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Remote Rural Communities Grapple with Global Environmental Agendas

Few mountain communities remain untouched by the influence of globalization. Until just 30 years ago, the village of Jardhar in Garhwal, India, in the middle Himalaya led an isolated existence, living from a composite agroecology that ensured a high degree of food security and ecological sustainability. Certain events—forest degradation, the Chipko *resistance movement (tree hugging), the introduction of Green Revolution farming, and the building of the large Tehri dam nearby—ended this isolation and, in the process, disrupted Jardhar's social and ecological cohesiveness. The present article argues that the global conservation ethic and global development are, in certain circumstances, detrimental to local interests: they transfer costs from powerful urban centers and demand sacrifices from fragile mountain communities. The story of Jardhar illustrates how this global politics is played out in a remote mountain village, and what lessons it has for both policy makers and communities.*

A society in transition

On the road that snakes through the slopes of Jardhar (78.35° E, 30.32° N), young boys on motorcycles, the ubiquitous cell phones slung around their necks, weave their way around women carrying head-loads of grass, men walking up with sacks of freshly harvested grain, and mules carrying cooking gas cylinders. Many of these boys are visitors: most work as urban laborers in far-off cities, while their families continue traditional livelihoods based on farming in the terraced fields or extraction of forest produce. Clearly, this is a rural society in transition.

This transition from subsistence ecology to commodity production has several implications. What triggers the process of change and what are the impacts of this change on social and environmental relations in Jardhar? What do local people think about change? To explore the issues at stake, group discussions and interviews were conducted with members of 15 households (key informants), as well as informal interactions with over 50 individuals out of a total population of about 3000.

FIGURE 1 A sustainable agroecological system: the forest is not just a source of food, fuel, and fodder; it also keeps the stock of seeds robust and resilient. (Photo by Pankaj H. Gupta)

A heritage of resistance

What makes the story of Jardhar *gaon* (village) compelling is its resistance to the onslaught of commercial agriculture. Spearheaded by the *Beej Bachao Andolan* (BBA) or Save-the-Seeds Movement, people in Jardhar and other villages of the Hemval River valley have been trying to protect their indigenous crop diversity. They are currently also engaged in trying to prevent the introduction of genetically modified crops into their already endangered ecology.

Group members include Dhum Singh Negi, Sudesha Devi, and Vijay Jardhari, local thinker-activists who, along with the late Kanwar Prasun, had participated in the *Chipko* movement in the 1970s and 1980s. *Chipko* was a people's movement triggered by discontent over the opening of felling rights to contractors from outside the region, a change in state policy that weakened the community's control over their forests. *Chipko* began as a way to assert local rights over forest extraction, but its 'success' was ensured only by its global conservationist appeal—attracting academics, activists, and writers from distant lands. Coinciding with the emerging global debate on environmental issues that started with the Stockholm conference, *Chipko* found a receptive audience among India's policy makers, culminating

FIGURE 2 Women's work: most farming processes are mastered by women in Garhwal. (Photo by Pankaj H. Gupta)

in the enactment of The Forests Conservation Act of 1981, which effectively banned commercial felling in all upland areas. While environmentalists hailed this legislation as a victory, mountain people were clearly disgruntled, as it ended a significant source of income for them.

Though the areas immediately around Jardhar had no significant interest in commercial felling, these local activists saw in the fervor around *Chipko* a chance to mobilize people about local concerns, in particular the disruption of the self-contained economy and consequent outmigration.

A history of sustainable agroecology

Jardhar was long an isolated, remote settlement. In other parts of Garhwal, people were located on the trade route to Tibet or engaged in activities such as commercial extraction of timber, medicinal plants, and minor forest produce. But the people here only farmed and reared cattle. Stray trade, where it took place at all, was in domesticated animals: goats, cows, and sheep were occasionally bartered for clothes, salt, and very basic materials; this required making the long downhill trek to Rishikesh, more than 60 km away. Life was frugal, the working conditions and topography were tough, there was no surplus, and despite being far from idyllic, it was an egalitarian society where nobody went hungry. Nearly everyone, including the few non-farmers such as masons and musicians, had access to some cultivable land.

