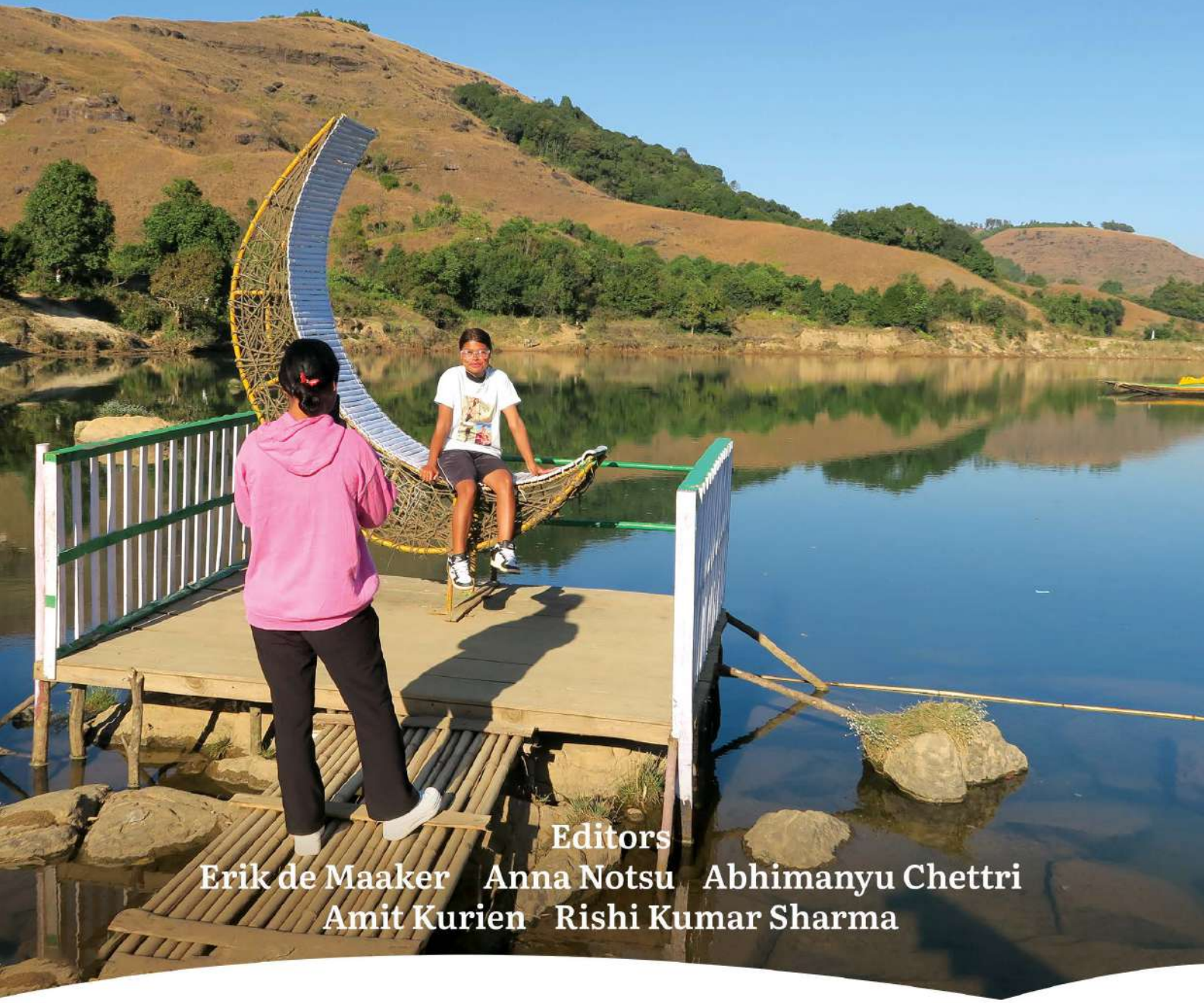
Community Involvement in Conservation and Livelihood Initiatives in the Eastern Himalayas

Reflections on Practices and Policies



Editors

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Front cover: Cham Cham community managed fish sanctuary, West Jaintia Hills district (photo: Erik de Maaker)
Back cover: Rope bridge in Dzongu, Sikkim (photo: Erik de Maaker)

Keywords: 1. Environmental conservation; 2. Cultural heritage; 3. Indigenous communities; 4. Livelihoods; 5. Northeast India.

This critical reflection is an initial output of a 5-year research project titled 'Futuring Heritage: Conservation, Community and Contestation in the Eastern Himalayas' funded by the Dutch Research Council (NWO), conducted in cooperation between Ashoka University (New Delhi), Leiden University (Netherlands) and RV University (Bengaluru). The project consortium encompasses representatives of Forest Department; Garo Hills Autonomous District Council; Garo Hills Nokma Council; Holiday Scout; Meghalaya Basin Management Agency (MBMA); Mutanchi Lom Aal Shezum (MLAS); North East Society for Agroecology Support (NESFAS); Society for Urban and Rural Empowerment (SURE); World Wildlife Fund India and the Wildlife Trust of India.

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Executive Summary

Human-environment relationships have long sustained the ecological and cultural richness of the mountains and foothills of the Eastern Himalayas. Forests, rivers, lakes, and farmland support diverse ways of life and are deeply embedded in local knowledge systems. However, these landscapes now face intensifying pressures from deforestation, the privatization of once-communally-sustained resources, and the growing impacts of climate change - including erratic rainfall, droughts and flooding. In response, over the last two decades, a plethora of initiatives have sought to conserve biodiversity while aiming to sustain existing ways of living rooted in ecological and cultural values.

This policy analysis arises from the Futuring Heritage research project's aim to critically reflect on these emergent conservation efforts and to strengthen collaboration between diverse actors – namely, academic researchers, NGOs, and policy makers – across the Eastern Himalayas and beyond. Each contribution examines past and existing environmental conservation in the region through a specific case study, exploring how they define sustainability, authority, and the future.

Co-written by project researchers and societal partners, this collective publication contributes to closing the science-policy gap and advancing more grounded, plural, and collaborative approaches to environmental management, where the idea of participation and local involvement is increasingly at stake. Our goal is to foster deeper regional cooperation and open new interregional and international pathways for collaboration that can inform future research. By placing policy initiatives in dialogue with diverse knowledge systems, situated experiences, and differing perspectives, this policy analysis supports more responsive, inclusive, and context-sensitive strategies for addressing the urgent challenges facing the Eastern Himalayas today. This policy analysis is divided into two thematic parts: (I) Community Conservation; (II) Land Use and Livelihoods.

Community Conservation

The first section, Community Conservation, addresses the role of existing norms and values in conservation. Sharma and his colleagues at WWF India show how the Community Conserved Areas in western Arunachal Pradesh demonstrate the idea of community-led governance that safeguards biodiversity, curbs unsustainable practices, and diversifies livelihoods, while enhancing ecological security and strengthening traditional institutions despite governance, market, and policy challenges. Dechen Lachungpa's example of Khangchendzonga National Park highlights how blending cultural beliefs with formal protections, such as its UNESCO World Heritage status, fosters long-term stewardship. Continuing the emphasis on culturally anchored environmental conservation, Bhogtoram Mawroh reflects on the Indigenous Peoples' Biocentric Restoration Pilot in

five Khasi villages of Meghalaya, where grassroots governance, intergenerational knowledge, and communal land ownership were enhanced. The integration of existing sociocultural structures and village-level rules emerges as crucial for effective conservation. Finally, Anna Notsu's examination Mission Lakadong in Meghalaya's Jaintia Hills raises a critical question: when, and for whom, is community-led conservation successful? These papers indicate that if conservation overlooks existing socio-cultural practices, even well-meaning projects can deepen inequalities within the very communities they aim to support.

Land Use and Livelihoods

The second section, Land Use and Livelihoods, focuses on changes in the usage of land. Amit John Kurien discusses how designating jhum as a cause of deforestation, soil erosion, and poverty is a colonial hangover that continues to serve as a main explanation for land use change in Northeast India. Instead, Kurien argues, farmers strategically maintain jhum to avoid environmental and economic risk to the fragile uplands, while replacing it with tree monoculture cash crops is a sure scheme for environmental damage and even socioeconomic divisions. Erik de Maaker shows how the expansion of the Public Food Distribution System (PDS) to rural West Garo Hills resulted in the elimination of seasonal rice shortages that earlier affected the poorest farmers. Yet it also encouraged farmers to shift from subsistence farming to cash crops, which on the one hand has led to higher cash incomes, while on the other hand reducing food sovereignty and resulting in a decline of biodiversity. Abhimanyu Chettri discusses how West Bengal's homestay policy in Darjeeling aims for equitable rural tourism development, yet reproduces existing inequalities through infrastructure bias, elite capture, and differential market access, concentrating benefits among already-privileged households while marginalising vulnerable families despite creating some indirect employment opportunities. Lastly, Swargajyoti Gohain provides a critical analysis of homestays in Arunachal Pradesh, showing how an initiative meant to promote local culture can easily end up commodifying them, as residents are pressured to adopt urban-style comforts to meet tourist expectations. While providing homestays brings benefits to the local economy, they erode cultural authenticity and create socio-ecological challenges. The contributions emphasise how the predominantly rural economies of Northeast India are increasingly tied to regional and global markets, triggering the commodification of the produce land can yield, as well as the cultural resources it encompasses.

Erik de Maaker, Anna Notsu, Abhimanyu Chettri, Amit Kurien, Rishi Kumar Sharma (editors)

Foreword

Community Involvement in Conservation and Livelihood Initiatives in the Eastern Himalayas: Reflections on Practices and Policies, makes a timely and significant contribution. By bringing together research, insights, and reflections on the region's heritage, it offers both a comprehensive record and a call to action. It reminds us that heritage is not static but living, and that conservation is a shared responsibility requiring partnership between governments, communities, and international organizations.

Northeast India, officially known as the North Eastern Region (NER) comprising the eight states: Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, collectively referred to as the "Seven Sisters" along with the distinctive state of Sikkim, is one of the most remarkable yet lesser-known regions of India. Positioned at the country's eastern frontier, it serves as both a geographic bridge to Southeast Asia and a cultural crossroads within India itself. This region is marked by a remarkable variety of landscapes, including the Eastern Himalayas, the Patkai mountain range, and the plains of the Brahmaputra and Barak valleys.

Northeast India is home to several UNESCO World Heritage Sites, including Kaziranga National Park, famous for its population of one-horned rhinoceroses, Manas National Park, and Khangchendzonga National Park in Sikkim. These sites not only highlight the region's ecological wealth but also underscore its historical significance as part of ancient trade routes linking India to Southeast Asia. The Kamarupa kingdom, which once spanned much of the region, and the role of Northeast India in India's freedom struggle further add to its historical importance.

Equally striking is the cultural diversity of the Northeast. Bamboo work, wood carving, and weaving are not just art forms but expressions of identity and continuity. Dances such as Bihu and rituals such as those celebrated in the Sangai Festival, further emphasize the deep connection between the region's people and their natural environment. In each of these traditions lies a living heritage that demands safeguarding, not only for the communities themselves but for the world to learn from.

