Activities of LAMPS in Karnataka[6]

In Karnataka, the first LAMPS was set up at Hunsur in 1971, and 5 more were set up in other parts of Mysore district during 1982-83 (Kamath, 1988). There are now 19 active LAMPS in Karnataka[7], covering more than 1 lakh adult tribals across 4 districts. We describe below the typical structure and activities of the LAMPS.

Each LAMPS covers one taluka, and its membership is open to all adult tribals in that taluka. The general body elects a tribal as President, and 5-10 other tribals to the Board of Directors. The Registrar of Co-operative Societies, with whom the society is registered, ordained that there would also be a number of ex-officio members: the local Block Development Officer, Range Forest Officer, Tahsildar, Integrated Tribal Development Plan Program Officer, and sponsor Bank nominee. Furthermore, it was ordained that since the level of literacy in the tribal communities was very low, the Secretary of the LAMPS would be provided by the Department of Co-operative Societies (DCS). Financial powers are vested jointly in the President and Secretary. Board meetings are expected to be conducted every month, and general body meetings at least twice a year.

MFP collection and marketing is a major activity of the LAMPS, and the only income-generating activity undertaken by it. Each LAMPS applies to the Karnataka State Forest Department (KFD) for grant of a lease to collect MFP from forests in that taluka. KFD grants the lease for some designated areas in return for some royalty. The LAMPS announces the "collector price" (price to be paid to the tribal collector) for each product before its season begins. Tribals harvest the product and deliver it to the LAMPS. The LAMPS then auctions off the entire quantity to the highest bidder. Profits, if any, are supposed to be returned to all members through dividends.

Other activities undertaken by the LAMPS are distribution of "controlled" (i.e., rationed) goods, sometimes the operation of a general store ("uncontrolled goods") or sale of subsidized agricultural inputs, and provision of credit to members. The last activity is not in the form of in-house credit, but rather in the form of a channel for all governmental credit schemes for tribals. Thus, MFP collection and marketing is the only truly co-operative economic activity undertaken by the LAMPS, and also the only income-generating one.

### 2.4 Methodology

Secondary data for all 19 tribal co-operative societies in Karnataka were obtained from the Registrar of Co-operative Societies, Bangalore for the past two years. These were cross-checked carefully with 'auditors' reports for a subset of nine societies. More detailed information, including time-series data, were obtained from two societies--one supposedly heavily forest-dependent (H.D. Kote) and another supposedly slightly forest-dependent (Udupi)--that were taken up for intensive case studies. The case studies included interviews with secretaries, board members, presidents, ordinary members, and local Non-Governmental Organisations (NGOs). Additional anecdotal material was available for one LAMPS (Yalandur) where the first author is involved in an action-research project, and from two rounds of discussions held with tribal members, directors, and presidents from a broad cross-section (10-12) of societies.

### 3. Performance of LAMPS in Karnataka

Given that MFP collection is the only income-generating activity and the only truly co-operative one undertaken by the LAMPS, we have evaluated LAMPS performance primarily in terms of their success in MFP collection and marketing. This "success" is in turn evaluated from three different perspectives: economic, social, and ecological. The logic is that in addition to economic gains, genuine development requires an improvement in the managerial and entrepreneurial capacity of the tribals. At the same time, if the economic gains are to be sustained, the resources from which they are derived should not be depleted.

Economic performance includes not only the financial viability in the short term (current year profit/loss) and long term (accumulated profit/loss), but also the incremental benefit provided by the formation of the society to its MFP-collecting members and the benefit-cost analysis of the public investments that have enabled these benefits.

Social performance is measured in terms of the extent to which potential members have joined the society, the extent to which members actually participated in societal activities, the extent of informed control exerted by the members, their participation in managerial and entrepreneurial activities, and the extent of equity in distribution of economic and non-economic benefits within the community.

Ecological sustainability of MFP extraction is defined from two different perspectives[8]. From the perspective of the MFP collectors, sustainability may mean that the average physical availability of each MFP should remain non-diminishing over a time-scale of decades. From the perspective of larger society, sustainability may mean that MFP extraction activities should not have significantly negative impacts on other species and the ecosystem as a whole (Hall and Bawa, 1993).

#### 3.1 Economic Performance

The gross revenues (absolute and per capita) from MFP sales and from all non-MFP activities (excluding loans) in 1994-95, and the current and accumulated profit/loss for all the LAMPS are shown in Table 1 and the gross operating margins are given in Table 2. At the outset, three points

may be noted to further justify our focus on MFP activities. First, gross MFP sales exceeded non-MFP revenues by an order of magnitude or more in 4 LAMPS. Second, even where the two are comparable, the gross margins in MFP sales are many times higher (see serial nos.7, 8, 12, 19). Third and most important, a rupee of revenue from MFP sales yields 0.50-0.75 rupees of direct income to the tribal collector, while a rupee of revenue from non-MFP activities (essentially sale of various consumer goods to members) is actually a rupee spent by the tribal, representing perhaps a 0.05-0.10 rupee saving over what s/he might have paid out in the absence of LAMPS.

In terms of short-term viability, the performance appears mixed: in 1992-93, 13 of the 19 societies incurred operating losses (Patil Thippanna Committee, 1993), while in 1994-95, this number had come down to 6. However, the long-run performance is quite dismal: the number of societies with a net accumulated loss was 12 in 1992-93 but had risen to 15 by 1994-95.

Even if the LAMPS are not yielding consistent profits, has the formation of LAMPS otherwise economically benefitted the tribal MFP collectors? That is, do LAMPS provide better prices to the collectors than private traders do? Data on prices offered by LAMPS and by local MFP traders for products sold in H. D. Kote and Udupi are presented in Table 3.[9] They suggest an answer in the negative. Admittedly, these data must be interpreted with some caution, because it is quite likely that the prices quoted by local traders would drop if LAMPS *were not present at all* and may also not hold for the entire volume sold through the LAMPS. Individual collectors also told us that the advent of LAMPS has by and large increased the prices they obtain for MFPs, although separating the influence of the LAMPS from that of general inflation and market trends is difficult. Nevertheless, collectors from most LAMPS informed us that substantial quantities of certain MFPs (such as honey and tamarind) are often sold clandestinely by collectors directly to private traders.

That the LAMPS should be paying higher prices to their collectors than they currently are is also clear from the hefty margins they are charging (see Tables 2 and 3). For instance, in the MFP-dependent LAMPS of Mysore and Kodagu districts (serial nos.1-9 in Table 2) the average margins are 25%-45%, and margins in individual products range up to

100%. When considered against the backdrop of repeated losses, these hefty margins are a clear pointer to economic inefficiency.

Time-series data available for two LAMPS, [10] H. D. Kote and Udupi also show a great degree of year-to-year variability in revenues and their composition. The data also show a clear shrinkage in the range of products sold in both LAMPS. Discussions with representatives of other LAMPS indicate a similar declining trend in MFP harvests after 1992 in a number of other LAMPS (Hunsur, Somvarpet, Virajpet, and Karkala).

