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How Property and Civil Rights Help Forest Tribes Modernize and Prosper

Lessons from India

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EXECUTIVE SUMMARY

Do historically isolated forest tribes need protection from modernization? Critics claim that modernization, especially through dams and mining, is disastrous for tribes and that tribespeople cannot handle commercial life, are easily duped, and end up destitute. Some modernization projects have fueled Maoist insurrections. However, other examples show that tribes can join mainstream society and prosper if empowered with property rights and civil rights.

We researched the displacement of tribespeople by the Sardar Sarovar Dam in India in the 1980s and early 1990s and found that forced displacement using eminent domain should only be implemented where the public interest is exceptionally strong, as it was in this case. The Sardar Sarovar Dam project had a good rehabilitation package for the tribespeople: those who were displaced are much better off than their former forest neighbors in land ownership, consumer durables, and access to schools and hospitals. However, 54 percent of displaced people wished to return to their old habitat, showing that nostalgia for ancestral land can matter more than material goods. By contrast, a majority (56 percent) of displaced people under age 40 did not want to return. Nearby forest dwellers were asked if they would like to be "forcibly" resettled with the full compensation package. In two forest groups, 31 percent and 52 percent said yes. Clearly many, though not all, tribespeople yearn to leave the jungle.

Land in reserved forests is legally considered government property, and laws treat forest tribes in their ancestral lands as encroachers. The Indian Forest Rights Act of 2006 provided legal title to forest dwellers for land they had been cultivating as of December 2005. With nongovernmental organization assistance, tribes in Gujarat state used global positioning system devices to map their boundaries, superimposed these on Google maps from 2005, and thus claimed title. After getting title, tribes started using tractors. Many grow genetically modified cotton. They have quickly modernized.

The 2006 act also gave tribes property rights over bamboo in forests; other trees belong to state forest departments. Some tribes in Gujarat now supply bamboo to a paper mill and have earned $4.5 million in five years. With property rights, once penniless tribes have become prosperous plantation owners.

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“Some anthropologists and activists argue that tribespeople are so different from mainstream society that they require protection from modernization.”

INTRODUCTION

Much has been written on the adverse impact of modernization on historically isolated forest tribes of India. Studies have listed the devastation of tribes' traditional cultures and lifestyles, the duping of simple tribespeople with little understanding of markets or prices, the destruction of their habitat, and the trauma of displacement, which has been greatest in the case of dams and mining projects. Some anthropologists and activists argue that tribespeople are so different from mainstream society that they require protection from modernization.[1] They say that simple, heart-warming tribespeople can seem more civilized, that trying to modernize them can look like “savaging the civilized,” to use historian Ram Guha's phrase,[2] and that many Indian projects have been disasters for them.

In over 60 districts in 5 central Indian states—mostly in forest areas—Maoist insurrections have raged for decades, often fueled by tribal protests against development projects and deprivation of civil rights. These insurrections typically are led not by tribespeople but by educated nontribal Maoist ideologues; although leaders enjoy strong (though by no means unanimous) tribal support. The conflict in the Bastar region of the state of Madhya Pradesh is so deep that it has often been called civil war.[3]

Yet examples from Gujarat and some other states show that, provided their property rights and civil rights are respected, tribespeople can join mainstream society with surprising rapidity and prosperity.

INDIA'S TRIBES AND THEIR MAOIST CONNECTIONS

The British Raj created reserved forests through a series of laws that gave the government ownership of lands, trees, and minerals, facilitating the extraction of valuable timber (such as teak and rosewood) and the creation of new plantations. Tribes had lived in these forests for millennia, and the British forest laws allowed them to continue living there but with no ownership rights. In effect, the government's actions constituted nationalization of tribal property without compensation. Many tribes were still at the hunter-gatherer stage of development. The British Raj sought to extract timber and minerals while letting tribespeople live in their traditional styles, untouched by modernism. Ancient Hindu tradition looked down on forest tribes as “barbarians.” So, tribespeople that migrated to mainstream areas were at the bottom of the social ladder and frequently faced discrimination.

