

## Between Panchayat, Community and the State: The Case for Joint Institutions for Managing Forests in India

*P.J. Dilip Kumar*

### ABSTRACT

One of the absorbing questions in institutional economics is the puzzle of how (or even whether) some communities are able to institute and maintain sustainable management "regimes" for their common property resources (CPRs). India today is one of the more successful countries in forest conservation, inasmuch as it has been able to stabilize the forest area at around 69 to 70 million hectares (21% of the overall land surface), and even register a modest increase of some 3 mha over the decade 1997-2007 (FSI, India State of Forest Report 2009). The means to achieve this, however, have depended historically on the system of forest estate notification or reservation devised by the colonial government in the 19<sup>th</sup> century in the face of a rapid over-exploitation of the resource and the increasing adverse impact of the resulting soil erosion and degradation of arable land. During the last two or more decades, however, there has been an increasingly trenchant criticism of this stated approach on the part of the social activists and academics, resulting in a step back from aggressive policing of the forest reserves and attempts to reinstate the community as the master, or "malik", of the forests through such legal enactments as the Panchayati Raj Acts (PRAs) passed by the states pursuant to the 73<sup>rd</sup> and 74<sup>th</sup> constitutional amendments of 1992, and the Forest Rights Act (FRA), 2006.

These approaches have excited much interest, and could provide an excellent setting to test some of the theories or hypotheses on what contributes to forest or CPR conservation in the context of institutional structures and practices. The author has initiated such a study by taking up the inter-relations among Panchayati Raj Institutions (PRIs), village communities, and forest conservation in India. Case studies of Joint Forest management villages in the states of Tamil Nadu and Karnataka, and private (malkiyat) forests in the Aravalli hills of Haryana in North India were taken up, which demonstrate the complex interactions between community and state actors, private and common interests, and clearly bring out the strength in having a series of *nested* institutions (as suggested by Ostrom) to safeguard common property forests in a rapidly changing economic and social environment, in which both community and state are partners.

## The problem of forests as a natural commons

All natural resources suffer from the problems of externalities, jointness in use and management, non-divisibility, non-excludability, and so on, that make them especially vulnerable to failure of market mechanisms in matching private wants and preferences with the collective outcome (for an early and canonical statement of these characteristics, see Oakerson 1986). Forests, being a renewable resource, will give a perpetual stream of benefits if we manage them wisely, but since there may be other ways to cash them in, a “rational” economic agent may experience difficulties in maintaining the resource base.<sup>1</sup>

A characteristic of many natural resources is their nature of a common good, or a commons, as the terminology goes. The nature of a commons is that it is not held by any specific entity and may be the property of all or no one in particular, and so it is difficult to impose controls on its use. Thus, the atmosphere and the world’s climate is a “global” commons. Ground water is a commons because essentially it is all-pervading; you cannot enclose it so it can be tapped by anyone within its perimeter, and sustainable use requires the compliance and self-restraint of all. In such a situation, a “rational” person will try to get the benefits without paying the costs, as it is difficult to impose the rules on a wide area or a large population, and somebody else will knock off the gains if I will not (out of a sense of responsibility to posterity or a sense of trusteeship). Forests (with pastures and wetlands) are commonly cited as the classic example of the *Tragedy of the Commons* and the *free-rider problem* (Hardin 1968), which makes the institutional framework especially significant for their long-term sustainability.<sup>2</sup>

This has been a major and absorbing problem for study and discussion over the past fifty years, especially since the ecological and environmental crises have forced us to pay attention, with exploding populations, entrenched poverty and now climate change caused by over-excessive pressure on the self-regenerating systems of the biogeosphere.

What is required is a way to impose a set of rules that will keep the use of the renewable resource within sustainable limits (an egg a day from the goose with the golden eggs). There have been two basic responses to a situation like this: *privatize* or put it under *State control*. In the words of the Series Editor to the book by Nobel awardee Elinor Ostrom, *Governing the Commons* (Ostrom 1990), this is

one of the most enduring and contentious questions of positive political economy, whether and how the exploration [*sic*] of common-pool resources

---

<sup>1</sup> In the neo-classical sense, a rational agent works to maximize his net profit. This is not true of humans in all situations, as considerations of mutual assistance, trust-building, alliances, altruism and other psychological considerations creep in (see Yeung 2011, for a recent discussion). (Hence Mahatma Gandhi’s appeal to the higher values and the trusteeship principle may not be so far-fetched where natural resources are concerned).

<sup>2</sup> Once again, we may sound a caveat that this may not be a good description of a working society, as there are issues of community, mutual recognition and trust, long-term interests in survival, cultural restraints and controls, and so on in real life. A society that works solely on the principle of self-interest is a society that is probably in the last stages of collapse, such as the “Mountain People”, described by Colin Turnbull (1994): “What happened to the Ik is, in a sense (except to them!) immaterial. What they have to tell us about *ourselves*, and our potential, is as valid as ever, if not more so.”

can be organized in a way that avoids both excessive consumption and administrative cost. These cases, where a resource is held in common by many individuals – that is, well-defined individual property rights over the resource are absent – are often held by economists to be exploitable only where the problem of over-consumption is solved by privatization or enforcement imposed by outside force.

Privatization is easy to understand, as it basically brings private costs in line with private benefits and is basically what is urged by the neo-liberal or market fundamentalists. This, however, does not account for the divergence between private and *public* costs, such as the case of externalities. It is here that the state has to step in as an expression of the collective will of the wider community, but state control today has a bad reputation, partly because it may require disproportionate force (shooting to protect a tree, for instance), or may actually fail because public property is still a commons, or in the worst scenario, government itself has fallen prey to the tragedy of the commons. In either case, the rules have to be in place, there has to be some level of acquiescence or willing compliance, and there has to be a redressal if somebody breaks the rules. This may make it a costly undertaking, and if there is no stream of revenue coming from the resource (for instance, if only environmental benefits are flowing), then there may be reluctance on the part of the custodian state to spend the required extra money on its upkeep and protection.

This is why there has been a quest for some formula that will bring the benefits of control without its downsides, and this is an arrangement in between private property and state property: that is, control by a collective, a “game” in which “the herders themselves can make a binding contract to commit themselves to a cooperative strategy that they themselves will work out” (Ostrom 1990, 15). In effect, we wish to move from a position of a commons to one of a common *property* resource, where the key difference would be that some entity is present as the owner of the rights rather than leaving it to a vaguely perceived community or society at large. Ostrom and her colleagues have studied a wide range of such cases, some of which were stable and viable, some fragile and failed, based on which she describes “some fundamental characteristics of successful common-pool management schemes”, which in her words “have to do with coping with free-riding, solving commitment problems, arranging for the supply of new institutions, and monitoring individual compliance with a set of rules” (Ostrom 1990, 27).