Finally, it should be noted that this poor economic performance is in spite of very substantial governmental subsidies/grants. Starting from their inception, till 1992-93, the government had pumped in a total of almost Rs. 300 lakhs into the LAMPS in Karnataka (Patil Thippanna Committee 1993), which amounts to more than Rs. 1 lakh per LAMPS per operating year. This includes losses written off, infrastructural and development grants, membership subsidy and share capital contribution; it does not include expenses in the form of zero- or low-interest loans for working capital, which are also substantial.

Thus, one might conclude that while the formation of LAMPS has benefitted the tribal collectors to some extent, they are not financially sustainable. Moreover, the gains are far below their potential, are not consistent from year to year and possibly accompanied by a shrinking product base, and have come at an enormous public cost.

### 3.2 Social Performance

Social performance can be evaluated in terms of membership levels, participation of members in LAMPS activities and in LAMPS management, the quality of participation and the extent of skill development. The simplest indicator of public participation in a co-operative society is the extent to which potential members have actually joined it. This is particularly relevant in the case of the LAMPS, where there is no competing co-operative society that potential members can join. On this count, as the data in Table 4 indicate, the record of the LAMPS is generally dismal. The actual membership is often less than 50% of the potential. This is in spite of the fact that the membership fee is not only very low (Rs. 11.25, one-time), but is in fact almost fully

subsidized by the government. Even more important, the percentage of members actively involved in MFP collection is minuscule.

Membership and even participation in product pooling or purchasing, of course do not guarantee control. Participation in the day-to-day running of the LAMPS is therefore a critical measure of social performance. Unfortunately, the government (i.e., DCS) decided from day one to nominate its own staff as secretaries to all LAMPS, and this policy has continued till date. The lower level positions (sales clerk, attendant) are also usually manned by non-tribals (see Table 5).

Worse still, even the post of President, which is statutorily supposed to be held by a tribal, is today held by non-tribals (government officials) in many LAMPS (see Table 5). Similarly, the Boards of Directors have a number of government officials ex-officio, reducing control by tribals. Furthermore, the record on Board meetings and general body meetings, the main means of community control as well as opportunities to learn about co-operative management, is generally poor (see Table 5): the meetings are well below their prescribed frequency (see Table 5).

Finally, the discussions in these meetings are hampered by lack of information. Our cross-questioning of Presidents and Board members from a cross-section of the LAMPS indicated very limited knowledge of society activities, decisions taken, etc. The only tribals who have a reasonable understanding of the society and who also indicate entrepreneurial capabilities are past and present LAMPS "agents", i.e., individuals appointed by the societies to collect MFPs from villages on a commission basis: an arrangement that is in direct contradiction to the principles of a co-operative! This system has created serious problems of (in)equity. For instance, in Yalandur, the agent's commission of Rs. 0.25 per kg of fresh amla meant that on a particular collection, the typical income of an agent (for simply weighing and recording individual contributions) was around Rs. 900 as compared to an average income of Rs. 270 per collector household (Lélé *et al.*, 1996).

This difference in incomes between agents and collectors seems to be typical across many LAMPS. Moreover, agents often use other strategies to augment their incomes. Advances taken from the society to extend credit to collectors in the pre-collection period are used as capital to start

money-lending. Agents have also begun appropriating some of the communally accessed resources (such as trees with numerous honeycombs) as private property, paying daily wages to tribal collectors instead of a per kg price. These activities usually take place in collusion with the elected office-bearers and (more important) the secretary. Indeed, what we have observed in Yalandur and been told by tribals from elsewhere is that the posts of agents and directors typically go by rotation to members of a certain clique, the elite within the community, who then utilize these posts to further accumulate economic surplus and increase their political power. Thus, the LAMPS have seriously failed to distribute their benefits equitably amongst the community.

In short, LAMPS have not contributed to building managerial or entrepreneurial capacity amongst the tribals to any significant extent even after 15-25 years of operation. On the contrary, they have significantly increased economic differentiation and exploitation within the tribal community.

### 3.3 Ecological Performance

Assessing sustainability of the production of even one MFP, let alone of the entire ecosystem, is an onerous task as it requires empirical data on the trend in total production of a particular MFP in a particular patch of forest. No such time-series data are available in any LAMPS, nor could they be gathered within the time-frame of this study. Some tentative judgments as to the trend in MFP production and the likely causes of declines (if any) can, however, be made based upon cross-sectional data available from one site and qualitative data from discussions with MFP collectors and observation of their collection practices.

Quantitative data on trends in the *current availability* of MFPs in a given forest area [11] are virtually non-existent. Qualitatively, MFP collectors in all LAMPS narrate examples of declining availability of certain species. In most cases, they attribute these declines to a) shrinkage of the overall forested area, b) destruction of specific habitats (such as evergreen or *shola* patches), and c) changes in ecosystem structure due to invasion by weeds or the absence of fire, both phenomena directly attributed by them to misguided policies pursued by the forest department. That timber felling

and conversion to agriculture, mining or dams are the major causes of declines in forest areas and destruction of sensitive vegetation types in the Karnataka Western Ghats is well established (Shyam Sunder and Reddy, 1986). Even in protected areas (national parks and sanctuaries), poaching, tourism, and selective de-notification [12] has played havoc with the biota. And many biologists believe that excessive fire suppression and selective felling practiced by the forest department could be primarily responsible for major ecosystem changes and weed invasion (Kamaljit Bawa, personal communication).

There is thus no evidence that MFP extraction is rampantly destroying the resource or the ecosystem. However, MFP extraction practices may in some cases be aggravating this decline. For instance, Soligas of Yalandur and Chamarajnagar talukas who harvest MFPs from the Biligiri Rangana Hills sanctuary, report declines in populations of *Kudimavu* (*Cinnamomum* sp.) trees. They also acknowledge that this decline is a direct result of their over-harvest of the bark (used in agarbathi-making) leading to the death of adult trees.

From a study in the same region, Murali *et al.* (1996) report lower seedling and sapling densities in 3 other MFP species (*Emblica officinalis*, *Terminalia chebula*, and *Terminalia bellirica*) than in non-MFP species, indicating likely declines in future availabilities. They do not attribute this poorer regeneration necessarily to heavy extraction of the seeds or fruits of those species; presence of weeds or absence of fire are also indicated as possible causes. Subsequent observations indicate, however, that in the specific case of *Amla* (*Emblica officinalis*) over-extraction by tribal collectors may negatively affect regeneration and availability of food for animals, because in certain parts of the sanctuary as much as 80% of the total fruits produced were harvested (Lélé *et al.*, 1996). Similarly, observation of harvest of *Amla* and *Antwala* (*Sapindus emarginatus*) both indicated a tendency among harvesters to break branches of trees to get at remote fruits. It also appears that harvesting of *Amla* is done opportunistically, with little regard to past extraction pressures. Similarly, observations of honey extraction from wild colonies of *Apis dorsata* indicate that a significant fraction of the combs is harvested prematurely, leading to greater death of the larvae, i.e., the next generation of bees.