When India became independent and drew up its Constitution in 1950, it provided a list of tribes that it viewed as so backward and suffering from such deep historical disadvantages and discrimination that, as a measure of affirmative action, the country granted them a reserved quota of roughly 8 percent in government jobs, placement in educational institutions, and seats in state and national legislatures.[4] This facilitated the rise of a tribal elite, especially in hill states with tribal majorities. But most tribespeople remained in forests with little access to roads, schools, electricity, or health clinics.

The most isolated tribes had undeveloped cognitive abilities, no experience in handling cash or commerce, no knowledge of civil rights bestowed by law, and no access to the formal state administration. Forest officials and contractors for forest produce were able to pay off local police and became notorious for raping and plundering tribespeople with impunity. Although nontribal people could not own tribal land by law, in practice plainsmen in collusion with local officials acquired many of the best tribal lands. Many illiterate tribespeople, ignorant of commerce or land laws, parted with their land for a pittance without realizing what rights they were losing (rather like the Native Americans who sold Manhattan to the Dutch for $24).[5]

The 1960s saw the rise of Maoism across India, and the ideology found fertile ground in forest areas. The Maoists could pose as tribal protectors and so gain tribal support in their battles with the state. Maoists also found that deep forests with no roads were good for hiding

from the police. As they gained strength, the Maoists galvanized the tribes to oppose industrial and dam projects that entailed the destruction of forests and mountains historically inhabited by tribes and sometimes regarded by them as sacred. In the early 2000s, over 160 of India's 600-odd districts experienced some Maoist incidents.[6] Strong police action has checked that, but even in the first four months of 2019 no less than 53 Maoist attacks killed 107 people.[7] In Chhattisgarh, the state government recruited and armed a tribal vigilante group called Salwa Judum to combat the Maoists, and the result was virtual civil war.[8] The end of these conflicts is still not in sight.

Maoists are by no means the only ones seeking to redress tribal grievances. Many nongovernmental organizations (NGOs) have cropped up, leading demonstrations against forced displacement by dams or industrial projects. An outstanding example is the protest against the construction in the state of Gujarat of the Sardar Sarovar Dam, which displaced over 32,000 tribal families. The agitation greatly improved public awareness and obliged all state governments to offer vastly improved compensation and rehabilitation packages. Many activists have castigated implementation of the Sardar Sarovar Dam package. Yet our research shows that—despite flaws in resettlement—the living standards of displaced families are well above those of their former neighbors in the forest.[9]

PEOPLE CAN BE MADE BETTER OFF EVEN AFTER FORCED DISPLACEMENT

Activist groups such as the Narmada Bachao Andolan, led by Medha Patkar, have long claimed that tribespeople displaced by the Sardar Sarovar Dam and other large projects would be devastated economically and socially, lose access to forests and grazing grounds, and suffer social ostracism and humiliation in resettlement villages.[10] Other groups, such as the Independent Review Commission of the World Bank, popularly called the Morse Commission, have worried that forest communities used to subsistence agriculture would fail to cope with a shift to irrigated and market-oriented farming in resettlement areas; would get entangled in debt cycles, losing land to moneylenders or local landowners; and would suffer a forced end to their tribal customs and ways of life.[11]

Most tribespeople displaced by the Sardar Sarovar Dam were resettled in the late 1980s and early 1990s. The Gujarat government offered five acres to every adult male regardless of his earlier forest holdings (which the Forest Department viewed as illegally encroached) as well as additional compensation for loss of houses and livestock. The government identified large areas in the command area of the project where farmers (mostly of the dominant Patel caste) were willing to sell. With the help of NGOs, tribal groups were shown the available areas and chose compensatory land, which the government then purchased for them.