The Indian government, through initiatives of the North Eastern Council and events such as Destination North East, has taken important steps to highlight the region's cultural and natural treasures. UNESCO has long advocated for the safeguarding of both tangible and intangible heritage and continues to work with national and state authorities to identify, preserve, and promote heritage of global significance. Northeast India is central to this vision, with the potential for many more cultural landscapes, practices, and natural sites to be recognized on the world stage.

As the region faces complex challenges, including climate change, seismic vulnerability, and pressures of rapid development, the need for sustainable

Pakyong, Sikkim (photo: Erik de Maaker)

heritage conservation is urgent. This also calls for integrating disaster risk reduction strategies, particularly eco-based Disaster Risk Reduction (Eco-DRR) approaches, which harness the resilience of natural systems to protect both people and heritage. For instance, the Living Root Bridges of Meghalaya are not only examples of living heritage but also embody the intergenerational knowledge of local communities. These structures provide climate-resilient infrastructure, withstanding floods and landslides more effectively than many conventional systems, while demonstrating how people and nature can co-create sustainable solutions.

India is home to 43 UNESCO World Heritage Sites and 12 Biosphere Reserves, but Northeast India holds significant untapped potential for further global recognition. Given the region's extraordinary ecological and cultural wealth, it is imperative to continue identifying new UNESCO-designated sites to preserve and celebrate its heritage.

Protecting the Northeast's unique landscapes, species, and cultural traditions is not only about preservation; it is about ensuring that communities continue to thrive, that knowledge systems endure, and that humanity as a whole benefits from the traditional wisdom embedded here.

I commend the editors and authors for their dedication to this important work. Their timely research and valuable insights contribute significantly to the conversation surrounding the preservation of Northeast India's heritage and highlights both the challenges and the immense opportunities that lie ahead. I hope that this volume will inspire new pathways of recognition and cooperation, ensuring that the cultural and natural legacy of the Northeast is celebrated and safeguarded for generations to come.

Tim Curtis
Director, UNESCO Regional Office for South Asia

Carrying fodder, Sikkim (photo: Erik de Maaker)

Part I
Community Conservation

Community Conserved Areas as Catalysts for Conservation and Development: Reflections on Two Decades of Practice in Arunachal Pradesh

Rishi Kumar Sharma, Kamal Medhi, Pema Wange, Pasang Lepcha (WWF India)

Initiative: Creating Community Conserved Areas

Where: Western Arunachal Pradesh

Outcomes: Nine CCAs spanning ~1,500 square kilometres in western Arunachal Pradesh have helped protect endangered species and reduce unsustainable practices. The model fostered community ownership, supported eco-tourism and agro-ecology, and enhanced community resilience. Key challenges include weak governance, limited recognition, unequal benefits, market pressures, and a lack of long-term monitoring.

Introduction

Conventional biodiversity conservation, grounded in Western science and colonial practices, has often marginalised Indigenous Peoples and Local Communities (IPLCs), excluding those who are vital to the success of conservation initiatives. Independent of external interventions, local communities over time have recognised the threat of resource degradation to their cultural identity and livelihoods. Community Conserved Areas (CCAs) represent a community-driven approach to safeguarding natural resources on community-owned lands. Community Conserved Areas (CCAs) are community-managed forest landscapes where local people take the lead in conserving biodiversity, safeguarding traditional rights, and sustaining livelihoods. Across India, numerous examples highlight the deep connections between local communities and their surrounding landscapes, often rooted in history, socio-cultural identity, spirituality, and the reliance on these areas for livelihoods and well-being.

The Community Conserved Area (CCA) model of western Arunachal Pradesh promotes a community-led conservation approach outside officially notified protected areas. Arunachal Pradesh is rich in biodiversity and cultural diversity, with 60% of its forests classified as Unclassed State Forests (USF), which are controlled and managed by indigenous communities. The CCA initiative is aimed at ensuring social, economic, and ecological security by leveraging traditional community management and knowledge. Local communities, with the technical support from WWF India, have so far declared nine

Buddhist prayer flags overlooking community-managed forests in western Arunachal Pradesh—symbolic of the cultural values that anchor the CCA movement. (Photo: Pemba Rombo/WWF India)

CCAs covering ~1500 square kilometres of forest.

The site of implementation

The Community Conserved Area (CCA) approach is particularly significant in Arunachal Pradesh, the largest state in northeastern India, covering 83,743 square kilometres. With approximately 80% of its land under forest cover, the state is one of India's most biologically diverse.

The CCA model, led by the indigenous Monpa community, plays a crucial role in conservation efforts across West Kameng and Tawang districts. Currently, there are nine CCAs in these districts—three in Tawang and six in West Kameng—each contributing to the protection of rich biodiversity, traditional knowledge, and sustainable resource management. These CCAs collectively cover vast landscapes, including critical wildlife habitats and forests.

The nine CCAs are:

1. Pangchen Lumpo Muchat CCA (Tawang) – 98 sq. km
2. Pangchen Socktsen Diksum CCA (Tawang) – 40 sq. km
3. Pangchen Lakhar CCA (Tawang) – 85 sq. km
4. Thembang Bapu CCA (West Kameng) – 635 sq. km
5. Senge-Dzong CCA (West Kameng) – 107 sq. km
6. Nyukmadung CCA (West Kameng) – 189 sq. km
7. Mandala-Phudung Khellong CCA (West Kameng) – 114 sq. km
8. Chug CCA (West Kameng) – 92.5 sq. km
9. Lish CCA (West Kameng) – 50 sq. km

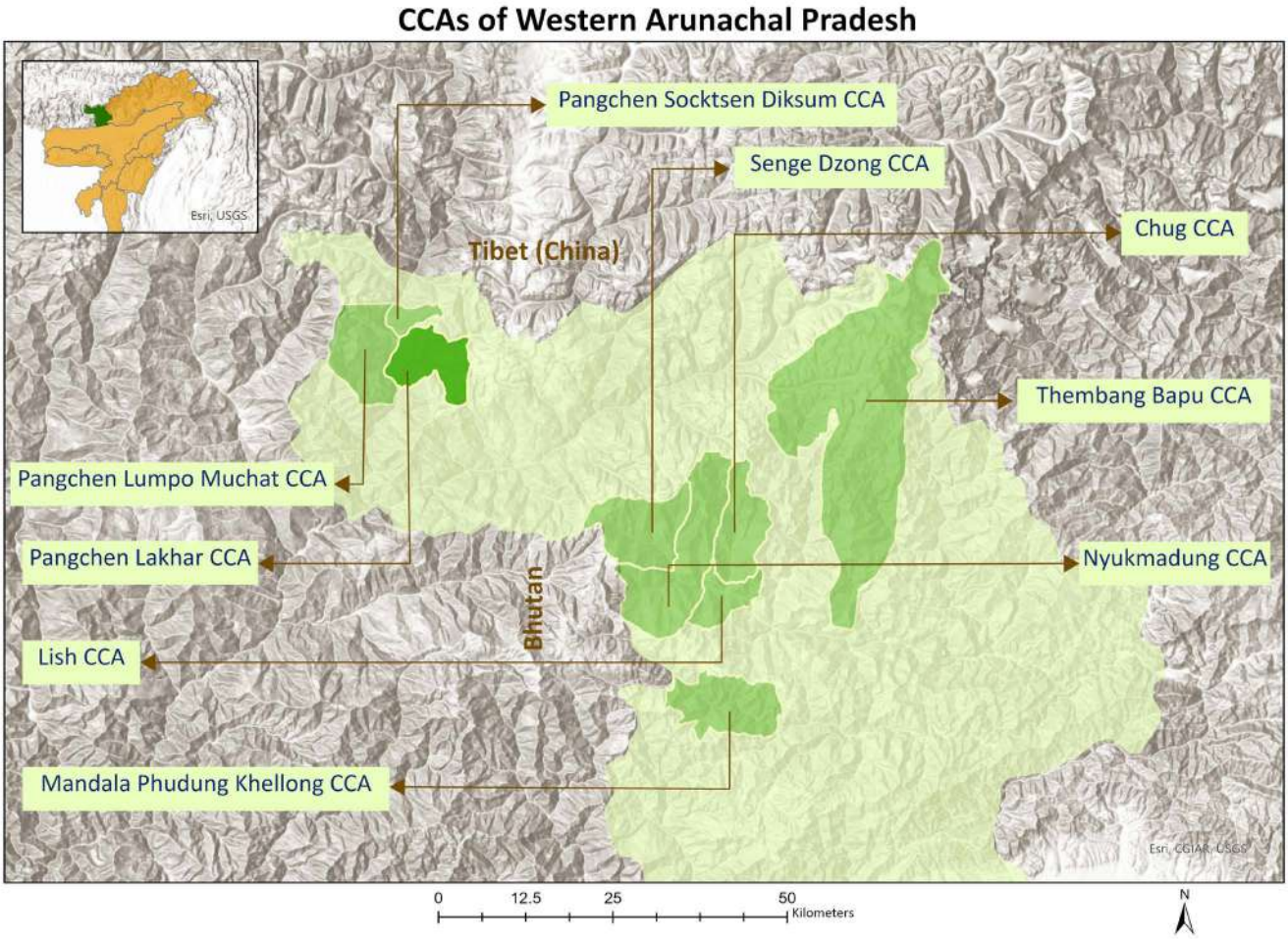


Figure 1: Community Conserved Areas in the Western Arunachal Pradesh. The map inset shows the state of Arunachal Pradesh in North East India (WWF India).

The implementation

In 2004, WWF-India engaged with the Monpa community in Thembang village, located in West Kameng district, to establish a Community Conserved Area (CCA). The objective was to minimise the impact of human activities on forests and high-altitude wetlands, conserve key wildlife species and their habitats, and protect traditional community ownership while upholding local land rights. This initiative involved extensive engagement with villagers, the village headmen and key decision-makers to introduce and clarify the concept of the CCA. A series of community meetings and public dialogues were conducted to build consensus and gain widespread support. Simultaneously, biodiversity assessments and research studies were undertaken to document the region's ecological richness, ultimately leading to the physical demarcation of the CCA for effective conservation and management.

To oversee the conservation efforts of the CCA, the villagers selected representatives to form a management committee responsible for enforcing rules and regulations. Over the past decade, this CCA has expanded significantly, growing from an initial 30 square kilometres to an extensive 635 square kilometres. This vast landscape encompasses dense forests, snow-capped mountains, and high-altitude lakes, providing critical habitat for rare flora and a diverse range of threatened mammals, including the red panda, snow leopard, marbled cat, Himalayan black bear, serow, Mishmi takin, and Himalayan goral. Additionally, the CCA continues to play a vital role in supporting local livelihoods by providing forest resources and rangeland for livestock.

Building on this successful model, WWF-India has facilitated similar conservation initiatives across West Kameng and Tawang districts, leading to the establishment of nine CCAs covering approximately 1,500 square kilometres of community-owned forests. All CCAs are managed through a three-tier system: a general body of all village households, a governing body led by the village head (Gaonburah), and an executive body handling daily conservation and economic tasks. The CCA management committee, locally referred to as Tsokpa, is recognised by both the Gram Panchayat and the traditional Mangma. To ensure long-term sustainability, committees are also encouraged to register as non-profit entities under the Society Registration (Extension to Arunachal Pradesh) Act of 1978.