Among the special features of forestry and trees that make them especially vulnerable to abuse, the identity of product and factory should be singled out: the tree is producing timber as it grows, but the product, timber, can be captured only by cutting down the very parent, the tree itself. This is unlike the case with, say, fruit orchards, or our mythical golden goose, where the product is quite distinct from the “factory”: there are less chances of over-exploiting the whole system, unless, of course, some fool thinks that he can get more fruit by cutting down the tree or more golden eggs by opening up the goose. Another factor that makes forestry a very poor contender for resources is the relatively long time periods involved in producing high-valued timber and the bulkiness of the unprocessed product, which makes it

costly to handle, process, and transport; unlike non-timber forest products that can be carried by headloads or baskets, logs require large vehicles, motive power and machinery. The consequence is the rapid attrition of value with distance, and if local demand does not rise, much of the timber becomes valueless, and the land cannot compete with other higher-valued uses like mining. Historically, this was compounded by the general remoteness of forest areas, which made it unviable financially to exploit the resources. In the present day, ecological concerns about logging, especially about clear-cutting mixed natural forests, have further put a damper on forestry as a viable business. As land prices sky-rocket, the temptation to convert these areas into other, non-forestry, uses like real estate or industrial plants, becomes over-powering.

### **The colonial response: A framework for regulation**

The point here is that forests, by their very nature, are vulnerable to misuse and abuse, and this is why, historically, the British colonial government decided to put a sizeable chunk of the more valuable forests into special reserves called Reserved Forests and the lesser forest areas into other categories like Protected Forests with less strict rules. In the course of doing this, there was a process of “settlement” of the local rights and privileges, which has led social commentators and activists to conclude that the people, who were traditionally the owners, were extirpated and their rights unjustly taken away. They try to explain the present pressure on the forests as originating in this distance between the local community and the natural resource and argue that if the forest is restored back to the community, there will be a sense of ownership and recognition of its value, the gap between private and public cost will diminish, and the forest will automatically be protected. An early and influential statement of this principle is by Gillis and Repetto, in the compilation of case studies sponsored by the World Resources Institute (Repetto and Gillis 1988, 387):

A more direct tenurial policy has been the centralization of proprietary rights to forest lands in national government, superceding traditional rights of local authorities and communities. Although intended to strengthen control, such actions have more often undermined *local* rules governing access and use, removed local incentives for conservation, and saddled central governments with far-flung responsibilities beyond their administrative capabilities.

The present-day forest departments are then seen as a vestige of the mistaken colonial policy, and these social activists advocate that the state departments change from a regulatory to an advisory role in support of the real owner, the local community.<sup>3</sup> This line of thinking, rightly or wrongly, appealed to all the political par-

---

<sup>3</sup> Of course, this would suggest that the state itself does not have the compliance of the community and has itself become a commons, which has serious implications for our concept of the democratic set-up, the bed-rock of our Constitution.

ties, leading to the passage of the Forest Rights Act, 2006<sup>4</sup>, which seeks to give control of the forests back into the hands of the local communities and authorizes the Gram Sabha (village general body) to issue pattas (recognition of rights certificates) to individuals in individual plots in the forest (based on certain criteria) and to the community for collective rights in the forest.

It is not as if the colonial foresters were unaware of these issues. As they wanted the provinces coming into their hands to be peaceful and productive, they tended to give priority to settled agriculture and manufactures above other sectors. During the initial period of administration by the British East India Company, there was a more or less laissez-faire attitude to forestry, leading to over-exploitation and growing evidence of its consequences, in the form of erosion, floods, degradation of large tracts, shortages of fodder, fuelwood and other biomass, worsening of climate, and so on. Concern over these consequences was so serious that a committee was formed by the British Association for the Advancement of Science in Edinburgh in 1850 to consider the matter. In 1855, Lord Dalhousie, the Governor-General, promulgated the outline for forest conservancy, which has been termed (by Stebbing) the “Charter of the Indian Forests” (FRI Dehradun 1961, Vol. I, 73). A forest department was established, of which Dietrich Brandis was appointed the first Inspector General in 1864.

A reading of Dietrich Brandis, the doyen of the British Indian foresters (he was actually a German himself), shows that he was well aware of the alternatives in the management framework (Brandis 1994, 32): “Forests, like all other landed property, can be either in the hands of the State, of towns, village-communities, or other public bodies or corporations; or, lastly, in the hands of private individuals.” After discussing the experience of different states in Europe, Brandis recognizes that making forests completely private property will end in their sale for other uses, and he comes to the conclusion that, in India, “everything tends to show that the State must endeavour to retain as many of the more important forest tracts as possible in its own hands.” He was, at the same time, keenly alive to the need to foster the community (not unexpectedly, seeing his cultural moorings in the strong spirit of independence of the mountain villages of Central Europe):

Not that the formation of village forests, and their regular management under the control of State forest officers, would not be a most desirable object to aim at. Certainly, the advantages of well-managed communal forests are great. The public property thus created cannot readily be converted into cash, and wasted by an improvident generation ... And though at present it would be premature to expect the people of India to appreciate the advantages of such institutions, the time will certainly come when the importance of proposals tending in this direction will be recognised. (Brandis 1994, 33).

Brandis also paid attention to the need to respect the customary rights of the people in the process of reserving the better forests for public purposes as represented by the state:

---

<sup>4</sup> Its full appellation being The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

the gradual adjustment and extinction of these rights, which materially interfere with the protection and systematic management of the forests, will be a work of time, which will require much care, patience, and conciliatory treatment of the people concerned ... There has been much thoughtless talk as if the natives of India, in burning the forests and destroying them by their erratic clearings, were committing some grave offence. If the matter is carefully analysed they will be found to have the same sort of prescription which justifies the commoner in the New Forest to exercise his right of pasture, mast, and turbary. Such rights, when the public benefit requires it, must be extinguished, but the ... tribes of India have the same claim as the holder of prescriptive forest rights in Europe to demand that provision be made for their reasonable wants and requirement. (Brandis 1994, 34).

