Negotiating environmentality: implementation of Joint Forest Management in eastern India

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ABSTRACT
This article helps to reconcile developmental and conservation goals in community forest management. Through a case study design, using the conceptual lenses of governmentality, it unpacks how the regional networks of developmental aspirations in the Hazaribagh region of eastern India shaped people’s perception of their forests and their engagement with India’s Joint Forest Management programme. The outcome of such an engagement was a hybrid community forest management, comprising elements of both the rationalities of the state and the local community. Thus, the article suggests that the recognition of regionally grounded networks of developmental aspirations becomes a key to achieving socio-ecological justice in regionally meaningful ways in many countries of the Global South.

ARTICLE HISTORY
Received 23 December 2020; Accepted 12 May 2022

KEYWORDS
environmentality; community forest management; commons; Joint Forest Management; India; Jharkhand; Hazaribagh

1. INTRODUCTION
Since the 1980s, in India, as in many countries of the Global South, community forest management (CFM) aims to reconcile development and conservation outcomes. In these regional contexts, CFM is lauded as an institutional arrangement to achieve socio-ecological justice (Brockington, 2002), often ignored by the state-led, top-down management of the forest commons (Scott, 2008). Despite such promise, the CFM programmes suffer from the tension of reconciling development and conservation together, as prioritizing one diminishes the other (Salafsky, 2011). To achieve this reconciliation in CFM, the academic literature on the management of the forest commons suggests designing rule-based institutions, provisioning clear, secure and substantial rights within clearly demarcated resource boundaries (Agrawal, 2001; Ostrom, 1990), which incentivize people’s institutional participation and shape their conduct towards the forest commons (Agrawal, 2005a, 2005b). But what if the promised incentives are not sufficient as per the regional context? What role do the regionally grounded developmental aspirations play in shaping people’s conduct towards the forest commons and community forest institutions? This article elaborates on such conditions in the operationalization of
India’s Joint Forest Management (JFM) programme (1990, revised in 2000 (in the Hazaribagh region of the eastern Indian state of Jharkhand.

In India, the National Forest Policy of 1988 envisaged creating a ‘massive people’s movement’ for forest conservation, in the aftermath of popular forest struggles across India, based on the issue of forest-dependent livelihood needs. As a subsequent outcome, the JFM programme, as a populist state response to these struggles, was launched in 1990. The implementation of the national programme was to be conducted by the respective state governments, and their forest bureaucracies. The programme proposed co-management of the forest resources by including the local communities, organized through village-level forest protection and management committees, along with the local forest staff. The programme recognizes community livelihood needs as subsistent in nature, rooted in the local moral economy of forest resource use. Thus, it envisions people’s participation through the promised incentive of usufructuary forest rights to meet bona fide livelihood needs, contingent upon successful conservation of the forest (Jeffery & Sundar, 1999). In Jharkhand, the top-down institutional design of JFM (Sundar, 2000) coexists with the codified customary practices, mediating people’s forest use for livelihood and conservation ends. Further, the promise of subsistence livelihood needs in JFM persists with the reality of local expectations of livelihood incentives from CFM that are more than mere subsistence (Corbridge & Jewitt, 1997). Such expectations are shaped by the state-led expansion of the capitalist economy since colonial times (Corbridge et al., 2005), generating savings and capital amongst the rural populace (Corbridge, 1987), entwining development and identity in Jharkhand’s resource politics (Prakash, 2007). Thus, this article unpacks the impact of regional developmental aspirations, that is, better choices for livelihood opportunities to meet the rising household consumption that is desired to be achieved through the available opportunities and experience of the past, upon CFM. Therefore, it strives to answer the following research question: How do regionally grounded developmental aspirations influence people’s participation in CFM to balance the goals of livelihood needs and forest protection?