The primary mandate of the CCA management committee is to ensure the sustainable management of the area's natural heritage, protect biodiversity, and promote the economic well-being of local communities. To support conservation efforts, revenue streams have been established through conservation-linked livelihood programs. Feasibility assessments guide the promotion of such programs among village entrepreneurs, with a percentage of earnings allocated as a conservation fee. This innovative model ensures a mutually beneficial relationship between conservation and economic development, fostering long-term sustainability. Implementation differs across the nine CCAs, with continuous efforts to enhance each into a fully operational entity.

Chug Valley, a core Community Conserved Area landscape where Monpa communities safeguard high-altitude forests and rangelands. (Photo: Bhargavee Rava/WWF India)

Successes

Our two decades of hands-on experience reveals several positive outcomes that enhance both socio-economic and ecological security. The positive outcomes include (1) Effective forest management: The establishment of nine CCAs covering over 1,500 sq.km of forest has resulted in the effective management and conservation of these areas over the past two decades. (2) Protection of endangered species: The CCAs have helped protect threatened species, with a recent study confirming the presence of 23 mammal species, including the first photographic record of a snow leopard in Arunachal Pradesh. (3) Curbing unsustainable practices: There has been a reduction in hunting and tree-felling activities in CCA areas, indicating a positive impact on conservation efforts. (4) Community participation and ownership: The CCA approach has encouraged the active involvement of local communities in conservation design and implementation, fostering a sense of ownership and responsibility. (5) Livelihood diversification: The CCA framework has supported livelihood diversification initiatives, such as community-based tourism, market linkage and sustainable harvest of non-timber forest products (NTFPs), and locally rooted agro-ecological practices, contributing to improved community resilience. (6) Economic benefits: The CCAs have the potential to generate economic benefits through sustainable tourism and the development of local enterprises. (7) Gender empowerment: The involvement of

Chuna Valley's high-altitude rangelands, shaped by long traditions of Brokpa pastoralism, support rich wildlife assemblages—including wild ungulates and the snow leopard that depends on them. (Photo: Taku Sai/WWF India)

women in CCA management committees and livelihood diversification initiatives has contributed to their empowerment and increased participation in decision-making processes. (8) Youth engagement: The CCA approach has provided opportunities for youth engagement in conservation and sustainable development activities, fostering a sense of responsibility and ownership among the younger generation.

Challenges

External drivers that could undermine the outcomes of a community conserved area (CCA) include:

(1) Disjointed government policies: for example, the current protected area policies under India's Wildlife (Protection) Act, 1972, do not fully recognize community ownership, often leading to conflicts between communities and government authorities and a lack of formal recognition of community conserved areas.

(2) Economic pressures and perverse incentives: Cash crops such as cabbage and tomatoes, enabled by pesticides and fertilisers provided by traders, have incentivised unsustainable resource use and land use change.

(3) Market demands e.g., a continued if not growing demand for wild meat, encouraging poaching.

Internal drivers include:

(4) Weak governance characterised by lack of inspirational and inclusive leadership.

(5) Insufficient financial resources and capacity to effectively implement conservation and developmental measures.

(6) Inequality in benefit sharing among community members due to inherent power dynamics (7) Conversion of land for roads and defence activities: leading to rapid land change.deforestation and change in livelihoods from agrarian to labour, contracts and cash based incomes.

Conclusions: Implications and learning

Overall, the CCA initiative has succeeded in achieving its core aims. Nine CCAs now cover over 1,500 sq. km, effectively protecting endangered species and curbing unsustainable practices like hunting and tree-felling. The CCA approach fostered active participation of local communities in conservation, leading to a sense of ownership and responsibility. Initiatives like community-based tourism, promotion of non-timber forest products, and agro-ecology have improved community resilience. The approach has also contributed to cultural preservation, gender empowerment, and youth engagement. The CCA model has strengthened traditional bodies, making them more inclusive and capacitating them to manoeuvre present modern-day challenges.

Yet, challenges persist. Many community members, especially youth, remain unaware of the CCA approach and its benefits. CCA management committees are not as inclusive as envisioned, and need to ensure greater participation of women, youth, and marginalised groups. Market linkages and long-term sustainability of livelihood diversification initiatives have remained a challenge with limited success. In addition, the lack of robust systems to track the long-term impacts of the CCA approach has made it hard to provide empirical evidence for success.

Recommendations

Key lessons from two decades of practice are:

(1) Community buy-in is key: Successful conservation relies on strong community engagement and awareness.

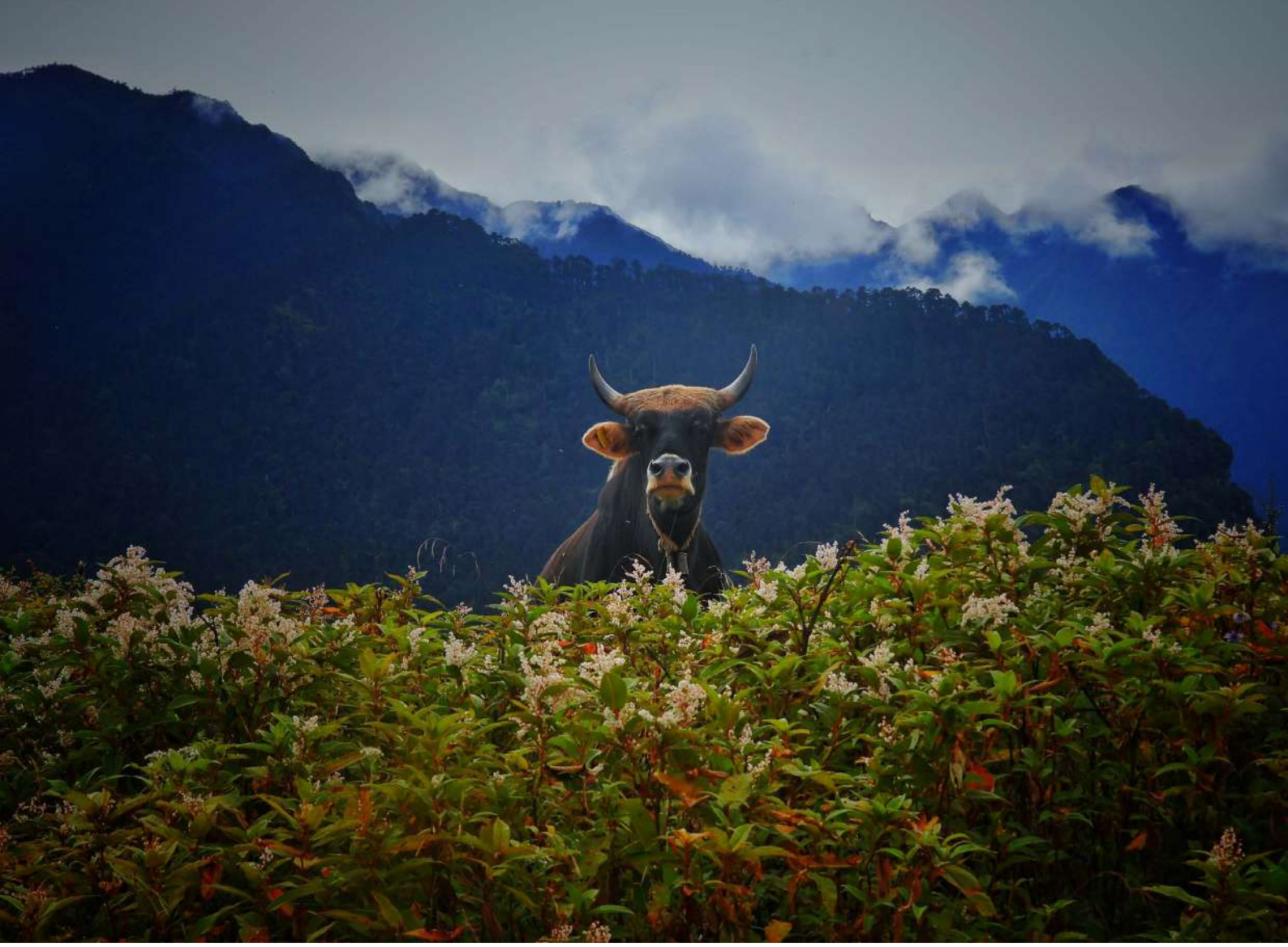
(2) Inclusivity matters: Governance structures must be inclusive to ensure equitable participation and benefit-sharing.

(3) Livelihoods and conservation are intertwined: Sustainable livelihoods are crucial for long-term conservation success.

(4) Continuous monitoring is essential: Regular monitoring and evaluation are needed to track progress and adapt strategies.

(5) Consolidate and integrate disjointed government policies, addressing and resolving conflicts between communities and government authorities, enabling formal recognition of community conserved areas.

Despite these challenges, the CCA approach presents a promising model for community-based conservation that can contribute to the sustainable management of natural resources and the improvement of livelihoods in the Eastern Himalayan region.



A yak grazing across high-altitude rangelands inside CCA-managed terrain, illustrating the coexistence of pastoral livelihoods and biodiversity conservation. (Photo: Anurag Vishwakarma/WWF India)

Author's Bios

Rishi Kumar Sharma is a conservation scientist and heads the Himalayas Science and Conservation Programme at WWF India. His work blends ecology, social sciences, and community wisdom to address complex conservation challenges across the Indian Himalayan region. His research and practice aim to bridge the gap between science, policy, and local stewardship.

Kamal Medhi, a Senior Expert - Community-Based Conservation with WWF India, has spent over two decades working with diverse Indigenous communities across Northeast India and is currently based in Dirang, Arunachal Pradesh.

Pema Wange, a grassroots community leader and mobilizer, is a founding member of the Community Conserved Area (CCA) initiative in Western Arunachal Pradesh. He led the establishment and institutionalization of nine CCAs across the landscape and currently serves as Associate Coordinator for WWF India in the Western Arunachal Landscape.

Pasang D Lepcha is a dedicated professional with over two decades of contribution to community conservation in the Eastern Himalayas currently serving as the WWF India Landscape Coordinator in Western Arunachal Landscape.

Du Tsen Lu Sum Chortens dedicated to the four root guardian deities of Sikkim, Khangchendzonga National Park (photo: Dechen Lachungpa)

Cultural and Natural Values of Khangchendzonga National Park and Post-Inscription Management Initiatives

Dechen Lachungpa

Initiative: Managing Cultural and Natural Values at a UNESCO World Heritage site

Where: Khangchendzonga National Park, Sikkim

Outcomes: The inscription of the Khangchendzonga National Park as a UNESCO World Heritage site, in which cultural and natural heritage combine.

Introduction: Post-Inscription Management of Khangchendzonga National Park

Khangchendzonga National Park (KNP), Sikkim, India, was inscribed as a UNESCO World Heritage site of outstanding universal value in July 2016. It was India's first mixed heritage site. The KNP was declared a National Park in 1977 under the Indian Wildlife (Protection) Act of 1972.

While a great variety of religious beliefs, practices and ethnicities coexist, the management of the park post-inscription primarily proceeds from the Sikkimese belief system that considers anything directly or remotely associated with monasteries, spiritual beliefs and rituals as sacred. Since time immemorial, there has been an unwritten moral code of ethics, which influenced social and cultural conduct in and around such areas. For example, most monasteries have a special protective zone of forests, the inner zone called gya-ra and the outer zone called gya-nak. These are zones to preserve the immediate natural surroundings of the monasteries. To this date, many continue to worship nature with dedication through rituals performed at monasteries, at home, lakes, caves and hilltops. They honour and celebrate the sacred landscape, which defines their relationship with nature.