Brandis hoped that ultimately, these forest could be restored and managed well, to give revenue and strength to the Government. His concept was one of a joint management regime, whereby trained and experienced forest officers would give the best management solutions to the community; these prophetic words are now being proved true by the growing joint-forest-management (JFM) system all over the country.

### **An evolving forest policy**

Dr. Voelcker, who authored the “Report on the Improvement of Indian Agriculture” (1893), highlighted the various services of the forest to the rural economy, such as provision of grazing and pasture, fuel and fodder, and so on, and recommended letting out the productive pastures to the villages even if included in the forest reserves. But it was advisable to limit grazing to the capacity of the site and desirable to encourage cutting of grass rather than free grazing, which in excess would lead to compaction of soil and damage to regenerating seedlings.

Efforts like the work of Brandis and the report of Voelcker led to the first forest-policy statement, dated 19 October 1894 for the whole of British India. This policy advocated four classes of forests belonging to the State: forests which need to be preserved on climatic or physical grounds (which can be called “protective” forests); forests which afford a supply of valuable timbers (the “productive” forests); Minor Forests; and pasture lands. This forest-policy statement deserves a paper by itself, so broad is its sweep and vision and deep its analysis. One sentence from this will be quoted to illustrate the relative roles and position of forestry in the rural economy:

It should also be remembered that, subject to certain conditions to be referred to presently, the claims of cultivation are stronger than the claims of forest preservation ... Accordingly, wherever an effective demand for cultivable land exists and can only be supplied from forest area, the land should ordinarily be relinquished without hesitation; and if this principle applies to the valuable class of forests under consideration, it applies a fortiori to the less valuable classes ... (1894 forest policy resolution, reproduced in FRI Dehradun 1961, Vol. I).

The colonial forest policy and legal framework, which was carried over even after independence, was thus a combination of a conservation-oriented approach to forest reserves and an agriculture-led strategy for resolving competition in land use. It was probably the revised national forest policy, the first to be proclaimed in independent India, that made the tension between forest and people more stark. Quoting again just one paragraph from the 1952 policy document:

The indiscriminate extension of agriculture and consequent destruction of forests have not only deprived the local population of fuel and timber, but have also stripped the land of its natural defences against dust-storms, hot desiccating winds, and erosion. The old policy, which envisaged the relinquishment, subject to certain safeguards honoured only in their breach, of even valuable forest land for permanent cultivation, has resulted in general deterioration of physical conditions to the detriment of national interests, and must therefore be given up ... (1952 forest policy resolution, reproduced in FRI Dehradun 1961, Vol. I).

The National Forest Policy, 1952 gave priority to national interests over local interests of the village community, and, along with the report of the National Commission on Agriculture, 1976, gave an impetus to intensive forestry based on fast-growing, financially remunerative crops in lieu of the low-productive, mixed miscellaneous forest or “jungle” in the degraded parts of the countryside. The 1952 policy, in fact, states explicitly that “the accident of village being situated close to a forest” should not bestow any privileges<sup>5</sup>, and that the first priority should be the needs of the national economy, which meant support to industries by assuring a sustained supply of forest raw material at reasonable, often low, prices. Under the impetus of this policy, and as part of the “nation-building” efforts of the newly independent India, the state embarked on a programme of clear-felling large tracts of mixed jungle and replacing them with monocultures of timber and pulpwood, mainly teak and sal in the better sites and eucalyptus and casuarina in the drier tracts.

However, the feeling that something was lacking in the country’s approach to forests and people persisted, strengthened by a huge output of papers, books and polemics from a score of writers like Bandyopadhyay and Shiva (1984), Guha (1989) and Gadgil and Guha (1992). The state-centric approach to forests was attacked by ecologists and social activists as bad for the ecological health of the country, bad for biodiversity, bad for maintaining the water and soil status of the uncultivated lands surrounding the villages and bad for equity, as it denied the poor, especially women, access to their basic subsistence needs of fuelwood, fodder, biomass, minor forest products, and so on.

All this contributed to a new national forest-policy proclamation of 1988, which gives precedence to the needs of “environmental stability through preservation and

---

<sup>5</sup> In contrast, the British government often walked the extra mile in bestowing forest rights and privileges in support of local communities, such as the “betta” or hill forest lands at the rate of 9 acres attached to each acre of agricultural holdings in the Western Ghats (a part of the Kanara Privileges).

... restoration of the ecological balance”, “conserving the natural heritage” and biological diversity, checking soil erosion and denudation, “meeting the requirements of fuelwood, fodder, minor forest produce and small timber of the rural and tribal populations”, and only after these, increasing the productivity of forests to meet national needs and efficient utilization of forest produce and substitution of wood. The changed approach now gives precedence to the needs of the local community, and industry is advised to make alternative arrangements for raw material, preferably by supporting farm forestry.

### **Working with the people: Joint Forest Management (JFM)**

Almost on the heels of the 1988 policy resolution, the Ministry of Environment & Forests at the Centre issued a well-known letter, dated 1 June 1990, laying out the essential features of a new arrangement called Joint Forest Management (the state and people as partners), and exhorting all the states to implement it. Many states followed up with statements or circulars of their own, initiating JFM in their states, and subsequently JFM was placed on a firmer footing by issuing government orders or even amending the concerned forest acts to give it a legal status.

By 1993 JFM had been implemented on some 1.5 million ha (mha) of forests under some 10,000 Forest Protection Committees (FPCs) (Saxena 1997, from an estimate by Singh and Khare 1993). As of 15 August 2001, there were 62,980 committees managing 14.25 mha forest area (FRI Dehradun 2011). By September 2003, the Government of India reported that it covered some 17.33 mha with 84,642 JFM Committees in 27 states (MEF figure, quoted in Ravindranath and Sudha 2004). By 2011, the number stood at 22.9 mha area under various forms of JFM, involving around 118,213 village or hamlet communities (FRI Dehradun 2011), compared to the estimated 250,000 gram sabhas under the Panchayati Raj regime.

