CONSERVATION & ADAPTATION MINUS RIGHTS

Exploring forest governance in a Trans-Himalayan valley of Himachal Pradesh

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ABOUT THIS DOCUMENT

This is a working research paper cum advocacy report authored by Manshi Asher, Himshi Singh and Prakash Bhandari.

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SECTIONS

ABSTRACT

Forest 'degradation' in the Himalayan region has been a preoccupation of conservation policies of the State. Though 'joint forest management' gained prominence in the late 1980s, the thrust of mainstream Himalayan conservation initiatives, implemented through the forest department had been to 'reduce the pressure' on forests placed by mountain populations and their livelihood practices. This colonial top down approach was evident not just in implementation of these programs but also because legal access to forest resources remained fraught for indigenous communities. While the sustainability of these initiatives has also been critiqued, in the trans-Himalayan Lahaul valley, the Himachal Pradesh government in recent years has claimed success of its JFM programs reporting forest cover growth and attributing it to the afforestation initiatives undertaken in collaboration with local women's collectives. This study examines this claim through local narratives, especially those of the women's collectives, around forest land dependence, access and governance. We found that women's collectives or Mahila Mandals in upper Lahaul reported self-regulatory measures initiated in the wake of commercial pressure on forests after the formation of the district. While a massive avalanche in 1979 triggered this initiative in a few villages, the same spun off to other parts of the valley, in particular for regeneration of the culturally invaluable Juniper forests. We highlight testimonies of failure of government afforestation schemes in the region, barring few successes where community was involved. We found that the old willow plantations in the valley were part of the traditional agroforestry practices to cater to fodder and fuel needs and state led afforestation was only successful where local populations were involved from the start. The paper documents people's concerns around the non-implementation of the Forest Rights Act, 2006, that recognizes the legal tenure of local right-holders over forest land and provides institutional mechanisms for community led forest conservation. Juxtaposing state policy narratives with diverse grassroots voices, reveals FRA's potential and challenges. We critique contemporary climate adaptation strategies for reproducing power asymmetries of colonial conservation by sidelining the FRA as a legal constitutional mechanism for a community led approach to climate risk reduction in the region.

I. BACKGROUND – FOREST DEPENDENT COMMUNITIES – PROBLEM OR SOLUTION?

The decades that followed the Chipko Movement in Garhwal brought forest conservation in the Himalaya into the national and global center stage. The iconic image of women hugging deodar trees in their local forest, to stop contractors from felling them continues to be glorified even today. Starting 1973, the image and what it stood for had spurred many debates, movements, academic discourses, and policy shifts (Agarwal 2010; Temper and Martinez-Alier 2013). By the 1980s, two dominant—and often contrasting—narratives emerged in the field of conservation that are said to have informed forest protection policies, and its funding in the Himalaya, evident in states like Himachal and Uttarakhand.

The 'Theory of Himalayan Degradation' (THED), attributed deforestation to population growth and local economic activity at the center of all arguments around environmental crises in the mountains (Guthman 1997; Davis 2023). Following this crisis narrative, proposals that sought to address environmental issues in the Himalaya, highlighted 'anthropogenic pressures' in a generic manner as a problem, while specifically highlighting local lifestyles based on 'overgrazing', fuelwood 'over-extraction,' or land use change due to 'encroachments' for agriculture (Ives 2004). In this colonised tunnel vision of forest and environment conservation, local forest dependence for century-old livelihood practices was presented as a 'problem.' Until the 1980s, the Forest Department, working with the colonial and centralised forest laws focused on generating revenue through commercial extraction. This necessitated restriction to be imposed on indigenous community access and dependence on forests. With the 1988 Forest Policy, the same bureaucracy was expected to work with the forest-dependent communities as 'stakeholders' who were to be seen as a part of the 'solution.' With this approach taking the central role towards achieving conservation, it led to policies like Joint Forest Management (JFM). From here on, 'community participation' and 'forest management for sustainable livelihoods' became part of the conservation vocabulary. This was seen as a positive turn in the history of forest management in the country. However, this 'effort', as feminist literature and studies around JFM also point out, was still bureaucratic, top-down and continued to evade larger questions of political economy and resource ownership (Madhu Sarin 1995; Gouri et al. 2004; Narain 2011). Localised historical socio-cultural issues, ecological contexts and issues of equity in the engagement of diverse communities with these continued to be relegated to the sidelines. While lip-service was also paid to women's participation in forest management, their role was seen mostly as 'natural protectors' of forests, rather than addressing issues of women's right over forest resources, and their role in decision making in local institutional processes (Agarwal 2009).

CLIMATE CHANGE ADAPTATION: OLD WINE, NEW BOTTLE?

In the 21st century the crisis of environmental degradation around the globe, but particularly the Himalayan region has become synonymous with the 'climate emergency.' Intense and frequent cloud bursts, flashfloods, avalanches and landslides with disastrous impacts are considered as manifestations of the 'Himalayan Anthropocene.' In this context 'Climate Change Adaptation' policy has brought renewed attention to the 'Himalayan crisis' focused on strategies to be adopted by communities for managing and coping with the impacts of the climate crisis (Chakraborty et al. 2021; Davis 2023). Climate finance towards 'adaptation', amongst other sectors once again centers forest 'conservation' through carbon forestry and management to 'achieve' better resilience (Pokharel 2012; ICIMOD 2014; Pandey Rita et al. 2021; WWF-India 2021; Bibek Bhandari 2023; HPSDMA 2017).

Now, with greater access to geospatial technology, landscape level (covering vast geographical regions – like the trans-Himalayan alpine areas, for example) research studies have become the order of the day, guiding programs and projects for ecological restoration. Governments use 'forest cover' and 'biodiversity richness' measurements through satellite data to draw conclusions about the health of the forest, ultimately feeding into new policies (Pandey, Cockfield, and Maraseni 2016; WWF-India 2021; UNDP 2019). Apart from the issues around the very efficacy of this data to determine the health of forest ecosystems, there is now also an increasing criticism about such unilateral focus on biophysical aspects of large landscapes, given they neglect the rapidly unfolding multiple micro realities in the socio-economic and political realms (Chakraborty, Rampini, and Sherpa 2023). The most pertinent being the impact of neo-liberal market economy which led to transformation of the mountain landscapes with large scale diversion of forest and common lands towards urbanization, infrastructure, and mega development projects.

Ironically, the mountain which nestled the Uttarakhand village where the Chipko movement originated is today in the grip of disasters, so much so, that the local residents are now on the verge of being relocated (S. Sharma 2021). This is a metaphor of sorts, offering lessons and insights on the pitfalls of the dominant understanding of 'environment and development' policy and gaps in actual governance on the ground. Grassroots movements, ground reports, and contemporary academic research from the Himalayan region have highlighted fallacies of THED and the absence of equity and justice in resultant conservation and adaptation paradigms that continue to be implemented to this day sidelining complexities of present day crises (Satyal et al. 2017).

FOREST COVER UP IN HIMACHAL: THE CONTEXT

In the West Himalayan state of Himachal Pradesh, we found that in recent years a series of news reports emerged drawing attention to an exponential rise in the region's forest cover. Official assessment of forest cover is done using remote sensing and satellite data. So, while 67% of the geographical area of Himachal Pradesh is classified as forests which includes pastures, wastelands, riverbank land amongst others, the actual forest cover as per the latest State of the Forests report is at 26% (FSI 2019). Based on Forest Survey of India data, a report titled, 'An analysis of the temporal changes in the forests of Himachal Pradesh' by the State Centre on Climate Change concluded: The total forest cover of Himachal Pradesh increased by nearly 25% between 1991 and 2015. The tribal district of Lahaul-Spiti saw the maximum increase of 1,047% with its total forest cover amplifying from just 17 sq. km. to 195 sq. km. during the period. This increase was attributed to government conservation

and plantation initiatives (P. Sharma et al. 2015). But there have been various critiques of such FSI reports on account of what actually constitutes forest cover and the definitions of various types of forests. Apart from the veracity of satellite data, experts also question the undue attention on 'tree cover' rather than the quality of the forests (Balaji, Sharma, and R 2022; Perinchery 2022). By official definition, 'forest cover' refers to 'all lands, more than one hectare in area with a tree canopy density of more than 10 percent. Such lands may not be statutorily notified as forest area' (Gupta 2007).

Despite this, in the last decade or so, this data in Himachal has been highlighted to claim success of afforestation initiatives. The figures have been used as grounds for introducing new forest restoration programs funded by bilateral agencies and the central government, as well as pushing afforestation schemes like the 'Van Samruddhi Jan Samridhi Yojana' and the 'Samudayik Van Samvardhan Yojna' (Tribune News Service 2020). If we put aside the FSI data, research on the success of these plantations is quite contrary to the government claims. Apart from unspent funds and unmet plantation targets, recent research documents speak of the poor survival rates and adverse impacts of afforestation on local livelihoods and forest compositions. Over-all, there also seems to be a decline in the number of saplings planted annually due to lack of suitable sites and available area (Manshi Asher and Bhandari 2021; Rana et al. 2022).

Ironically, government conservation and forestry schemes also mention instrumentalising community institutions like Yuvak (Youth) and Mahila Mandals (Village level Women's Collectives) for better outcomes. Specifically, in the context of Lahaul, it has been reported that the local Mahila Mandals have been protecting their forests, some from as far back as the 1980s, resulting in a positive impact on both wild fauna and flora. News articles published between 2015 and 2019, while lauding the efforts of Mahila Mandals in the cold desert region of Lahaul, specifically mentioned how the Forest Department actively played a role in involving the women in forest and wildlife protection work (IANS 2015; Lenin 2016; Manta 2019). The Department claimed that this was done under the Sanjhi Van Yojna (Joint Forest Management), a program initiated in 1998 with the Department For International Development (DFID) funding. This was followed by the passing of the HP Participatory Forest Management Rules of 2001 (Government of Himachal Pradesh 2001). Later, the program was supported by The World Bank and several other external agencies and implemented through the Forest Department. However, questions of real community participation, sustainability and continuity, hovered around this program in several independent reviews and evaluation(Chhatre 2000; Vasan 2001; Gouri et al. 2004). Now, the latest State Biodiversity Strategy and Action Plan prepared by the government in March 2021, specifically for Lahaul-Pangi continues to look at the Village Forest Development Committees (as part of the JFM program) to carry out forest protection work in Himachal (Pandey Rita et al. 2021).

THE UNOPENED WINDOW: FOREST RIGHTS ACT 2006

In 2006, after a long-standing campaign led mostly by people's movements from the Central Eastern Adivasi belt of the country, the Scheduled Tribe and Other Traditional Forest Dwellers (Recognition of Forest Rights Act), commonly known as the Forest Rights Act was passed in the Parliament of India. Other than providing legal tenure to forest dependent communities, a key objective of the campaign and the resultant legislation has been to decolonise forest governance(Bijoy 2008; M. Asher 2019). The Act benefits Scheduled Tribes, Other Traditional Forest Dwellers (non-ST forest dependent communities), and 'rightholders,' which include all adult residents of a 'gram sabha.' It provides three key rights–Individual Forest Rights (farming, farm related activities and habitation), Community Forest Rights (uses ranging from fuel, fodder, leaf litter, grazing to medicinal plants, access to water sources, cremation grounds, and sacred sites) and Community Forest Resource Rights (the right and responsibility to protect, manage, and govern the community resources).

Community representatives and activists from the tribal areas of the state of Himachal Pradesh—Kinnaur and Lahaul-Spiti—where the FRA was first implemented after the enactment of rules in 2008, have been vocal in demanding for this law. This demand gained momentum from the need to secure tenurial rights over 'individual' occupations for farming and/or habitation that could not be regularized or given legal recognition under the state rules given the strict provisions of various central forest laws (Asher Manshi and Mahar 2019). The demand for Community Forest Rights may have been overshadowed by the urgent demand around individual claims, which play a critical role in the farm-based livelihoods in the tribal districts. However, in Spiti and Kinnaur, forest rights rallies have brought forward the issue of community rights in the context of transfer of the forest land to large dams – especially invoking the need for gram sabha consent for such transfer (Bhandari and Mahar 2016; Manshi Asher 2022).

This was an opportunity for the state-led Forest Department to engage with a strong legalised institutional format that recognises both livelihoods and conservation. However, 15 years after the passing of the law, its implementation remains tardiest in Himachal Pradesh, with the Forest Department posing hurdles. Successive state governments have projected that there is a lack of apparent need among beneficiaries given that 'all forest rights remain settled' (Vajpeyi and Rathore 2020).

As far as community use is concerned, its documentation has been done as a part of the colonial forest settlement, which acknowledges such uses availed from forests as 'concessions.' This provided communities access to forests, albeit without the right to govern the forests. Bureaucratic objections to claims have revealed that officials have several misgivings about the applicability of the provisions contained in the law, for not just the OTFDs but also 'tribals' of Himachal Pradesh. With regard to the socio-economic conditions of communities in the tribal districts of Himachal Pradesh, the past three decades or more have seen a substantial rise in the spread of commercial horticulture and vegetable farming. The tribals of Lahaul-Spiti have also gained from reservations, securing positions within the bureaucracy and other government jobs. But is it correct to assume that the 'gains' have benefited the community at large and the poor and marginalized groups specifically within the community, and that this 'growth' has affected their relationship with land, forests and their immediate environment negatively? If so, then what drives the local demand for forest rights?