Many studies of resettlement were done in the 1990s, but these typically failed to distinguish between transitional and final outcomes. Nor did they seek to establish a counterfactual: How well off would the oustees have been had the dam not been built?[12] To find answers, we adopted a novel approach in our research by comparing the living conditions of resettled tribespeople with those of their former neighbors in semi-submerged villages above the water line. This gave us a reasonable idea of how well off the oustees would have been without the dam. We also surveyed a third group of tribal villagers in the forest interior within 15–20 kilometers of the project-affected area who therefore had a good idea of the resettlement issue. We surveyed randomly selected samples of 400 households in each of the three areas.

The surveys show unambiguously that the resettled villagers were better off in asset ownership and several other parameters and that many of the villagers had managed the social strains of transition.

For the resettled, semi-submerged, and interior villages, the ownership rates of bicycles were 65 percent, 31 percent, and 48 percent, respectively; the ownership rates of motorcycles

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"The resettled families lived in houses with superior construc-tion."

Table 1
Asset ownership

Household items	Resettled (%)	Semi-submerged (%)	Interior villages (%)
Bicycles	65	31.4	48
Motorcycles/scooters	61	30.7	46
Four-wheelers	2	0.2	0.2
Radio/tape recorder	10	4.7	7.7
TV, black and white	7.7	1	4.7
TV, color	38.7	23.4	35.8
Cable connection	24.4	13	19.4
Refrigerator	15.5	14.2	20.9
Gas connection	23.9	10.5	18.7
Sewing machine	7.2	2.7	5.5
Mobile phone	87.8	58.6	74.6
Bank account	95.5	74.3	96.3

Source: Authors' fieldwork as described in Swaminathan S. Anklesaria Aiyar and Neeraj Kaushal, "Are Resettled Oustees from the Sardar Sarovar Dam Project Better Off Than Their Former Neighbors Who Were Not Ousted?," National Bureau of Economic Research Working Paper no. 22434, March 2018.

and scooters were 61 percent, 31 percent, and 46 percent; and the ownership rates of mobile phones were 88 percent, 59 percent, and 75 percent (see Table 1). Similar patterns were evident for a host of other assets (radios, TVs, refrigerators, four-wheelers, sewing machines, and gas and cable connections). As many as 96 percent of the resettled families and those living in interior villages had bank accounts compared with 74 percent of families in semi-submerged villages.

The resettled families lived in houses with superior construction (see Table 2). They had more electricity as well as more drinking and running water than the semi-submerged villagers. On some parameters the interior villages were the best off, since two of them were close to an office of the Gujarat Mineral Development Corporation (GMDC), which provided them access to electricity, hospitals, and running water.

Occupational Patterns in the Three Groups

Our research on the occupational patterns of people in the resettled and forest villages

Table 2
Housing type

Housing	Resettled (%)	Semi-submerged (%)	Interior villages (%)
Mud-thatch shanty	26.7	65.3	37.1
Semi-brick shanty	54.9	31.2	50.1
Brick-cement house	18.5	3.5	12.7
Have electricity	94.5	70.8	93
Have running water	46.4	37.4	65.2
Have drinking water	45.1	33.4	67.4

Source: Authors' fieldwork as described in Swaminathan S. Anklesaria Aiyar and Neeraj Kaushal, "Are Resettled Oustees from the Sardar Sarovar Dam Project Better Off Than Their Former Neighbors Who Were Not Ousted?," National Bureau of Economic Research Working Paper no. 22434, March 2018.

contradicts the critics' claim that naïve tribespeople would not be able to cope with the challenges of resettlement and would be pauperized. The Morse Commission, for example, had said, "The most serious threat to achievement of resettlement and rehabilitation policies may well lie in entanglement in debt cycles, and the resultant loss of land to money lenders or local landowners."[13]

Our survey findings contradict the concerns of many activists about the ability of oustees to keep government-allocated land (see Table 3). Three decades after resettlement, most families (86 percent) were landowners engaged in farming. Only 4 percent were agricultural laborers, at the bottom of the occupational ladder. Land ownership (including encroached land) was substantially lower among families in semi-submerged (65 percent) and interior villages (58 percent), where people were much more likely to work as agriculture laborers (many migrated seasonally out of the forest to mainstream villages in the nontribal, upper-caste, irrigated districts).