While it may appear that this growth in JFM was mainly due to the revised forest policy of 1988 and the circular issued by the central government in 1990, it may be more apt to see in this a convergence of ideas, from within the forest department and from outside. As seen from the policy debate, there has always been a voice, even within the forest services, for people’s needs and empowerment, starting from the doyen of organized forestry in India, Dietrich Brandis (Dilip Kumar 1990, 1994). Much earlier than this formalization of JFM, there had been experiments in various parts of the country by a mix of practitioners, including forest officials, communities themselves, and academics through research projects. Saxena (1997) recalls that a “major breakthrough” was achieved in the 1970s in West Bengal with the so-called Arabari pilot project, where A.K. Banerjee, the Divisional Forest Officer for Silviculture, “stressed the importance of involving village communities in the protection of natural forest”. In another state, Haryana, a soil and water conservation project at Sukhomajri, for the protection of the foothill forests of the Himalayas, was developed into a people’s movement, which ultimately led to the setting up of a number of Hill Resource Management Committees under the leadership of another forester, P.R. Mishra. International donor agencies also pushed for people’s participation, such as the DfID-aided project in Karnataka (Dilip Kumar 1996). During the Tenth Five Year Plan (2002-07), all the afforestation schemes were clubbed under the

single umbrella of the “National Afforestation Programme” or NAP, and so-called Forest Development Agencies (FDAs) were set up at the district level under the chairmanship of the forest conservator to coordinate the development of JFM in the forest-fringe villages. The concept of joint operation with the people was even extended to wildlife areas through so-called Eco-development Committees (EDCs), which took up non-consumptive activities like eco-tourism to build a stake for the local communities.

Saxena (1997) has tried to identify the factors influencing the success and failure of various forms of JFM in different states. He sums up his review by saying (81):

We can conclude, then, that community control and management can work in three circumstances. First, in villages which are small, homogeneous, remote from markets, and dependent upon produce from the commons. Second, where gains from organisation are high, for both the village elite and the commoners. And third, where a leader is willing to oversee for non-monetary gains.

In another comprehensive study, Ravindranath and Sudha (2004) found from their survey of 1421 JFM committees in 6 states a “marked increase in the vegetation density and canopy cover” through plantations and, to a lesser extent, through protection of degraded areas and encouraging natural regeneration. A moderate increase in forest products like fuelwood, grass and fodder, and marginally in NTFPs, was seen in most of the areas, and a corresponding reduction in the time spent in the drudgery of collecting fuelwood. Sharing of economic returns (from harvests) has been substantial and is recognized as an important motivating factor in some states like Andhra Pradesh, but limited in others, especially where the modalities for it had not been worked out. A better relationship between the forest department and the people was reported in all the states, as well as women’s empowerment and improved relationship with the local panchayat (“except in a few where it has led to conflict with regard to benefit sharing and management”). The people recorded their perception of “an increase in the water table in the wells” in West Bengal and Gujarat, and also an increase in the moisture-retention capacity of the forest soil, attributed to a better canopy and root system and reduced run-off.

Ravindranath and Sudha drew the following “lessons” from their survey: for success, one has to enlist the participation of all eligible sections (men and women), get MoUs drawn up and signed, prepare micro-plans, and so on. They advise that JFM orders in the states should keep pace with the more liberal policy pronouncements from the Centre; economic viability needs to be addressed, and it is “necessary to adopt a demonstrably cost-effective approach to JFM”; the relationship with PRIs needs to be studied (it has been positive in some, like Rajasthan, but has led to problems in others); a “national-level Monitoring and Evaluation” strategy is called for; and the community has to be further empowered.

## Local government and JFM: convergence and disputations

In around the same period that forest policy was undergoing such a massive transformation, another major development took shape in the arena of governance in India, that is the culmination of decades of experimentation and advocacy with decentralized governance in the form of the 73<sup>rd</sup> and 74<sup>th</sup> Amendments to the Constitution, which finally gave a firm legal footing to the village panchayats and urban bodies respectively.

As stated by Mathew (2000) in his comprehensive review of Panchayati Raj, as it is known, a major achievement of this system has been the massively widened democratic base, with some 500 district panchayats, 6000 block panchayats, 250,000 gram (village) panchayats in the rural sector, where some 73% of the population resides, and in the urban sector with around 27% of the population, 96 city corporations, 1700 town municipalities and 1900 nagar (town) panchayats. Every five years, about 3 million representatives are elected by the people, of whom one-third are, mandatorily, women. Moreover, thanks to the reservation schemes, women head about 175 district panchayats, more than 2000 intermediate-level panchayats and around 85,000 gram panchayats and 630 city corporations and town municipalities (Mathew 2000). A signal “qualitative change” that this massively widened democratic base means to “India’s federalism” (although the elected bodies have no legislative powers) is, according to the author, that the popularity of the political parties depends on the sincerity with which they devolve power to the local bodies, and this determines their success in the state and central legislatures, and hence their ability to form ruling coalitions.

What is surprising in the context of all the massive mobilization of constitutional authority, development funds and political activity that has gone into it, is the impression of an underlying sense of defeat and pessimism in the PRI literature on the whole. Without doubt, there is much corruption and money power in elections, making it difficult for deserving candidates to get elected, women are often used as a front by the men, there is a “widespread apathy on the part of the state governments, especially the political leaders towards the tribal areas” (Mathew 2000), and so on. As recently as 2013, Mathew gives the following bleak judgment: “Although panchayats got a constitutional status 20 years ago, politicians have managed to subvert the decentralization of power, out of fear of the emergence of rival political forces. So Panchayati Raj remains a pipe dream while the bureaucracy’s writ runs large” (Mathew 2013). Mathew charges that politicians champion PR when they are out of power, but try to “weaken” it when they come to power. Finally, Mathew blames the bureaucracy, “from the village level to the highest level”, for continuously subverting the ideals of local government – since 1882 [*sic*]. In this they were “hand-in-glove with the state-level politicians”. According to Mathew, “Hardly anything has been done to change this mindset of the bureaucracy and of political leaders in the country”. He finally sums it up by alleging that, like a baby that has been tied up and therefore never learnt to walk (Annie Besant’s metaphor), Panchayati Raj has never been allowed to play its role, which explains “the inability of the panchayati raj institutions to become institutions of self-government”.

In a similar vein, Mani Shankar Aiyar, the then central minister in charge of PR,

in an interview published in *The Hindu* newspaper (22 May 2013) says that PR has no hope unless all the powers of the district administration are handed over to it and the Gram Sabhas are put in charge of all social-sector schemes. If this process is taken to its extreme end, the forest departments will become redundant, just as according to Mani Shankar Aiyar (2002), the panchayat system has to absorb and render obsolete the district administration and its appurtenances like the District Rural Development Agency (DRDA) under the charge of the District Collector. But ironically, it is the bureaucracy that will have to produce the methodology of devolution (Aiyar 2013).