ABOUT THIS REPORT

It is in the above geographical and socio-political context, that we set out to conduct a qualitative study to explore the dynamics around 'forest governance,' in the cold desert region of the Lahaul Valley in Himachal Pradesh. During the course of the study, we conducted focused group discussions with 20

Mahila Mandals and interviews with diverse members of the local communities from three sub-valleys of Chandra, Bhaga and Patan in the year 2021 and 2022. Secondary literature has been relied upon to substantiate and corroborate the findings.

The research questions we explore and engage with are divided into three connected aspects of 'forest governance' –

- Present day local livelihood dependence on 'forest land,' both from the point of individual households as well as communities; and the historical drivers of shifts that have taken place in the people-forest relationships.
- Forest governance and protection practices of Mahila Mandals focusing on perceptions around contemporary threats and challenges as well as the role of the State vis-a-vis forest restoration.
- Perceptions around awareness, relevance and need of the Forest Rights Act in the context of the above two.

The findings around each of these are presented in the next sections of this report. We attempt to analyse these keeping in mind our premise we have presented in the background. In the final section, we discuss our findings, juxtaposing state policy narratives with grassroots ones, analysing the potentialities vis-a-vis FRA, and examining the possibilities of a more transformative and holistic approach to ecological restoration in the region.

Figure 1: A map indicating villages visited as part of the study

II. ABOUT THE REGION: A GLIMPSE OF THE LAHAUL VALLEY

'Bhim ne laat maari thi rasta banane ke liye. Jab doosri laat marne wala tha to maa Kunti ne bola mat maaro warna Kullu aur Lahaul ek ho jayega. Iss raste se to maine Rohtang paar kiya hai. Ghaas se chappal bana ke le jaate they, wohi pehente they. Teen chaar jodi lag jaati thi. Chappal ghiste they aur phenkte rehte they'

- 104 year old Tashi Palzom,
Shooling, Chandra Valley

The cold desert valley of *Garzha* (Lahaul) lies in the lap of the rugged North-Western Himalayan peaks of Pir Panjal and Zanskar. The arid rocky and undulating terrain reaches heights of up to 20000 feet. Amidst the low-lying alluvial farm lands in the valley, and the alpine pasture laden ridges, are patchworks of Cedar, Fir, Birch, Blue pine and Juniper forests in the temperate zone. Willows and Poplar, both wild and planted, are visible especially around agricultural fields across the valley. The upper, and fairly larger segment of the valley is carved out by the Chandra river which meets the Bhaga river in Tandi, to form the Chandrabhaga, better known as Chenab. The Bhaga River valley is in the north, bordering Ladakh, and is also referred to as Ghaar and Tod Valley. Each of the sub-valleys have their own distinct physiographic as well as socio-cultural and religious characteristics.

Downstream of the Chandrabhaga confluence is the Patan Valley, that extends to a region called Pangi, which falls in Himahcal Pradesh's Chamba District. Together with Spiti, Lahaul forms the largest district of the state in terms of its geographical spread, but has the lowest population density of 2 persons per square kms. Severe winters of Lahaul are marked by heavy snowfall above 4300 mm annually, from November to May. The rocky terrain with loose soils and fast blowing winds, is prone to erosion. Climatic 'events' such as avalanches and flash floods are common and becoming more frequent given rapid warming (Poonam, D N, Bawa, R, Gupta 2011; G. S. Singh, Ram, and Kuniyal 2005; Baumann and Singh 2000).

SEPARATE BUT CONNECTED

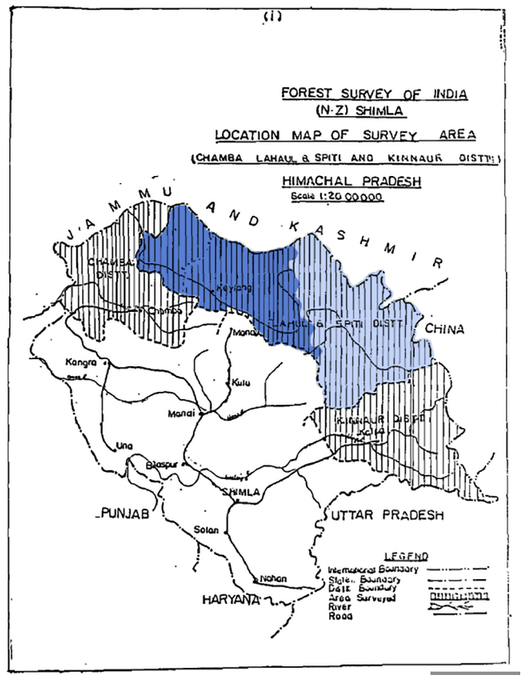

Figure 2: Map of Himachal Pradesh showing Lahaul and Spiti districts in blue shades, sourced from old FSI report

In mainstream and dominant historical accounts, Lahaul is characterised as a 'remote mystery land' and even a 'forbidden land' (Ram Nath Sahni 1994; Bajpai 1987).

Until last year, the region was 'cut off from the rest of the world' from all sides for six to eight months a year during the winter. The term 'La' itself refers to a mountain pass. Accessing Lahaul requires traveling on roads built through high mountain passes – the main being the Manali-Leh highway.

Local legends about the formation of Rohtang pass in both Buddhist and Hindu texts make Lahaul a revered spot for inhabitants of both religions. The Rohtang pass, which was seen as the 'gateway' to, and also the 'gatekeeper' of Lahaul, got its motor-able road only in 1964, in the wake of the Indo-China war. Despite the much touted 'separation' of Lahaul from mainstream societies, historical narratives and oral culture highlight the role of movement of diverse ethnic groups from different parts of the region into the valley, exchanges and influences in the valley's culture, as well as seasonal migration outside, on mules and horseback or foot for livelihood (Tobdan and Dorje.C 2008). An example is 104-year-old Palzom's testimony where she referring to her days as young adult said, *'Dilli mein lal quila aur chidiyaghar dekhne ke liye gayi thi.'* The locals swear by their 'hardiness' and 'adaptability', owing to the struggle and strategies for survival adopted amidst the harshness of the terrain.

CONSTRUCTION OF TRIBAL STATUS

Administratively, the *Lahaula* people got their 'tribal' status right after independence from the region being declared a tribal area under the fifth schedule of the Constitution, given its inaccessibility (Baumann and Singh 2000).

The term 'backwardness'—as is used in literature referring to this region (along with Kinnaur and Spiti) that became the ground for granting tribal status— was related to lack of access to basic services and facilities on the one hand, and the 'outsider' gaze towards inaccessibility. The 'indigeneity' of the local communities that comprised of distinct religious and caste groups also came to be defined, especially in local perception, by customary cultural practices, diverse linguistic features, and lifestyle. The worship of the common indigenous deity, Raja Gepang, protector of the entire valley is one significant illustration.

However, it would be incorrect to understand tribes here as an anthropologically defined homogenous and non-hierarchical community (Christopher Johnson and Christopher 2018). It is critical to acknowledge the historical occupational and social hierarchy with implications on political (local governance and decision making) as well as economic life (access to land and forests) (Dhissa 2011). The bulk of the landed castes in the region are Swanglas (Brahmins) in the lower part or Patan Valley, and Thakurs, Kanets, and Bhots dominantly in the upper valleys. Dalit tribals or 'Scheduled Tribe Dalits' constitute about 7% of the total population of the district, and include artisans, musicians, carpenters, and agricultural labour and daily wage workers, who are near landless or have smaller land holdings.

Year	Population			SC Population	SC Population (%)
	Males	Females	Total		
1981	18,171	13,929	32,100	722	2.25
1991	17,224	14,070	31,294	2,224	7.11
2001	18,441	14,783	33,224	2,606	7.8
2011	16,588	14,976	31,564	2,235	7.1

Table 1: Demographic profile of Lahaul & Spiti district

Source: District census handbook of Lahul Spiti

COMMERCIAL FARMING AS MAINSTAY

In contemporary Lahaul, which in the last few decades has become one of the most economically 'developed' districts of the state, the influential landed castes that benefitted from the reservation policy and accessed space in government jobs and power through representation in the political arena from local institutions up to the Vidhan Sabha (Bhattacharya 2017). Post India's independence and separation of Himachal from Punjab, the focus of the state's welfare policies was mostly in the arena of agriculture adopted swiftly by farmers of the valley. Agriculture in combination with dependence on jobs and partial migration over to Kullu (as horticulturists or to run petty businesses) became a mainstay, especially for the people of upper Lahaul. Yet 30% of the population of Lahaul is classified as 'Below Poverty Line', which is second highest in the state (Census 2011).

Amidst the nation-wide lockdown in 2020, the 8.8-kilometer-long 'Atal' tunnel threw opened Lahaul to the world (TOI 2020). The new underground road bypassing the Rohtang pass not only substantially reduced the distance between Manali and Lahaul, but also broke the seasonal barrier imposed by the snowfall laden winters. Though the 'engineering marvel' is a state project driven by strategic and commercial interests, the locals have been invested in the idea for decades, in the hope of finally getting connected with the proverbial 'light at the end of the tunnel' (Thakur and Sabhlok 2022).

Figure 3: North Portal of Rohtang Tunnel also known as Atal Tunnel

Photo: Sumit Mahar

LAHAULAS AS AGROPASTORALISTS

'Come October and one or two members from a family would to go collectively to the cedar and birch forest across the Chandra River to collect fuelwood. We used a cable car (jhoola) to cross over. Rations would be packed for 8 to 10 days and we would cook there. We had to bring back at least 40 to 50 headloads (15-20 quintal) of fuelwood to last for the whole year. Even children would go Just look at that steep slope...we used to throw our headloads over the ridge close to the river bank. Each family had close to 10 to 12 members since at that time families were 'joint.' Some would be busy with farming and other activities while some of us did this. Then other members from the family used to come to the riverbank and collect the fuel loads. We had no LPG then so all the cooking was on the chullah. Even Willows were not so widespread then. The last time we might have gone there would have been 1983...'

- Som Dev (63 years) and Prem Prakash (65 years), Shooling Village

The ingredients that make up land-based mountain economies across the trans-Himalaya are historically found in the Lahaul Valley too. Grasslands enabled pastoralism with sheep which provided meat and wool.

Mules and yaks were also reared and they served as draught animals, for local carriage as well as for long distance trade from the Tibetan plateau to the plains of Punjab. Biomass, like fuelwood, formed the central energy source not just for cooking but for heating spaces in the long and harsh winters.

Timber, stone and earth were efficiently and artfully compacted together to provide for well insulated housing. Wild herbs and roots, which are now extracted for commercial purposes, were used by traditional healers called ***amchis*** in this part of the Himalaya.

Livestock rearing also ensured steady supply of organic manure to feed farm soil. Leaf litter from the forest floor called ***soodi*** was used for animal bedding and further enriched the farm compost. Agricultural land, fulfilled subsistence food needs from cultivation of wheat, buckwheat, barley, and other coarse cereals were held in small parcels. Only exceptionally sized holdings (of 60 to 100 bighas) were in the hands of ***jagirdars***, or landlords.

A harsh winter would give way around April to prepare for the sowing season and other economic activity. Right up to October, people, especially the women, toiled hard not just in the farm, but also to graze animals, collect fuel, fodder, leaf litter and ***shukpa*** (juniper used as incense) for religious ceremonies and festivals like ***Kuns*** (local new year) which is celebrated by both Buddhist and Hindu communities. Springs and surface water streams from gradually melting snow irrigated pastures, willow patches and farms.

COMMUNAL FAMILY AND LABOUR

The topographical and ecological warps and wefts were woven intricately together with the socio-economic, political, and cultural, to form the fabric of life in the region. Collective action in daily life was once a characteristic feature of this society, closely knit by religious and cultural practices. The importance of collective labour in this system cannot be emphasized enough. It allowed not just carrying out multiple occupational activities in the household but also accomplishing them within the limited time available. For instance, the 'joint' family system (also understood as polyandry where a woman is married to a set of brothers in a family) was prevalent in this region. Many different forms of this are still visible in various parts of the Himalaya. Historians warn about attempting to 'trace the origin' of this practice and attributing it to a single cause—in zones of limited resources, it may have served to avoid fragmentation of land holdings and control population growth (Alam 2008; Gazetteers 1971).

Labour was not always just communal but also marked by exploitation when it came to Dalits, who also had to face social exclusion. Most Kolis performed bonded agricultural labour on farms tied to specific Thakur families. Some of them were able to avail access to land during the land reforms but still continue to be near landless. The average land holding size of the overall population is still less than a hectare, and a majority of Kolis here fall in the category of 'marginal farmers.' Large scale disparities are only visible in few areas given the historical conditions where in feudal times some ***Thakurs*** were bestowed with the title of ***Wazirs*** (landlords) with several powers to run the colonial revenue administration in the valley (Bajpai 1987).

Figure 4: A Gaddi seasonal pastoralist in Mayar Valley

Photo: Sumit Mahar

'My great grandfather was a pastoralist from Bir Bhangal (Chhota Bhangal in Mandi District) belonging to the Koli community. They first came to Tholong village with sheep. Then my grandfather started doing labour work for the Thakurs (Rajputs) at Khorpani and managed to get a small piece of nautor land (right to break new land for those who are landless – see page 21) from the Thakurs in exchange for a drum of lugdi (rice beer) and a sheep worth 50 paisa. Then, the family worked to carve out terraces for farming – one terrace in 20 days. And at the end of the day, we used to go to the Thakurs fields in the night to harvest wheat. I remember many moonlit lights, working on their fields.

Then we bought mules. The mules were used for carriage – load carrying was the main occupation of the family. I have carried loads across the Rohtang pass, to as far as Kangra and Hamirpur. There were no roads at the time. Agricultural produce like maize was carried on mule backs, brought to the mills, and then transported to all the homes.'