To summarise, it is likely that the overall availability of MFPs is declining, with processes outside the control of the LAMPS being the major cause and MFP extraction by LAMPS members itself being a minor contributor.

#### 4. Factors Affecting LAMPS Performance

What are the reasons for this dismal performance of these co-operative societies? We are not the first ones to ask this question. A number of meetings and committees have tried to answer this question in Karnataka over the past eight years (Patil Thippanna Committee 1993). In other states, academic studies have also been conducted (Naik and Patnaik 1986; Mahalingam 1987; Mahalingam 1992). Most of them, however, have trodden the narrow path of technocratic and/or bureaucratic thinking: not enough working capital, not enough product pooling, no value-addition, not enough diversification, not enough inter-departmental coordination, and so on.

Sometimes mention is made of other factors, such as mismanagement by secretaries, delays in getting MFP collection leases from KFD, excessive lease amounts, or corruption within the tribal community. While these factors are important, the problem needs to be framed and understood in more fundamental terms. Doing so will also facilitate the identification of remedial measures. Our framework consists of the following elements:

- 1) the *objective* of co-operation,
- 2) the *incentive* to co-operate,
- 3) the *ability* to co-operate,
- 4) the *design* of the co-operative,
- 5) the *control* of the co-operative, and
- 6) the *ownership of the product* itself.

We shall now discuss the situation in the Karnataka LAMPS with respect to each element. It should be noted, however, that such a sequential and separate discussion is only a pedagogic device, not meant to suggest complete separability of the elements.

#### 4.1 Why Co-operate: The Problem of Focus

The first requirement for a co-operative to succeed is that it should have a clear purpose, a reason to co-operate. Its design should then be optimised to suit that purpose. The LAMPS, however, are by definition multi-purpose. This has led to a serious problem of focus and of undermining the co-operative principle. On the one hand, LAMPS are saddled with activities that are not co-operative but allocative in nature, or in which the element of co-operation required is minimal. This has led to a diversion (if not perversion) of purpose, energies, and finances. On the other hand, the activities that actually require co-operation are at inherently different scales and forms, to which the design of the LAMPS is not at all sensitive.

Credit is a significant non-MFP activity of the LAMPS, but it is not organised as a co-operative credit union at all. The LAMPS simply act as channels of governmental loans just as agricultural co-operatives elsewhere in the country, with all the corresponding ills (RBI 1989?). They are not the loanees, only the allocators of the loans to different members of the community. They thus serve a *political* function of *allocation* of what are in effect welfare handouts, not the co-operative function of *reciprocal support* for self-empowerment. At the very least, this results in a diversion of attention: we found that at many board meetings the main agenda item was selecting candidates for receiving loans from various governmental departments, not the improvement of an obviously ailing MFP business. In some cases, this has also caused financial loss: in H. D. Kote, the LAMPS has paid Rs. 2 lakhs from its operating profits on behalf defaulting members to the Mysore District Central Co-operative Bank. Worst of all, the LAMPS become patronage societies as the Presidents and Directors dole out public funds as personal favours.

The other non-MFP activities, i.e., the sale of rationed and non-rationed goods and agricultural inputs, are again channelling functions that require little co-operation, that can eat into profits from other activities, and that are not even clearly meeting a felt need. In theory, a co-operative society "of the tribals and for the tribals" should ensure lower overheads and lesser pilferage than private channels. But the employment of full-time

sales clerks by most LAMPS negates even the semblance of co-operation and the absence of the profit motive makes supervision generally inadequate. Indeed, the LAMPS are often unable to meet even the salaries of these sales clerks from the margins on the non-MFP business. Moreover, it is not as if these activities would cease if the LAMPS refused to carry them out. Distribution of essential goods through fair-price shops is something that the government would in any case have to implement, if not through the LAMPS then through private channels.

On the other hand, co-operation is essential in the MFP-related activities, but its forms and scales vary considerably. MFP collection is a *production activity* that in itself requires little co-operation. The exceptions are products like honey or lichen, where 5-10 collectors work together, or fresh *amla*, where economies of scale and perishability of product require that hundred-odd people collect the fruit on the same day and despatch one full truckload.

Collective action is also necessary in the acceptance and *enforcement of boundaries*, i.e., who can collect from which tree, patch, or region, and in *resource management*, e.g., fire control or policing against outsiders. Tribal communities traditionally solved problems of tenure and of mobilization of community labour *at the village level*. But the combination of being shifted out of the forest and having to abandon traditional activities and intensify MFP collection has rendered these traditional tenurial and managerial systems irrelevant or ineffectual. The LAMPS have neither focused on this aspect of co-operation, nor do they in their current form have the ability and social authority to do so.

Instead, what each LAMPS does today is simply to obtain *communal access* to the MFPs for the whole community at the scale of the taluka. Arguably, applying to KFD for a single lease for the whole taluka involves much lower transaction costs than say each village or cluster of villages applying to KFD separately for leases in their areas. But it is not clear that such a transaction cost should be imposed on the tribals at all.

Finally, co-operation is required in *pooling the produce* with the idea of obtaining a better price. The most optimal scale of this operation would be where the marginal price advantage of pooling is just equal to its marginal transaction cost. With current levels of market integration,

transport and communication facilities, this optimum would probably lie somewhere between several villages to a few hundreds of villages. And the optimum scale would also change over time, as markets expand and price information systems develop, forcing traders to limit margins. Again, the organisation of the LAMPS shows little sensitivity to this aspect. LAMPS are statutorily organised at the taluka (or sometimes covering two talukas) scale, the result of a top-down bureaucratic construction rather than a bottom-up need-based evolution.

In short, while multiple relations of reciprocity amongst members are known to enhance the success of each co-operative endeavour (Ostrom 1990), the multi-purpose nature of the LAMPS does not have this synergetic impact because the activities are not based on reciprocity at all or require it on different scales. On the contrary, the non-MFP activities undermine the members' ability to organise the complex co-operative efforts required in MFP-related work.

#### 4.2 Who Wants to Co-operate: The Socio-Economic Context

If the LAMPS is (or should be) primarily an MFP collection-cum-marketing co-operative, are its potential members really interested in this activity? All along, it has been assumed that "the economy of tribals [is] dependent largely on income generated by sale of forest produce" (Mahalingam, 1992) and hence the answer to the above question was considered a self-evident and resounding yes. In Karnataka, however, this answer needs qualifiers at both the regional and local scale.

At the regional scale, there is variation between different tribal groups. For instance, the Marathe Naiks are the numerically largest "tribal" community in Dakshina Kannada district. But they have been practicing settled agriculture for at least the past century, and are much less involved in collection of forest produce as compared to other tribal communities in that district.

At the local scale, although the sale of MFPs may contribute a very substantial part--up to 60%--of tribal incomes in a taluka (Hegde *et al.* 1996), we found that there is nevertheless significant specialization among the tribal households. Certain households are "hard-core" collectors, others "part-time" collectors, and still others who do not go for MFP collection



at all ("non-collectors") even when the opportunity exists. The fraction of non-collectors was found to be as high as 34% in Yalandur taluka (Lélé *et al.*, 1996).[13] Cruder statistics on "active" members collected from LAMPS secretaries (Table 4) suggest an even lower level of participation, although these figures may correspond to only the hard-core collectors.