In qualitative interviews, some resettled families reported leasing out their land and working as laborers because the land they received was of poor quality or because of water scarcity.[14] On the other hand, in townhall meetings and one-on-one interviews, some oustees said they leased in additional land for cultivation. One oustee family that owned 15 acres of land had already leased in an additional 25 acres of land for cultivation. Another family that owned 7.5 acres had leased in an additional 10 acres, all from upper-caste Patels, who were miles above them in the social hierarchy. This represented a major turnaround in caste relations.

The resettled families differed from the other groups in terms of their agricultural practices (see Table 4). The semi-submerged and interior village groups grew mostly coarse grains (sorghum, pearl millet, maize) and lentils, which require no irrigation or expensive purchased inputs (such as fertilizers, pesticides, or genetically modified seeds). The resettled villagers had much larger areas under crops requiring purchased inputs and irrigation (rice and genetically modified cotton) and were more likely to own tractors, threshers, and pumps. The resettled villagers were greater users of pesticides, insecticides, fertilizers, and manure than the other groups. While resettled villagers were more likely to own milch animals, the respondents in semi-submerged villages were more likely to own sheep or goats and poultry (see Table 5). The resettled villagers had a lower ownership of bullocks (used for plowing) than the semi-submerged villagers, indicating greater use of tractors. Higher ownership of sheep and goats in forest villages indicates easier access to grazing land. Milch animals are far more valuable than sheep and goats, and high ownership of these by resettled villagers indicates better access to cattle feed and milk marketing facilities.

"Our survey findings contradict the concerns of many activists about the ability of oustees to keep government-allocated land."

Table 3

Occupation of the respondent

	Resettled (%)	Semi-submerged (%)	Interior villages (%)
Landowner, self-cultivation	82.5	64.6	58
Landowner, tenant cultivation	2.7	1.7	1.2
Agricultural laborer/marginal farmer	4	22.9	21.6
Laborer, nonagriculture	1.2	2	6.7
Other	1.2	0.2	1

Source: Authors' fieldwork as described in Swaminathan S. Anklesaria Aiyar and Neeraj Kaushal, "Are Resettled Oustees from the Sardar Sarovar Dam Project Better Off Than Their Former Neighbors Who Were Not Ousted?," National Bureau of Economic Research Working Paper no. 22434, March 2018.

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Table 4
Agricultural practices

Percentage of villagers growing different crops			
	Resettled	Semi-submerged	Interior villages
Toor lentils	77.1	64.3	60
Sorghum	10.2	9	14.7
Pearl millet	15.2	34.7	40
Maize	76.3	81.8	66.9
Rice	20	10.2	14.4
Wheat	3	6.2	3
Cotton	54.4	20.7	44.8
Percentage of villagers using purchased inputs			
	Resettled	Semi-submerged	Interior villages
Pesticides/insecticides	93	67.3	85.3
Fertilizers	86	52.4	78.1
Manure	84	78.6	78.9
Percentage of villagers using farm equipment			
	Resettled	Semi-submerged	Interior villages
Tractor	6	0.5	2.5
Tresher	3.5	0.5	0.5
Pump/private borewell	16	13.5	11.4

Source: Authors’ fieldwork as described in Swaminathan S. Anklesaria Aiyar and Neeraj Kaushal, “Are Resettled Oustees from the Sardar Sarovar Dam Project Better Off Than Their Former Neighbors Who Were Not Ousted?,” National Bureau of Economic Research Working Paper no. 22434, March 2018.