### **Panchayat Raj and the issue of “parallel” institutions**

Perhaps the most vitriolic disapproval is reserved for the proliferation of “parallel bodies”, including the Village Forest Committees, that work with or in the line departments and not under the PRIs. Many departments and externally-aided projects have spawned such committees and “special purpose vehicles”. For instance, Mathew, in the reports cited already, feels that central ministries and state line departments by-pass the Panchayati Raj institutions through the creation of registered societies. If at all the sectoral line departments allocate funds to the gram panchayats, they do so as “tied grants”. Schemes mentioned as culprits in this regard include the District Rural Development Agency (DRDA), the Watershed Development Programme, Joint Forest Management Committees (JFMC), the District Primary Education Programme (DPEP), the Janmabhoomi (Native Soil) programme in Andhra Pradesh, “which has come as a big blow to the panchayats”, and according to a study by the NIRD Hyderabad “has sidetracked the Panchayati Raj institutions and other local bodies by maintaining parallel systems of administration by according more importance to MLAs and other politicians”; the “District Government” setup in Madhya Pradesh consisting of the minister, collector, MLAs, MPs, ZP representatives, which makes the collector *de facto* the chief executive of the district, under the guise of setting up the District Planning Committee under the Panchayat Act. Similarly, the author finds the MPLAD Scheme, whereby each MP gets a discretionary fund to be spent on public works through the District Collector, “an ‘assault’ on the letter and spirit of the 73<sup>rd</sup> Constitution Amendment”, inasmuch as the list of 23 items of work that can be taken up with these funds, are from the 29 subjects earmarked for the panchayats under the 11<sup>th</sup> Schedule. Now states are providing similar funds to their MLAs, and “dangerously enough, several municipalities have started similar schemes for Councillors ... This is a dangerous portent and also a deplorable inroad into the domain of local bodies” (Mathew, 2000, 18).

Another author, Lalita Chandrashekhar (2011), cites studies to show that these agencies only provide a pretence of people’s participation and are in reality a ploy to continue the hegemony of the official departments: there is “a certain amount of deception” in this sort of decentralization in parallel fora, and as these parallel bodies “are expected to move centre-stage and be mainstreamed”, they will in time displace both the PRIs and the very line departments that have given birth to them, something that “does not augur well for a country like India which is characterized by wide disparities and inequalities” (Chandrashekhar 2011, 196). Chandrashekhar is

emphatic that all activities in the 29 subjects earmarked for PRIs should be brought before only the elected bodies, and not any alternative formation, such as the Gram Sabha (general assembly), which is only a ploy to circumvent the elected bodies. This point about parallel bodies has been made by many observers.

However, the fact remains that while PRI protagonists insist that the PRIs are the only legitimate body that should operate in the districts, others institutions, like the line departments of the state governments and the central agencies, and public-sector or quasi-state corporations and boards, are continually being entrusted responsibilities to implement various schemes and programmes, apart from maintaining the basic law and order in the countryside and safeguarding the physical integrity of the resource. This is especially true of the forest department, which is the primary custodian of some 25% of the land area of the country, much of it remote from centres of population and close to the country's external boundaries, and rich in biodiversity, timber, minerals and, of course, land and water resources.

Saxena, talking about the relationship of Forest Protection Committees (FPCs) with the panchayats, appears to take a non-committal stand. He quotes Poffenberger and Singh (1993) that their relationships "need to be sharply defined", without comment. But he also cites the case of Orissa, where the requirement that the female Naib Sarpanch (Deputy Chief) of the panchayat be the head of the FPC is "not working well and her stewardship is not seen as legitimate by the indigenous FPCs" (Saxena 1997, 116). He goes on to say that there is the danger of the small user community losing authority to the much larger panchayat, and that panchayats have had difficulty in managing community woodlots "due to their inherent political nature and often diverse constituencies" (117).

Ostrom (1990) found that successful experiments in community management have started with small-scale institutions where people learn about one another and build up trust by face-to-face interactions and then gradually build it up to higher levels and larger groups. It also helps if they can "call on public facilities – courts, a state department of natural resources, legislatures, special elections" and so on, to obtain information and make decisions that were "legitimate and enforceable". Ostrom feels that institution-building and management-learning has to proceed through an "incremental, self-transforming process", to be successful. The chances of success are greater when the community starts on a *small scale*, where

individuals repeatedly communicate and interact with one another in a localized physical setting. Thus, it is possible that they can learn whom to trust, what effects their actions will have on each other and on the CPR, and how to organize themselves to gain benefits and avoid harm. When individuals have lived in such situations for a substantial time and have developed shared norms and patterns of reciprocity, they possess social capital with which they can build institutional arrangements for resolving CPR dilemmas (Ostrom 1990, 183-184).

We may note on the margins that this is precisely what has been given short shrift in the polemics on PRIs, which are to be set up all at once, at a fairly high level (district, taluk and "village", the last encompassing many settlements and thousands

of persons), with the accompanying problems of trust-building, which Ostrom pointed out as crucial for natural-resource-management systems. Again parenthetically, it may be noted that the strength of village forest committees and other CBOs referred to above, lies precisely in the fact that they deal with small groups of mutually known persons in the hamlet or neighbourhood, enabling constant discussion and negotiation of the rules and their implementation.

### **Voices from the field: village interactions**

As part of a wider enquiry into the role of institutions in forest conservation in India, we were interested in hearing what *the communities themselves* thought of the issue of JFM versus panchayat institutions, and what effect the PRI system is likely to have on the state of the forests. In order to get a better feel for the views on the ground, we planned to visit a number of sample villages in the Southern states, where it was an accepted fact that both panchayats and JFM committees had developed very well, and indeed many persons, men and women, had worked first in the forest committees and then gone on to the wider sphere of the panchayats. With just a few village forest committees (VFCs) in the Western Ghats of Karnataka and the hills around Vellore in Tamilnadu, we rapidly found that there was such a consistency in the views expressed, that it appeared redundant to go through with all the states as planned.<sup>6</sup> We also interacted with the people in three villages in the Aravalli hills of South Haryana, where the hill forests are held by the people, not by the forest department, to provide a good range of situations. I now turn to the outcome of these discussions in the field.<sup>7</sup>

Firstly, their view of JFM and the forest department: In all the villages visited in Tamilnadu and Karnataka, there was considerable satisfaction with the way the forest department had reached out and elicited the participation of the community. What was striking was that the community was not actually looking for financial gains from the forest, and that they recognized the ecological and environmental benefits as much more valuable than material benefits. Indeed, even the little that they were drawing in terms of grazing and fuelwood had gone down drastically over the past 30 years of participatory forest management and awareness creation. The livestock holdings had fallen from the dozens of scrub cattle per family in the old days to just a couple of milch cows and goats each that were stall-fed; fuelwood had been replaced to a great extent with farm waste, bottled gas, and now solar heaters supplied by the forest department. Even their dependence on forest biomass for mulch and green-leaf manure in the Western Ghats villages (Nadkarni 1989) had been consciously brought down. There have been few forest fires during these 30 years, and the vegetation is recovering everywhere, but one unwelcome effect has been the huge increase in crop damage from animals (mainly boars, deer and monkeys, with

---

<sup>6</sup> However, if and when a proposed larger study comes to be taken up, it is fully expected to have a much more comprehensive and systematically selected sample.