Differences in interest and participation in MFP collection are real and significant enough to create tensions among members. For instance, in Udupi, we found that when MFP collection did take place, the society's margins were very high, and the resultant profits were being distributed to all members, most of whom were not involved in MFP collection. While such parasitism may not be ubiquitous, in many cases the elected office-bearers are non-collectors who may work on non-MFP issues only. As Baviskar and Attwood point out, such situations are not conducive to co-operative success (Baviskar and Attwood 1995: p.26, rule 3). Whether these variations in interest are simply the result of technical specialization within the community or caused by cultural change as the tribals are progressively disconnected from the forest and absorbed into the "mainstream" is still a matter of conjecture. But the simplistic view that "all tribals are MFP collectors" clearly needs to be rejected. A failure to recognise this has resulted in the forcible inclusion of all tribals under one co-operative, causing divergence of member objectives and internal tensions.

#### 4.3 Who Can Manage the Co-operative: The Problem of Capacity

The common excuse for LAMPS failure given by government officials is the lack of literacy, education, and managerial and entrepreneurial abilities amongst the tribals. The evidence mustered in support of this argument is rather scanty. In most cases, the claim is considered to be self-evident: "Do you think the tribals can handle the accounting, marketing and other work of the LAMPS if they cannot even read and write?" The corollary of this claim is that only educated non-tribals have the capacity to run the LAMPS properly. The example most often quoted in support of this corollary is that of Chamarajnagar, where the local Divisional Forest

Officer has been ex-officio President for the past 5 years or more, and the LAMPS has shown consistent profits.

There is no doubt that the tribal community is handicapped in its dealings with the modern monetized market economy due to a general lack of literacy, education, and entrepreneurial experience. While literacy levels have increased in most of the tribal areas over the last two decades, adult literacy is still around 25% or so. The percentage that have completed higher secondary education is probably less than 5%, and those with graduate degrees in any taluka are less than a handful.

It is also clear that *under the present setup* illiteracy is a stumbling block to efficient management of the co-operative. The extent of paperwork required to be maintained by a secretary of the LAMPS is substantial, as he constantly deals with various governmental departments (Co-operative Societies, Agriculture, Social Welfare, Forest, etc.). Similarly, accounts are maintained in double-entry bookkeeping style, something that even otherwise educated people find difficult to fathom. With the majority of LAMPS Directors and Presidents in the MFP-dependent LAMPS of Mysore and Kodagu district being illiterate[14], how would one expect them to even monitor their society's performance, which involves annual transactions in lakhs of rupees?

It must be pointed out, however, that neither is formal education always necessary to run a marketing enterprise (witness the spread of certain business communities across India from ancient times), nor is there definitive evidence of the tribals being unable to organise themselves and interact with the market. Co-operative behaviour has stronger traditions in tribal communities than outside. Individual tribals interviewed by us have also shown a significant grasp of the MFP market. As mentioned above, there is now even a significant (even if minority) pool of tribals with secondary or higher secondary education who should be able to take on a simplified system of accounts, procedures, correspondence and activities that is sufficient for the functioning of the co-operative.

As our assessment of the social performance highlighted, the tribals have never been in charge of their co-operatives, hence the claim that they lack

the ability to run the LAMPS properly must remain an untestable conjecture, not an explanation of the current situation.

#### 4.4 How to Co-operate: The Problem of Design

There are a number of features of the design of the LAMPS that makes successful operation of the co-operative difficult. Our analysis of the purpose of co-operation and its social context has highlighted the contextual factors specific to MFP-collecting tribal communities to which the design is insensitive, viz., the need for co-operation at two different scales (single village scale for resource extraction, protection and management and multi-village scale for product pooling), and the inability to focus on interested members. In addition, there appear to be a number of general design flaws that would impinge on the efficient and equitable operation of any co-operative.

##### 4.4.1 Inappropriateness of Membership Size

The rule of one-taluka-one-LAMPS is inappropriate even for a simple marketing co-operative, since the adult population in talukas varies anywhere from 1,500 adult tribals (Mangalore) to 13,000 (Virajpet). Even a primary marketing co-operative of 1,500 members seems too large: most milk marketing co-operatives appear to have a few hundreds of active members spanning a village or two. However, it should be noted that this factor does not explain the current lack of profitability: tribal collectors, however far they may be located from the LAMPS, are required to pool their produce with the LAMPS.

##### 4.4.2 Non-co-operative Organisation of Internal Work Load

The major workload of the LAMPS consists of the sale of rationed and other consumer goods to members on the one hand and the organisation of MFP collection and sale on the other. As described earlier, the systems adopted by the LAMPS in both cases militate against the basic principles of co-operatives: full-time salaried employees for the former and commission agents for the latter. The presence of full-time salaried (and mostly non-tribal) employees contributes to financial loss in two ways: it

increases the overheads and also the problem of supervision. The employees (paid meagre salaries of around Rs. 600) are tempted to look for ways of "augmenting their incomes", leading to leakages and consequent economic losses.

The impact of commission agents on the distribution of economic benefits has already been described. Obviously, the official commission paid to the agents also eats into the profitability of the LAMPS. But the institution of agents hurts the financial and economic performance of the LAMPS in other ways too. The agents ask for additional (unofficial) commission from the collectors and often divert society money for personal use. For instance, in Yalandur LAMPS in June 1995, the agents admitted to having "diverted" (and effectively spent) a total of Rs. 1.5 lakhs from society funds.

Finally, the system of having an Assistant Registrar-level officer on deputation to the LAMPS as Secretary has imposed a high cost on the LAMPS, because the officer's salary is paid by the society. At the current salaries and perks admissible to these officers, the LAMPS typically incur an annual cost of Rs.80,000-100,000, an amount that is comparable to the net profit of most LAMPS.

##### 4.4.3 Marketing Strategies

Successful marketing co-operatives have evolved strategies for increasing competition amongst buyers, for discriminating between high-volume-low price and low-volume-high-price buyers, for ensuring contract compliance, for prompt payments to producers, and ways for producers to get price signals based upon the quality of their products. All these features are missing in the operations of the LAMPS. For instance, all individual MFP collections are mixed, which prevents quality-based price discrimination for the buyer and the consequent price signal reaching the collector. In the particular case of fresh *Amla*, an economically important MFP in Mysore district, a rate contract is awarded. This prevents buyers with lower volume requirements from bidding higher prices. Curiously, the rate contract anyway does not guarantee that the entire harvestable quantity will actually be purchased, because the earnest money taken from the buyer is very low.