- Prem Azad, Khorpani, Chandra Valley

A TRANSITORY ZONE

The interwoven nature of society, economy, and the landscape also meant that any shift in one aspect of life was bound to alter others. Such shifts had taken place from time to time, even in the perceived 'cut-off' mountain highlands or borderlands. No account of Lahaul, for instance, is devoid of the mention of the Moravian Mission that introduced potatoes to the valley in 1860 and brought in innovations like the *tandoor* (an indoor wooden stove) which replaced the local *chullah* (G. S. Singh, Ram, and Kuniyal 2005; Baumann and Singh 2000). In fact, even before the colonial and feudal periods, societies like Lahaul have seen transitions. This is evident from the diversity within the Lahauli society attributed to the movement of people through these borderlands and into and outside of the valley for trade and pastoralism. Historian Chetan Singh refers to them as 'Transitory Zones' because of their very location – 'they are always on a threshold' (C. Singh 2020). However, the shift from the colonial period to the modern era of nation-state and market led development, accompanied with the technological revolution has brought unprecedented transformations to the region in a relatively shorter time span. The shift away from agro-pastoralism as a way of life, especially in the upper valleys, has been an adaptation to various socio-economic and historical policy processes. Cash cropping as a dominant occupation began in the 1960s with the introduction of potato as a commercial crop, followed by hops and then green pea cultivation in the late 1990s. However, hops or Kuth (used in production of beer/wine) seems to have lost its economic value in recent times. (GoHP 2009). During our discussions with women, we understood that while traditional crops like wheat, buckwheat, and barley had been virtually abandoned in the upper valleys, in Patan valley, these were still grown. In fact, women from Shooling shared how they reverted back to these crops during the Covid-led lockdown in 2020 by getting the seeds from Patan Valley, due to the sudden disconnect from markets and non-availability of labour. The newer cash crops are labour intensive and Nepali migrant workers are mostly employed for this work. Some prosperous farmers also contract out the farming work to migrant labour, but the number of such farmers with large land holdings are relatively low.

'Now livestock have reduced. Earlier, (about 15 -20 years ago), every family had 50 to 60 sheep. In the summers, people used to have 'thach' (summer sheds) in the forest's grasslands and 3-4 people used to live there with the cattle and sheep. Women would walk up in the evening 1.5 or 2 kilometers to the pasture where our shed was. They would milk the cattle, make ghee, dahi and stay the night. They would sing and dance all night with other women. They would walk back to the village with a kilta (bamboo basket) full of manure, singing.

People have sold off sheep and only a very few cows are kept. The present generations are into jobs, thekedaari (contractors), and they drive taxis. Labour for grazing 'pual'(graziers) are also not available and hiring gorkhas (Nepali workers) for grazing is unviable. But if we had an option, we would continue with pastoralism because it was a source of wool, meat and manure. It may return some day; everything has a cycle. Who knows in future? Half of our family members are in Kullu-Manali. This also has helped in stopping the fragmentation and division of land holdings.'

- Padma Namgyal, 83 years,Billing, Tod Valley

A NEW KIND OF MIGRATION

Seasonal migration was earlier for labour, trade and transhumance, and also for those who could afford it, to escape vagaries of a snowed-out winter. Gradually, the mobility became characterized by translocating to Manali-Kullu, Shimla, and Chandigarh for accessing better education, healthcare facilities, and job opportunities. The elders and few members of the family continue to stay back with cattle through the winters. Even in situations where other members are engaged in government or private employment, most families have one male member who manages the family's land. 'Now, even the daughters-in-law move out to Kullu-Manali, after marriage,' an elderly woman in Toche village of Chandra valley lamented, pointing to the fewer hands available to work for the household. Migration trends, however, also seem varied in the three regions, with the lower valley still staying back during the winters as the average holding of sheep per household is still close to 30 or 40 and cattle about 2 to 4, who need continued care through the year, including winter. An overall drop in dependence on livestock rearing in the valley has meant lesser interactions with the forests/ pastures (Livestock data discussed end of the section). In Kwaring village, we were informed that the person who takes the cattle for grazing is also a migrant worker, mostly Nepali, hired by the village.

Figure 5: New agricultural technology in the cash economy

Photo: Manshi Asher

Women play an important role in the household economy, working on the farms shoulder to shoulder with the migrant workers. As per the 2011 census, of the 11,227 population classified as 'cultivators,' 60% are female. The shift to newer crops and associated technologies, like the use of chemical fertilizers and pesticides or the grass cutting machines, has meant more intense work in the fields to ready the produce in time for the market. The tasks revolving around accessing the forests seem to have reduced substantially, but it is not just changes in the farm economy and lifestyle that have driven this trend.

Figure 6: Women working the fields at Khorpani village

Photo: Sumit Mahar

PEOPLE–FOREST RELATIONSHIPS

Our family came from Telangbe in Patan Valley and bought 20 bighas land here in 1956. Earlier we used to plant local crops. My father planted over 10-15 bighas of forest land with willow. At that time there were hardly any Beli (Willow trees) here. People used shukpa (juniper) or burnt nyur ghas (grassroot slips) for fuelwood. All the families know which trees they have planted and are supposed to care for. While the trees are owned by families and they have the right to use them, the land remains common. Earlier we accessed the 'reserved and protected forest' (across the Chandra River) but then the area was fenced by the Forest Department. Now we can only pick fallen wood, we cannot cut on our whim from these lands. Now, we are hooked to making dung cakes. But many families here do buy 10-20 quintal of fuelwood from the forest depot at Sissu at Rs. 900/ quintal. We used to graze our animals earlier in the forests on the other side too but that too was restricted by the forest guards. Fines were imposed. Now people have sold off their sheep and goats. The sheep and goat we are left with now survive on the grass plots and leaves of the willow. After cash crops became prevalent, even the grass plots around the field had to be dug up for farming.

- Kamla Thakur, 60 years, Shooling

Located on the right bank of the Chandra, people in Teling and Shooling would cross the river on manual trolleys (cable cars) to collect firewood from Cedar, Blue Pine and Birch forests on the left bank - a practice which disappeared post the 1980s. A few families have even started purchasing leaf litter or soodi in these villages from lower parts of the valley.

In the Chandra valley, the interaction with the forests gradually got limited to collection of *Shukpa* (or *shur*) used as incense and for grazing. At least three separate varieties of Juniper (Himalayan Pencil Cedar) are found in different parts of the valley. Junipers were also traditionally the primary source of fuelwood and were also used extensively for house construction in the Tod valley, especially since the forests here comprise mostly of Juniper.

Cattle graze on the lands near the villages and are fed willow fodder. The same was reported by villages around Keylong like Stingri, Billing, Kwaring, and Kardang in the Bhaga Valley. Exchange mechanisms and sharing of resources across villages to manage scarcity have also been impacted by these transitions.

Earlier we had an agreement with the Kardang village. They used to leave their livestock in our grasslands and we would use the wood from their kail (Blue Pine) forests to make (wooden) channels for irrigation and running gharats (local flour mills), which have now disappeared. This exchange has stopped in the last few years. The kuhls are now made of RCC and the Irrigation and Public Health department is supplying piped water. Everyone looks after their own forest now.

- Focused Group Discussion, Billing

TRADITIONAL AGRO–FORESTRY

In the wake of the restrictions around free access to forests and a dominant cash economy, agro-pastoralism may not be the dominant way of life in upper Lahaul. However, agro-forestry has for long been and continues to be part of the private and communal land-use given the demand for fuelwood and fodder across the valley. Some documents reveal that willows are close to 200 years old in the valley, while a certain variety of willow (*Salix alba*) is endemic to the region and found in the wild. While the Forest Department seems to have adopted willow planting as part of its afforestation programs, studies show that both varieties of willow, namely *Salix alba* and *Salix fragilis* were cultivated in the Lahaul valley through traditional shoot-cuttings plantation method in indigenous agroforestry and forestry systems. Across the valley, people also reported that a fungal disease has affected the preferred variety of ***beli*** (S. fragilis). The mass infection which started around 10 to 15 years ago caused large-scale drying up of the willow trees (Rawat et al. 2006). This has

Figure 7: A sign board at Tholong village reads how the first willow stump was brought to the valley by a Gaddi pastoral

Photo: Sumit Mahar

caused some distress in terms of fuelwood and fodder availability for the community and may have led to a marginal hike in fuelwood purchase by locals. In the Tod and Chandra valley, women reported purchase of fuel, anywhere between 10 to 25 quintals annually in recent years. In the Patan Valley, which is forested with richer floral biodiversity, the dependence of forest depots for purchase of fuelwood is seen, albeit limited. Fuelwood, soodi, shukpa and even timber (through Forest Department permissions) are accessed from the forest. *Kala jeera*, *patees, kadhu,* are minor forest produce that are collected for use and sale. Migratory bee-keepers—mostly Dalits from other states—also bring their colonies to these forests for bee-foraging. In Stingri, women reported that 'outsiders' collect these medicinal plants through the 'Forest Department' (*'Udaipur se aate hain.'* Udaipur is a subdivision of Lahaul). The working plan of the Forest Department mentions that it is the poorest people who collect and sell these products. The strikingly visible shift is in the method of house construction, which again varies from valley to valley in the district. The cement house construction with slanted, corrugated sheets has slowly taken over the old flat roofed mud plastered homes. Typically, traditional homes were three storied, with the ground floor dedicated for livestock. The beams and poles in these homes were made of blue pine or cedar trees. The forest used to cater to this need for timber in the earlier times. 'It's tough to get the timber rights now –we get it once in 25 years. Now we buy the timber also from the Forest Department depot).' In Sissu village, women said that all timber requirements were fulfilled by purchase from forest depots. Since the last decade and a half, commercial farming with off-season vegetables – cauliflower, cabbage and peas – has meant that the focus of the household labour is on the farms.

Figure 8: Willow trees affected by disease

Photo: Sumit Mahar

Figure 9: Woman tending to the cabbage farm

Photo: Sumit Mahar

Livestock remains an important component of the economy. According to 2011 census data and 2012 livestock census data, the per capita availability of livestock for Lahaul Spiti district is around 1.9 which is more than twice of the other districts of Himachal Pradesh.

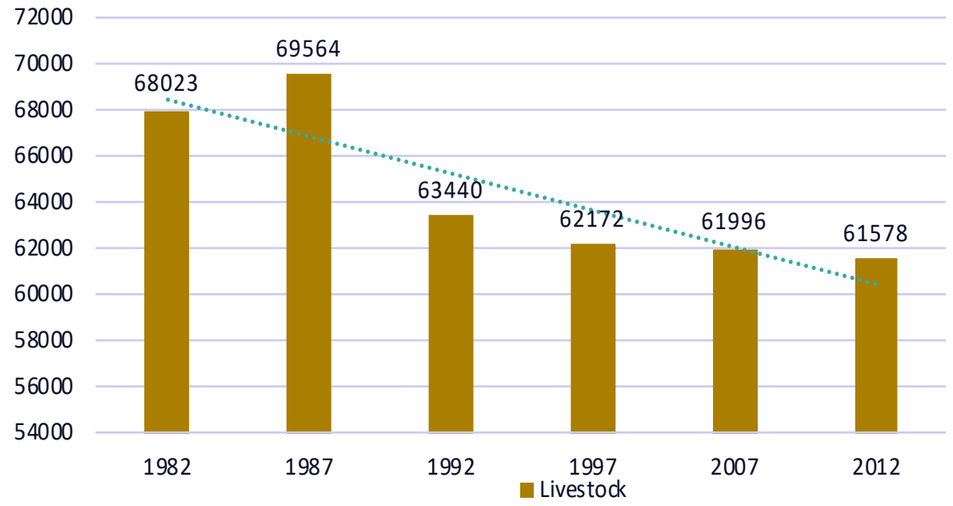

Figure 10: Change in livestock numbers over three decades

Source: Livestock census, HP

III. FORESTS OF THE STATE AND THE STATE OF THE FORESTS

As per the working plan (1993-94 to 2006-07) of the Forest Department, the total area officially categorized as forest land in Lahaul is 6.13 lakh hectares. Of these, 7054 hectares are classified as Reserved Forests (RF) and the rest 6,06,637 hectares are declared as Protected Forests. The area under Protected Forests is further categorized as Demarcated Protected Forests (DPF) and Un-demarcated Protected Forests (UPF). The Undemarcated Protected Forests constitute almost 90% of the land legally recorded as 'forests.' Of the UPF categorized as 'forests,' a large part is under glaciers or snow-covered areas, and about 40% are pastures and *dhars* with limited tree cover which are used for grazing. These figures are based on Forest Department classification and do not necessarily match those in the revenue records.

Range	RF	DPF	UPF	Total
Keylong	3077	7347	413348	423772
Pattan	1079	3449	86160	90688
Udaipur	1334	26812	53580	81726
Tindi	1564	2053	1388	17505
Total	**7054**	**39661**	**566976**	**613691**

Table 2: Classification of Forest Land in Lahaul Division Source: Forest Department Working Plan 1993-94 to 2006-07

COLONIAL FOREST SETTLEMENT – THE BEGINNING OF STATE RESTRICTION ON CUSTOMARY USES

The process of official recording of forests in Lahaul began first in 1844 and carried on up till 1912. UPFs and DPFs were notified in 1897 in erstwhile Lahaul. While Protected Forests were open for grazing as well as collection of fuelwood and leaf litter, it is apparent that the rules notified for the Reserved Forests introduced restrictions for the first time and the access of the villagers were limited or restricted in these 'forests.'