2. FOREST COMMONS, INSTITUTIONAL DESIGN AND ENVIRONMENTALITY

The insights provided by the scholarship on the commons to reconcile the development and conservation outcomes are centred around the conceptual framings of Ostrom’s (1990) ‘design principles’ and Agrawal’s (2005a, 2005b) ‘environmentality’. The ‘design principles’ explain the necessary conditions to incentivize people’s participation in communal arrangements, ensuring the sustainability of people’s collective action. The necessary conditions are clear, secure and substantial rights; given to small and homogeneous user groups; within a clearly defined resource use boundary. Thus, as critics argue, for Ostrom, collective action is an outcome that is achieved by placing certain conditions in place, and not a process that evolves through an interaction of contextual and external factors, interpreted by the resource users (Ravnborg, 2000, p. 8). Agrawal (2001), on the other hand, focuses on the wider contexts within which communal arrangements may survive. Agrawal’s (2005a, 2005b) ‘environmentality’ explains how the external state manipulates the people’s beliefs about their natural environment by guiding their actions through institutional arrangements. Such a process of local forest governance turns people into ‘environmental subjects – people who care about the environment’ (Agarwal, 2005b, p. 162) and makes them willing ‘to work upon themselves’ (Agarwal, 2005a, p. 181), ‘in pursuit of goals that they imagine as their own’ and believe them to be ‘defined locally’ (Agarwal, 2005b, p. 197). Therefore, if the ‘design principles’ elucidate upon the necessary conditions incentivizing collective action towards reconciling livelihood and conservation goals, then ‘environmentality’ explains how the state ensures collective action through institutional mechanisms.
The above-discussed conceptual framings suggest the significance of the appropriate institutional design to incentivize/alter people’s behaviour towards the socio-ecological goals in CFM. Despite these strengths, the ‘design principles’ and ‘environmentality’ detract us from seeing the alternative rationalities of people’s participation in community forest institutions that are beyond environmentality (Cepek, 2011), such as the affective bond with the forests (Singh, 2013) that are embedded in the regional networks of capital and power. Further, it also limits us to appreciate the intersections between these multiple rationalities, shaping the operationalization of community forest institutions in everyday life, in a given regional context. To overcome these limitations, the article uses Michel Foucault’s analytic of ‘governmentality’ to explain the intersection of multiple rationalities in shaping the community–institution interlinkage in CFM. For Foucault, these multiple rationalities (rationality of both the state and the governed) overlap, contest and struggle with each other (Foucault, 2008, p. 313; see also Fletcher, 2017), and thus help us see (1) everyday operationalization of JFM as an outcome of these multiple rationalities, and (2) how people negotiate with CFM as per their expanding livelihood needs in each regional context.

3. METHODOLOGY

To understand the intersection of state and region-specific contextual rationalities in shaping people’s engagement with community forestry institutions, a case study approach was adopted. The focus was on (1) the history of people’s association with forests, (2) mapping shifts in livelihood patterns and forest perceptions, and (3) institutions mediating forest–community relationships. The data on these aspects were collected during the fieldwork, conducted in 2018 and 2019, using methods such as oral history; archival work and secondary sources; expert interviews; 31 in-depth household interviews out of the total of 72 households in the study village, selected using stratified random sampling; focused group discussions; stakeholder interviews (n = 17; including JFM committee members, traditional village headman, forest staff and development practitioners); village-level informal conversations; and participant observation.

The case of JFM in Sondhwa village,1 in the Hazaribagh region, was selected due to the sustained involvement of people in the programme since 2002, despite the absence of necessary contextual conditions as per the ‘design principles’. In the heterogeneous village of Sondhwa (comprising an ethnic group such as Santhals, and caste groups such as Bhuiyas and Mahatos) people felt ‘incentivized enough’ to sustain their collective action to protect their forest, despite having a contested resource use boundary and non-substantial usufructuary rights as compared with their codified customary forest rights in the Hazaribagh region of eastern India (Figure 1). The village of Sondhwa (Figure 2) was settled around 100–130 years ago by three Santhal and one Bhuiya family, later followed by Mahatos. The village is surrounded by a protected forest of around 1000 hectares. The customary practice of an integrated forest–farm use for household subsistence, forest as a time-tested economic buffer in times of crop failure and famine, and forest as an abode of ancestors and local deities made the forest an integral part of people’s lives in Sondhwa.