Table 5
Animal husbandry

	Resettled (%)	Semi-submerged (%)	Interior villages (%)
Milch animals	74.1	65.3	58.7
Bullocks	59.1	67.6	56.2
Sheep/goat	20.7	39.2	25.9
Poultry	8.7	18.5	12.9

Source: Authors’ fieldwork as described in Swaminathan S. Anklesaria Aiyar and Neeraj Kaushal, “Are Resettled Oustees from the Sardar Sarovar Dam Project Better Off Than Their Former Neighbors Who Were Not Ousted?,” National Bureau of Economic Research Working Paper no. 22434, March 2018.

Access to Nearby Government Facilities

Table 6 shows that resettled villagers had better access to nearby government facilities than semi-submerged villagers. Access to public borewells was lower for resettled villagers, who were better off, however, thanks to free canal irrigation and (in noncanal areas) to their own borewells and pump sets. As for education, 99 percent of the resettled sample had access to schools compared with 51 percent in semi-submerged villages and 77 percent in interior villages. The interior villages had better access to public borewells, health care centers, hospitals, and community centers/panchayat offices, largely because of their proximity to GMDC mines.

Table 6

Access to government facilities

Facilities	Resettled (%)	Semi-submerged (%)	Interior villages (%)
Public borewell	25.7	29.9	46
School	99	51.1	76.9
Public health care	37.4	12.5	40.8
Hospital	14	3.5	30.1
Panchayat office/community center	36.7	31.9	58

Source: Authors' fieldwork as described in Swaminathan S. Anklesaria Aiyar and Neeraj Kaushal, "Are Resettled Oustees from the Sardar Sarovar Dam Project Better Off Than Their Former Neighbors Who Were Not Ousted?," National Bureau of Economic Research Working Paper no. 22434, March 2018.

Social Impact of Tribal Displacement

Many activists said tribespeople had a completely different culture and social ethos from people in mainstream society. Resettlement, they feared, would destroy the culture and traditions of tribespeople, who would also be ostracized or discriminated against. As the Morse Commission warned: "There are social and cultural factors that could well determine the long-term outcome of a resettlement and rehabilitation program."[15]

We found, however, that a majority of resettled villagers said they were able to adjust to new conditions within a few years, had harmonious relations with the higher-caste folk in their new villages, and had not suffered discrimination or hostility (see Table 7). A minority held contrary views. More villagers than not said they sometimes felt uprooted and socially isolated by their displacement. In one-on-one interviews, the resettled tribespeople mentioned that their first two years were often difficult because they had to learn new techniques of growing crops such as paddies. But they learned rapidly, mostly from local agricultural laborers. Their transition to modern agriculture was short and relatively smooth, contrary to critics' dismal predictions.

What was the impact of resettlement on the religious practices, customs, and rituals of the ousted families? Three decades after resettlement, 60 percent of the ousted families report that rehabilitation has had no effect on their religious practices, 56 percent say their traditional customs and rituals remain unaffected, and 58 percent report no change in their social status (in other words, they have not been consigned to the bottom of the village social hierarchy). (See Table 7.) While villagers are split on these issues, the overall picture is not discouraging.

In one-on-one interviews, many resettled villagers voiced a variety of complaints about their resettlement. The most significant grievance came from men who had been under age 18 in the rehabilitation package cutoff year and therefore received no land whereas their older brothers and parents had received five acres each. Many said that they had not been given jobs as promised. Others complained that they had not received grazing land for their animals.

Given a choice, would resettled tribespeople prefer to go back, and would those still in the forest prefer to leave and be resettled? Our findings to these questions are possibly the most novel part of our research. Many studies have examined the condition of displaced villagers.[16] We are the first to have gone directly to tribal villagers still in the forest and asked whether they would prefer to be ousted from their natural habitat and be resettled with the government's full compensation package (see Table 8).

As Table 8 shows, we asked resettled villagers whether, given the choice, they would prefer to go back to their old villages with the same land they had earlier. A majority (54 percent) said they would like to return to their former villages. This suggests that material possessions are not the only criteria for location preference:

> "No official maps or land records existed in most areas since tribal farms had been viewed as illegal encroachments."

> “Gujarat tribespeople say that having formal title to their land has made a significant difference in terms of their status and quality of life.”