Humans, forests, livestock, and agriculture formed an interdependent ecology. Animals converted forest grasses into milk, draught power, and soil nutrients; the forest provided construction material, firewood, fodder, and water; human activity ensured that forests did not become 'overgrown' and harbor predatory mammals. It was also at the interface of the forest and cultivated lands that newer, robust, and varied crops developed, resulting in a wealth of plant diversity (Figure 1). Even gender roles complemented the production cycles: the men led a semi-nomadic life grazing cattle on the lower slopes in winter, returning to the higher mountains in the monsoon season, and helping with plowing and harvesting in between. The women were responsible for other farming activities, fetching firewood and fodder, and were the primary agents of seed preservation and propagation, keeping the diverse stock of seeds resilient and robust—an essential feature of subsistence farming (Figure 2).

Decline of farming and the birth of a monetized culture

Except for the risks of potential resource overuse, this interdependent ecological system was eminently sustainable and ensured a high degree of food security. Yet it began to break down in the early 1970s. The immediate cause of the crisis was the degradation of the village forest, for which the villagers blame lack of proper community management of fodder and firewood extraction, and overgrazing by alien, nomadic tribes. The urge to derive cash income also played a part in this: as the villagers shifted from free-range cows to high-yield, stall-fed buffaloes, they altered the demand profile from the forest. It is also likely that unregulated access facilitated firewood sales.

Forest degradation set off a series of adverse impacts: villagers had to go further for firewood, water, and fodder, leaving less time for farming. Food produc-

"There was no trade in seeds. Our brides brought seeds with them, and when they went back home on visits, they took with them seeds from here. In this way, seeds were exchanged." (Dhum Singh Negi)

"People used to be caring and helpful. But only money works now. The village has changed, its people have changed." (72-year-old Bachni Devi)

tion dropped significantly—from enough throughout the year, to less than 10 months. With no cash income, this created a crisis of survival. Households responded by opting for outmigration.

With no particular skills to offer, the men who went to the cities earned very little, but even meager remittances were crucial at home. Over time, each household lost more than one male member to the city—leaving old parents in the care of the younger women, who continued with farming activities as best as they could. With fewer men, cattle-rearing was dramatically reduced: the variety and number of livestock was reduced to just 1 or 2 buffaloes, directly affecting soil quality. As firewood was replaced by petroleum cooking gas, forests became 'overgrown' and the population of wild mammals such as monkeys, bears, and wild boar went up dramatically. These animals often attacked standing crops.

Besides these environmental impacts, the introduction of the monetized economy had a dramatic effect on relationships. Marked social differentiation emerged based on monetary values, as the basis of existence moved from food to financial security, from community cohesiveness to individual self-interest. Even borrowing oxen from a neighbor—essential for plowing—now had to be paid for. On the prized irrigated valley floor, families began to hire out land for commercial farming. Rice and wheat began to be replaced by soybean and tomato, grown with pesticides and synthetic fertilizers. By 2007, farming by Jardhar villagers had shrunk to half of what it was just 30 years before, especially the more labor-intensive kind practiced in the rainfed homestead gardens that produced a diverse range of food crops.

FIGURE 3 *Beej Bachao Andolan* helps conserve the vast crop diversity of the region. (Photo by Pankaj H. Gupta)

Global environmentalism in Jardhar

The roots of the change that are evident in Jardhar today go back to the 1970s, a time of momentous happenings in the social space of Garhwal and neighboring Kumaon. This was the *Chipko* movement. The mantle of *Chipko* was again resurrected in Jardhar a decade later, this time as a reaction to the diffusion of the Green Revolution in the mountains, which, despite such technologies being clearly inappropriate in a mountain context, was being aggressively promoted by the state to increase food availability in cities and to keep food prices low.