4. JFM AND MULTIPLE RATIONALITIES OF THE FOREST–COMMUNITY RELATIONSHIP IN THE HAZARIBAGH REGION

Hazaribagh lies in the north-western part of the Chotanagpur plateau, having characteristics of a relatively drier monsoon and a lower proportion of rice lands when compared with the south-eastern part of the plateau. In colonial and successive postcolonial timeframes, violation of customary rights by the colonial landlords and later the Forest Department resulted in poor livelihood outcomes for people in Hazaribagh. The traditional forest and community association was
governed by usage and custom. As per Paragraphs 146–147 and 283 of the Hazaribagh Settlement Report (Sifton, 1917), the codified customary forest rights of the local communities were: (1) rights to collect mahua (*Madhuca longifolia*) and edible products; (2) grazing rights; (3) cutting trees for agricultural implements and housebuilding; and (4) rights of reclamation of the forests for the expansion of cultivation. The sphere of tenant (*raiyat*) rights varied from the tenant’s village to a small block to an entire estate. The advent of landlordism (*thikadari*) during the colonial period led to the gradual erosion of customary institutions (Mohapatra, 1988, pp. 609–610). Landlordism promoted sub-infeudation, unpaid labour (*beth begari*), bonded labour (*kamiauti*), alienation of forest and farm resources, insecure tenancy rights and higher rents for people (Mohapatra, 1988, pp. 380–384). As per Paragraph 150 of the Hazaribagh Settlement Report (Sifton, 1917), with the growing commercialization of forests and rising timber needs in

![Figure 1. Jharkhand, India (left); and study area in the Hazaribagh district of Jharkhand (right).](image)

![Figure 2. Map of Sondhwa village in Hazaribagh. Source: Drawn by the author in consultation with the villagers.](image)
the coalfields, railway lines and urban growth resulted in the imposition of newer taxes on the tenants, such as salami (a tax paid on reclaiming farms from the forest), banker (a tax paid on the use of non-timber forest produce) and tangikar (a tax paid on felling forest timber). Gradually, the right to reclaim farms from the forest became non-existent due to poor incentives for arable expansion and rising timber value for the landlords (Mohapatra, 1988). These changes undermined the customary powers of the village headman in favour of the landlords. Further, with the passage of the Zamindari Abolition Act in 1950 in postcolonial India, the zamindari forests (forests owned by the landlords) in Hazaribagh were converted to ‘Protected Forest’ as per the Indian Forest Act of 1927. From the landlords, the Forest Department took control of these forests, which further restricted the exercise of the local customary forest-use practices and escalated conflicts between the people and the forest staff. These conflicts reached a threshold during the 1990s, when the left-wing extremists (Naxals), on behalf of the people, confronted the forest staff and forced them to leave the forest.

In Sondhwa village, since the 1990s, with the advent of Naxals in the forest and the forest staff leaving the forest, people-led illegal trade of forest produce flourished. This resulted in relatively larger sums of disposable cash incomes in people’s hands, further sharpening internal class differentiation in the village. Based on the in-depth household interviews, in current times major sources of cash incomes in Sondhwa’s households are livestock-rearing, wage labour, migration and the sale of non-timber forest produce. The increased demands for cash incomes in the household can be attributed to the expanding household needs that are more than mere subsistence. The in-depth household interviews, focused group discussions and informal conversations in the village revealed that the cash incomes are spent to construct permanent houses from baked bricks and cement, purchase consumer durables, consume finer grains and spices, spend on cosmetics and ‘designer’ clothes, access higher education for white-collar jobs, and improve household savings. Based on the in-depth household interviews, the internal class differentiation and differential forest dependence of various income groups in Sondhwa are evident in Table 1.

Such a pattern of household consumption and livelihood needs demands the judicious use of all the available means of livelihood, including the forests. The local perception of the forest, given the dependence of all the income groups in Sondhwa, was aptly captured by the village headman (manjhibadam) of Sondhwa as follows:

| Income groups | % Population | Average annual income (Rs)\(^a\) | Average annual expense (Rs) | Major income source (in preference order)\(^b\) | Forest dependence (in preference order)\(^c\) |
|---------------|--------------|----------------------------------|----------------------------|---------------------------------|---------------------------------|
| Category I    | 10%          | 147,000                           | 58,000                     | L, W, M                         | F, O, H, N                     |
| Category II   | 19%          | 101,600                           | 56,400                     | L, M, W                         | F, O                           |
| Category III  | 55%          | 67,000                            | 47,000                     | L, M                            | F, H, O, N                     |
| Category IV   | 16%          | 50,000                            | 49,000                     | W                               | F, H, O, N                     |

Note: \(^a\)Income (Rs) range for groups (minimum–maximum): Category I = 118,000–170,000; Category II = 85,000–115,000; Category III = 64,000–70,000; and Category IV = 48,000–52,000.