Table 7

Social impact: Views of the resettled

	Agree (%)	Neither agree nor disagree (%)	Disagree (%)
There is no change in our religious practices after rehabilitation.	60	20	19
There was no change in the traditional customs and rituals after rehabilitation.	56	21	21
There is no change in our rituals and practices after rehabilitation.	58	20	22
We have adjusted well in this new village and face no discrimination from the villagers.	57	19	24
Our attire has changed after resettlement and we prefer it.	52	25	22
Inter-caste marriages have gone up.	51	20	28
There has been an increase in the dowry in marriages.	44	20	36
We are now allowed to pursue an economic activity apart from doing household chores.	61	25	14
At times we feel that we have been socially cut off and uprooted after moving out of the dam-affected area.	44	39	17
There is no change in our social status.	58	19	22

Source: Authors' fieldwork as described in Swaminathan S. Anklesaria Aiyar and Neeraj Kaushal, "Are Resettled Oustees from the Sardar Sarovar Dam Project Better Off Than Their Former Neighbors Who Were Not Ousted?," National Bureau of Economic Research Working Paper no. 22434, March 2018.

attachment to one's ancestral land and access to forests can be more important. However, a majority (56 percent) of resettled villagers under age 40 did not want to return, demonstrating a generational divide on this issue.

We also asked the semi-submerged and interior villagers whether, given the option of the resettlement compensation package, they would like to be displaced and resettled: 31 percent and 52 percent, respectively, answered in the affirmative. Clearly, a significant proportion of tribal groups, and in some cases a majority, want to leave the forests and join mainstream society. While these figures do not amount to an endorsement of forced resettlement, they do indicate a growing diversity of opinion within tribal communities and the potential for integration.

Next we offer other examples of how tribes have adapted and modernized quickly when empowered to do so. These show that the displaced tribes from the Sardar Sarovar Dam are not isolated examples of adaptability.

LAND TITLES FOR TRIBESPEOPLE

Historically, the government takeover of reserved forests legally converted forest dwellers into encroachers on the same land they had occupied for centuries. Their villages and farms have therefore always been at risk of demolition by state forest departments. After repeated protests by NGOs and tribal groups, the government enacted the Forest Rights Act in 2006. This provided tribal villagers formal legal title to all the land they had been cultivating as of December 2005.

This was a major step toward empowering hitherto disempowered tribes, but the act's implementation was weak and fitful. Forest departments were enormously reluctant to give up their rights. No official maps or land records existed in most areas since tribal farms had been viewed as illegal encroachments. Semi-literate villagers were supposed to fill out long forms and file claims and were not always up to this task unless they had NGO assistance. No fewer than 128,000 of

Table 8

Given a choice

	Agree (%)	Disagree (%)	Neither agree nor disagree (%)
RESETTLED VILLAGERS: If the government offers the exact amount of land you had earlier in the higher unsubmerged part of your old village in exchange for the land you have today, you will accept it.	54	30	15
SEMI-SUBMERGED VILLAGERS: I would be willing to give up my land and livestock and accept the government's rehabilitation package today.	31	53	16
INTERIOR VILLAGERS: I would be willing to give up my land and livestock and accept the government's rehabilitation package today.	52	35	13

Source: Authors' fieldwork as described in Swaminathan S. Anklesaria Aiyar and Neeraj Kaushal, "Are Resettled Oustees from the Sardar Sarovar Dam Project Better Off Than Their Former Neighbors Who Were Not Ousted?," National Bureau of Economic Research Working Paper no. 22434, March 2018.

Note: Neither agree nor disagree also includes those who did not answer the question.