These rights included collecting timber and wood for agricultural implements, and rights of way (paths) and access to water sources. The right to grant *'Nautor'* (for cultivation) was also recognised. The forest governance system for Lahaul continued to operate through the Thakurs who were designated as Wazirs. For the Forest Department, this meant that forests were 'poorly managed' with 'vague rules,' even as 'illicit felling, unrestricted grazing, encroachments on government lands and other forest offenses' continued unabated. 'Silvicultural aspects remained badly neglected resulting in deteriorated forests of Lahaul,' as the Forest Manual and Working Plan note.

'During the land reforms and the 1968 Nautor Rules, the State had recognised that for a dignified life a family needs at least 20 bighas of land. But, look at Lahaul— close to 70% of the farmers have a land holding of 5 to 10 bighas. Now, with the Forest Conservation Act, (FCA) 1980 stopping nautor cases since 1982, it has led to many pending cases of occupation which are called 'encroachments' on forest land.'

- Rigzin Hayerapa, Forest Rights Activist, Kwaring, Tod Valley

However, it is also to be noted that the need for systematic management of forests also emerged from the colonial regime's own anxieties about long-term availability of forests that would meet its needs. The Working Plan of the Department mentions indiscriminate tree felling that took place for a period of 30 years at the hands of the Timber Development Agency set up by the British State in 1852. The Plan mentions the popular 'cut out and get out' policy in both reserved and unreserved forests, which referred to the removal of timber for commercial purposes by the British machinery.

POST–INDEPENDENCE FOREST POLICY

The state 'concern' over forests and thus control over their use gained further momentum in the post-colonial period. In the case of Himachal, the 1952 notification, which virtually brought all 'wasteland' under management of the Forest Department was done with the vision that in the mountain regions, 2/3rd of the area was to be under 'forests.' Today, the Forest Department and central laws governing forests exercise complete control over 69% of the geographical area of Himachal Pradesh. In Lahaul & Spiti districts, this figure is over 90%. The Forest Department was free to introduce its own protection, plantation and afforestation measures without an assessment of how it would impact access and livelihoods of local communities as well as the goal of conservation.

Restrictions that were earlier imposed in Reserved Forests were also extended to Protected Forests vide the 'Rules for the Lahaul Waziri' notified in 1968. These included prohibition on cutting, lopping and removal of Kail, *devidiar* or juniper, birch, willows, poplar, chilgoza, and Fir without the permit issued by the Forest Department. However, dry stumps and fallen branches of these could be collected. Selling of forest produce was also barred. Amongst the most contentious restrictions imposed by the Department was the regulation of timber distribution for domestic construction and clearing up or breaking new land *(Nautor)* in UPF areas for cultivation and related purposes apart from habitation.

A complete blanket ban on green felling in 1988 vide amendments in the FCA were meant to restrict commercial exploitation of forests by forest corporations. But, the impact of this was also felt on TD rights. Though state rules and customary laws were to protect local rights for domestic uses, the 1996 Godavarman rulings of the Supreme Court also reinforced restrictions on TD rights further [Thayyil 2009; Chowdhury 2014; FOREST MANUAL Volume-I (Acts & Rules)]. In its order, the Supreme court in 2002 removed the customary rights out of this restriction. However, the Forest Department continued to enforce this restriction strictly even for right-holders.

REDUCING FOREST DEPENDENCE THROUGH FUELWOOD DEPOTS?

A senior Forest official we interviewed at Keylong said that the strategy in Lahaul valley for the department is 'reducing the dependence of people on forest land' by providing alternative sources of fuel and timber. The import of fuelwood and timber in the valley from Kullu and sales at subsidized rates through the depot is one such measure.

During a focused group discussion, elders narrated that at the time that the district administrative premises were being set up in Keylong, there was a surge in the demand for both timber and fuel

essentially for this construction and surviving the winters in the valley. Before this the local population did not indulge in the sale of timber or fuelwood. The Forest Department Working Plan reported that the annual fuelwood consumption from forest depots increased from 2053 quintals in 1973-74 to 17890 quintals in 1990-91.

Interestingly, data obtained through a Right to Information application indicates that the amount of fuelwood supplied in the year 2021 was to the tune of 18350 quintals, a marginal increase from 1991. If we assess the fuelwood requirement based on estimates from the mid-Himalayan region (as no data available for high altitude regions) for the Lahaul division, the annual average per capita fuelwood consumption demand would be close to 1,71,000 quintals. This indicates that the fuelwood depots are meeting a fraction of the demand. The charts below show fuelwood sales in the last decade indicating that there may have been an increase in the fuelwood purchased by the general public over the years, but 44% of the purchase of fuelwood is still made by government employees. We also observed that in recent years, the rise of tourism may have led to a higher demand from locals while government employees who can afford may have moved to alternative heating systems. As per the 2011 census, there were 4091 households in the Lahaul division. On an average, each household was purchasing around 2 quintals of fuelwood from forest depots annually. If we look at the ground reality, the purchase of fuelwood varies across villages. For instance, some villages like Chokhang in Patan Valley reported no purchase at all, while Sissu in Chandra Valley reported a purchase of 15 to 25 quintals a year. If we look at the number of government employees in the valley, the number was 1250 in 2017. The per capita consumption was coming to 5.7 quintals per employee – this includes wood purchased by schools and other public facilities and government offices (GoHP 2017).

Over all, it is apparent that while there has been an increase in the dependence on forest depots for fulfilling local fuelwood needs for domestic purposes, these also continue to be met from multiple sources –from willow plantations apart from the forest sources.

With introduction of the LPG and induction gas stoves, the fuel wood demand for cooking may have reduced but for space heating, fuelwood is still an important resource.

Figure 11: Fuelwood share of government office and public in Lahaul

Source: RTI Information

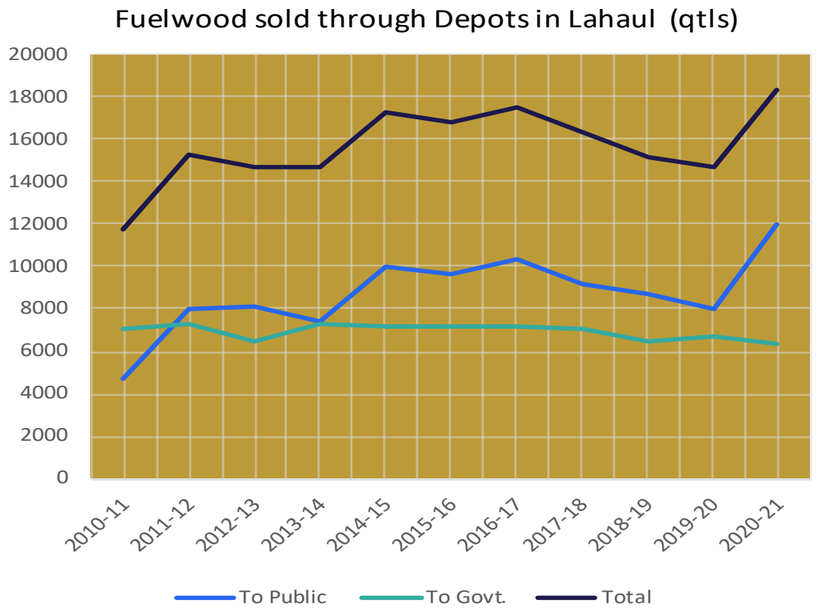

Figure 12: Fuelwood sold through Depots (qtls) in Lahaul

Source: RTI Information

Figure 13: Chopping fuelwood purchased from the depot for winters

Photo: Manshi Asher

GREENING A COLD DESERT?

The other significant intervention on 'forest lands' through the Forest Department has been in the form of forest plantations through various projects and programs in the valley. The working plans also mention afforestation initiatives in certain working circles. In Himachal Pradesh, the Desert Development Program (DDP) has been in operation from 1977-78 in three cold desert Development Blocks of Kinnaur and Lahaul and Spiti districts. The objective of the programme was to 'minimise desertification and rejuvenate natural resources balance in the identified desert areas.' In 1995, the DDP was merged with the Integrated Watershed Development Programme (IWDP) and the Drought Prone Area Programme (DPAP). These programs involved various irrigation, livelihood, self-help schemes as well as afforestation measures (CAG, n.d.). The purpose of this program was also more 'development' for local employment and welfare of the tribal people leading difficult lives.

The 2006 CAG Performance Audit of the DDP program in Himachal Pradesh indicates that 85% of the funds under these programs were unspent due to shortage of staff and expert personnel as well as lack of action plans. On the ground local testimonies revealed poor survival rates of plantations especially in areas where irrigation facilities were not available and communities were not involved in the afforestation planning and governance. In reference to the DDP, another response we got was, 'At the scale at which funding flowed in the entire area should have been filled with trees. Anyway, these programs cannot be successful till people are involved. DDP ko Mazak mein ***'Daily Dat ke Piyo' bolte they*** (Drink to Death on a daily basis)'.

After the 1988 National Forest Policy which emphasized the need for securing local livelihoods and involvement of local communities in regeneration initiatives, the state's focus on 'conservation' gained momentum through forestry under the Sanjhi Van Yojna (Joint forest Management) in the 1990s. Since 2000, the global climate crisis turned attention to the Himalayan region and the Forest Department has since been working at attracting international finance through focus on climate change adaptation. Two programs are currently ongoing in Lahaul, Himachal – one supported by JICA on landscape level forest management and ecosystem conservation in the region and the other by United Nations Development Programme (JICA 2018; WWF-India 2021). Local responses on these are discussed in the next section.

THE 'FOREST COVER' RIDDLE

As per reports 'the tribal district of Lahaul and Spiti saw the maximum increase of 1,047% with its total forest cover amplifying from just 17 sq km to 195 sq km during the

'This is the worst profession to be in...we will have to stop this [pastoralism] now. They just plant trees everywhere. They won't let us graze our animals anywhere. They just fence out areas, most of the places do not even have any saplings. Sab khaane peene ka system hai inka. Ab nahin chal sakta hai ye dhandha.' (It's a whole corrupt system they have built. Our occupation cannot survive anymore).

- Jai Karan, Gaddi Pastoralist, Chamba

Figure 14: JICA Nursery at Sissu

Photo: Sumit Mahar

period of 24 years.' A closer look at the data below shows that there has been a sudden increase in open forest between 1993 and 1995 when the forest cover increased by 337%. Then, between 1997 and 1999, it spiked by 81%, while the scrub forest reduced by over 50% (138 ha). This sudden change could be attributed to technology change in assessment methods in different surveys. For example, in 1995 when there was a sudden increase in forest cover the estimation of forest cover had shifted from visual to digital. Interviews on the changes in the forest did not indicate a very clear spatial or temporal shift. In the upper valley, people reported depletion of the forest after the District Headquarter was established and felling of timber and fuel for sale was rampant. People also reported the disease induced death of willow forests. At the same time reports of regeneration of Juniper forests were positive in Stingri, Kwaring, Billing, Shashin and Sissu. In Mooling, the Mahila Mandal clearly reported greater presence and sighting of wild fauna like the Ibex as an indicative trend post effort to protect their temperate forest. The same was reported in Miyar Valley. In Tindi, people said the forest is as it was, not better or worse.

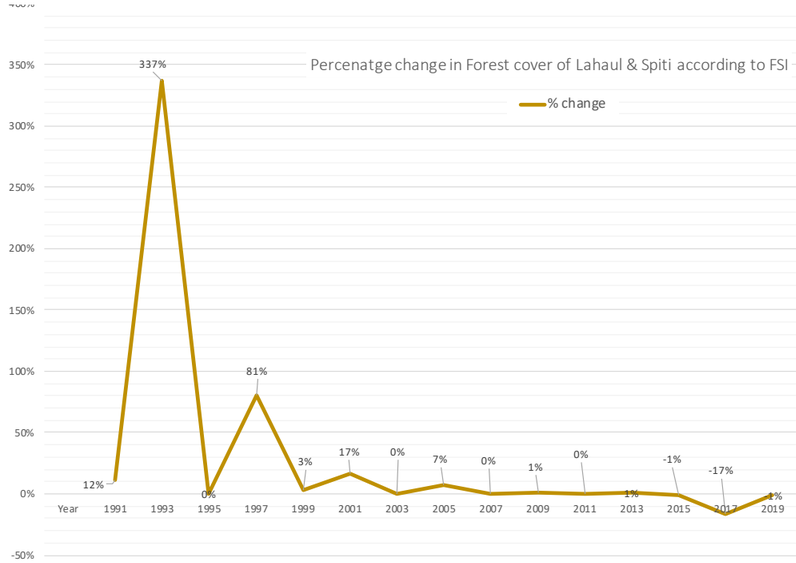

Figure 15:

Percenatge change in Forest cover of Lahaul & Spiti according

Source: FSI

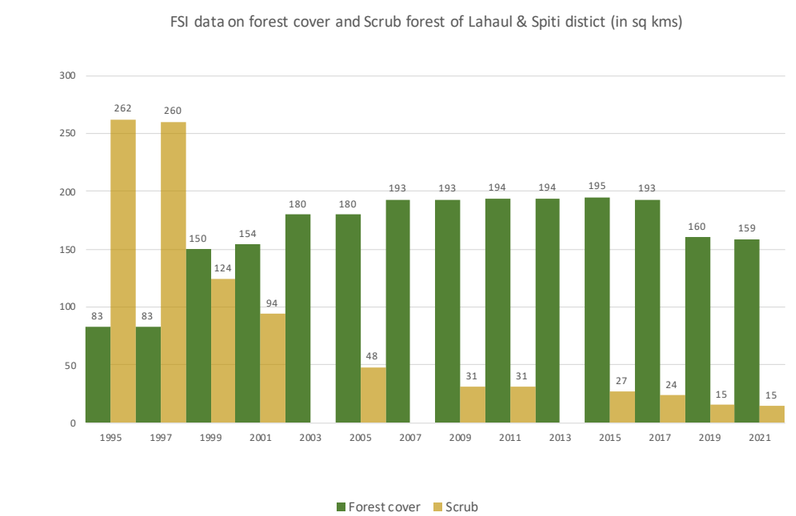

Figure 16:

Forest cover and Scrub of Lahaul & Spiti distict (in sq kms)

Source: FSI

IV. WOMEN'S COLLECTIVES LEAD FOREST GOVERNANCE

Jab bhi koi unch neech ho jaye hum hi to jaate hain. (For every trouble or conflict the women are present.) Be it family disputes or cleanliness campaigns, be it an event of celebration or grief. When tourists are stranded, we carry out the relief work and are also managing our forests.