\(^b\)Income sources: L, livestock; W, wage labour; and M, migration.

\(^c\)Forest dependence: F, fuelwood; O, other edibles; N, non-timber forest produce; and H, housebuilding.

Source: Author’s compilation.
The forest had been here for generations and made us survive in both good and bad times. We are poor people, and the forest is the only asset especially kept for difficult times that we can inherit from our future generations. Our deities and ancestors live there. The forest has given us the rice fields to survive. No matter where we go, and what we accumulate these days, without forests, we will die. Some of our villagers sold the forest during tough times but that was possible only because we had it. Now the situation is better as compared to the hardships faced by our ancestors, and thus we are protecting the forest from the outsiders (people from other villages) for ourselves and our future generations. Even if they go and settle in cities, they will know that back home they have their forests.

In Sondhwa, the illegal trade of forest produces in the 1990s left the forest degraded. The absence of forest staff from the state’s Protected Forest turned the resource into a de facto open-access one. The traditional use of the forest by the people of Sondhwa and its four neighbouring villages turned into unrestricted forest use (including illegal trade). The outcome was forest degradation within around 10 years. People began to realize the scarcity and their potential hardships if they destroyed the abode of their ancestors and local deities, which always provided them refuge in times of famine as an economic buffer, further escalating worries about future generations’ survival in case of losing their common asset. The initial attempts by the people in Sondhwa were limited to informal discussions about the potential loss, eventually deciding to stop the neighbouring villages from using Sondhwa’s forest. The initial talks between the traditional village headmen remained inconclusive, and the others raised that the forest belonged to the Forest Department and it was no one’s property; also the inter-village forest use for fuelwood and collection of non-timber forest produce had continued for generations and could not be stopped. The inconclusive inter-village discussions made the people of Sondhwa approach the Forest Department to ask for protection for the ‘Protected Forest’, having a rough area of around 1000 hectares in 2001. A few months later, the forest guard informed the villagers about JFM.

4.1. JFM and the rationality of the state
Given the history of conflicts between the Forest Department and local communities, in the Hazaribagh region JFM was seen since the early 2000s as an instrument by the understaffed Forest Department to reduce forest-related conflicts between the people and forest staff. This helped the Forest Department to conserve forest resources from a distance due to difficulties faced by the violent conflicts between the forest staff and Naxals in the region (source: interviews with regional experts and forest officials). The programme envisioned the forest–community relationship, where people would be given usufructs such as grasses, lops and tops of branches, and minor forest produce. If they successfully protect the forests, they may be given a portion of the proceeds from the sales of trees when they mature. It proposes the preparation of the micro-plans which ‘should … reflect the consumption and livelihood needs of the local communities as well as provisions for meeting the same sustainably’ (as outlined in Section (D) of the JFM circular, MoEF, 2000). However, as per the guiding principles of the Ministry of Environment and Forests, one needs first to ensure the sustainability of the resources, and only then should matters such as the maximization of benefit to the gatherers and value addition come up. Interestingly, during an interview with the range officer in Daru Range, Hazaribagh, it came to the fore that the Naxal’s presence in the forests required the understaffed Forest Department to involve local communities to maintain their control over the forest. Overall, the programme framed the forest–community relationship centred around the forest resource, which is a property of the state, and communities (in a single village) on successful conservation (to be decided by the Forest Department) can share the material benefits accrued from the resource, that is, usufructuary rights and share in a forest timber sale.
In such a context, the implementation of JFM is seen by the forest staff as a success marked by the functional forest protection and management committees and forest conservation as an outcome. But for practitioners these committees are poorly functional because they do not address local resource distribution conflicts and livelihood issues arising due to the violation of customary rights (source: informal conversations with forest staff and practitioners). In short, on the one hand, the Forest Department and some conservationist groups promote JFM for its participatory design, while others see it as top down in both its design and implementation, thus finding it anaemic as compared with the already existing codified customary rights (source: based on expert interviews during the fieldwork). However, both these positions undermine the changes in livelihood needs due to regionally grounded developmental aspirations in Hazaribagh. But a focus on developmental aspirations enables us to see people’s engagement with JFM beyond the binary of customary and new forest institutions, evident in the everyday operationalization of the programme in Sondhwa.