High-yielding varieties of seeds, fertilizers, and pesticides began to be pumped into a region that had thus far based its agricultural sustainability on seed preservation, compost and crop diversity. The government even set up a branch of its agriculture institute near Jardhar, and farmers were offered hybrid seed varieties of rice for field trials. Even though the community had a wealth of over 80 varieties of rice and over 200 kinds of beans (Figure 3), many farmers were attracted by the prospect of higher and faster yields. The sole exception was Vijay Jardhari, a practicing farmer and BBA activist whose credo is self-reliance for farmers (Figure 4):

> *"A farmer's independence can only be ensured if he keeps his own seed, otherwise he is just a slave of the company or the government. What kind of new seeds are these that cannot be kept for the next crop!"*

Local responses

Despite 20-odd years of courageous struggle, BBA has been more inspirational at a global level (a Google search reveals 585 links). Part of the reason is that its choice of rhetoric, as with *Chipko*, is influenced by global environmental discourse. However, its message has failed to impress its own people. Farmers here grow hybrid rice, while the youth of Jardhar have ambitions beyond life in the village, and livelihood options that extend from driving tourist cabs to working in city hotels—all of which yield tangible cash incomes that subsistence mountain agriculture cannot.

The men who visit 'home' periodically bring with them the aura of a wider world. With exposure to urban cultures, physical work has been devalued. Today, a more permanent form of migration is being driven by the desire for English-medium education and outsourced IT jobs, with whole families prepared to move to the urban fringes to achieve these ambitions. The local service and trade sector has also grown, fueling urban-based service occupations in nearby towns like Chamba and New Tehri.

Conclusions

1. The power of global environmental discourse is pervasive and operates at several levels. It influences national governments to formulate policies that are often insensitive to fragile rural ecologies; it also conditions the arguments of local movements. *Chipko* echoed the global green agenda of the 1970s and 1980s, specifically that of conservation of forests and wildlife. *Beej Bachao Andolan* reflects the global emphasis on biodiversity of the 1990s. In the 21st century, as climate change takes center stage in the global environment debate, forests—in order to fulfill their 'carbon sink' function—could be made even more inaccessible. Again, it is local communities like Jardhar that will be the vanguard of a revolution not of their making.
2. While environmentalism helps to transfer the environmental costs of urban consumers to communities (eg by blocking their access to forests, or by protecting wildlife even when it destroys their crops), the global development agenda also sustains economic growth in urban centers by facilitating the supply of cheap goods and labor from the mountains, even at the cost of a precious mountain ecology and way of life.
3. Most development discourse tends to focus on the material aspects when looking at solutions for communities under stress. Yet decisions taken by members of such communities are also—perhaps even more so—influenced by their cultural impulses. Ignoring these cultural factors can result in inappropriate efforts, as for example the failure of BBA in finding an audience among the younger population within the region.

Recommendations

Can Jardhar *gaon* turn its brush with globalization into an advantage? Its rich biodiversity, its potential to grow many organic crops, and now a growing pool of talent with urban skills could give the village advantages even as it battles to survive. There are 2 possible pathways it could take.

In similar circumstances, many mountain communities are learning to live with a market economy: the state or development agencies help 'build capacities' of subsistence communities to move to commodity production, though the process typically benefits only a few.

However, if an egalitarian society and ecological balance are the goals of sustainable development, then perhaps Jardhar could evolve its own response: persist with its subsistence ecology and grow its own food, while also practicing commodity production on the margins that will bring in some cash income. But for this model to succeed, the local community should be free to manage its natural resources—in this case the forests—in ways it considers are the best.

FIGURE 4 Vijay Jardhari, a practicing farmer and the voice of *Beej Bachao Andolan*. (Photo by Pankaj H. Gupta)

"The difference is in mental power.... A person doing physical work is paid Rs 80 a day (US$ 2) but a computer operator gets Rs 1000 (US$ 25)." (Mukesh, a 15-year-old volunteer in a UNESCO-funded community radio initiative in Chamba)

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