- Focused Group Discussion with Mahila Mandal, Tandi.

The Mahila Mandal was created across India by the government as a village level entity in the era of the 1980s, when 'gender empowerment' was one of the pillars of the development agenda of bilateral international funding agencies and national policies. Across Lahaul's 28 Panchayats, there are more than 100 Mahila Mandals or women's collectives at the village level. Of the 20 villages that we visited during the course of this study, each one had an active Mahila Mandal with their own space for meetings. These *bhavans* where meetings were held were functional with a *bukhari/tandoor* for heating and a functional kitchen equipped with utensils.

SOCIAL PRODUCTION ROLES PLAYED BY WOMEN COLLECTIVES

The presence and role of women in the household economy has been tied in closely with their collective identity as women. While the joint family system may have dissipated and families divided to form monogamous nuclear units, women have adapted to and utilised newer social and cultural spaces created in the wake of 'development.' In these, women continue to engage in social production roles that may be apparently different from those performed historically but have bearing on the local economy and polity both. Today, Mahila Mandals have become fertile grounds for women looking at honing leadership skills to move into Panchayats, often co-opted by one political party or another. Often, the Mahila Mandals are also used for political means, or as mouth pieces to pass on 'political' messages.

There are caste based 'Mahila Mandals' which also function as Self Help Groups (SHGs). The SHG collections are used for collective purchases mostly. Even if the SHG component of the Mahila Mandal is dysfunctional, contributions are made to keep these women collectives going. Thus, to summarily dismiss the 'Mahila Mandal' as a state-driven and externally constructed institution would be erroneous. In many parts of Himachal like Lahaul, Mahila Mandals are platforms where women assert their collective identity, where they exercise agency on a gamut of societal matters. With the rise in tourism, Mahila Mandals have been organising *'safai abhiyan'* (cleanliness campaigns). In instances where tourists are stranded, they participate in rescue operations, often serving meals and tea. In the Lahaul valley, the role of Mahila Mandals includes governance of the forests as well.

Of the 20 Mahila Mandals with whom we had focused group discussions during the study, at least 12 reported a clear system of self-imposed regulations around the access and use of forests. This includes full closure of the forest for lopping of trees for fuelwood through the year except for a collectively decided period in the month of October when the forests are declared to be open by the mahila mandal. The same rule also applies for collection of leaf litter and *shukpa*. Since sharing of boundaries and forest resources existed in many parts of the valley, 'restraint had to be exercised' first by the villagers themselves, before expecting 'outsiders' to stop, as we were informed through discussions with different Mahila Mandals in Lahaul. In the case studies presented below, we present different aspects of this governance which emerged from these focused group discussions.

JUNIPER REGENERATION TO BREAK IMPACTS OF AVALANCHES AND RESTORING DEGRADED FORESTS: STINGRI, KWARING AND BILLING

The year 1979 is etched in the minds of people in the Lahaul Valley. When we inquired into the motivation behind the regulation of felling juniper in the Tod Valley, the large-scale avalanches which hit the region and claim many lives were brought up. 'Puri Lahaul Ghaati mein hahakar mach gaya tha,[people across Lahaul were in a state of shock and crisis]' the elders of Billing narrated. It was post this in the 1980s, that the initiative to stop felling junipers for fuelwood began. Mahila Mandals took the initiative further ahead in the 1990s through further regulations on collection of leaf litter and needles for incense. Following Stingri and Kawaring of Yurnath panchayat lies Billing village, just downstream of Keylong on the right bank of the Bhaga. This area flanked by steep mountains is mostly pasture lands covered with junipers. These forest patches are also considered to play an important role in arresting the flow and the impact of avalanches. 'Tree trunks support the snow cover and provide an anchor to potential slab avalanches; Snow drifting is almost eliminated; Tree canopy retains snow and releases it gradually; Forest canopy moderates the variability in the net energy exchange with the snow surface, which tends to produce a uniform snow temperature distribution and stable snow cover.' (Ganju & Dimri 2004). The three villages including Keylong share their forest boundaries. Livestock from Stingri used to graze in Billing's forests and the people of Billing used to source their timber from Stingri. Women in Kwaring and Stingri as well as the elders in Billing spoke about the over use of Juniper as a threat which emerged decades ago. This is also confirmed by certain studies specific to this species that is also known to be slow growing (Rawat and Everson 2012).

Figure 17: Juniper regeneration at Kwaring village

Photo: Hiimshi Singh

In Stingri women spoke about the conflict with Billing over closing the forests. They had to hold protests and even guard their forests at the time. Discussions in Billing revealed that people had to give up their customary rights in Stingri forests, even though the demand for wood emerging from the construction of the district capital was the major cause

of deforestation. Now, systems are in place for lopping the branches and bringing only two loads of juniper annually per family for the local New Year festival and religious purposes in the village. 'These forests cannot be planted, they can only regenerate through protection. Now the forest has regenerated and is thicker. With a rise in temperatures, its growth seems to have improved a bit,' speculated one elder.

Figure 18: Shukpa regeneration at Billing

Photo: Sumit Mahar

SYSTEMS OF PROTECTION AND RESOURCE DISTRIBUTION IN MOOLING AND HINSA

Figure 19: A frontal view of Mooling village

Photo: Himshi Singh

Through the mighty mountains on the left bank of the Chandra river, a kutcha road leading to Mooling village opened to myriad shades of green in early July, with cauliflowers and apple orchards in the foreground, and a thick temperate forest up above. In a valley dominated by rolling pastures, Mooling's forest wealth is unique, which is probably why it was a shared resource over many villages. From Lote to Gondhla upstream and upto Tandi, villagers had customary rights in this forest to meet their demand for both timber and fuelwood. For Mooling, a tiny village of 30 families, the forest has also been a source of leaf litter, medicinal plants, and the bark of the ***bhojpatra (jhaadu)***, and blue pine cones.

Here too, an active women's initiative had regulated forest use for over three decades. *'Ek TD sanction hoti thi to uske saath teen ya chaar aur pedh kat ke chori chhupe le jaate they'* (While only one TD was sanctioned people used to steal off three or four more trees') .In the mid-1990s, they were told that the timber distribution was closed by the government and the panchayat decided that this decision was appropriate. 'This was good for us since the forest was beginning to degrade. It was after this, that the Mahila Mandal felt that a restriction on fuelwood lopping was necessary to allow regeneration. This was bound to be difficult considering the number of villages that relied on the Mooling forests. How did the Mahila Mandal then achieve this? 'First we had to stop our own selves before instructing others to do the same', said a Mahila Mandal member. The Mahila Mandal assured the neighbouring villages of Bargul and Shipting that they were enforcing the rules strictly for themselves. 'Following this, the neighbouring villages too closed down their forests.' Thefts, if any, are reported to the Forest Department. When probed further on the role of the forest officials in this, one member said, *'Chowkidari to hum kar rahe hain, lekin salary unhi (Forest Department) ko milti hai...unhe to aaram hai'* (We are the ones guarding the forests, and they [the Forest Department] draws the salaries), said a Mahila Mandal member.

Fuelwood collection is regulated through a system whereby the forest is opened one time a year around the end of October— post farming season—where members from all households can enter the forest. Preference is for picking up dried and fallen fuelwood. The loads are then divided amongst all the families in order to ensure that the distribution is equal. Chits are placed on each load for random distribution. But how does that meet the winter heating requirements? 'Since now we have a deficit of fuel we buy from the depot as the willow forests are also drying up.'

Soodi or the pine needles are essential to be used as animal bedding during winters. It is collected once a year in the month of October, just before the onset of winters when the forest is open for 20-25 days. 'The more the leaf litter the better the quality of manure.' Around March-April men and women begin removing the compost that has accumulated in the animal shelters through winters. 'Some families do not have enough members and others have four or five adults who come to work and lift off a larger share. So we decided to make a rule of a member per family and collecting together rather than individually.' During this time, villagers also collect juniper or *shukpa* which holds a sacred value and is used for purification purposes during the rituals. Every household is allowed to collect one *kilta,* or a bamboo basket that can carry about 15 to 25 kgs, of *shukpa* for use throughout the year. *Kaala jeera* (black cumin), *guchhi* (morels), *kadu patta* are found in the forest, but are collected only for personal use, setting a good example of 'sustainable harvesting practice.

When asked if they see visible changes in the forest, the women promptly spoke about the increase in population of the Ibex. This forest has been home to musk deer, snow leopards, langurs, ibex, and bears. *'Abh itna ghana jangal ho gaya hai akele jane mein dar lagta hai. Ibex to niche tak aa jate hain',* remarked one Mahila Mandal member. However, despite putting in place the systems, it has not been smooth sailing for the women. In Hinsa, a village in the Patan Valley, women seemed exasperated. Here too, the forest is open for five days in the months of May-June for collection of leaf litter and 10 days in October-November for collection of fuelwood. Each household is allowed to collect two headloads per day. But here, women narrated stories of guarding the village at night due to lack of cooperation from men in the village. 'The men do not follow the rules we (women) lay down.'

The forests faced the threat of timber theft and men of the village were involved in this along with people of neighbouring villages. Back in 1999-2000, there were instances where women fought the men in order to stop the violations. In addition to the housework, the work in fields, and other social activities, women feel burdened by the task of managing the forests.

The Mooling forest is diverse and at a lower altitude in the catchment of Chenab River where the weather is favourable for tree growth. Kwaring and Stingri villages are in the upper catchment and have harsh climate where Poplar and Willow trees visible in small patches, in and around field bunds, where irrigation is available. In the higher elevations, stunted trees and shrubs of Pencil

Cedar are found. In both the cases, regeneration maybe attributed to community management. In Mooling, plantations may have played some role. But in case of Kwaring and Stingri, artificial regeneration of pencil cedar has been ruled out and the increase in the EVI can be attributed to natural regeneration and better protection. A Gaddi shepherd who was passing through the forests of Mooling and Shipting to take his flock to the pastures of Stingri and Kwaring was categorical that he had been seeing the forests for close to four decades now and he found that there has been a three to fourfold increase in the forest thickness.

Figure 20: Enhanced Vegetation Index (EVI) for Mooling forest for year of 1990

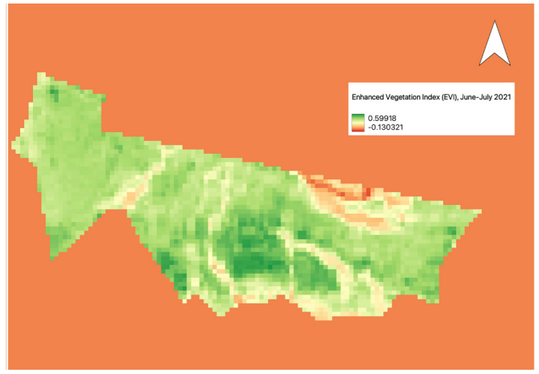

Figure 21: Enhanced Vegetation Index (EVI) for Mooling forest for year of 2021

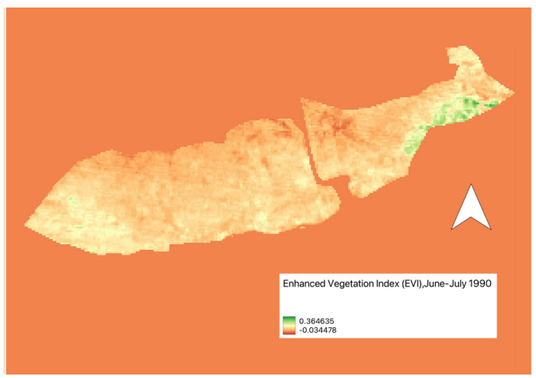

Figure 22: Enhanced Vegetation Index (EVI) for Stingi & Kwaring forest for year of 1990

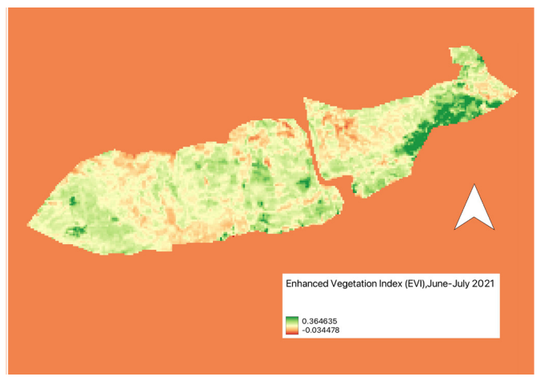

Figure 23: Enhanced Vegetation Index (EVI) for Stingri & Kwaring forest for year of 2021

*By using Google Earth Engine to select Land sat 5 (1990) and Landsat 8 (2021) surface reflectance images for the months of June-July I calculated Enhanced Vegetation Index (EVI) from these images using this formula: 2.5 * (nir - red) / (nir + 6 * red - 7.5 * blue + 1).*

The maps below show the changes in EVI over time. EVI has a range between 0 and 1 where values closer to 1 indicate a better forest cover than values near 0. EVI values from the snapshots in time are joined to these random points and therefore, represent changes in EVI over time (1990 to 2021). There is an overall trend in increase of forest cover in three forest areas – Mooling, Stingri and Kwaring. Mooling (Figure 21) has higher EVI values than Stingri and Kwaring.