4.2. JFM and the rationality of the local community

For the people in Sondhwa, the forest is their tbati, a resource that is inherited by the community through their ancestors and thus collectively owned and protected but also used in difficult times. Such a forest–community relationship was distinct from JFM. Despite being in distinction with JFM in terms of forest–community relationship framing (where the community sees itself as the owner of their shared valuable resource), a history of conflicts with the Forest Department and the poor material incentives (as compared with the customary rights) offered by JFM, people engaged with the programme and not rejected it. The locals showed interest in JFM as it legitimated their collective efforts to protect and regenerate their forests by preventing customary inter-village use of Sondhwa’s forest, otherwise resulting in the escalation of inter-village conflicts. The formal design of JFM coincided with the local interest of redefining the customary resource use boundary from an inter-village use of Sondhwa’s forests by the neighbouring Lothe, Saria and Churchu villages to the single village of Sondhwa. In 2002, a forest protection committee under JFM was formed in Sondhwa. The committee was comprised of 18 members representing the ethnic group of Santhals (n = 14; including four women), and caste groups of Bhuiya (n = 3; including one woman) and Mahatos (n = 1) in the village.

The committee since then has been functional in formal terms and reconstituted several times. The meeting of the JFM committee is formally scheduled once every three months, depending on the availability of the forest guard. Apart from the formal JFM meetings, people in Sondhwa gather for a weekly meeting on a Sunday in order to keep informed about the happenings in the area. In these weekly meetings, forest as an issue, in some or the other form, is always discussed, along with issues such as the functioning of women self-help groups in the village, conflicts with neighbouring villages, decisions about sowing and harvesting, etc. In one of the weekly meetings, the local women shared:

while we were struggling to search for the fallen twigs [for fuelwood], in our forest adjacent to Churchu, they [the women from Churchu] were shamelessly chopping the Sal [Shorea robusta] to fuel their hearths for making country liquor. We all shouted, and seeing our anger they just fled, leaving behind their head-loads and tangi [axe].

The weekly meetings also sensitize people to change their local practices of forest use for its sustainable growth. Some of the local measures taken are restricting the use of forest timber for fencing, restricting the use of forest timber only for household consumption and not for trade, collecting only dry and fallen timber for fuelwood, keeping a vigilance through village women and others (mostly village youth) interested in patrolling occasionally, etc. The non-compliance by the people of Sondhwa is penalized by members of the JFM committee, often
in the form of a village feast (the number of people to be feasted depends on the extent of the offence and the capacity of the offender).

5. DISCUSSION: HYBRID COMMUNITY FOREST MANAGEMENT IN THE HAZARIBAGH REGION

The case of JFM in Sondhwa village shows that CFM in Hazaribagh is governed by (1) the rationality of the state and (2) the rationality of the local communities. The two are distinct from each other in terms of perceiving the forest and framing the forest–community relationship. For the state, the forest is a resource upon which people are historically dependent for meeting their subsistent household needs. Thus, a promise of usufructuary rights, incumbent upon successful conservation by the community, can ensure the community’s participation and resolution of long-standing conflicts between the Forest Department and the local communities. But for the local communities, the forest is a resource that is collectively owned by them as they inherited it from their ancestors. It is an asset that can be used in difficult times (likewise in the 1990s in Sondhwa), but is otherwise protected for current and future generations. Thus, anything less than complete ownership does not completely resolve the conflicts between the Forest Department and the local communities. However, in the everyday operationalization of JFM, both these distinct rationalities overlapped and intersected on the issue of conservation in a single village (Foucault, 2008, p. 313). The overlap and intersection were facilitated by the changes in the regional context of Hazaribagh. The presence of Naxals in the forests of Hazaribagh made it difficult for the under-staffed Forest Department to manage its forests, while increased internal class differentiation in the rural communities and rising developmental aspirations amidst precariously placed livelihood opportunities made people realize the importance of their forests (thathi). Therefore, community forest institutions in everyday operationalization of JFM in Hazaribagh were a hybrid, formed by the overlap, and the intersection between the rationalities of the state and governed (Figure 3).