Similarly, the Limbu people hold Khangchendzonga in deep spiritual and cultural reverence, considering it central to their beliefs. The mountain and its peaks, such as Phoktanglungma, are often regarded as the residence of Yuma Sammang—a figure considered as the supreme creator and mother goddess (Subba, 2009).

Khangchendzonga National Park: Natural and Cultural Characteristics

The Khangchendzonga National Park has 18 forest sub-types and belongs to two terrestrial priority eco-regions, namely the Eastern Himalayan Broadleaf and Conifer Forests and the Eastern Himalayan Alpine Meadows. Importantly, it contains 3 Terrestrial Himalayan Biomes and is part of the Himalayan Biodiversity Hotspot. The KNP thus harbours a huge diversity of flora

and fauna. Further, the KNP coincides with an Important Bird Area (IBA) and is part of the Eastern Himalayan Endemic Bird Area (EBA), hosting several crucial bird species of Conservation Concern, including a few globally threatened and restricted-range species. UNEP-WCMC ranks the KNP at the top of all the protected areas that are assessed worldwide for their irreplaceability for species conservation. Inside the KNP is Mount Khangchendzonga at 8586 meters, India's highest peak and the world's third highest peak. Notably, KNP is home to 73 glacial lakes and 18 glaciers, of which the Zemu glacier is 26 km long, occupying an area of approximately l0700 ha. Besides its rich flora and fauna, the KNP presents its heritage such as chortens (stupas), lhakhang (temples) and mendangs (protective stone structures), awe-inspiring to many, as each structure marks specific historical events with each having a specific story to tell.

Moreover, the KNP and its surroundings form an important part of Sikkim's religious and cultural landscape, known as Beyul Demojong, the hidden, fruitful valley, sanctified by Guru Padmasambhava in the eight century. Beyul Demojong is divided into three regions comprising the highlands, the midlands and the lowlands. The KNP is considered the highlands of Beyul Demojong. The mountain Khangchendzonga, located inside the KNP, is an intrinsic element of this landscape. It is believed to be the most sacred, and the scaling of its peak is forbidden. Khangchendzonga is embodied as Dzonga, Sikkim's Guardian deity, and considered the owner and protector of the land. Khangchendzonga means the 'Great Snowy Repository of Five Treasures'. These are salt, gold, turquoise, Buddhist scriptures and seeds. Many believe that these treasures will be made available to the people worshipping the mountain in times of need. This mountain deity is also associated with the opening of Beyul Demojong by Lhatsun Namkha Jigme and his arrival in Sikkim in the 1640s.

History is replete with instances showing the towering influence of the mountain on Sikkim's culture. Many rituals and festivals are dedicated to the worship of Khangchendzonga, with the most significant of all being Pang Lhabsol, which falls on the 15th day of the seventh month of the lunar calendar and is celebrated with much fervour by the people of Sikkim. An integral part of the festival is the customary journey undertaken by select monks from Pemayangtse Monastery, who offer prayers at sacred sites both outside and within the KNP. The offering of prayers inside the KNP is done at specific landmarks, both natural and built. Thus, the landscape of KNP, with its correlation between nature, culture and religion, is an affirmation that natural and cultural heritage are interlinked and interdependent.

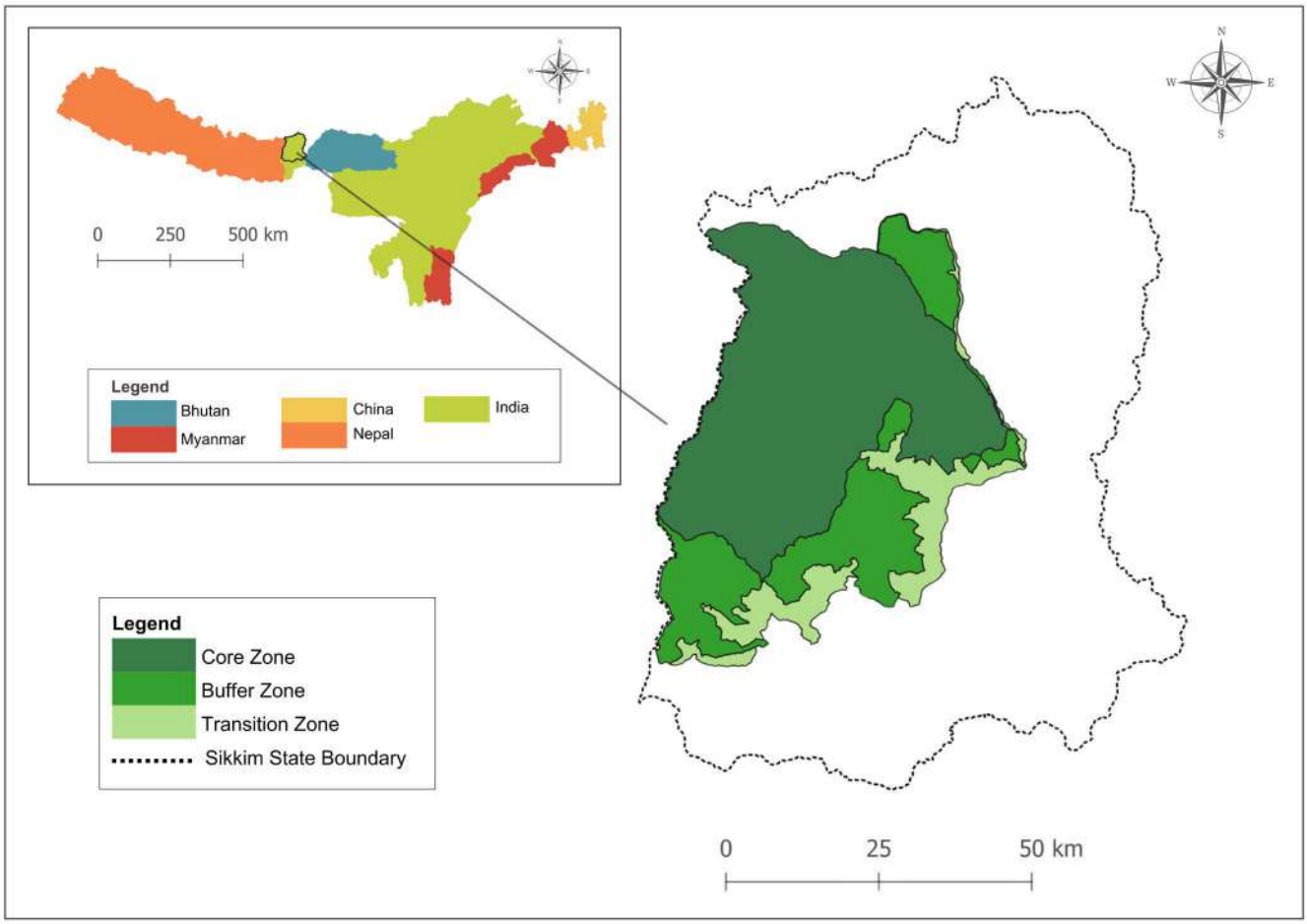


Figure 2: The core area of Khangchendzonga National Park, buffer zones, and transition zones (Map WWF)

Legal protection and structures of governance

The KNP enjoys strong legal protection under both national and state laws. The park is under the direct administrative and financial control of the Department of Forests, Environment and Wildlife Management, Government of Sikkim. It is governed by the rules prescribed under the Wildlife (Protection) Act, 1972. The buffer zone of the property overlaps with the buffer of the Khangchendzonga Biosphere Reserve and a portion of the transition zone. Buffer zones are areas designated as a protective layer contributing to the sustenance of the core zone (the KNP), reducing the impact of activities that might potentially be harmful to it. The transition zone, external again to the buffer zone, is meant to allow human activity and nature to coexist in a sustainable way. In addition, there are several state legislations that extend protection to the cultural attributes to safeguard the Outstanding Universal Value of the property. The most prominent is the notification that lists a number of sacred peaks, caves, rocks, lakes, stupas and hot springs as the most sacred Buddhist places of worship in Sikkim, protecting them under the Places of Worship (Special Provision) Act, 1991. This notification specifically bans the scaling of sacred peaks, defilement of sacred caves, sacred rocks, chortens and sacred hot springs; guidelines for mountaineering and trekking; promoting participatory forest management through the constitution of the Joint Forest Management Committees and Eco-Development Committees; and a

Zemu glacier, Khangchendzonga National Park (photo: Kai Weisse)

ban on grazing from the year 1998 onward. Furthermore, some of the built heritage located in the buffer zone of the property is under the protection of the Archaeological Survey of India.

Since the cultural attributes outside the buffer zone are under the jurisdiction of the Culture Department, the Ecclesiastical Department and the Tourism Department, committees composed of representatives from each of these were formed, focusing on nature conservation, education, public use, and heritage conservation. Now efforts are being made to coordinate activities in the field to best implement the objective of conserving and protecting the Outstanding Universal Value of the Park. Stress is being laid on further improvement of the participatory approach to management through strengthening of the village-level, community-based Eco-development Committees and Himal Rakshaks (volunteers).

Tourism development and revenue generation in the KNP buffer zone

Surrounding the KNP are small hamlets where tourism is the mainstay for many households. An example of such a village is Yuksom in West Sikkim, frequented by casual tourists and trekkers alike. Most people in the village earn their livelihood through homestays, organising treks, selling trekking items, birding tours, etc. In the case of trekkers, this village is the starting point for the trek inside the western portion of the KNP. The average annual revenue generated from entry tickets to the KNP amounts to Rs. 24 lakh (about €24k) per annum. Earlier the revenue generated through sale of tickets

was directly credited into the government revenue, but since early 2024, the State Government has notified the creation of a Local Trust Fund, under which 60% of the revenue generated through the sale of tickets is deposited into the community fund (to be used for community benefit), 20% into the park management fund, and the remaining 20% goes to government revenue. This local trust fund is a means to enable people residing in the fringe villages to take ownership of the land and protect the park. Such initiatives will go a long way in securing and consolidating the mutually beneficially partnership between people and forest managers, and the boost in nature-culture-based tourism will encourage people to proactively conserve and protect.

Conclusion: Takeaways from the nomination process

The process of inscription has resulted in the compilation of many scientific and technical documents, as an outcome of intensive processes of consultation, incorporation of expert opinions and extensive research. This has created a broader management perspective and provided an impetus to managers to holistically manage the natural and cultural attributes of the park. Thus, this approach is considered the main driver in inducing collective social/institutional responsibility for the protection and conservation of the KNP as our heritage.

Recommendations:

(1) Taking cultural values into account can contribute significantly to the success of environmental protection measures.

(2) Local communities should as much as possible benefit from revenue generated through a site like KNP, to ensure their involvement and commitment to its protection.

(3) Research on how natural and cultural heritage combine is indicative of the societal relevance of the creation of the KNP and thus deserves ample support.

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Author's Bio

Dechen Lachungpa an officer in Forest Department, Government of Sikkim, a fourth generation Forest Officer and comes from a family of gardeners.