- Preeti Rao, GIS Analyst based in Los Angeles

ONLY PARTICIPATION MAKES PLANTATIONS WORK: SHASHIN, SHOOLING, BILLING, CHOKHANG

Most local people scoffed each time we mentioned departmental efforts to grow plantations. Barring the roadside poplar plantations or willow patches and two nurseries, we did not see too many successful plantation efforts (with visible or thriving plants) by the Forest Department. Apart from willow, people too had little faith in regeneration through plantations. Data obtained through the RTI application shows that in the last ten years, the Department through its various schemes has planted 18.5 lakh trees of about 13 species in Keylong and Udaipur divisions of Lahaul Valley. The dominant species include blue pine, cedar, willow, poplars, apricot, sea buckthorn, and Robinia. Robinia and Poplar are not native to the region. While the Forest Department claims an average survival rate of 70 to 80% in the RTI response, people reported failure more often.

The three main reasons cited by the residents for failure of plantations were faulty site selection, unavailability of irrigation, lack of maintenance and care, and the harsh weather conditions. The importance of involvement of the community was mentioned specifically at Shooling, Chokhang and Billing villages. These villages were exceptional cases where people's involvement had led to better site selection as well as care and proper management. In Chokhang, the Mahila Mandal mentioned that 'committees' were also created by the Forest Department under DPP, JFM and JICA, funds were also allocated through the committees; and checkwalls were also constructed under DDP. Poplar and seabuckthorn were planted under these programs. Women reported that the plantations were supported by the local communities because they would help with breaking the impact of avalanches. They said these plantations were surviving.

In Billing, the elders informed that two DDP projects had been implemented in the area. 'The DDP committee had to look after the accounts and the labour management. The first willow plantation under DDP was in the mid 1990s. 80% of the trees have now dried and most have not grown much,' an individual told us from a focused group discussion in Billing. In the last 15-20 years, the snowfall has also reduced. So, in an already dry area, the moisture has become lesser. 'Only where irrigation was arranged with support of the

Yuva and Mahila Mandals has the survival of plantations been better,' said Ashok Kumar from Shooling. A learning that yet remains to turn to common practice in state funded afforestation programs.

In Shooling village, we were shown two plantation patches. One was higher up, closer to the mountain ridge in a dry area. This was an older plantation. Since it was further away from the village and there was no irrigation available, the plants dried up. Lower down and located near a kuhl was another plantation. Being closer to the village, community participation ensured better results. *'Forest walo ka management itna kharab tha ki inhone plantation pehle ki aur irrigation pipeline baad mai bichayi..tab tak kya bachna tha, sare paudhe sookh gye!* [Forest Department's management was so bad that they first carried out plantations and then laid down the irrigation pipelines. In the meanwhile, all the saplings dried up]', opined Ashok Kumar. Mahila Mandal members of the village, informed that the saplings require ample care in the initial 3-4 years. *'Naya paudha laga kar uska bahut dhyan rakhna padta hai, pani-khaad lagani padti hai, nahi to yahan kuch nahi bachta..vo upar jo plantation kiya, humne kabhi forest walo ko wahan dubara aate nahi dekha..tb to fail hona hi hai'* (Saplings require a lot of care – water and manure. So the access to the site matters – if it is far away from the village it is difficult for people to participate in nurturing and maintaining the plants), said Sushma, Mahila Mandal President.

In the same panchayat of Khangsar is Khorpani village. Resident Ram Singh said, 'The entire plantation above the road is planted by us but funded by the Forest Department. We also look after this forest.' He spoke of an instance, 8-10 years ago, where the people of the village had fined a forest guard for improper pruning of willow trees. 'All institutions have to get involved – only then such protection and plantation measures work. *Jab Sarkar public ke upar aur public Sarkar ke upar control karega tabhi to chaelga'* (When the State exercises control over people and vice versa then only will it work) Ram Singh further added. It is important to note that all these villages also reported protection measures in their forests (like self-regulation similar to Kwaring, Stingri, Mooling spoken of above) which had yielded better results. This points at the need to marry community ownership with technical support from the forest department.

Figure 24: Plantation site at Shooling with no results

Photo: Himshi Singh

ARTICULATING 'DEVELOPMENTAL' THREATS TO THE ECOSYSTEM: SISSU, TANDI, DARCHA, CHARU

On 11th July 2021, a visibly agitated group of women were gathered in Sissu around the Tribal Affairs minister of the state and MLA from the region, Dr. Ram Lal Markanda, having a heated discussion. As the Minister zoomed away in his car, the disappointment on the women's faces was apparent. Sissu village, also the name of the panchayat, is the first village that falls on the main highway when one enters Lahaul via Atal Tunnel. With a helipad, lake, cafes, homestays, and the added advantage of its accessibility, it has become a point of tourist attraction over the years. With the opening of the Atal Tunnel, tourism activity in the village has spiked. Amongst the various adventure activities run for tourists in the Solang Valley near Manali are 'All Terrain Vehicles' (ATV). Now, young tourist operators in the area are investing in ATVs in their area, operating them on the open areas around the lake and helipad, which is grazing land of the villagers. The low pressured and broad tyres cause damage to the grass and hence it is a great concern of the locals. Those opposing the ATV operation, majorly the women, say that these vehicles will only create more nuisance in the name of tourism. There is no need for registration of these vehicles and hence there's no accountability of their operation. In addition to all these issues, there is also an environmental concern of the pollution caused by these vehicles. 'We don't just have to think about today, but also of the 10-15 years ahead – what would be the scenario here', said Suman, the Mahila Mandal president.

There is a helipad near the lake, which is also on the grazing land. It has already significantly reduced the area for grazing. Dolma, who runs a home stay with her husband Neelchand, said, 'We learnt from people in Manali, like Palchhan village, that ATVs completely ruined their grasslands. The Sissu waterfall, also known as Plum Dhara is the sacred site of the revered dakini Palden Lamo. Here too, tourism activities are being done, much to the deity's unhappiness', she said. *'Hum Raja Gepang ko bhi naraaz nahin karna chahte* (We do not want to annoy Raja Gepang)', added her husband. The administrative authorities

Figure 25: View of the tent colony in Sissu and the grazing ground where the ATVs will operate

Photo: Himshi Singh

and political representatives, sympathizing with those in favour, pressured the locals to sign the No Objection Certificate (NOC) to allow ATV operation. After a long debate and discussion, and much to the women's disappointment, the NOC was given by the gram sabha in 2021.

At village Tandi, lower down and situated at the confluence of rivers Chandra and Bhaga, the discussion with the Mahila Mandal revolved around another threat—a proposed 104 MW hydropower dam to be built by public sector entity Satluj Jal Vidyut Nigam. This is one of the ten above 25 MW planned in the Chenab River basin of Himachal. The government plans to build projects of more than 3000 MW capacity on the 130 km stretch of the river, of which the 300 MW Jispa project and 400 MW Seli project are in advanced stages of receiving clearances. They have met with staunch local opposition.

Figure 26: Protests against a hydropower project on the Chenab in Lahaul

The reservoir for the Tandi project is proposed to be built downstream of the Tandi confluence. Apart from the thriving economy based on cash crops like cauliflower, potatoes and peas, the village has also seen good tourism activity. 'The soil here is sandy and if a dam is built the land is likely to cave. To top that, we already have the threat of avalanches. If there is danger from above and also below, then neither can we survive nor our farms,' said the Pradhan of the Mahila Mandal. But more than anything it is the submergence of the religious and cultural significance of the Chandra-Bhaga sangam for both Buddhist and Hindus, that is a matter of concern. The women were well tuned into the threats around hydropower dams. They were conscious and also clear about the impacts of dams and recalled the horrifying visuals from Uttarakhand's Chamoli that they saw on social media earlier in 2021. In fact, it was the day after the Chamoli disaster that the village formed the Tandi Bachao Sangharsh Samiti that has vowed to oppose the project.

Further down the valley in village Jasrath on the left bank of the Chenab, the Mahila Mandal was also vociferously against the Tandi project. The area was in the news in the monsoon of 2021 when on 13th August that year, a massive landslide on the left bank in neighbouring Nalda blocked the flow of the Chandrabhaga, forming a lake near Jasrath village for about two and a half hours. The threat of being submerged loomed over the residents. However, the lake breached and normalized the situation. This was the first time that the area had seen a landslide. The Jhalma bridge had already got washed away in the flash floods in July 28th, 2021.

There is a turn where the river cuts into the mountain, causing erosion. 'This was during the cauliflower season and half of the harvesting was done. At the time, both cauliflower and peas could not be transported out on time. We were already reeling under the impact of that flood when the Nalda landslide occurred. After the landslide, the water level had reached the pillars of the bridge and if it would have continued for another two and a half hours, Jasrath village would have started getting submerged. Two houses and some fields had already gotten submerged,' said Shilpa, Pradhan of Jasrath Mahila Mandal. The area where the landslide occurred had started showing some signs of erosion back in 2015. While the dam of the Tandi project would be upstream of this village, both Jasrath and Nalda will also be affected by the 130 MW Rashil project to be built just downstream of them. The tunnel of the Rashil project is likely to go underground of Jasrath and Nalda.

Figure 27: The Landslide at Nalda that blocked the flow of the Chenab back in 2021

Photo: Sumit Mahar

V. FOREST RIGHTS ACT 2006 – RELEVANCE, POTENTIAL AND CHALLENGES

'The Forest Rights Act 2006, gives many rights, especially in the tribal areas. It also has certain duties outlined related to protection and governance of forest resources. Lahaul, a cold desert area where forest resources are limited, locals have been governing their resources for long. Women especially are playing a big role. However, they remain bereft of their rights.'

- Sudarshan Jaspa, Jasrath, Pattan Valley

The Scheduled Tribes and Other Traditional Forest Dwellers (recognition of forest rights) Act 2006 grants rights over any kind of forest land for both individual and community uses for lands under utilisation for livelihood before 13th December 2005. The Individual Forest Rights (IFR) and Community Forest Rights (CFR) are legally, and on the ground intertwined rights written out and vested to right holders under section 3(1) of the Act. Until 2016, the key unit of implementing the Act in the village—the Forest Rights Committees—were formed at Panchayat in Himachal Pradesh, instead of at the revenue village level, as the Act mandates. By this time, more than 5000 claims were filed from Kinnaur, Lahaul-Spiti and Chamba districts, but these were all null and void once the 'reformulation of FRCs' was notified in 2017.

WHY INDIVIDUAL FOREST RIGHTS MATTER

The demand in Lahaul has been centered around Individual Forest Rights and emanates from the need to secure tenurial rights over 'individual' occupations that could not be regularized under the state rules. These state rules had granted upto 20 bighas of land known as ***'nautor'*** (breaking new land for cultivation) for a dignified livelihood. The 'nautor' allotments came to a screeching halt owing to the strict provisions of the Forest Conservation Act 1980, which disallowed transfer of land classified as 'forest' to non-forest purposes. Given that in Himachal most state lands were under the jurisdiction of 'forest' laws, the FRA 2006, provided a window for recognition of these individual claims dating back to the 1980s. The bureaucracy, however, was already dilly-dallying on the Act, even before things began moving. Matters came to a head when the electricity connections of some habitations on 'forest land' were cut-off.

Figure 28: Meena at Changut village pointing at the ruins due to the floods near her home

Photo: Sumit Mahar

IN THE GRIP OF DISASTERS: THE CASE OF CHANGUT

Changut, a tiny village in the Miyar valley is a site of devastation. It is easy to miss the habitation and any sign of a road amidst the massive boulders that have rolled down along both sides of a nallah. People recalled how farmers from villages beyond Changut transported their peas harvest over a makeshift bridge.

It was more heart-wrenching to hear was that the entire village had to take shelter in a cave for almost two days as they waited for the flood to subside and for help to come their way. It took more than five days for help to arrive as the village was cut-off from contact with the world outside. Images rolled out through the social media with people making pleas for help and lashing out at the administration for their slow response. This shows the apathy of the political establishment for this area. For the families in Changut, disasters seem to have become a part of their lives. A series of flash floods and cloudbursts experienced in the Changut nallah have changed the face of this village. Women point to different patches of land near the nallah trying to indicate where their houses once stood or from where their farms were wiped out. The first round of devastation occurred in 1992 during an avalanche. Two houses were damaged and land was allotted for that. After 1997, floods have been coming every few years. The biggest tragedies occurred in 2002 and later in 2013-14 where most of the agricultural land and homes were washed out. Close to 21 families had helplessly occupied forest lands before 2005 to set up their homes and some fields post the repeated flash floods. These occupations on forest land were prior to 2005 and were recorded as *'najayaz kabza'* or illegal encroachments, and hence can be considered as important eligibility criteria for IFR claims under FRA. But the claimants were told by the SDM that they could only file for house claims and not of farming land, which is mandated by FRA. 'We were also told that those who have any member of the family in government jobs will not get the claims' the FRC members said.