#### 4.4.4 Absence of Disincentives

In any organisation, particularly in co-operatives, incentives to participants in the form of gains from proper management must be accompanied with disincentives in the form of losses when there is mismanagement. But in a situation where even the members' paltry share contribution of Rs.11.25 is paid by the government, where a much larger fraction of the capital has been contributed by the government free of cost, where losses worth lakhs of rupees are written off with hardly a murmur, and where loan funds keep flowing despite the high default rate, there can be no disincentives for the mismanagement by the few or the disinterest of the many.

In short, there are a number of design flaws that together reduce the financial viability, economic efficiency, social participation and equity in the performance of the LAMPS. They do not, however, adequately explain the presence of persistent losses in spite of high operating margins, heavy subsidies, and guaranteed pooling. Moreover, the persistence of these design flaws year after year suggest that they are only proximate causes. To get at the more fundamental ones requires abandoning the framework of "tribals as free but ignorant or stupid agents" and invoking the sociological concepts of "power and control".

#### 4.5 Who Controls the Co-operative?

Why does any community allow such an inefficient, corrupt, and exploitative system to be forced upon themselves? Why do they not alter its structure: simpler accounting systems, smaller sizes, transparent procedures? Why do they not throw out secretaries when the society repeatedly incurs a loss? Why are they saddled with unproductive or political activities?

Much of the answer lies in the problem of control: the tribals have very little *de jure* and even lesser *de facto* control over their society. Conjured up by bureaucrats, the societies are till today operated and controlled by the DCS, through its nominated secretaries. With the huge disparities between the secretary's educational, economic, and social status and that of the tribals, the LAMPS have been fertile grounds for corruption and exploitation by the former. This really explains why, in spite of such high MFP margins and governmental subsidies, the societies persistently show

losses. This also explains why, after 15 years of operation, the tribals have very little idea of what a co-operative society is really about or how to handle MFP marketing. The secretary has a vested interest in keeping the tribals ignorant and confused. He co-opts a few key tribals, typically the President or a few Board members, and the agents, by sharing a small fraction of his loot with them and thereby ensures that his writ runs without check.

The DCS has done little to remedy this situation. First, all LAMPS societies have histories of allegations of corruption against their secretaries. The *prima facie* evidence is usually overwhelming. In some cases (such as Yalandur in 1995), the secretary has been confronted by the tribal general body and has admitted publicly to having committed fraud. The DCS, when pressurized, transfers the official and institutes an enquiry. Cases of officers being suspended are rare, of officers actually being punished and the money recovered may be one or two. Not that this is surprising, since one cannot expect a department to discipline one of their own.

Second, its own monitoring and audit system is inept, to say the least. Our perusal of the reports filed by the DCS' Joint Registrar of Co-operative Audit showed that audit quality is poor, and with wrong priorities: they are focused on income and expenditure, not on profit/loss.

Third, the DCS has hardly made any serious efforts to empower the tribals to run the societies themselves. Annually, a few lakhs of rupees are spent on so-called "LAMPS training", but the tribals say they go to these training sessions for the free food and Rs.20 honorarium. There is no evidence of this training having had any impact on tribal skills, nor any evidence of DCS being interested in evaluating its impact.

Fourth, the higher-ups in the DCS and the government not only shield corrupt officials, they also meddle actively in LAMPS activities and directly reinforce the dependency syndrome. DCS sets targets for enrolling new members in consultation with the LAMPS secretaries, giving the membership subsidy accordingly. This explains the poor ratio of actual:potential members in Table 4, because the secretaries will not be interested in enrolling younger (more literate) members.[15] DCS also fixes targets for turnover, for loan disbursement, and decides which activities should be dumped on the LAMPS. The Department of Social

Welfare and other tribal welfare wings of government, similarly use the LAMPS as channels for their programmes and fads.

Of course, bureaucrats are not the only ones at fault. Politicians are definitely guilty of ignoring the problems faced by LAMPS, because the minority tribal population never figures in their calculations. They may also use the LAMPS (and all co-operatives) as another means for bestowing patronage on their non-tribal constituents, such as by preventing non-tribal sales clerks being fired. However, more often politicians appear not to dabble much in LAMPS, probably because they are few and remote. The LAMPS are thus essentially locked into a patron-client relationship with the government bureaucracy.

#### 4.6 Who Owns the Productive Resource?

The use of co-operatives as forms of patronage by politicians or as playing fields and grazing grounds by bureaucrats is in fact a phenomenon commonly encountered in the literature on co-operatives. The Khusro Committee (RBI 1989?) has openly criticised this co-optation of the co-operative movement by the Indian state and polity. Another major factor affecting LAMPS performance, however, is rarely encountered in other contexts: ownership of the productive resource.

In all other primary producers' co-operatives, be they milk, arecanut or sugarcane, the producers *own the productive resource*, i.e., the cow, arecanut orchard or cane field, and hence the *product*. They then decide whether to pool the product or not. However, in the case of the LAMPS, the tribals who are supposed to pool the product, i.e., the MFPs, do not own the productive resource, i.e., the forest. In fact, far from owning it, they do not even have guaranteed access to the resource. The Government, in the form of the Forest Department, owns the forest. And the KFD bestows this access as per its written and unwritten policies. Thus:

- a) KFD determines *which products* the tribals can be allowed to harvest. This list of 43 products (Chief Conservator of Forests (Admin.), KFD, pers. comm.) is not sacrosanct. KFD has sometimes granted collection rights to some products to private contractors (as in the case of deer antlers in 1995-96) or drops certain products entirely if

it determines them to be over-exploited, a determination that does not always have any clear empirical basis.

- b) KFD determines in *which forest areas* the access may be granted. For instance, in Kollegal, KFD has always excluded the LAMPS from access to 3 out of 5 ranges, preferring instead to auction these leases to private collectors. This is in spite of a state government directive that MFP leases be granted to LAMPS wherever they exist.

Furthermore, the forest areas allocated have shrunk *drastically* over the years, as more forest areas are converted into wildlife sanctuaries or national parks. In Karnataka, a majority of LAMPS have suffered from this shrinkage (Table 5).[16] This shrinkage is the main reason for the declining share of MFP revenues in total LAMPS revenues and the declining variety of MFPs.[17]

KFD argues that exclusion of MFP collection from such protected areas is mandated by the 1982 Wildlife Act. But on the one hand, the state's Chief Wildlife Warden has the authority to permit MFP collection from wildlife sanctuaries and from buffer zones of national parks, and on the other hand, clandestine MFP collection as well as smuggling of timber and poaching of wildlife is in any case rampant in these protected areas, usually with the connivance of KFD officials.

- c) KFD determines the *royalty* to be paid by the LAMPS for the lease. The guidelines for determining the "lease amount" are unclear[18], permitting local forest officials enormous discretionary powers. While some socially committed officials have used this discretion in favour of the tribals, by and large KFD has followed the policy of maximizing revenues (or "extracting maximum surplus" as Marxists would put it). In meeting after meeting, LAMPS representatives have complained (and KFD even accepted) that lease amounts are arbitrarily fixed and arbitrarily hiked (KFD 1995). The Government of Karnataka passed a series of orders (Government of Karnataka 1976; 1977; 1982; 1987) giving concessions to LAMPS on the lease amounts. But neither has this concession been significant (ranging from 17.5% to 35%), nor is the method for calculating the base amount fixed. And the government has not bothered to renew

the last G.O., which expired in 1987, in spite of repeated requests by tribal representatives. Thus, e.g., the Udupi LAMPS could not take up the lease for MFP collection in 1993-95 because KFD increased the annual lease amount from Rs. 20,000 for three ranges to 1.08 lakh Rs for one range.