Bheytsen, the interwoven tassle like adornment made from five colourful thread of sheep's wool, Khangchendzonga National Park (photo: Dechen Lachungpa)

Governance from the Ground Up: Community-led Ecological Restoration in Meghalaya

Bhogtoram Mawroh (NESFAS)

Initiative: Indigenous Peoples' Biocentric Restoration Pilot Project

Where: Umsawwar, Dewlieh, Nongtraw, Ladmawphlang, and Nongwah.

Outcomes: Despite facing limitations such as land tenure issues, inaccessible nurseries, weak initial monitoring, and a short timeframe for assessing long-term impact, the project strengthened grassroots governance, community ownership, intergenerational knowledge transfer, and partnerships with government bodies.

Introduction

Indigenous peoples' lands include more than a third of the intact forest cover and much of the terrestrial biodiversity in the world. Conservation initiatives, however, have often disregarded this contribution, leading to violations of their rights, autonomy and agency, resulting in high human and ecological costs. At the same time, in territories held by indigenous communities, environmental degradation is rapidly becoming a major concern due to the intrusion of modernist forces in the guise of development. This is especially evident in Meghalaya, where the majority of the land is controlled by local indigenous communities, where forest cover has been declining over the years.

In 2021, the Food and Agricultural Organisation (FAO) partnered with Indigenous Peoples' organisations to launch the Indigenous Peoples' Biocentric Restoration Initiative. This is a conservation approach that recognises Indigenous Peoples as both right and knowledge holders and puts their cosmogony at the centre of the restoration efforts, enabling the ancestral knowledge to be revitalised and shared. It focuses on conserving and restoring ecosystems that are vital to Indigenous Peoples' food and knowledge systems. It also aims to address environmental degradation while respecting their rights. The initiative emphasises restoring degraded ecosystems through an inclusive approach that draws on Indigenous Peoples' knowledge, territorial management systems, and spiritual beliefs. Additionally, it prioritises the recognition of Indigenous Peoples' individual, collective, and customary rights. Further, this initiative also contributes to the United Nations Decade on Ecosystem Restoration 2021-2030. This article analyses NESFAS's implementation of the Indigenous Peoples' Biocentric Restoration Pilot project in Meghalaya. Similar projects were also implemented in Thailand, Peru, Ecuador, Amazon, Colombia, Brazil and Costa Rica.

Community nursery, Umsawwar, East Khasi Hills (photo: Bhogtoram Mawroh)

Context and site description

The Indigenous Biocentric Restoration Pilot Project, a collaboration between the FAO and the Shillong-based NGO North East Society for Agroecology Support (NESFAS), was implemented in five villages of Meghalaya: Umsawwar, Dewlieh, Nongtraw, Ladmawphlang, and Nongwah. All villages are located within the East Khasi Hills and span across three Community Development Blocks: Mawkynrew, Khatarshnong Laitkroh, and Mawsynram, situated in the east, south, and west of the district. The villages are inhabited by the Khasi community, an indigenous matrilineal Austro-Asiatic language-speaking people, found in Meghalaya, Assam, Manipur, Tripura, Mizoram and Bangladesh. Although the villages are situated in the same district and home to a single community, they are located in distinct geo-environmental settings. Dewlieh and Nongtraw are along the spurs of the Sohra plateau that descend into a deep gorge along which the river Wahsohra flows. The flow continues south, where it emerges into the plains of Sylhet, Bangladesh. Umsawwar and Ladmawphlang are on the tableland itself, where the gradient is gentler. Finally, Nongwah is on the lower slopes of a shallow river valley dug into the plateau by the work of water erosion. The agreement to implement the initiative took effect on October 11, 2021, and concluded on October 31, 2022.

Implementation

The initiative began with the establishment of the School of Life in the respective individual villages. Schools of life, as defined in the upcoming 'Indigenous Peoples Biocentric Restoration Handbook' by FAO, are platforms through which the cultural, cosmogonic, and linguistic components of the initiative can be enacted. They are a space meant for transmitting knowledge among the community. Establishing these informal platforms is the first step in biocentric restoration after obtaining the Free Prior Informed Consent (FPIC) of the community

Community nursery, Ladmawphlang, East Khasi Hills (photo: Bhogtoram Mawroh)

for the project. FPIC is a mechanism for obtaining consent from Indigenous Peoples (IPs) for any activities undertaken on their land. The sessions organised under the respective Schools of Life facilitated dialogue among community members about the biodiversity and natural resources within their territory. They discussed and identified well-preserved areas and degraded areas that require restoration, as well as Indigenous peoples' food system, its elements and the natural resources within their territory. Village baseline and needs assessment reports were prepared, which included lists of important fauna (both terrestrial and aquatic animals) and flora (including flowering and non-flowering plants). Maps highlighting degraded areas in the village that required restoration were also identified. The baseline survey also gathered data on the flora and fauna from a selected degraded site earmarked for restoration, as well as the reference site for monitoring.

Training was provided, and community nurseries were established in each village to raise the saplings for reforesting the degraded sites. The selection of species (i.e., trees) to be planted in the identified sites was based on the flora list prepared during the School of Life workshop. These species were ranked by the community members based on soil, water, biodiversity, for livelihood, availability, and rate of growth. Species that scored the highest based on the composite score were prioritised for inclusion in the nursery. In a couple of villages, the list was modified to remove and include certain species that they felt were more useful for the community.

A needs assessment was also conducted for the individual villages on landscape elements co-identified with the community, viz., forest, insects, water, animals, birds, fish, agricultural yield, agricultural land, mining, soil, barren land, agricultural practice, wild edibles and flowers. The community evaluated these elements by examining trends

(increase, decrease, stable), understanding the reasons for the observed trends, and considering future scenarios (e.g., potential outcomes of a continued decline in an identified element). Furthermore, they were encouraged to prioritise the elements and identify the activities they wanted to undertake to improve specific landscape elements, such as protecting water sources, assisting the regeneration of fallow land, and preventing soil erosion. Along with the restoration of degraded sites, these activities became part of the "Indigenous Peoples' Biocentric Restoration Plans" for the individual villages.

IEC (Information, Education and Communication) materials were prepared and shared with the community. The activities under the biocentric plans were made part of the existing community rules of the villages and implemented based on seasonal calendars of the individual villages prepared for the identified activities (restoration and other activities). The IEC materials, therefore, had information on the project, initiatives selected by the community under the biocentric restoration plan, seasonal calendar of the flora and fauna, scores received by the species selected for afforestation, and the community rules and regulations, which included the restoration activities agreed upon by the Durbar Shnong, a grassroots body that oversees village administration, i.e. the village council. Finally, a monitoring system was developed in collaboration with the community. Case studies about lessons learned and good practices were then shared with the funders.

The outcomes

One of the project's significant successes was incorporating restoration activities into community governance and resource management rules. This ensured the initiative became part of the grassroots governance, giving social legitimacy to the initiative and continuation after the project terminates. Connected to it was the active participation of the community, which included knowledge holders, youth and members of the Durbar Shnong (village council) who shared their deep knowledge about the landscape and the resources it holds that formed the basis of the biocentric restoration plans. Durbar Shnong is an evolution of the Durbar Kur (Clan Council), in which all members of the clan would meet to discuss various issues affecting them. Since villages were inhabited by certain clans who had the exclusive right to the political offices, e.g., Lyngdohship, Doloiship, etc., this council also looked into matters affecting territorial governance. However, the growth of the urban centre of Shillong under the British period brought unrelated clans from different parts of the Khasi and Jaintia Hills into contact, disrupting this traditional arrangement. This gave rise to the Durbar Shnong, which became more important in terms of territorial governance, with the Durbar Kur relegated to concerns affecting the social and material welfare of the respective clan members. Coming back to the project, for the elderly, having their knowledge recognised and valued was a very important acknowledgement of their relevance in the functioning of society. Youth involvement in the School of Life sessions, where the elderly shared their

Workshop on Preparation of Biocentric Restoration Plan, Ladmawphlang, East Khasi Hills (photo: Donald Nongkynrih)

knowledge about various components of the landscape (such as forests, water bodies, flora, and fauna) and the associated ecological knowledge, also facilitated the inter-generational transfer of knowledge. It ensured that the ecological knowledge held by the elders would persist. Finally, the project was also able to establish valuable collaborations with government agencies, enhancing its effectiveness.

However, the project was not without its challenges. One of the participating communities, Dewlieh, had no land of their own, with the entire village being rented from the Langstieh clan, who do not stay in the village. The community had taken agricultural land and the land on which the houses were built on a 15-year lease from the clan. Ensuring that the absentee landlords respect the rights of the tenants to commit to a long-term vision was challenging. After a thorough discussion, the community assured that the landowning clan would respect their efforts at restoration. Sure enough, the lease has been renewed for another 15 years. Although the initial plan was to have a community nursery for raising the saplings meant for planting in the designated sites, accessibility and monitoring became an issue since it was away from the main settlement. Instead of establishing a community nursery, individual households created their own nurseries, with each family participating by taking care of a certain number of saplings. Finally, the full effects of the restoration efforts would be evident only after a decade or so. As such, the short time

frame of the project makes it challenging for monitoring and evaluation.
It is for this reason, the restoration activities were made part of the community governance rules.

Conclusion

What went really well with the community was the inventory of the local resources and the discussion on the governance system practised by the community. The visualisation of the changes taking place in their landscape and the possible future was a particularly enriching discussion. It allowed the communities to create their individual biocentric plan and integrate it with their existing community rules to ensure that the restoration activities become part of everyday governance. The intra-generational knowledge transfer that took place was also quite successful. However, what also went wrong initially was the inability to create a robust monitoring system. While the monitoring schedules had been prepared, updating was a problem since it was voluntary, as there was no component of financial compensation. While the community gave land for setting up the nursery, it could not guarantee dedicated manpower. Members of the School of Life would take turns, but they were hard-pressed for time by household work and working in their own fields. At times, they had to go outside the village for daily wage labour. Some sites also lacked a reliable source of water. The location of the community nursery, being far from the village, was a big concern. Combined with a lack of financial incentive, monitoring the health of the saplings became challenging. As a result, in the first season, many saplings did not survive. Less than 30% of the saplings survived. Change was required. Kristina Rani, a farmer from Nongwah, stated in one of the training sessions that "we need to strategise our management approach on nurseries and most importantly, set a clear target for ourselves to determine whether we can achieve it". The solution suggested was household nurseries. This proved to be a very important change. The community moved surviving saplings from the community nurseries to the homesteads of members of the School of Life. Survival rate, subsequently, increased to around 70%-80%. This made monitoring easier since the household members included taking care of the saplings as part of their daily household chores. All of this was then included in the lessons learnt, which included the reiteration that the involvement of the local institutions, in this case, the Durbar Shnong, was paramount to foster a sense of ownership and responsibility. Restoration can never be an individual effort. Building partnerships with government agencies such as the Block Development Office (BDO), Forest Department and Botanical Survey of India (BSI) is also very much required to enhance the effectiveness and impact of the activities, particularly for resource mobilisation and technical training. But the most important lesson was that any restoration activity must be based on the rich traditional knowledge and practices that the community already has. There is a need to leverage those practices rather than replace them.