Even those with small and temporary government jobs, who were not even on a contract, did not get the titles. About six people got their claims in 2017, with another 15 pending. 'Even as our forest rights claims were pending, they came one day and cut off the electricity connection. We lived without electricity for more than a year and a half before the connection was restored', as mentioned by an FRC member.

And so, the first set of tribal forest rights claims in the state were IFR from Lahaul—a total of 76 were issued titles in Lahaul in 2017. Most of these were for habitation. While no written notifications were passed, setting a precedent of sorts, the Lahaul administration's Sub-Divisional Level Committee continued to send back IFR claim files for farm land. In village Khoksar, farmers reported that they were categorically told that for now, the administration was only looking into 'habitation' claims. In Shooling, 16 people got rights for their house in 2017 under IFR provision of FRA. When asked why they did not claim for the farm land as well, Prem Prakash, Vice President of the Panchayat said, 'They say they will first give rights for habitation, then for land. There is threat of avalanches from both sides and so we had to occupy other areas. In 2017 the department cut off our electricity connection and served notices. Many stopped cultivating these lands from then on – vacating their age old occupations.'

Although the Act does not talk about filing claims for house and land separately, this pattern has been followed in Lahaul since then. One of the key observations while interviewing people about FRA was that they were thankful to the administration for not cutting their electricity and giving titles of their house to them. They spoke about it as if they had been given something out of charity, as a result of which they had even vacated the land they had been cultivating before 2005. This, evidently represents the clear lack of knowledge of their rights under FRA and lack of efforts from the administration towards spreading awareness.

This effort met with mixed and mostly lukewarm responses. While at the state level, the Tribal Minister announced implementation in 'mission mode' in the December 2018 winter session of the assembly, the pace has remained slow. Even more pathetic is the situation in his own constituency of Lahaul-Spiti. In a personal conversation, the minister admitted that he was opposed to 'individual' claims for cultivation purposes as they would lead to 'land grab.' This is one of the reasons why, in Lahaul, officials refused to accept claims for land under cultivation from individual right holders. While the Forest Department claims large scale and recent encroachments on forest land, in the wake of the cash economy, there seem to be no recorded figures of the extent and nature of such encroachments.

EVICTION OF FOREST RIGHTS: THE CASE OF TINDI

In the entire Lahaul valley, it was the last village, Tindi where we found a state of overt conflict with the Forest Department. The presence of the Department, with the Ranger's office campus overwhelmingly close to the village, could not be missed. As soon as we began the discussion, people poured out their woes. 'Those who had no place to make their homes, are they going to live in the air? All laws are made keeping in mind the concerns of big cities like Delhi. Who will think about us? Don't we have any rights in the forest? Are Reserved Forests out of reach for us?', said Ved Prakash, a rightholder from the village.

They knew about FRA and Individual Forest Rights claims of 10 families from a couple of years ago. 'We had completed the process about 3 or 4 years ago and sent it to the Sub-Divisional Level Committee [second tier of committee under the Act that verifies the claims before sending it higher up to their district-level counterparts]. We have been asked by the revenue officials to provide more evidence, although this was not communicated to us in writing. They just gave us objections verbally. We are all Swanglas, we are not *'Adivasis',* they tell us', added Rattan Singh, another resident. The residents were also told that they are not 'primitive tribals' and thus not eligible for the claims.

'Prashasan dwara tang kar ke kabze chhudva diye. (Evictions were vacated by the department using coercion). In the neighbouring village about 10-11 families had occupations before 1975. They were all evicted in 2013, as the administration decided to remove 'encroachments.' Only 2 or 3 families have retained their occupations. They are the ones who had political support and influence. The rest had members in *'sarkari naukri'* and so they were threatened to leave their occupations. Initially, the FRCs were made at the Panchayat level – they had filed the claims for these occupations in 2011', Singh and Prakash mentioned. They were also aware of the FRA titles granted in Lahaul. There was a training that they had attended in Udaipur. *'Training aisi honi chahiye ki humein samjh aaye. Formality mein daftar mein bithake karte hain* (Training should be simple and easy to understand rather than a formality conducted in offices)', they added.

'Humare Lahaul mein abhi CFR nahin khula hai. Abhi sirf ghar ke liye hain aisa SDM ne camp mein bataya. [In Lahaul the process for CFR titles has not yet been 'opened'. For now, the claims are open only for habitation, the SDM told us during a camp'], Prakash says. Right now, there is not much restriction on *soodi, sukhi lakdi* and grazing. But there is a complete ban on collection of wild medicinal plants – *Jangli lassan, patees, kaun, nagchhatri.* 'Whereas people from Churah (Chamba) come and extract and go but the Forest Department keeps an eye on us' Singh adds. The other restriction is on timber.

'The Border Roads Organisation here has a huge set up, and when they need wood, they are not stopped. Every second day they just take the wood from our forests. They take wood for their buildings and construction. If we cut fuel wood, we are immediately fined. They take away our axes, darati. After 2006-07, the Forest Department became extremely strict. The *lakkad kaand* took place at the time. We needed wood desperately for building and fuel, so we cut a couple of trees and cases were filed against several people in the village. After this event, we just stopped going to the forest as we faced constant harassment from the police and courts. We are stopped from picking up dried wood even in the forest of our own right,' Singh and Prakash mentioned. 'The Forest Department does its own plantations in the wrong areas without asking the local community. Checked dams, poles and barbed wires are put up spending lakhs and crores of rupees. Nepali labourers are used quietly to set up these schemes,' they said.

The discussions at Tindi opened up several issues around the dependence on forests for both habitations, farmlands and community rights and the repression by the Forest Department. As far as FRA is concerned, there is a lack of proper and adequate training, misconceptions about the law amongst administrative officials especially about two dominant views—the non-eligibility of the people of Lahaul as 'tribals' and the non-application of CFRs.

'We may not be appearing 'tribal' today but just spend two winters with us in the valley, then you will know how tribal we are. Economically, the Rs 200-crore economy may seem a lot. But in the whole valley, we have one doctor and four nurses. There is no one to take care of patients in winter. We are mostly referred to Kullu and we keep waiting for a flight on the chopper. Else, we just die at home. There are no ultrasound machines or even an X-ray machine in the hospital. We even walk to Udaipur in the winters. Let the politicians who question our eligibility come and live here through the winters.'

- Resident, Miyar Valley

COMMUNITY FOREST AND RESOURCE RIGHTS

On the surface, it seems that the demand for Community Forest Rights has been overshadowed by the 'urgency' around individual claims, which play a critical role in the farm-based livelihoods in the tribal districts. However, upon visiting villages, we understood that while people were aware of the provision of IFR under the Act, only a few had any clue about the other two rights that the Act recognizes— CFR and CFRR. Further, as the case of Tindi showed, the administration had declared that for now they were not 'handling' CFR claims. This, like mentioned earlier, was also confirmed by the local Chairperson of the District Council or the Zilla Parishad.

From the beginning of the Act's inception, the political establishment in Himachal Pradesh has been arguing that these rights have long been settled and the tribals of Himachal are not as critically dependent on community forest uses as the *'Adivasi'* people in other parts of India. While the forest dependencies were recorded during the colonial forest settlement, these records are more than a century old and are acknowledged as 'concessions' granted to the community. Under the FRA, these would be registered as 'rights'. Further, Section 4(5) would grant protection from eviction as well. Our study has already indicated that forest dependence may have altered, but continues to be critical to not just the local economy but also from the point of view of resilience and protection against climate risks and disasters.

MEDICINAL PLANTS EXTRACTION – A BLACK HOLE?

Figure 29: Woman shoveling snow from the roof of her home in Tingret village

Photo: Manshi Asher

Lahaul is home to several medicinal plant species like *Aconitum violaceum* (*atees – aconites*), *Angelica glauca* (Gandrayan), Bergenia ligulate (Pattharchatta), *Corylus jacquemontii* (Indian Tree Hazel), *Jurinella macrocephala* (*Dhoop* – Juniper), *Juniperus recurve* (Weeping Juniper), *Lilium polyphyllum* (White Himalayan Lily). These have been marked as 'critically endangered', 'endangered', 'vulnerable' and 'near threatened'. The occurrence of a high number of species in threatened categories indicates threats to habitat (Singh et al., 2009). These include greater warming and changing land use, but during the study, locals also reported large-scale commercial extraction as a threat. [We were unable to identify how much of such extraction was legal or illegal] Most reported that 'permits' were being opened once in four years for different species by the Forest Department. 'Most of the extraction is by contractors from the region and neighbouring Kullu, and hardly any by locals. They hire either Nepalis or those from poor families as labour. God knows if there is anything [medicinal plants] left these days,' said one elder in Miyar Valley.

In order to understand the scale of the 'legal' extraction we filed an RTI application with the Forest Department seeking information on the number of permits and the quantity of medicinal plant species granted for extraction in different ranges. However, the Department did not provide information for medicinal plants collected from the wild for which it issued permits.

Recent studies show that illegal extraction and trade in Himachal Pradesh by contractors is a problem which the Forest Department has not been able to address and there is a drastic decline is certain species like Fritillaria cirrhosa. 'Harvested and traded with a new trade name i.e., *'Jangli lehsun', F. cirrhosa* is facing tremendous decline in wild populations due to premature collection of bulbs, over exploitation, unorganised harvesting and illegal trade in the landscapes.' (Mathela et

al., 2021). The case with *Kala Jeera* is similar, which Mahila Mandals reported faced the threat due to lack of regulations. Himachal Medicinal Plant Policy, 2006 itself recognizes that 'the traditions related to community management of the resource have since long been excluded from the so-called scientific management approach and the communities no more feel involved in this management.'

Figure 30: Seabuckthorn bush at Udgos

Photo: Manshi Asher

It is apparent that the forest use regulation efforts of the Mahila Mandals have yielded positive results, even if in tandem with state policy and the move to cash crops. A recent Land Use Land Cover study by UNDP under the 'Secure Himalaya' project concludes that 'as per the forest fragmentation analysis of the Lahaul landscape, it has been observed that out of the total forested area in the landscape, majority of the forests still exist as intact forest under large core forest and next comes the edge forest, which is impacted by the anthropogenic pressure. Hence maximum intervention in terms of management is required in this category.' Unfortunately, the study does not report the forest protection initiatives already underway on the ground.

It also fails to advocate for the provisions of FRA under section 5 which lend power to CFRR committees to conserve the territories where they are granted resource rights. The case of Van Panchayats in Uttarakhand have indicated that village community forest management does lead to better forest health indices, but in absence of legalised institutional structures, financial incentives and ownership, the efforts are difficult to sustain (Pathak et al. 2021).

THE CHALLENGES

Local activists were also vocal about the view of the government that FRA compliance would pose a hurdle to forest diversion for hydropower projects in the valley. Despite the threats perceived by the residents, in the last year, after the opening of the Rohtang tunnel, the Himachal Cabinet had announced these hydropower projects on the Chandrabhaga. The new Sawarna Urja Niti (Energy Policy) (DOE 2021), lays out the various measures by which these projects would be promoted to fulfill India's promise towards the global energy transition. 'The intention of the government is to make big money from these projects. It seems that FRA emerges as a conflict which seems to us why the state is so opposed to the Act. Why else would they be so opposed to us getting rights?' added political activist Sudarshan Jaspa. This is not just speculation but is evident in the state government's own correspondence to the Ministry of Environment, Forest, and Climate Change wherein they sought exemptions from FRA compliance required for forest clearances to construct mega projects (Asher 2022).

Despite all the delays and hurdles, the demand for regularization of individual occupations under FRA 2006 has not yet died down as an issue in the public agenda. The local panchayat elections held in October 2021 witnessed candidates using FRA implementation as an electoral plank. District Council Chairpersons have recently pushed for trainings as well as raised irregularities in the Governor's appointment of District Level Committee's non-official members along party lines. Another local activist adds, 'In the Jan Manch, we have been raising FRA as an issue and they would just give some balanced replies and say that they are 'working on it.' But in the last four years, not a single title [CFR or IFR] has been issued. People have to realise that they were foolish to believe the leaders. Amongst all other state actors, the Forest Department's attitude has been the worst in this period, not just in Lahaul but the entire country for pro-people laws. They fear they will be reduced to just watch guards if this Act is implemented.' During an interview with us, a senior official of the Forest Department went to the extent of saying that the Department was subsidizing fuelwood and timber supplies for the district and hence people should not ask for FRA, else these subsidies would be withdrawn.

Apart from the hurdles posed by the government, FRA implementation and its success will also be determined by the readiness of the communities to address internal fractures and inequities. While Mahila Mandals take on the responsibility of governance, they remain outside the purview of FRA-related decision making within the Forest Rights Committees (FRCs). Reservation for women is guaranteed as part of law, but few of the members are actually aware that they are on the Committee. In many villages, FRCs are yet to become fully functional. On the other hand, we also heard of the dominance of the landed castes in the FRCs.

CASTE FRACTURES

'If people can go into the nallahs and dhars and put peas in those lands and claim under FRA, why cannot I sow in my lands,' said a Dalit resident from the valley. He has 1.5 bigha land and has another 4 or 5 bigha of forest land occupation. He has been growing potato and peas here since 1980. 'Then in 2017, there were orders for removal of 'encroachment' for some families, at that time we had to stop farming these lands. Then the grazers used to come with their sheep and graze over the crops. From Shooling nallah, they would move up and arrange their sheds are there. They also filed a case against us for blocking their grazing path with our cultivation on that land. We have had a long-standing conflict with them. It's not their fault... the route is theirs but there needs to be some justice. And it is not just us who are taking these gaddi pastures that are forest lands. If someone has 60-80 bighas, and yet they are capturing land and then waiting to claim it under FRA, they need to back off. There are nearly ten families in the village who are landless like me, who deserve the nautors and IFR claims first. But the landed community wants to put their claims first. They dominate all the decision making. All the resources are with them, then why do they want to claim more and why do they stop us?'