"Forest laws from the 19th century onward gave all timber to the state government."

the 182,000 tribal claims filed in Gujarat were fully or partly rejected. Even in the accepted cases, only part of the claimed area was approved. Action Research in Community Health and Development (ARCH) and other NGOs appealed to the High Court of Gujarat. The court summoned the Gujarat state government and demanded a review of claims, allowing the government to use many more types of evidence (including satellite images from Google Earth as well as India's National Remote Sensing Centre) to establish their ownership of the land.[17]

This opened the path for redress. Yet the government's official survey method, known technically as triangulation, to establish the boundaries of each farm plot required sophisticated equipment and staff that villagers had no access to. ARCH came up with the idea of using handheld global positioning system (GPS) devices that cost $200 (or 12,000 Indian rupees) apiece. Holding a GPS device, a villager simply walked around the perimeter of a plot and pressed some buttons. The device then automatically sketched a map of the farm, with the exact latitude, longitude, and area.

This enabled every family to produce a map of its holding and have it verified by the village council. All individual maps were then put together like a jigsaw puzzle to create a full map of all cultivated village land. This map was then superimposed on a satellite image of the village in December 2005, showing clearly whose plots were under cultivation at that time. The map also revealed where the government had encroached on these plots after December 2005, which helped convince the Gujarat Forest Department of the process's credibility. These maps were uploaded to the internet, empowering villagers to go to an internet café in a nearby town and print a copy of their plots. This ended some tribes having to get land documentation from bureaucrats, who typically demanded bribes for any assistance. The maps were filed, along with other evidence of ownership (such as revenue receipts) with the government for title.

The new approach yielded far better outcomes. Government acceptance of claims in Gujarat went up to 61 out of 63 in one village and 96 out of 112 in another.[18] But progress was often slow in other villages in the state. And in several other states, other tribes (with NGO assistance) used the same mapping approach, but implementation was patchy and slow and remains virtually impossible in Maoist-afflicted areas.

Gujarat tribespeople say that having formal title to their land has made a significant

> "Tribespeople became successful plantation managers after receiving back just part of the property rights that were earlier nationalized without compensation."

difference in terms of their status and quality of life. They are no longer treated as encroachers and are entitled to all government schemes for agriculture, including leveling land and digging wells under the government's rural employment program. Earlier, the Gujarat Forest Department banned tractors from entering forest land. But after getting ownership recognition, many tribespeople say they hire tractors (on 90 percent of plots in one village) because they are faster and cheaper than bullock plowing. These tribespeople have no attachment to traditional agricultural lifestyles and practices: they seek to modernize quickly.[19]

HOW PENNILESS TRIBES BECAME PLANTATION OWNERS

Forest laws from the 19th century onward gave all timber to the state government. Tribes in the affected regions could only use minor forest produce, such as fruit, herbs, seeds, and grasses. Forest departments treated bamboo, a valuable input for paper mills and other uses, as timber (which they owned) and not a grass (which tribespeople would have owned). Even though produce designated as "minor," such as sal seeds (used by chocolate companies) and tendu leaves (used in beedis or thin cigars), technically belonged to forest dwellers, many state governments formed state trading agencies with exclusive trading rights. These agencies allowed the government to effectively become owners of minor produce, with tribespeople merely acting as collectors.

A major change came with the Forest Rights Act of 2006, which defined bamboo, tendu leaves, and several other marketable items as minor forest produce; gave traditional forest dwellers rights of ownership; and granted them access to collect, use, and dispose of minor forest produce, which had been traditionally collected within or outside village boundaries. The Supreme Court of India also decreed in a separate case that bamboo was a grass, not a tree, and hence belonged to tribespeople. Nevertheless, forest departments in many states have continued treating bamboo as government property.[20]