Recommendations

(1) Conservation initiatives, e.g., biocentric restoration plans, should be co-developed

with the support of the local community, where their ecological knowledge should be given paramount importance.

(2) Conservation initiatives should respect the local community's culture and spiritual beliefs, e.g., sacred forests.

(3) Conservation initiatives must be integrated into the territorial management system, e.g., Durbar Shnong, already existing within the community, taking into consideration not to disturb the tenure arrangements, e.g., communal, clan and private ownership.

(4) Conservation initiatives must design their monitoring system without increasing the workload of the community members, and all efforts must be made to integrate it with their daily lives.

(5) Conservation initiatives, in order to be sustainable, must build partnerships with the local government agencies, e.g., Block Development Office (BDO), Forest Department and Botanical Survey of India (BSI), who can support and integrate the initiatives with their own programs, e.g., PES (Payment for Ecosystem Services).

Author's Bio

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Keywords: Indigenous Peoples' Biocentric Restoration; Khasi; Durbar Shnong; Free Prior Informed Consent; Tenure.

The Logic of Conservation: Rendering Community Participation in Jaintia Hills, Meghalaya

Anna Notsu (Leiden University)

Initiative: One District One Product (ODOP) and Mission Lakadong

Where: Jaintia Hills, Meghalaya State

Outcomes: Environmental conservation, when viewed beyond nature management, reveals the socio-economic challenges that accompany community-led agricultural development, and the need for a deeper understanding of and engagement with existing socio-cultural practices.

Introduction

At what point, and for whom, is conservation considered successful? This paper takes this critical question to think about the social and economic challenges that follow community-led agricultural development. In 2020, the Government of India launched the One District One Product (ODOP) scheme to 'select, brand, and promote at least One Product from each District (One District–One Product) of the country' (Government of India, 2023). This initiative seeks to strengthen local enterprises, enhance district-based artisanship and expand international exports. In line with this, the Directorate of Horticulture, Government of Meghalaya, introduced Mission Lakadong (2018-2023) to scale up the production of Lakadong turmeric – a high-curcumin crop variety indigenous to and cultivated in Jaintia Hills – as a location-specific crop.

Mission Lakadong

Jaintia Hills District, particularly West Jaintia, has long been synonymous with the cultivation of Lakadong turmeric. The Mission aimed to enhance livelihoods, brand Lakadong as a product rooted in a constitutionally recognised tribal region, improve production efficiency and foster local private enterprises through value-chain interventions. While primarily an economic initiative, the initiative sought to build a community-led sustainable ecosystem. The establishment of community seed banks, for instance, aligned with its dual goals of increasing production and conserving local varieties. Community participation was central to the success of the Mission, particularly sustaining the production of Lakadong rhizomes on private/community land and improving farmers' market leverage through Self Help Groups (SHG) and farmers' unions.

Selecting lakadong turmeric (photo: Anna Notsu)

However, despite its historical prominence, Lakadong farming had been in decline, driven by the high profitability of the mining business that happens in the same region (Meghalaya Institute of Entrepreneurship, 2018, pp. 13-14). While coal extraction is concentrated in East Jaintia, its environmental impacts, like soil degradation and water contamination, may have also affected lakadong production in West Jaintia, the main hub of Lakadong turmeric. Jaintia Hills has long been associated with unregulated rat-hole mining, which, despite its economic benefits, has caused severe environmental damage and frequent fatal accidents.

The 2014 National Green Tribunal (NGT) ban on rat-hole mining spurred a revival in Lakadong turmeric cultivation, as former coal workers sought alternative livelihoods. Lakadong production areas mostly overlap with or are close to mining zones. This further highlighted shifts in land-use patterns. More recently, the acquisition of a Geographical Indication (GI) tag for Lakadong turmeric has strategically positioned it as a means for diversifying Meghalaya's economy, revitalising agriculture and effectively conserving agricultural lands. The public recognition of Lakadong turmeric was further amplified when Trinity Saioo from Mulieh village in West Jaintia received the Padma Shri for empowering women through Lakadong farming. These developments reinforced efforts to move Jaintia's economy away from destructive resource extraction and towards sustainable rural development through agriculture.

Processing lakadong turmeric (photo: Anna Notsu)

Reaching new markets for place-specific products

Although not explicitly framed as an environmental conservation initiative, Mission Lakadong brought renewed attention to agricultural practices in a region plagued by environmental degradation. It indirectly promoted conservation by protecting agricultural lands and water sources from further contamination. Implemented by a State Mission Management Unit under the chairmanship of the Agriculture Production Commissioner, with representatives from various governmental and academic institutions (Meghalaya Institute of Entrepreneurship, 2018), the Mission facilitated interventions across the entire value chain. From pre-production to post-harvest, financial support from multiple schemes enabled farmers to improve cultivation, processing, packaging and branding.

Shangpung village in West Jaintia, part of the Nongbah-Shangpung Lakadong cultivation belt, provides insights into the Mission's on-the-ground impact. In Shangpung Pohshnong, government support materialised through new equipment, awards and infrastructure improvements. The Farmers' Union Shangpung Pohshnong showcased a stark contrast between government-supported and traditional processing sites. During my visit in December 2023, the Union's secretary described the seemingly limitless influx of funding that enhanced production efficiency, improved hygiene standards and educational outreach, enabling farmers to negotiate

better prices. In contrast, independent farmers – who continued hand-processing turmeric – struggled to compete and were often labelled 'primitive,' 'unclean' and 'substandard.' The one-time Union membership fee of 4,000 rupees per farmer, plus an additional 4,000 rupees to sell for better prices in Jowai, the principal town of the Jaintia Hills, excluded many, creating divisions within the community.

The success of the Mission was evident in the rapidly rising demand for Lakadong turmeric and the expansion of farmers' unions. The establishment of standardised value-chain interventions made possible through numerous schemes rekindled an awareness of the commercial value of Lakadong turmeric, long cultivated in the region. Although Lakadong turmeric itself is not new to the market, the recent influx of financial aid has begun to draw renewed attention to the region, which is constitutionally recognised as a tribal area. The growing involvement of local NGOs advocating for these products as indigenous/tribal further signalled a prospective future aligned with community empowerment that the Mission had envisioned. While this aspect lies beyond the scope of this paper, the tribal identity increasingly attached to Lakadong turmeric may inevitably fuel global indigenous advocacy – through which both its value and the already burgeoning financial support could be further enhanced.

The challenges of being in demand

Yet, the Mission also encountered several challenges. High demand led to shortcuts in drying techniques, potentially compromising the curcumin content, the primary selling point of Lakadong turmeric. The recommended method – boiling rhizomes for at least 45 minutes – was often met with reluctance due to fuel costs and time constraints (Meghalaya Institute of Entrepreneurship, 2018, p. 19).

In Shangpung, the increased demand resulted in incomplete sun-drying of cow dung, now increasingly sourced from neighbouring villages. Farmers, unable to ensure their organic quality, faced infestations of grubworms resulting from contaminated cow dung, which damaged the crops. Government support in addressing these issues was limited, with farmers only advised to purchase costly neem oil. This led some to rely on chemical fertilisers and pesticides, while others resorted to traditional practices such as using eggshells and conducting prayers for healing.

Community-led agricultural development

From an environmental conservation perspective, the shift toward Lakadong turmeric cultivation represents a crucial, much-needed intervention in a landscape dominated by coal mining. By providing an alternative economy, initiatives like Mission Lakadong offer pathways for reducing environmental destruction. However, the logic of conservation embedded in such initiatives remains selective, prioritising economic valuation over cultural and ecological considerations in the name of community-led rural development.

For instance, the acquisition of a GI tag for Lakadong turmeric in Shangpung required documentation of its cultural significance, yet the Mission simultaneously displaced

traditional values and practices that did not align with its commercial vision. The community in Shangpung Pohshnong, which follows the indigenous Niamtre belief system, has historically used Lakadong turmeric in rituals and ceremonies. Their cultivation practices, shaped by long-established methods, are now deemed inefficient or undesirable under the new market-driven framework. As new value chain interventions expand, these cultural associations and existing communal networks and relationships risk being overshadowed by commercial imperatives, at times introducing new hierarchies and structural changes within the community.

The expansion of agricultural enterprises, while economically beneficial, introduces risks such as increased landlessness, excessive monocropping and agrobiodiversity loss. The idea of conservation, when viewed beyond nature management, reveals the socio-economic transformations that accompany community-led agricultural development. The increasing emphasis on community participatory conservation highlights the need for deeper engagement with existing socio-cultural practices.

Conclusion

While the Mission undeniably contributed to livelihood enhancement and bolstered Meghalaya's agrarian economy, its implementation underscores the complexities of community participation. Without a critical examination of who benefits and who is left out, such initiatives risk reinforcing existing inequalities and further deepening social fractures.

For conservation-driven economic incentives like Mission Lakadong to truly achieve sustainable livelihood enhancement, policymakers must prioritise the understanding of community dynamics instead of treating 'community' as a given.
A genuinely inclusive approach requires integrating diverse values – economic, cultural, ecological and otherwise – that shape what comprises a community into rural development frameworks. Only by ensuring that conservation efforts account for socio-cultural realities can such policies deliver on their promise of sustainable and equitable development that centres on community participation.

Recommendations

(1) The implementation of Mission Lakadong highlighted that the vision of community-led sustainability cannot fully achieve its objectives without a clear understanding of what the target 'community' entails.

(2) Failure to take into account existing social structures, power dynamics, and hierarchical arrangements will not only result in partial community participation but also risk amplifying existing inequalities and further exacerbating social fractures.

(3) Research into the social and cultural factors that influence 'participation' can help future projects realise truly inclusive, sustainable and equitable outcomes.

Ground lakadong turmeric (photo: Anna Notsu)

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Author's Bio

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Buckwheat and rice fields, Dzongu, Sikkim (photo: Erik de Maaker)

Part II
Land Use and Livelihoods

Jhum's Stubborn Roots: Misunderstood Science, Curious Persistence

Amit John Kurien (RV University/ Leiden University)

Initiative: Post-Independence efforts by the Indian agricultural science community and the state to curb jhum (shifting cultivation) in Northeast India.

Where: Primarily in the hill states of Northeast India, including Meghalaya (Garo Hills) and Mizoram, where policies like the Jhum Control Scheme, Watershed Development Programme (WDPSCA), and the New Land Use Policy (NLUP) were implemented.

Outcomes: Despite decades of state-led efforts to eliminate it, jhum refuses to disappear from the landscape and as a livelihood strategy due to its ecological suitability, cultural importance, and role in ensuring food security and livelihood resilience in Northeast India – something the state and central governments are choosing to ignore.

Introduction

In the years that followed Independence, agricultural science and the state dealt with jhum or shifting cultivation in the Eastern Himalayas based on questionable understandings of the agricultural practice. Colonial and postcolonial understandings of jhum as 'primitive' and 'wasteful' were accepted at face value, and not interrogated by the Indian science community. Hence, the rationale for curbing it was based on three important impressions. The first unquestioned assumption was that jhum caused a net loss of forest. The second was that it caused soil erosion. The third was that it led to poor agricultural production and therefore exacerbated poverty in a period where garibi (poverty) had to be eradicated. These ideas are seen in a multiplicity of policies from the Jhum Control Scheme during the first five-year plan to the New Land Use Policy (NLUP) in Mizoram in 2011 (Bose 2019; Das 2006). In short, colonial ideas about jhum have persisted well after seven decades of science and agricultural development in India. Although agriculture science and the state, through its development apparatus, attempted to curb jhum using different policies and schemes, it refuses to disappear from the landscapes, livelihood strategies and cultures of the eastern Himalayan rural hill societies. Did the agriculture department misread jhum? Did the state go wrong? How do we explain this trend?