- d) KFD is in any case not bound by law to help the tribals. Hence, delays in *renewing leases* are common (up to seven months delay for a two-year lease).
- e) Even after the lease is granted, delays and harassment by field-level KFD staff continues, as KFD rules require the issuance of *permits* for entry of tribals, trucks, and for transport of MFP. Moreover, KFD officials have police powers of search, seizure and arrest within forest boundaries, a legacy of the colonial period. And MFP collection can be suspended at the slightest excuse, or its threat used to make the tribals "toe the line". For instance, MFP collection is often suspended between 15 February-30 April citing the fear of forest fires, although this is the season for the collection of gum, tamarind (*Tamarindus indica*), *shikekai* (*Acacia concinna*) and *antwalkai* (*Sapindus emarginatus*).
- f) Although a lease is supposed to give the LAMPS exclusive collection rights for a particular area, tribal collectors have no powers to *enforce* this right themselves; they must still depend upon KFD for such enforcement. Thus, a significant amount of the resource in leased areas is lost to collection by non-tribals, including private contractors.

In short, lack of clear access to and control over the productive resource is an important reason for the dismal performance of the LAMPS. It must also be seen as having precedence over the problem of controlling the society, because if the tribals had guaranteed access to MFP, they could at least sell the produce to private traders and derive some income if the LAMPS' marketing arrangements were not working well. Conversely, one may say that by combining product access with product marketing, the problem has been terribly confounded. A failure to recognise this lies at the heart of the darkness under the LAMPS.

#### 4.7 Interlinkages Between Factors

Although we have split the causal factors into separate categories, in reality the factors are often overlapping, inter-linked and mutually reinforcing. For instance, the agents no doubt exploit their fellow tribals. But the institution of agents is created and fostered by the non-tribal bureaucratic secretaries who are not interested in spending their own energies in travelling to distant tribal *podus* and would rather deal with pliable middle men than well-informed office-bearers.

Similarly, in addition to the control KFD exerts on resource access, KFD officials often intervene directly in the operations of the LAMPS. Indeed, KFD appears to be striving for a greater say in LAMPS management, using the argument that "LAMPS managed by KFD officials have shown better results" on the basis of a one-point sample from Chamarajnar. In April 1995, KFD staged a coup of sorts by getting the Department of Co-operative Societies to agree to make the local Divisional or Sub-Divisional Forest Officer the LAMPS President and the local Range Forest Officer the LAMPS Secretary *ex-officio* (KFD, 1995)! Many LAMPS were forced to pass resolutions accepting this change; this is reflected in Table 6. Others protested, and recently wiser counsel has prevailed within DCS and they have withdrawn this order.

### 5. Summary and Broader Implications

Our assessment of the performance of LAMPS indicated that they are by and large financially unsustainable, economically inefficient, socially inequitable and non-participatory, and unable to ensure the sustainability of their physical resource base. Our analysis of this dismal performance shows that the "ignorant tribal" model can only explain a small fraction of the problem. A "flawed design" model, which includes not only generic issues of internal design (size, incentives, overheads) but also those specific to the social context (member specialization) and the nature of co-operative activity (collection versus marketing), would provide a better explanation of the inefficiencies and some of the failure to co-operate. But the persistence of these flaws for 25 years, the pervasiveness of financial

mismanagement, inequity and non-participation, and the shrinking and declining resource base can only be explained if one augments this organisational theory perspective with the "power, access and control" model of sociology. While bureaucratic meddling and state co-optation through subsidies and welfare handouts are ills plaguing co-operatives in all sectors in India, the picture of tribal co-operatives as observed in Karnataka seems to be particularly bleak. This is the result of a three-fold squeeze peculiar to the tribal forest co-operatives: a politically and economically weak membership that neither controls its co-operative nor owns its productive resource!

We began this paper by describing LAMPS as a casual extension of the concept of co-operatives from agrarian to tribal communities and from agriculture to forests. We shall now briefly discuss the broader implications of our study for co-operatives in general, then for co-operatives in tribal areas, and finally for co-operatives in the forest/natural resource sector.

Clearly, while any state control on co-operatives needs to be exercised with caution, state control during setting up and over day-to-day operations is likely to be particularly disastrous. Co-operatives should emerge bottom-up, and the state should only set the rules of the game and enforce them transparently. The state cannot and should not set sales targets and devise "business development plans". It should focus its energies on audit and on removal of barriers to access to produce and markets.

Policy makers must also resist the temptation of thinking of co-operatives as the vehicle for all-round development. First, a multiplicity of objectives may not be compatible with a rapidly specializing economy; integration will work for those activities that are related to a single user group. Second, social development also involves allocative or distributive decisions, such as allocation of external funds to different objectives and interest groups. Co-operatives, however, are based upon the concept of reciprocity. Confusing co-operative functions with allocative ones leads to equating marketing co-operatives with political structures such as panchayats, leading to an undermining of the latter. What is required is probably greater insulation between the two, at least at the higher levels.

Tribal communities have conventionally been considered as more conducive to co-operatives, given the greater sense of community in their

cultures and the lower degree of differentiation within their communities. Although this may have been true in the past and holds to some extent even today, the ongoing specialization and differentiation in these communities should not be ignored any longer. And while it is true that tribal communities have stronger traditions of collective action, the formalized and large-scale co-operative model of the LAMPS does not mesh with these small-scale, local traditions. Harnessing these indigenous models in the context of the changing tribal economy in ways that mesh with the monetized, formal market economy, and in the light of the separation of political and economic activities advocated above is a serious challenge to tribal leaders and others interested in tribal development. If tribals are a special case within a non-tribal society, the larger state should give them special political representation and resource rights, not burden (or co-opt!) their co-operatives with special funds.

Forestry is distinct from agriculture in at least three ways. First, forests provide important public goods or at least positive externalities outside their immediate vicinity. Second, forestry is an extensive activity. The products that can be appropriated are collected from large areas, requiring pooling of labour for harvest and protection. Third, invoking the public good function of forests, the state has since colonial times reserved to itself the right to manage forests and even to harvest and market forest produce. Tribal forest co-operatives were later on made the exception because tribals were seen as particularly needy and forest-dependent. But, as we have seen, their tenurial position is weak, to say the least.

More recently, however, the concept of co-operative management and marketing of forest products is being taken up at a much larger scale. Forest departments across the country are today implementing different forms of "joint forest management" (JFM), (see SPWD 1993). The "village forest committees" (VFCs) proposed under JFM are essentially village-level co-operatives that are again supposed to combine enforcement with collective extraction for subsistence and sale. Our analysis of the existing forest-based (tribal) MFP co-operatives carries important implications for this newly emerging institution and for similar management-cum-marketing co-operatives being promoted in other sectors such as fisheries.