<sup>7</sup> For the record, the villages visited were: Shigehalli, Kalwe, and Sirur-Balgod VFCs in Sirsi Division, Karnataka; and Thorumalai, Thondam Thulasi, K-Pudur, and Velleri VFCs in Vellore Division, Tamilnadu; and Mangar, Zeer and Bondshi in Haryana, with private forest resources.

nilgai in the North) that are making agriculture difficult. Some solution has to be found urgently for these *negative externalities*, such as culling the boar, digging trenches or erecting electrified fences, providing compensation for crop losses (so far it has been allowed only for elephant depredations).

The VFC President Viswanath in Shigehalli, for instance, said that they did not have any expectations when they set up the VFC. The people here are dependent on forests in various ways, and all they wanted was to protect the degraded forest around them, in cooperation with the forest department, so that it could serve its functions as a watershed and biodiversity repository in a sustained manner. They are especially pleased to have provided solar water heaters to all the 132 households from their 50% share of harvests from a 1992 plantation of Acacia, thereby drastically reducing their need to collect fuelwood from the forest. They have also provided a drier for the village (with further fuelwood savings), and in the division as a whole, some 700 household toilets have been provided by the forest department. Similar stories were heard in all these villages in the South. In the Haryana villages, the community depended on the forest department to provide protection from outsiders, even though the forest actually belongs to them. In one village, Mangar, the individuals had sold off their holdings even in the sacred forest (the Mangar *bani*), and now only the Forest Conservation Act could come to the aid of the community in preventing its wholesale destruction. The case is before the courts.<sup>8</sup>

The second issue concerns the relations between the JFM committee and the panchayat. In all the villages, including the Haryana cases, there seems to be no sense of rivalry between the two, nor any antagonism. The villagers are quite candid that PRIs have their role and place, and the forest committees their own. They come and go to one another's meetings, but they feel that the panchayat meetings are often a waste of time as there is too much "politics" and public posturing and rhetoric in their meetings.

The third question posed concerns the main criticism of "parallel" organizations, whether the VFC should be a part of the panchayat. This question met with a unanimous and emphatic negative everywhere: in Shigehalli, for instance, it was explained that the VFC so far has had no "politics", unlike the panchayat; the lady member present, who also happened to be the vice-president of the panchayat, stated that "nothing would get done" if the VFC were put under the panchayat. Individual villages like theirs would fail to get a fair share if all the revenue was merged in the panchayat, and the village would not be able to plan its own development. There are obviously not many formal interrelations of the VFC with the panchayat. In the VFC, according to them, all the people come together like a family; each VFC has a good and cohesive group looking after its affairs, always taking decisions jointly. There is no "commission-taking" in the VFC, as it is composed of all the persons in the village (each is a shareholder), and accordingly there is much discussion and transparency. If needed, the VFC can well mobilize, say, 150 persons at any time to protect the forest or tackle forest fires etc. In the gram panchayat (GP), on the other hand, this is not the case. They felt that the VFC members must retain control on

---

<sup>8</sup> The Haryana cases, which are particularly eye-opening in the range of institutional arrangements being tried out by different communities, are described in a separate article (Dilip Kumar 2013).

their 600 ha of forest, regardless of what the panchayat decides. As to what should be the role of the elected panchayat bodies, the consensus expressed was that they could be there to look after the general development, but they are not good for the village (VFC) level.

In Kalwe village in the Sirsi division of Karnataka, they expressed the view that decentralization should go down to small groups that can work more effectively on the small things based on a village's needs, whereas this focus will be lost in the larger panchayat organization. They felt that VFCs are effective in looking into the village level, while the panchayats cover larger areas, and are not based on the needs of the individual village, but assign relative importance by size of population (i.e. large centres of population will get most of the attention, ignoring small remote communities like theirs). They are quite aware of the short-term/long-term concerns and contrasts: the panchayats are into short-term work, whereas they themselves in the VFC are interested in the long-term well-being of the forests and their community. Future generations also have to be provided for. Their view is that the VFC has the advantage to them that it can focus on a single sector (forests), whereas panchayats with their multifarious departments will not have this focus. They acknowledge that good programmes are in progress in the panchayat sphere, as well, like the NREGA<sup>9</sup>, but they just are not so interested in them (apparently there is not much demand for employment under the NREGA in these areas, as they get sufficient returns and employment from their agriculture).

In K-Pudur village in the Vellore division of Tamilnadu, for example, they expressed their view that the panchayat is concerned with bigger works like drinking water, tar roads, street lighting, buildings for schools, cooperatives, etc. and cannot support things of localized utility like meeting places or community halls. They have used their VFC funds to improve the school (their student strength being too low to attract panchayat funds), putting up a bus shelter, and a threshing floor that they had been requesting from the panchayat for 3 years. The panchayat does not come to small villages and hamlets, although the village people take part fully in the panchayat meetings and elections and so on. There is, however, no feeling that the VFC is separate from the panchayat; the panchayats do their work, the VFC does its work, there is no rivalry or antagonism.

Another aspect we wished to address was the relations of the community with the line departments, and whether these should be channeled solely through the PRIs. Specifically, should the forest department be kept out? An equally emphatic response was given to this: the department is essential to take legal action, as it is difficult for the village residents themselves to take punitive action against offenders, whether from within or outside. There has to be some outside agency to keep an eye on the people themselves, lest some greedy people misuse the freedom. They felt that the foresters' uniform is required to give them a separate identity and authority and instill fear in wrong-doers, and that even if the VFC watchers are given a special uniform, they will not be so effective; it has to be the regular forest guard or forester. This sentiment was expressed in the Haryana villages as well, even though there the forest

---

<sup>9</sup> The Mahatma Gandhi National Rural Employment Guarantee Authority and the Scheme of the same name.

actually belongs to the people (held collectively in the past, now in danger of being privatized and dissipated). Similarly, most of the villages expressed satisfaction particularly with the school-monitoring committee, which was run under the aegis of the education department without control by the panchayat.