Agricultural science and the state

India borrowed ideas of modern science from the West to uplift the masses from poverty. But it brought with it limitations in ways of seeing how people engaged with the land. Western science hinges on reductionist Cartesian philosophy that encapsulates the understanding of a living system using a delimited view of its

interactions. Such a philosophy was wholly unfit for understanding an agricultural system like jhum that is centred around an altogether different scientific cosmology that emphasised interconnectedness and relationality. Shifting cultivation/swidden cropping systems allow for reciprocal exchanges with the wider social and ecological processes and allow for a trade-off between the quantity of return and its frequency – something high-yielding crop systems built around a Western scientific epistemology do not allow for (Dove & Kammen 1997). Thus, although research was conducted on jhum by the Agricultural Engineering Research Centre, Jorhat and the Indian Council of Agriculture Research in Barapani and Shillong, their modelling and laboratory tests were based on a unidimensional understanding of jhum prevalent in western science that was unfit for understanding how jhum is integrated into the landscapes and livelihoods in hill-based rural societies in India (Das 2006).

Farmers undertaking jhum focus not only on the flora in the fields, but also fauna, soils, water, and forests. These are agroecological principles guided by multidimensional thinking that accommodates a multitude of interests of the society that is bound with it. Jhum is thus a land use that co-evolved with the societies that lived in the uplands. Concerns of modern science and capitalism, including a laser focus on total production and estimates of soil erosion, allow for control, experimentation, and standardisation in agricultural research following principles of mainstream modern science (Altieri 1995; Scott, 1998). The result is that scientists viewed jhum through a unidimensional lens. It misses how jhum is integrated with society (and vice versa) – it is to miss the woods for the trees. And that is indeed what happened as the history of schemes to control jhum shows.

Does shifting cultivation cause deforestation? To this day, we don't have a good spatially accurate study that showcases whether deforestation takes place in shifting cultivation landscapes. Most of the existing remote sensing studies are based on an incorrect understanding of what 'loss' is. Loss of vegetation from fallow fields is often equated to deforestation, which is not true. Does jhum cause soil erosion? Since it is a hill-based farming, yes, it does. But it is confined to the intensified systems and mainly in the actively cropped fields only (Ziegler et al., 2009). However, one must be careful with what we compare jhum with. For instance, it causes less erosion than plantations, which is now the choice land use replacement (de Neergaard, Magid, & Mertz, 2008). Another study shows lower carbon stock presence in tree plantations as compared to shifting cultivation fallows, indicating their capability as carbon sinks needed for mitigating the warming effects of climate change (Bruun, Neergaard, Lawrence, & Ziegler, 2009).

State and agricultural development

Jhum control schemes and even the recent New Land Use Policy in Mizoram have faced serious setbacks because of a lack of understanding of the practice (Bose 2019). Studies pointed out long ago that jhum can be tailored to suit the needs of communities in Northeast India, especially since their daily food and cuisine are conditioned by it. Labour efficiency and system productivity are particularly high in the entirely rainfed jhum system, and so is the suitability to the undulating terrain (Ramakrishnan 1992). Jhum fallows are excellent for timber, non-timber forest produce, wild bananas, fruit trees, etc. (Nongrum et al. 2021). It is no wonder that agricultural scientists at ICAR and other places who focused only on agricultural productivity and total production thought jhum was unproductive and inadequate (Das 2006). However, agriculture and soil conservation schemes in the northeast Indian states focused on getting rid of it or replacing it with something more 'productive'.

	Measure of Efficacy	**Unit of Measurement**	**Known Trends**
1	Production	Output in total area	Jhum is rainfed and uses almost no fertilisers or pesticides. Comparison with Green Revolution agriculture based on irrigation and pesticides is scientifically flawed and unjustifiable.
2	Productivity	Output per unit area	Complex, but comparable measure.
3	System productivity	Output for unit input (energy)	Considered to be higher than the Green Revolution cropping.
4	Labour efficiency	Work hours per day	Early studies show that it is higher than many other forms of agriculture. But needs re-estimation since the wedding time has increased.
5	Terrain compatibility	Agriculture suitability for undulating vs. steep	Highly appropriate for terrain.
6	Species richness of large taxa	Number of species per hectare	Fallows contain more species than plantations. They also act as corridors that support biodiversity.

7	Aboveground agrodiversity	Number of species per square metre	A single field supports one to three dozen crop varieties.
8	Belowground biodiversity	Number of species per cubic metre.	Unknown
9	Groundwater utilization	Variable depending on the goal of the study.	Entirely rainfed (no canal irrigation used).
10	Groundwater recharge	Unknown	Jhum landscapes allow for water percolation and hydrological recharge.
11	Carbon sequestration	Based on biomass accumulation (above, below ground)	Many fallow lands sequester more carbon than plantations
12	Ecosystem service value (NTFP, pollination, etc.)	Unknown	More diverse services to humans and non-humans than plantations.
13	Gender parity	Decision-making power of women in agriculture, proportional income returns to women, etc.	It has gender-specific benefits for women in terms of cash income flow into households, since they mostly control sales of commodities.
14	Livelihoods metrics	Income derived per household	Not the optimal practice now, since plantations are being deployed at the cost of jhum.
15	Nutritional health	Levels of critical minerals and vitamins per meal consumed.	Low glycemic index, more fibrous food in jhum.
16	Cultural value	Directly used crops in daily cuisine, medicine, and for cultural/religious events.	Jhum contains the most culturally and nutritionally appropriate crops for people of the region.

Table 1: A multi-criteria framework to compare jhum against other agricultural methods

Rice saplings in jhum field (photo: Amit Kurien)

The case study of Garo Hills, Meghalaya

Meghalaya's current policies on shifting cultivation continue to resonate with age-old ideas. The Jhum Control Scheme and the Soil and Water Conservation Department's programs were aimed at stopping jhum. The Watershed Development in Shifting Cultivation Areas (WDPSCA) scheme, launched in 1994-95 by the Ministry of Agriculture and Cooperation of the Government of India, aimed to replace shifting cultivation with settled cultivation in the seven North Eastern States. Likewise, the recent schemes on forestry development have also made shifting cultivation 'invisible' by classifying it under land cover categories.

Interestingly, a closer examination of the status of jhum in the region tells us something revealing about the Garo Hills landscape. For instance, Kurien et al. (2019) find that shifting cultivation is indeed the most dominant land use in West Garo Hills and South West Garo Hills combined, covering 39% of the region. This is followed by tree plantations (30%). Forests, defined as land that has vegetation of more than 20 years of age, are only 10% in the two districts combined. This is in sharp contrast to the Forest Survey of India (FSI) estimate of forest of 79% of the same two districts combined based on tree cover measures that many policy schemes rely on. Thus, the time for re-estimation of land uses in Meghalaya and other northeast states is long overdue.

Once a landscape dominated by jhum cultivation, Garo Hills' area

Tubers harvested from a jhum field (photo: Amit Kurien)

economic value, social importance, and agrodiversity have significantly declined. Paradoxically, although the average fallow periods and field sizes in jhum have decreased due to land being set aside for plantations, population growth in villages and limited possibilities for out-migration have led Garo farmers to retain their practices. A survey based on a village-level case study in West Garo Hills district showed that 98% of families practised jhum, and all families had plantations (Kurien 2021).

Conclusion: Lessons for managing landscape and livelihoods

Despite the decades of anti-jhum schemes, why do farmers maintain it? Food security and risk-aversion are the key criteria that govern their behaviour. In particular, the capacity of jhum to provide food throughout the year and its superior taste, thanks to its rich agrodiversity and the continuing seed exchange and maintenance of the gene pool by women farmers, is a pivotal aspect. Smallholders in fragile environments, like jhum farmers, balance their livelihoods by ensuring subsistence through jhum and seeking profits with cash crops (Dove 2011; Netting 1993). Jhum is particularly relevant for income-poor households. This risk-averse behaviour is meant to sidestep conditions of scarcity and ensure food security in these otherwise difficult-to-reach hills and fragile environments. In harsh environments such as the Himalayas with fragile, tropical, acidic soils, farmers have to ensure generalised livelihood strategies instead of specialised

ones to avoid environmental or social vulnerability. Terrace farming is only selectively possible, as it is labour-intensive agriculture that is unsuitable for rainfed regions, taking precious time away from meeting basic subsistence needs through jhum. Likewise, monoculture plantations are prone to pest attacks as observed with areca farms during the COVID-19 period in Meghalaya (Kurien 2021).

Land use policies primarily aim to 'settle' jhum farmers by using private titling of land for commodity crop production, such as areca, cashew, oil palm and rubber. However, these approaches have historically had mixed effects in terms of land management. They tend to undermine local autonomy and customary land tenure arrangements, and often do not address the local needs for food security and environmental conservation - something that is usually integrated into the jhum system.

Many jhum systems, as we find today, are not perfect. It needs reworking and redesigning. But we must avoid making rich landscapes and societies environmentally, socially, and culturally poor as we proceed with adopting Western ideas (yet again) of replacing jhum with monoculture commodity crops.

Current land policies primarily aim to 'settle' jhum farmers by implementing private land titling for the production of commodity crops such as areca, cashew, oil palm, and rubber. However, these approaches do not succeed the way the governments expect, mainly because little attention is paid to the direct social needs and complex relationships of subsistence, tenure, and food sovereignty that agriculture shares with the indigenous rural households. Existing policies that undermine local autonomy may not be sustainable either for food security or for environmental conservation.

Recommendations

(1) The evidence for the continued practice of jhum despite policies to restrict it showcases farm-level resilience to ensure food security for the household. Agriculture development should therefore embrace this land use, uniquely suited for the difficult terrain to improve food security and food sovereignty, rather than seeing it as a 'problem'.

(2) In order to do so, it is strongly recommended that, first and foremost, jhum be provided legal backing by defining the land use appropriately, which will give farmers access to credit and subsidies along with other agriculture-related benefits.

(3) Jhum has the highest capacity to provide nutritionally valuable and culturally appropriate foods and non-timber forest produce from any land use for the region. It should be integrated with welfare programmes such as the Public Distribution System (PDS) and the Integrated Child Development Services (ICDS).

Active jhum field and adjacent fallow (photo: Amit Kurien)

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The Multiple Impacts of the Public Distribution System in rural West Garo Hills

Erik de Maaker (Leiden University & RTC Bhutan)

Initiative: The provision of rice and other essential commodities at subsidized rates to families whose average income is below the poverty line.

Where: A national scheme within India, here its implementation in rural West Garo Hills (Meghalaya) is discussed.

Outcomes: The availability of subsidized rice has ended recurring food shortages, but it has also incentivized hill farmers to reduce the amount of rice grown, to instead shift to the cultivation of cash crops.