In practice, the state’s intention to discipline the conduct of the local community vis-à-vis the forests through JFM (Agrawal, 2005a, 2005b) was partially defied by the local community when they used JFM as an instrument to legitimate their collective action for forest conservation and circumvent conflicts with the neighbouring villages. However, the local community instead of going beyond the rationality of JFM (Cepek, 2011; Singh, 2013) reinterpreted it, evident through practices such as keeping the formal JFM committee functional along with informal

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**Figure 3.** Multiple rationalities and hybrid Joint Forest Management programme (JFM) in the regional context of Hazaribagh. Source: Author’s compilation.
weekly Sunday meetings. In so doing, the local community advanced their material claims (securing the forest asset), otherwise partially addressed by the institutional design of JFM. Such an engagement with JFM was an outcome of the local community’s agency evident through their interpretation of contextual and external factors as a process (Ravnborg, 2000, p. 8). Thus, the institutional design and its associated environmentality (Agrawal, 2001, 2005a, 2005b; Ostrom, 1990), along with regionally embedded developmental aspirations, ensured institutional participation in JFM to reconcile socio-ecological goals of CFM in Hazaribagh. The wider matrix of developmental aspirations amidst internal class differentiation and precarious livelihood opportunities in Hazaribagh reinforced the local perception of the forest as a *thatti*, a resource having both material and affective value, and motivated people to participate in JFM, despite their long-standing conflicts with the Forest Department.

6. CONCLUSIONS

To conclude, this article argues that regionally grounded developmental aspirations play an important role in influencing the local communities to negotiate and innovate with the institutional design of the CFM programmes to reconcile livelihood and conservation outcomes and achieve socio-ecological justice in regionally meaningful ways. For instance, there lies the Indonesian case where community practices are sidelined by the programme design (Li, 1996). In the case of some others, local difficulties in accommodating ‘heterogeneity of communities within communities’ as seen in the Southern African context by Stone and Nyaupane (2014), have been critical bones of contention. Even scholars such as Ojha et al. (2016) have evidenced the problems encountered by place/rule-based institutional designs in working with ‘delocalized’ communities in Australia, Indonesia, Mexico, Nepal and Papua New Guinea.

But in minor contradistinction to these studies, the case of Sondhwa in the Hazaribagh region, discussed in this paper, provides us a valuable lesson with which to focus on the local perceptions of the forest and forest–community relationships, amidst the wider matrix of expanding livelihood needs, growing internal class differentiation and developmental aspirations in the regional context. In fact, as evidenced here, JFM policy in Jharkhand, in its current form, aims at socio-ecological outcomes through an innovative institutional arrangement for CFM (Ostrom, 1990). However, such a policy’s associated ‘environmentality’ (Agrawal, 2005a, 2005b) needs to be attuned to the region-specific developmental aspirations, internal class differentiation and changing livelihood patterns. This means that a CFM programme needs to open up more avenues for a robust state–community interaction.

For policymakers, this would mean recognizing the forest as a resource that has both material and affective value for the communities, embedded within the regional networks of capital and power. Therefore, region-specific institutional arrangements for CFM must liaise with pre-existing institutions in order to devolve better service-delivery mechanisms. It would thus reconcile development and conservation outcomes to deliver a regionally meaningful, socio-ecological justice through CFM.

ACKNOWLEDGEMENT

The author acknowledges the contributions of Marcin Dabrowski, Smriti Das, Aditya Mohanty and two anonymous reviewers, who helped at different stages to make this article see the light of the day.
**DISCLOSURE STATEMENT**

No potential conflict of interest was reported by the author.

**FUNDING**

The data presented in the article were collected during the author’s doctoral research, funded by the Junior Research Fellowship, University Grants Commission, India [grant number 207/NET-JUNE 2013].

**NOTE**

1 All names of villages used in this article are changed to maintain the anonymity of the respondents.

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