In terms of Ostrom's framework, it is possible to see some factors that may work in support of these community-level organizations, like identity of interests and an optimal number of participants, but this may end up turning the logic on its head and descend to searching for post-facto justifications and rationalizations. The question still remains of how some communities arrive at these ideal states while others presumably do not, and why this arrangement works in the forest sphere and perhaps not in others like the panchayat, which has had to have a very elaborate enabling and validating framework based on constitutional provisions to get started. Social scientists and observers have been, perhaps, overly punctilious (in a back-handed, even churlish, way) about not granting the forest department any slight modicum of correct-sightedness or sincerity of intentions and have tended to ascribe to the actors very low-level "instrumental" objectives (using the people to make their job of protecting the forests easier, for instance). But whatever be the character of the society that has contributed to the vigour and resilience of these forest groups, it is apparent that the one common thread running through these examples has been the success in fashioning what Ostrom terms a "nested" system of institutions. In the final analysis, we have to acknowledge that it is the mutually supporting roles of the state forest department and the community organizations that have contributed to the success of the programme, in both the biophysical and the societal senses.

### **The future possibilities for JFM in the panchayat context**

In the final analysis, Panchayati Raj institutions (PRIs) are obviously here to stay, whether or not the state-level politicians like it, and whether or not the people actually find a benefit from it. No doubt some good will come about by transferring executive authority and power to the district and lower levels, but too much should not be expected from these formal re-arrangements, because most of the administrative problems still remain: for instance, even the state budgets do not reach very far or at the proper time, let alone money transfers from the central government.

However, it would be a misconstruing of the aims and intentions of decentralized governance or PRI if we were to say that no other institutions have a right to exist. To the people on the ground, there is little difference between PRI sub-committees and other community-based or sector-driven subject committees; both are sponsored by the state and supported by larger state organizations and departments. JFM committees can easily be accommodated in the PRI structure as a sub-committee, but the message is also quite clear that communities value the relative autonomy and freedom of working a little outside the formal PRI structures. In fact local self-government was supposed to be "little government", more informal, less bureaucratic, and run by part-time officials from among the ordinary people as in small-town USA (Buell and Brigman 1968), but in our country, PRIs have now been fashioned after the state legislatures and district collectorates (even to the extent of calling for a mini-Vidhan Soudha and a Chief Secretary in each panchayat centre), and thus

brought all the ills of “big government” to the village level of governance. The people therefore feel all the more need for small organizations and institutions of their own (such as the self-help groups or SHGs, school committees, and, let us admit, the VFCs).

The strength of the Village Forest Committee (VFC) is drawn not from the Panchayat Raj Act, but from the Forest Act; management regulations and graded punishments cannot be imposed, and Ostrom’s specific requirements fulfilled, without this separate legislation. Therefore the advisable course has always been to provide the Joint Forest management (JFM) committees a formal status under the Forest Act, perhaps by adding a new section or even a separate chapter, and not just trying to fit them into an existing section that may not reflect the legal and constitutional position in its true colours.

Indeed the VFCs and JFM are a good model of real grass-roots democracy in small communities much below the level of the PRIs, which after all stop at revenue villages covering many settlements (wards, majras) and thousands of people. This means that PRIs are much like government structures and cannot be a firm ground for developing effective community institutions based on face-to-face interactions and personal relations and confidence-building. It will therefore be good if the panchayat system gives recognition to these committees even if they are not formally under the PRIs. Joint Forest Management is a unique and probably unprecedented and bold experiment by a specific line department with (and despite) its own strong ethos and sense of mission, in sharing executive power with the communities at the ground level, which has very important and significant lessons for PRI and governance in general.

Our interactions in all these villages clearly brought out that there is no expressed antagonism between the two levels of institutions in the field, nor do the people in the communities look upon government staff as strangers or criminals. They see both sector-based and panchayat-driven activities and institutions as ultimately subservient to the overall framework of the “law of the land”, which draws authority from the national Constitution and the specific laws passed under it.

An intriguing, and exciting, possibility is that the VFCs and other small community-based organizations (CBOs) may actually be essential as a training ground for the larger democratic polity. Democracy is achieved not by the vote alone, but by the functioning of diverse groups and associations in small communities across the land, as recognized in the mother of liberal democracies, the USA (see, for example, Barber 1984, 150-155). It is in these associations that the citizens learn and practice democratic functioning, and the strength of the national community rests on this broad foundation, on the roots, so to say.

If the modern Indian state apparatus moves out of the countryside and remains limited to the government enclaves in a few metropolitan areas, what will move in is not the people’s self-organized committees, but some other external power to fill the vacuum. It is in this context that there is a case for a more sympathetic look at the joint governance model developed by the forest department in the form of the JFM committees, and similar joint CBOs that are not based on electoral politics in education, health, culture, grass-roots savings and loan groups, and other sectors and activities.

## The Case for Joint Institutions for Managing Forests in India

The moral of the story as I understand it is that we should let a number of different alternatives co-exist, as neither are the communities so fragile and ignorant as our neo-liberals would make out, nor are government and state organizations so unmitigated an evil or useless, because if that had been the case, our country would not have been a fraction as prosperous and well-managed (in relative terms) as we are today. In the eyes of the people, of the communities, the one does not take away from the other.

Especially in the case of common property resources (CPRs) like forests, it is abundantly clear that there has to be some nesting of institutions and structures in larger and higher “enterprises”, or arrangements (Ostrom 1990), so that there is some framework to refer to outside the narrow village communities. If PRI protagonists have been lamenting that acceptance has not been achieved even after so many decades (and huge channeling of funds to 250,000 gram panchayats and constitutional amendments and elections), obviously they should look into the basic tenets of their model and try to align it with ground reality and people’s aspirations in a less authoritarian, less top-down manner. Perhaps they can even learn from the JFM model, instead of reviling it as anti-democratic and anti-constitutional, for the forest department has achieved a silent revolution of sorts, with over 118,000 committees covering some 23 million hectares of state forest (leaving aside the private forest and CPR resources), with little in the way of extra resources or constitutional backing, comparing very favourably with the PRIs themselves.