Change is coming, though not fast enough. In Dediapada subdistrict, Gujarat, many bamboo groves flowered in 2009. Bamboo dies after flowering, so vast amounts of dead, dry bamboo littered the forest floor, becoming a major fire hazard. This persuaded reluctant forest officials in 2013 of the urgency of allowing tribespeople to collect and sell fallen bamboo to the nearby JK Paper mills. Initially, 12 tribal village councils (gram sabhas), aided by NGOs, negotiated a selling price of $43.30 (or 2,815 Indian rupees) per metric ton with the mill for fallen bamboo, delivered to the roadside for trucks to lift. Deals are now negotiated every year. The number of villages supplying bamboo has risen to 31. In the four years after fiscal year 2013–14, villages supplied $4.39 million worth of bamboo to the paper mill. Wages paid to villagers came to a little under $3 million, and the net profit of village councils was $1.58 million. These profits were deposited in a bank and are plowed back into soil and forest conservation, planting bamboo in degraded forests, replanting bamboo in the dead areas, and creating vegetation-free fire lines to check forest fires. JK Paper, which once received bamboo from the Gujarat Forest Department, was formerly viewed as a foe of tribespeople, depriving them of bamboo. But now the company provides high-yielding clonal bamboo cuttings to encourage and expand production. The tribespeople's former foe has become their new ally in development.[21]

Once penniless tribespeople became successful plantation managers after receiving back just part of the property rights that were earlier nationalized without compensation. It shows that activists who sing praises of traditional forest life may be unwittingly advocating the prevention of tribes' attaining the prosperity they want and deserve. If all state governments adopted policies similar to that adopted in Gujarat, the future of forest tribes would be bright. This is clearly a better way forward than Maoist civil war at the state level.

CONCLUSION

Our study has two major conclusions. First, while forced displacement is undesirable save in projects with a very high public interest and benefit-cost ratio, Gujarat has demonstrated that it is entirely possible to implement rehabilitation packages that leave the oustees substantially better off in material terms. The dire predictions of anti-dam activists have proved false or hugely exaggerated.

At the same time, 54 percent of the resettled villagers we surveyed said they would like to return to their old habitat, proving that material goods are not everything. This buttresses the case for limiting forced displacement to only the best projects with wide public benefits.

Second, our study emphatically disproves activist claims that tribespeople have such a different ethos and lifestyle that they will be devastated and impoverished if relocated to mainstream villages, or otherwise made subject to the forces of modernization. It is telling that of two tribal groups still living in the forest, 31 percent and 52 percent would like to be resettled with a package similar to the one that the Gujarat government granted the oustees from the dam. The ownership of cellphones, bank accounts, and biometric identity cards is close to universal in the resettled villages. It is high even in the semi-submerged and interior forest villages, showing that in these regions there remains an eagerness to modernize.

Far from losing their land to upper-caste Patels, as the Morse Commission and several other activists predicted, many oustees have leased land from the Patels to expand their cultivated areas.[22] The problem with many of the earlier studies that these activists use to support their claims is that such studies focused on the many transitional problems that displaced tribespeople faced without paying equal attention to the benefits that they enjoyed as a result of their resettlement. As one academic put it, "When someone says that the tribals have a different culture and that their culture must be preserved, it is a denial of their right for development."[23]

Anti-dam activists have something in common with the Luddites of the 19th century who smashed textile machines, fearing that these would destroy the traditional livelihood, culture, and lifestyles of handloom weavers. While well-intentioned, the Luddites failed to see that succeeding generations of textile workers would be very happy that they had shifted to modern machines with higher productivity and wages. Technological change creates millions of beneficiaries with higher standards of living than their forebears. Our research shows that when forest tribespeople become aware of the benefits of decent resettlement, a significant proportion (and sometimes a majority) actually envy those who have been ousted and would like the same fate.

In Gujarat and other states, tribespeople have speedily learned to use GPS instruments and Google Maps and to make use of internet cafés to support their claims to land titles: 31 tribal villages in Gujarat have, in effect, become bamboo plantation owners, supplying bamboo on commercial terms to paper mills.

All humans were tribespeople for 99.9 percent of their history. Some of us came out of the forest a few hundred or thousand years ago, a tiny period on the evolutionary scale. Those left behind are not museum pieces to be preserved. They can catch up quickly if empowered. To treat them as fundamentally different is paternalistic elitism.

"Tribespeople have speedily learned to use GPS instruments and Google Maps to support their claims to land titles."

NOTES

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