The other conflict that one of the Mahila Mandals apprehended is likely to come to the fore with CFR is the conflicts across villages in accessing and using forests. Earlier shared use and exchange mechanisms existed which gradually came to a halt with individual

villages protecting their own boundaries.

The CFR follows traditional customary uses recorded in the Wajib-ul-arj (the record of customary uses prepared by the British during the forest settlement process). Would this call for more negotiations about boundaries and use? One elderly male from Billing counters, 'Who has the time for all this? The forests have been safe because we are busy with peas and potatoes. The youth have different aspirations.' Upon returning to the valley after obtaining an education, will the youth—who at this point are dominantly male—find FRA relevant? Would they be connected to the forests? 'Eco-tourism is where the youth will connect. The Forest Department is charging exorbitant amounts for pitching tents from local youth,' said Sudarshan Jaspa. On the other hand, there is an increasing threat of Lahaul going the Manali way with an upsurge in tourism. Eco-tourism projects like commercial ones have reduced locals to labourers. Even in homestays, the burden on the women in the family is doubled. FRA as a law may provide a legal framework to engage with the state structures, but internal societal dynamics would need comprehensive local dialogues over a long period of time.

Figure 31: A group of women outisde the Kardang Monastry

VI. SUMMARY AND DISCUSSION

Forest resource use and governance in a cold desert high Himalayan landscape like Lahaul is overwhelmingly impacted by the physiographic and climatic conditions on one hand, and the socio-cultural and political evolutions on the other. It is the interaction of these that have produced current realities and local adaptations around resources, both private and common (Bhaskar Padigala 2021). It is also evident that different segments of Chenab valley have unique dependencies on forests and commons today. While the Chandra valley's scarce forest resources led to adoption of agroforestry to fulfill its fodder and fuelwood needs, the valley's access to the market and 'development' like tourism has also led to a quicker shift away from traditional occupations like agro-pastoralism.

For the upper valleys, commercial agriculture is now a vital source of livelihood and over the last few decades, villages in this area have broken new land to increase purchasing power. This in turn supports their access to energy substitutes in the market like construction material for houses, LPG, fuelwood, thereby taking off some of the pressure on forests. Now with opening of Rohtang tunnel, the area has been fully connected with main market for the whole year. In the lower valleys, forest scarcities are less and dependencies continue to be higher. Grazing of livestock, and collection of fodder, fuelwood, leaf litter, and incense continue to be critical uses here. There has been a 12% decrease in livestock population between 1982 and 2012, and yet the per capita availability of livestock in the district was more than twice in comparison to other districts of Himachal.

Even in case of fuel wood, which is now mostly used for room heating and partially for cooking, the forest depots are fulfilling a fragment of the total requirement. In lower Lahaul, substantial collection of fuelwood from forest continues to be visible. Thus, despite economic shifts, forest dependence continues to be driven by the livelihood and cultural fabric— commercial farming requires substantial organic manure, surviving the severe winter calls for need of fuelwood, and junipers are revered for their incense, a requirement in everyday rituals as well as religious festivities.

Amongst the key challenges in the contemporary resource use pattern within a cash intensive, private land-based economy, is the low land holding size (of less than a hectare), and decreasing availability of fodder, especially with the fungal attack and mass deaths of the willow trees in the last 15-20 years. With this, communities have turned to common land to come over the scarcity of land and resource. With the push for commercial agriculture, especially post the 1990s, families in Sissu and Jobrang, for example, used the non-forested 'forest land' around the village for willow plantations, dividing the patches amongst themselves to be managed by individual households as they used fodder and fuelwood trees.

Among the other major events that impacted resource use, were the deadly avalanches of 1979, and the threat of more such climatic events, especially in the Tod and Chandra valleys. The dwindling temperate forests were not due to local over extraction as elders in Billing and Mooling identified, but due to the high demand for timber and fuelwood as the district headquarters were set up and expanded.

To protect the forests, Mahila Mandals with other community members began regulating usage of the forests in their village boundaries around the early 1980s. This closure was not just for other nearby villages but for self-use as well. In Lahaul valley, there has been no formal 'settlement' exercise but villages still follow and respect customary boundaries of forest usage. The collective decision-making works at the village level and the protection and management of forests carried out through social regulations. The initial resistance and conflicts that arose, especially as sharing of resources across villages had to be compromised, Mahila mandals had to actively guard boundaries. As a spin off, other villages have also started closing down their forest boundaries evolving systems of regulated use of niche species like Junipers

While rules are applicable to all without discrimination, no special considerations are made keeping in view the vulnerabilities of the Scheduled Caste community, who have much higher dependence on land, but have to accept the majority decisions on restrictions imposed. As institutions, 'Mahila mandals' may have been introduced by the state as part of its 'gender empowerment' schemes, but evidently, these groupings with representation from every household, exercise considerable agency performing key social production roles – village clean ups, providing logistical support to tourist rescues, resolving domestic issues and familial conflicts. With little government support, 'Mahila mandals' manage their activities through contributions in cash and labour from members. Restoration apart, women have also been at the forefront raising concerns against large-scale hydropower development and tourism that is viewed as a threat to local ecology and economy.

Have local forest governance efforts yielded the results? Women explicitly spoke of Juniper forests which were once reduced to scrubs having gained the status of trees. Forest cover shifts measured by FSI and oft touted by the Forest Department are controversial and unreliable as indicators of forest health – they look at landscape level changes and often miss out the local specificities. In an EVI analysis carried out by a GSI specialist as part of this study, we found that forests in villages Stingri, Kwaring, and Mooling reported an increased forest cover due to the Mahila Mandal's protection mechanisms put in place over the last few decades.

On the other hand, State led Desert Development Program in the late 70s and later the Sanjhi Van Yojna (JFM) in the 90s both introduced afforestation measures, but locals reported these as 'failures' and a wastage of resources, even as women narrated successes of their efforts towards protection and natural regeneration. Firstly, agroforestry has been a customary practice in this region. Secondly, plantations of species other than willow have not been successful. Thirdly, when carried out with agreement and consent from the community, the afforestation measures yielded better results. And yet people reported that plantations are carried out by the Department without consulting and involving Mahila Mandals in planning, and locals' participation, if at all, was limited to daily wage labour.

State led and institutionalized forest governance which began with the British empire in the late nineteenth century was rooted in the idea of control over territories for empire's commercial interests translating to exclusion and denial of local ownership and dependence with the stated objective of 'resource conservation.' Post-independence a series of centralized forest regulations and court orders that continued this colonial capitalist legacy, were the critical factors that impacted community use and access of common lands across the board. These historical exclusions continued to feature in the discourse on Himalayan environmental crises while the political and economic drivers that treated the Himalaya as resource frontiers for extractive agendas and localized ownership contestations with mountain communities, remained invisibilised. This further compromised the agency of the most marginalized in caste, class and gender hierarchies (Gardner 2001; Ives 2004; Chakraborty et al. 2021). Social forestry programs professed allegiance to participatory forest governance while reinforcing existing structural inequalities (Ramdas 2009; Agarwal 2010; Vasan 2001). In the age of global climate crisis and a push for nature based solutions, the Himalayan region is recipient of multilateral international climate adaptation and mitigation funding (Williamson 2023), of which the forest department is one of the beneficiaries (ICFRE 2020). The interest of the yesteryears was timber and today it is the financialisation of nature for green growth (Aggarwal 2013). Local forest land dependence continues to be seen as a threat in both reproducing the patriarchal colonial tropes. Whereas global as well as regional research has stressed the criticality of indigenous knowledge systems and decentralized institutional mechanisms for ecosystems governance (Murali et al. 2022).

In Lahaul, landscape restoration and climate adaptation programs are being implemented which local residents have little information about. The irony is that not just are these projects riding on the labour put in by community members especially women in restoration and adaptation initiatives; but that there continues to reluctance to engage with these communities as right holders.

In recent times, the clearest evidence of the power that the Department exercises vis-a-vis retaining control over forest land, has been evident in its role in blocking or negating the implementation of the Forest Rights Act 2006 in the region particularly, and also in the entire state of Himachal Pradesh. This law that aims to strengthen the two fundamental and connected pillars of forest governance – livelihood dependence and conservation – has been systematically undermined by the bureaucratic and political establishment despite a local demand for the same. International agencies, in their financial and technical support to the department have fallen short of advocating for indigenous tenurial rights, even as they pour in crores in the name of 'ecosystem restoration and adaptation.'

Despite being labelled 'concession holders,' 'subsidy swingers' and 'fake tribals' given the elite within the community, notwithstanding the pressures of fast paced commercialisation with the opening up of the Rohtang tunnel, in the face of climatic threats diverse and lesser heard voices from within the Lahaul valley have engaged with questions of preservation of ecosystems and local self-governance.

The need of the hour is democratizing and decolonizing governance and creating a space for shared custodianship of the commons, with the administration as a facilitator and the forest dependent people as 'owners.'

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ANNEXURE 1: LIST OF ABBREVIATIONS

ATV	All terrain Vehicle
CAG	Controller Audit General
CFR	Community Forest Rights
CFRR	Community Forest Resource Right
DDP	Desert Development Programme
DoE	Directorate of Energy
DPAP	Desert Prone Area Programme
EVI	Enhanced Vegetation Index
FCA	Forest Conservation Act
FRA	Forest Rights Act
FRC	Forest rights Committee
GoHP	Government of Himachal Pradesh
IFR	Individual Forest Rights
IWDP	Integrated Watershed Development programme
JFM	Joint Forest Management
JICA	Japan International Cooperation Agency
LPG	Liquified petroleum Gas
MLA	Member of Legislative Assembly
MW	Mega Watt
NoC	No Objection Certificate
SC	Scheduled Caste
SDM	Sub Divisional Magistrate
ST	Scheduled Tribe
TD	Timber Distribution
THED	Theory of Himalayan Degradation
WWF	World Wide Fund

ANNEXURE 2: COMMON AND SCIENTIFIC NAME OF TREES AND HERBS USED IN THE REPORT

Local name	Common name	Scientific name
Bhojpatr	Birch	*Betula utilis*
Chilgoza	Neoza	*Pinus gerardiana*
Devdaar	Cedar	*Cedrus deodara*
Jangli Lahsun		*Fritillaria cirrhosa*
Kadu	Kutki	*Picrorhiza kurroa*
Kail	Blue pine	*Pinus wallichiana*
Kala Jeera	Black Cumin	*Bunium persicum*
Patish	Aconites	*Aconitum heterophyllum*
Poplar	Poplar	*Populusnigra; P.balsamifera*
Rai	Spruce	*Picea smithiana*
Shukpa/ Devidar	Pencil cedar; Dhoop	*Juniperus macropoda*
Tosh	Fir	*Abies species*

ANNEXURE 3: IN THE CASE OF LAHAUL, A LOOK AT THE ISFR 2019 REPORT REVEALS A DECLINE IN THE FOREST COVER TO 160 SQUARE KILOMETERS,DOWN BY 32%.

FSI data on forest cover data of Lahaul and Spiti district (in sq kms							
Year	Geographical Area	Dense forest	Medium	Open forest	Total	% of Forest area to GA	Scrub
1991	13835			17	17		
1993	13835	15		4	19		
1995	13835	49		34	83	0.6	262
1997	13835	49		34	83	0.6	260
1999	13835	34		116	150	1.08	124
2001	13841	36		118	154	1.11	94
2003	13841	7	28	145	180	1.3	
2005	13841	7	28	145	180	1.3	48
2007	13841	15	32	146	193	1.39	
2009	13841	15	32	146	193	1.39	31
2011	13841	15	32	147	194	1.4	31
2013	13841	15	32	147	194	1.4	
2015	13841	15	32	148	195	1.41	27
2017	13841	15	31	147	193	1.39	24
2019	13841	15	30.87	114.48	160.35	1.16	15.37
2021	13841	15	30.67	113.18	158.85	1.15	14.59

ANNEXURE 4: LIST OF VILLAGES AND MAHILA MANDALS

Name of Valley	Name of Village-Panchayat	Mahila Mandal spoke clearly/ in detail about self imposed restrictions	Community Forest Use & Dependence	FRA AWARENESS		
				IFR	CFR	IFR Claims Filed
Chandra	Khoksar	NO	Low	Y	N	Y
	Sissu (Shashin and Toche)	YES, IN SHASH-IN, SISSU, NO IN TOCHE	Sissu - Low	Y	N	Y
	Teling	NO	Low	Y	N	Y
	Shooling	YES	Medium	Y	N	Y
	Mooling	YES	Medium	Y	N	Y
Bhaga	Kwaring	YES	Medium	Y	N	Y
	Stingri	YES	Medium	Y	N	Y
	Billing	YES	Medium	Y	N	N
Patan	Tandi	YES	High	Y	N	N
	Jasrath	YES	High	Y	N	N
	Chokhang	YES	High	Y	N	Y
	Hinsa	YES	High	Y	N	N
	Madgran (Ratoli and Charu)	YES IN CHARU, RATOLI - UN-CLEAR	High	Y	N	Y
	Tindi	UNCLEAR	High	Y	N	Y
Miyar	Chimret	UNCLEAR	High	Y	N	Y
	Changut	UNCLEAR	High	Y	N	Y
	Tingret	YES	High	N	N	N

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