The first and foremost problem confronting these co-operatives will be not that of design, but of *tenure*. Tenure includes clear, secure, and

exclusive rights of access to the resource. But given that such rights are meaningful only when the right-holder can deliver the product to the market and obtain economic return, access rights must be coupled with rights to transport and sale of products *unhindered* by complex systems of passes, checkposts, and permits. And ensuring the ecological sustainability of the resource base requires that access and marketing rights be coupled with clear rights and responsibilities for *managing* the resource. In the specific case of forests, these must include control over other (non-MFP-related) activities that affect the forest ecosystem--tourism, fire management, wildlife management, timber felling, etc. That in turn requires a transparent and egalitarian mechanism for harmonising the goals of sustainable forest management for MFP production with the larger public good purpose or "environmental goals" for which forests are to be managed.

Once rights of collection, sale and resource management are secured, one can turn to the question of design of these collection-cum-marketing co-operatives. Co-operation in collection and resource management will have to be at village scales while efficient marketing will require pooling produce across villages. The experience of LAMPS suggests the need to devise such multi-level models in place of the current focus on single multi-purpose ones. It also suggests that the structure of the VFCs currently being proposed in most states, which has a forest department official (Forester or Range Forest Officer) as the secretary, is a recipe for disaster. Protecting the public good can be achieved through an *a priori* clear assignment of rights and responsibilities. It should not become an excuse for a role in day-to-day operations that can only lead to meddling, disempowerment, and worse. Proponents of JFM would do well to heed these glimmers of insight from the LAMPS.

#### Notes

- [1] This work is part of a 3-year research project titled "Ecology, Economics, and Institutions of Forest use in the Karnataka Western Ghats" initiated by the Institute for Social & Economic Change, Bangalore in collaboration with the Pacific Institute for Studies in Development, Environment, & Security. Funding for this project is provided by the John D. and Catherine T. MacArthur Foundation,

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- [2] For instance, the First Five Year Plan stated that "...it is the purpose of the plan to change the economy of the country from individualistic to socialistic and co-operative basis [sic]..." (quoted in TRIFED 1990).
- [3] For instance, Mahalingam (1987) identifies the problems facing LAMPS as "limited share/working capital [and]... credit facilities, ... non-availability of trained staff, ... transportation problems".
- [4] Such as the Scheduled Areas and Scheduled Tribes Commission (1961), the Special Working Group on Co-operation for Backward Classes (1969) and the Study Team on Tribal Development Programmes (1969).
- [5] Committee on Co-operative Structures in Tribal Areas, 1971 (also known as the K.S.Bawa Committee).
- [6] Unless specifically mentioned, this section is based upon bye-laws and other materials obtained from the Registrar of Co-operative Societies and on discussions with LAMPS office-bearers held individually and in a meeting organized at Mysore in April 1996 that was attended by representatives from 12 LAMPS.
- [7] There is some confusion as to the total number of LAMPS in Karnataka. According to information provided by LAMPS secretaries in HD Kote and Udupi, a 20th LAMPS has been recently established in Kanakapura taluka. However, the Registrar's office refused to confirm its existence.
- [8] See Lélé and Norgaard (1996) for a detailed exposition of sustainability as an essentially social construct.

- [9] In theory, one should make a "with-and-without" comparison. But this comparison is not meaningful here. LAMPS are simultaneously the means of establishing a usufruct right for the tribal and a monopoly marketing institution. Hence, wherever LAMPS are absent, tribals simply work as wage labourers for the private contractor who gets the MFP extraction "lease" and get no "per kg" price for their collection.
- [10] Graphs plotting these time series data have been cut out (editor).
- [11] Not to be confused with the "yield", i.e., harvested amount from a specific area or, worse, the total amount collected from an area available for harvest (but not necessarily harvested).
- [12] Removal of a certain part from the jurisdiction of the protected area.
- [13] While in some cases lack of participation may be the consequence of a continued lack of access to forests rather than a lack of interest in MFP collection, this is certainly not the case in Yalandur where the LAMPS has had consistent access to good quality forests in the sanctuary.
- [14] For instance, 5 out of 8 Directors (including President) in Yalandur and a similar fraction in Kollegal were illiterate. On the other hand, all Directors in Udupi were literate, a result of the generally much higher levels of literacy in Dakshina Kannada district as compared to Mysore and Kodagu district.
- [15] Tribals from most LAMPS narrated their futile attempts to force their secretary to revise the membership registers.
- [16] Kollegal LAMPS lost 200-odd sq.km. to the B.R.Hills sanctuary in 1992. H.D.Kote, Hunsur and Somvarpet lost 300-odd sq.km. to the Nagarhole (now Rajiv Gandhi) National Park in 1992. Gundlupet had already lost access to most of its forests way back in the 1980s to the Bandipur National Park. Udupi LAMPS lost 2 of the 3 forest ranges it had access, to the Someshwar Sanctuary and Kudremukh National Park.

- [17] The sudden jump in revenues from *dhoopa* only in Udupi LAMPS in 1995-96 is due to the supply of *dhoopa* from privately controlled evergreen forest patches (locally called *kumkis*) by non-tribal agriculturists who control these patches; the *kumki*-holders cannot legally sell MFP from their patches, so they pass it on to the LAMPS.
- [18] On paper, the lease amount to be charged to LAMPS corresponds to the "upset price", the minimum price that KFD must get in an open auction for the MFP lease. This upset price is supposed to be the average of previous two years of revenues from MFP sales (a procedure which would wipe out any margins), while also taking into consideration the prices in neighbouring markets. KFD officials have so far successfully evaded our repeated requests for data on the current and historical lease amounts for all LAMPS.

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Table 1 : Revenue and Profit/Loss for all LAMPS in Karnataka in 1994-95

Sl. No.	Name of the LAMPS	MFP Revenue		Non-MFP Revenue		Profit or Loss?	
		Gross ('000 Rs.)	Per member (Rs.)	Gross ('000 Rs.)	Per member (Rs.)	Current year (1994-95)	Accumulated
1.	Yalandur	169	195	161	186	loss	loss
2.	Hunasur	104	16	10	2	profit	loss
3.	H.D. Kote	10	2	15	4	profit	loss
4.	Chamarajanagar	535	557	5	5	profit	profit
5.	Kollegal	39	15	0	0	profit	loss
6.	Gundlupet	13	8	5	3	profit	loss
7.	Somavarpet	127	43	89	30	profit	loss
8.	Virajpet	80	16	83	17	profit	loss
9.	Madikere	124	43	3	1	profit	loss
10.	Koppa	11	5	204	93	profit	loss
11.	Moodigere	43	2	197	55	profit	profit
12.	Puttur	86	28	62	20	loss	loss
13.	Udupi	0	0	228	51	profit	profit
14.	Sulya	6	2	90	39	loss	profit
15.	Belthangadi	75	20	95	26	loss	loss
16.	Mangalore	0	0	27	43	loss	loss
17.	Karkala	74	17	193	44	profit	loss
18.	Bantwal	0	0	88	36	loss	loss
19.	Kundapur	75	31	122	51	profit	loss

Actual magnitudes of profits/losses are not given because the numbers were found to be inconsistent.  
Source: Returns filed by LAMPS secretaries with Registrar of Co-operative Societies, Bangalore.