REFERENCES

- Aiyar, Mani Shankar. 2013. "Put Gram Sabhas in Charge of all Social Sector Schemes." Interview with P.V. Srividya. *The Hindu*, 22 May 2013.
- Aiyar, Mani Shankar. 2002. "Panchayati Raj: The Way Forward." *Economic and Political Weekly* 37(31), 3293-3297. Reprinted in T.R. Raghunandan (ed.). 2012.
- Bandyopadhyay, J. and Vandana Shiva. 1984. *Ecological Audit of Eucalyptus Cultivation*. Dehradun: Natraj Publishers.
- Barber, Benjamin R. 1984. *Strong Democracy: Participatory Politics for a New Age*. Berkeley: University of California Press, 150-155.
- Brandis, Dietrich. 1994 [1897]. *Forestry in India: Origins and Early Developments*. Dehradun: Natraj Publishers.
- Buell, Erwin C. and William E. Brigman. 1968. *The Grass Roots. Readings in State and Local Government*. Scott, Foresman and Company, Glenview, Illinois.
- Chandrashekhar, Lalita. 2011. *Undermining Local Democracy. Parallel Governance in Contemporary South India*. New York: Routledge.
- Dilip Kumar, P.J. 2014. Climate Change, Forest Carbon Sequestration, and REDD-Plus. The Context of India. *Economic & Political Weekly*, 24 May 2014, Vol. XLIX No.22, pp.22-25.
- Dilip Kumar, P.J. 2013. Village Communities and their Common Property Forests. *Economic & Political Weekly*, 31 August 2013, Vol. XLVIII No.35, pp.33-36.
- Dilip Kumar, P.J. 1996. Observations on the ODA Supported Western Ghats Project, Karnataka. *Myforest*, 32, September 1996, p.69-76. Bangalore, India.
- Dilip Kumar, P.J. 1994. Joint Forest Management and the Organizational Response. Van Vigyan, J. of the Society of Indian Foresters, 32 (3), p.21-31. Dehradun.
- Dilip Kumar, P.J. 1991. Between Common Property and State Monopoly: The Institutional Context of Wasteland Management in India. In "Managing the Village Commons", Proceedings of the national workshop, 15-16 December 1991, Bhubaneswar, Orissa. IIFM, Bhopal.
- Dilip Kumar, P.J. 1990. Towards a Relevant Forest Service. *Myforest*, 26 (4), December 1990, p.305-314. Bangalore, India. Forest Survey of India (FSI). 2009. India: State of Forest Report 2009. Ministry of Environment & Forests, Government of India. Dehradun.
- FRI Dehradun. 2011. *Status of Joint Forest Management in India (as on June 2011)*. Dehradun: Forest Research Institute.
- FRI Dehradun. 1961. *100 Years of Indian Forestry, 1861-1961. Vol. I and II*. Dehradun: Forest Research Institute.
- Gadgil, Madhav and Ramachandra Guha. 1992. *This Fissured Land: An Ecological History of India*. Delhi: Oxford University Press.
- Guha, Ramachandra. 1989. *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalaya*. Delhi: Oxford University Press.
- Forest Survey of India (FSI). 2009. *India: State of Forest Report 2009*. Ministry of Environment & Forests, Government of India. Dehradun.
- Hardin, G. 1968. "The Tragedy of the Commons." *Science* 162, 1243-1248.
- Khare, A. and A.V.R.Rao. 1991. Products of social forestry – issues, strategies and-

- priorities. *Wasteland News* 6(4): p.7-17. Society for Promotion of Wastelands Development (SPWD), New Delhi. (Cited in Saxena, 1997).
- Mathew, George. 2013. "Panchayati Raj or Collector Raj?" *Times of India*, 15 April.
- Mathew, George (ed.). 2000. *Status of Panchayati Raj in the States of India 2000*. New Delhi: Institute of Social Sciences/Concept Publishing Company.
- Nadkarni, M.V., with S.A. Pasha and L.S. Prabhakar. 1989. *The Political Economy of Forest Use and Management*. Bangalore/New Delhi/London: Institute for Social and Economic Change/Sage Publications.
- Oakerson, Ronald J. 1986. "A Model for the Analysis of Common Property Problems." *Proceedings of the Conference on Common Property Resource Management, 21-26 April 1985*. Prepared by the Panel on Common Property Resource Management, Board on Science and Technology for International Development (BOSTID), National Research Council. Washington, D.C.: National Academy Press.
- Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge Universities Press.
- Poffenberger, Mark and C.Singh. 1993. The legal framework for Joint Forest Management of forest lands in India. In J.Fox (ed.), *Legal Frameworks for Forest Management in Asia: Case Studies of Community / State Relations*. Honolulu: East West Centre. (Cited in Saxena, 1997).
- Raghunandan, T.R. (ed.). 2012. *Decentralisation and Local Governments: The Indian Experience. Essays from Economic and Political Weekly*. Hyderabad: Orient Blackswan Private Limited.
- Ravindranath, N.H. and P. Sudha. 2004. *Joint Forest Management in India: Spread, Performance and Impact*. Hyderabad: Universities Press (India) Pvt. Ltd.
- Repetto, Robert and Malcolm Gillis (eds). 1988. *Public Policies and the Misuse of Forest Resources*. Sponsored by the World Resources Institute. Cambridge/New York: Cambridge University Press.
- Saxena, N.C. 1997. *The Saga of Participatory Forest Management in India*. Bogor, Indonesia: Center for International Forestry Research (CIFOR).
- Turnbull, Colin. 1994 [1973]. *The Mountain People*. London: Pimlico (Random House).
- Voelcker, John Augustus. 1893. *Report on the Improvement of Indian Agriculture*. London: Eyre and Spottiswoode.
- Yeung, Rob. 2011. *I is for Influence: The New Science of Persuasion*. London: Macmillan.

**P.J.DILIP KUMAR**, Ph.D. in Forest Economics (University of Wales), retired from the Indian Forest Service in November 2012 as the Director General of Forests, Ministry of Environment & Forests, Government of India. He is presently ICSSR Senior Fellow at the Institute for Social & Economic Change (ISEC), Nagarbhavi, Bangalore-560072. His areas of interest include sustainable forestry, forest and environmental governance, public policy, etc, His writings are at [www.forestmatters.blogspot.in](http://www.forestmatters.blogspot.in) Email [pjdilip@gmail.com](mailto:pjdilip@gmail.com).