Table 2: Gross Margins of all LAMPS in Karnataka in 1994-95

Sl. No.	LAMPS	MFP (%)	Non-MFP (%)
1.	Yalandur	32	26
2.	Hunasur	45	3
3.	H.D. Kote	17	6
4.	Chamarajanagar	44	2
5.	Kollegal	32	0
6.	Gundlupet	5	2
7.	Somavarpet	43	5
8.	Virajpet	26	8
9.	Madikere	29	21
10.	Koppa	5	4
11.	Moodigere	NA	3
12.	Puttur	36	4
13.	Udupi	NA	7
14.	Sulya	7	4
15.	Belthangadi	5	15
16.	Mangalore	NA	3
17.	Karkala	6	7
18.	Bantwal	NA	7
19.	Kundapur	29	9

NA = no business reported in 1994-95

Source: Returns filed by LAMPS secretaries with Registrar of Co-operative Societies, Bangalore.

Table 3: Prices Offered to Collectors for Select MFPS and LAMPS Margins: H.D. Kote and Udupi, 1995-96 (Rs./kg)

Name of MFP		Use	LAMPS collection price	Price offered by local trader	LAMPS margin
Common	Scientific				
Honey	Terminalia	Medicine, Food	27.0	40-45	10
Aralekai	chebula	Leather softening, Medicine	1.5	2-3	1
Amla (fresh)	Embllica officinalis	Pickles, Medicine	2.3	3-4	1
Amla (dried)		Medicine	6.9	8-9	2
Gum		Book binding, Silk reeling, Textile starching	28.8	40	10
Lichen		Paint, Condiment	20.0	30	5
Tamarind	Tamarindus indica	Condiment	2.0	4	1
Dhoopa	Vateria indica	Cooking fat	0.8	1-1.5	1
Sheekakai	Acacia concinna	Soap, Shampoo, Medicine	4.0	5-6	1
Ramapathri	Myristica malabarica	Paint	35.0	40	15
Almaddi	Ailanthus malabarica	Agarbatti	30.0	35	50

In case of H.D. Kote, LAMPS margin includes commission paid to their agents.

Source: Interviews with traders and LAMPS records

Table 4: Participation

Sl. No.	LAMPS	Potential Members	Actual: Members	Actual Potential (%)	Active Members	Active: Actual (%)
1.	Yalandur	3344	865	26	350	40
2.	Hunasur	10786	6421	60	150	2
3.	H.D. Kote	5647	4166	74	150	4
4.	Chamarajanagar	2367	960	41	816	85
5.	Kollegal	7411	2519	34	100	4
6.	Gundlupet	1416	1701	120	200	12
7.	Somavarpet	3473	2988	86	350	12
8.	Virajpet	13457	5002	37	470	9
9.	Madikere	2519	2878	114	80	3
10.	Koppa	1736	2181	126	130	6
11.	Moodigere	5500	3611	66	18	0
12.	Puttur	6869	3107	45	NA	NA
13.	Udupi	7448	4443	60	600	14
14.	Sulya	5268	2323	44	461	20
15.	Belthangadi	6240	3661	59	1190	33
16.	Mangalore	1534	633	41	NA	NA
17.	Karkala	5965	4415	74	NA	NA
18.	Bantwal	8754	2442	28	NA	NA
19.	Kundapur	3068	2405	78	NA	NA

## Notes:

1. Potential members = adult population, which is assumed to be 50% of Census I Scheduled Tribe population in that taluka. The values of Actual: Potential members that are greater than 100% are an artefact of this assumption.
2. Actual and active membership: from returns filed by LAMPS secretaries with Registrar of Co-operative Societies, Bangalore for 1994-95.
3. NA = data not available

Table 5: GBMs, Board Meetings, Presidents and Staff of Select LAMPS

Sl.No.	LAMPS	Last GBM held in	Number of Board Meetings in 94-95	President	Number of tribals in lower-level staff
1.	Yalandur	1995	6	ACF	0 in 5
2.	Kollegal	1992	6	Tribal	0 in 3
3.	Gundlupet	1993	4	ACF	NA
4.	Chamarajanagar	1992	8	DFO	NA
5.	Hunasur	1994	5	Tribal	0 in 7
6.	HD Kote	1993	8	Tribal	2 in 5
7.	Somavarpet	1992	8	Govt. nominee	NA
8.	Virajpet	1993	10	DFO-Wildlife	NA
9.	Udupi	1994	12	Tribal	4 in 6

## Notes:

1. NA = data not available
2. According to LAMPS bye-laws:  
Atleast one General Body Meeting must be held every year.  
Atleast one Board Meeting must be held every month.  
Elected tribal member should be President of the society.
3. ACF = Assistant Conservator of Forest  
DFO = Divisional Forest Officer

Source: LAMPS Audit Report for 1994-95 and discussions with LAMPS representative

Table 6: Access to Forests

Sl. No.	Name of the LAMPS	Forest area in Taluka (acres)	Area leased to LAMPS (acres)	MFP Revenue (Rs/acre allotted)	Lease amount paid to KFD (lakh Rs.)
1.	Yalandur	26,155	24,000 (92)	7.0	NA
2.	Hunasur	19,231	2,200 (11)	47.3	1.27
3.	H.D. Kote	81,587	15,470 (19)	0.6	0.50
4.	Chamarajanagar	66,450	60,590 (91)	8.8	0.34
5.	Kollegal	477,350	15,318 (3)	2.5	0.16
6.	Gundlupet	110,802	20,762 (19)	0.6	0.70
7.	Somavarpet	51,497	7,286 (14)	17.4	0.62
8.	Virajpet	163,598	66,690 (41)	1.2	0.68
9.	Madikere	117,360	4,593 (4)	27.0	NA
10.	Koppa	23,919	NA	NA	NA
11.	Moodigere	75,592	NA	NA	NA
12.	Puttur	67,609	NA	NA	NA
13.	Udupi	11,574	NA	NA	1.24
14.	Sulya	106,907	106,000 (99)	0.1	NA
15.	Belthangadi	122,848	145,192 (118)	0.5	NA
16.	Mangalore	0	NA	NA	NA
17.	Karkala	84,062	NA	NA	NA
18.	Bantwal	12,520	NA	NA	NA
19.	Kundapur	154,634	NA	NA	NA

## Notes:

NA = information not available

Figures in parentheses indicate area allotted as a percentage to total forest area. Discrepancies in data collected from different sources create percentage values > 100%. Lease and revenue are for 1994-95, except in the case of Udupi (1995-96). Source: Returns filed by LAMPS secretaries with Registrar of Co-operative Societies, Bangalore