Introduction: The Public Distribution System (PDS)

In the 1990s, the Public Distribution System (PDS) was extended to rural West Garo Hills. The PDS is an all-India food security program, created in the 1940s. Initially, it was created to subdue the risk of famines. In the decades after independence, it became a mechanism aimed at poverty alleviation through the in-kind distribution of food grains and other essentials (Pal 2011:4). In rural West Garo Hills, the PDS provides people first and foremost with relatively large quantities of rice, which is the staple for its population. PDS rice is only available to families who are classified as having an income 'Below Poverty Line' (BPL). The measure for being BPL is currently set at ₹150 (approx. € 1.50) per head per day. The amount of BPL rice available to a family varies with its size, typically ranging from 25 to 40 kilograms per month. PDS rice is normally offered to those who are entitled to it at a heavily subsidized rate, which averages a third to a quarter of the going market prices. From 2020 onwards, under the Pradhan Mantri Garib Kalyan Anna Yojana scheme ('Prime Minister's Food Security Scheme for the Poor'), some of the PDS rice is even distributed free of charge. If PDS rice must be purchased at a subsidized rate, it costs about ₹12 per kilograms (approx. € 0.12). In Garo Hills rice is the staple food, and an adult requires up to 3 kilograms of rice per week, or about 12 kilograms per month. The rice being distributed in rural West Garo Hills derives from large rice farms in states like Punjab and Haryana which produce rice in excess. This excess rice is being bought by the Food Corporation of India, to be distributed in states which are 'rice deficient', such as Meghalaya. The PDS rice is without exemption polished white rice, and less nutritious than the rice which is grown locally. People almost unanimously

complain about the quality of the PDS rice, which they consider inferior in taste, smell and texture, as compared to local rice.

Rural West Garo Hills (Meghalaya)

Historically, and until the last 2-3 decades, farmers in rural West Garo Hills had very limited access to cash, which restricted their ability to buy their staples from the market. Instead, they mostly depended on swidden cultivation. This involved fields made by clearing forested land, which are cultivated for a limited number of years. Once abandoned, forest was allowed to regrow on the fallows. Swidden (jhum) farming is well suited to the steep hills that characterize the region, particularly if fallow periods can last for 10 years or more. Forest can then regrow, and provide shelter to a great variety of species, sustaining biodiversity. Going by early ethnographies (Burling 1997[1963]), and substantiated by oral histories, in West Garo Hills swidden at one time produced 'hill rice' and other food crops in abundance. In addition, the swidden provided an abundance of millets, tubers and a great variety of vegetables. The crops they planted, derived from seeds which had been carried over for generations, resulting in landraces that were genetically ideally suited to withstand the pests that prospered due to the high humidity and temperature characteristic for the region. In the absence of any means to provide irrigation, farmers were for the growth of the crops entirely dependent on consistent rainfall. If the rain failed, that spelled agony. Swidden harvests could fail.

The introduction of PDS rice, sometime in the 1990s, provided farmers with a degree of food security they had not previously experienced. For much of the year the swidden harvest would provide sufficient food, but the months preceding the new harvest amounted to a 'lean' season, in which poorer families would face hunger. Jackfruit trees bear their fruits in this season. Jackfruit served as a safeguard against hunger for families in need, as people still reminiscence. Their omnipresence, strategically located near (former) clusters of houses, are silent witnesses to the food shortages of the past.

Transforming the rural economy

Initially, the supply of PDS rice was irregular, but over the years it came to cover much of people's basic food needs. It ended earlier seasonally occurring acute food shortages, which mainly affected the rural poor. Reaching the rural areas through the local administration, PDS rice is locally distributed through Fair Price Shops. Fair Price Shops also distribute kerosene, to be used for cooking. Such a Fair Price Shop is managed by a 'dealer'. The dealer has the ability to calculate the amount of rice which a family can receive, which makes them an important person. Dealerships are profitable, and granted for a lifetime. Since dealerships yield a considerable and stable income, they are considered so precious that they are even inherited within families. To receive a Fair Price shop dealership from the local authorities is recognized by the recipient as a valuable reward.

The extension of the PDS scheme to West Garo Hills has sped up far reaching agricultural transformations. Previously, when farmers cultivated their own food, their harvest mostly served their subsistence. The abundance of cheap PDS

Selecting jhum rice seeds for planting (photo: Erik de Maaker)

rice allowed all farmers to spend less effort on the cultivation of rice and other food crops, and assign a gradually larger part of their land and labour to the cultivation of cash crops. Over the last couple of decades, they have become increasingly market dependent, a transition which has certainly been encouraged, and was at least partly enabled by them becoming recipients of PDS rice. The Public Distribution System may not figure as an environmental scheme, but it has had, and continues to have, a significant influence on what farmers in rural West Garo Hills grow on the land they depend on for their livelihood.

Farmers notably started to cover the hill slopes with areca nut trees. Areca nuts were first introduced to Garo Hills in the 1970s (Majumdar 1978), but farmers in rural West Garo Hills only started growing them in large numbers in the 2000s. These areca nuts are much liked as chew, often in combination with betel leave and a bit a slaked lime paste. The areca nuts are popular throughout South Asia, and as a rule fetch a good price at the market. However, areca nut farming has also created new vulnerabilities. Cultivating areca nuts results in the permanent removal of forest cover. Areca nut trees are grown in permanent groves, as a monocrop. Since the groves do not tolerate other vegetation, and provide no shelter to wildlife, growing them results in a dramatic reduction in biodiversity. And the more land is covered by areca nut groves, the less is available for swidden. As a result, fallow periods of forest land used for swidden are shortened, negatively affecting the fertility of the soil as well as

Lunch in a Garo village (photo: Erik de Maaker)

the returns from the swidden. In addition, all areca nut trees grown in Garo Hills are of a single species, which has shown to be prone to fungal disease. Then, more recently, market prices in Garo Hills have started to show a downward trend, due to the import of areca nuts from nearby Myanmar and Bangladesh which sell at lower rates. While the availability of PDS rice has enabled ended earlier seasonal food shortages, it has also encouraged the switch over from swidden farming to a rural economy depending primarily on areca nuts, giving them more access to cash income, but also introducing a new set of vulnerabilities.

Conclusion: Benefits, drawbacks and challenges

Reducing farmers' dependence on swidden cultivation, the extension of the Public Distribution System to West Garo Hills has also had other far reaching effects. Swidden rice, or hill rice, was to followers of the animist Garo community religion important in a ritual sense. In its context, the rice plant is also a non-human entity, a mother that feeds, a giver of life. As such, it plays a crucial role in a variety of annual rituals and celebrations. Swidden cultivation is at the core of the community religion, and the changeover to an areca nut oriented rural economy almost certainly seems to have contributed to its decline (de Maaker 2022). PDS rice is not attributed these same qualities and cannot be use in in any of these rituals. The diminishing of swidden cultivation is also impactful since it creates the risk of losing unique varieties of rice, millet and so on, crops that have been handed down across generations, and that have unique genetic

Planting jhum rice (photo: Erik de Maaker)

qualities, and become perfectly adjusted to the harsh climate of West Garo Hills.

West Garo Hills farmers nowadays eat a lot of rice that has been grown in distant north Indian states such as Punjab and Haryana. Since the rice is offered to them at a subsidized rate, or even completely free, it has created a dependency on the Indian central government which provides these subsidies. After all, it is not guaranteed that these subsidies will last. The growing importance of areca nut cultivation has made farmers further dependent on economic transactions which are external to the region. The extension of the PDS to West Garo Hills, has thus contributed to the transformation of a rural economy that was at one time subsistence based, to one that is dependent on external and market-oriented actors.

Recommendations:

(1) Rather than providing farmers with 'free' PDS rice, they should be encouraged and facilitated to remain to some degree self-sufficient with respect to the production of food.

(2) The cultural and agroecological value of swidden farming should be acknowledged, and farmers be supported in sustaining the swidden crops which are unique to the region.

(3) Alternatives should be considered for the dependence on a single variety of areca nut trees, to reduce some of the vulnerabilities which the current cash crop oriented economy characterizes.

Jhum field during the growth season (photo: Erik de Maaker)

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Fieldhouses in a jhum field (photo: Erik de Maaker)

Unequal Gain: Homestay Economy and its Discontents

Abhimanyu Chettri (Leiden University)

Initiative: Promotion of rural development and tourism through homestays.

Where: Darjeeling, West Bengal

Outcomes: Rural tourism provides a solid source of income for homestay owners, but many families are so far unable to benefit from Darjeeling's burgeoning homestay economy, resulting in their marginalisation.

Policy Context and Objectives

Tourism policies have emerged as the bedrock of the Indian government's development policy for Northeast India. The growing emphasis on tourism as a development intervention is closely linked to the Look East Policy (1991) and its successor, the Act East policy (2014). Both these policies aim to strengthen India's relationship with its eastern neighbours and the development of its Northeastern states as a central priority. From the perspective of economic growth, cultural amalgamation and infrastructural integration with the rest of India, tourism has emerged as a key focus. The government figures report that the tourist flow to India's Northeast grew at a compound annual growth rate (CAGR) of 8% between 2003 and 2019, with projections indicating substantial growth in the upcoming years (DONER 2023). This policy intervention sees tourism and its economic incentives as drivers of 'socio-economic growth' with a promise to promote community-based tourism, skill development and marketing local products under the 'Sustainable NE' brand (NEDFi 2018).

Tourism policies in a rural context seek to boost local economies and promote regional cultures. One key aspect of the promotion of rural tourism is the concept of homestays. In this writing, I will examine the practical implications of two homestay policies: West Bengal Homestay Tourism Policy-2017, and the National Strategy for Promotion of Rural Homestays (2022), with a focus on Lamahatta, Darjeeling. While Darjeeling is not part of any Northeastern state, it connects Sikkim to the region. Further, its location in the Eastern Himalayan landscape positions it at the centre of the national and regional objective of connecting tourism circuits across Northeastern states, making it a crucial node in India's "Act East" tourism infrastructure.

The homestay policies at both, the national and state levels, define homestays as more than just an accommodation. These policies view homestays as experiential tourism that allows the tourist to immerse themselves in the local way of life, while at the same time allowing the host family to engage in self-employment with minimal resources. These policies share a common

goal of promoting sustainable, inclusive tourism that aids local development and provides new avenues for travel and cultural exchange (Government of West Bengal 2019: 5; Ministry of Tourism 2022: 6).

Case study: Lamahatta and its homestays

Once a sleepy little hamlet en route to Sikkim and Kalimpong from Darjeeling town, Lamahatta's transformation began when the state's Chief Minister stopped her convoy here to photograph the pine trees of the Takdah Forest. The Chief Minister's intrigue soon catalysed the Government's investment in an eco-tourism park now jointly managed by the Forest Department and the local community representatives. Over the years, Lamahatta has emerged as an "off-beat" destination, which has in turn triggered rapid tourism infrastructure development and mushrooming of homestays, eateries and souvenir shops.

The homestay model has enabled rural areas like Lamahatta to benefit from tourism which was for a long time concentrated in and around urban pockets of Darjeeling. This selective promotion of tourism excluded rural communities from tourism economy forcing them to depend heavily on Government jobs or time-tested practices such as agriculture and dairy farming. Enabled by abundant water resources, most households cultivated cash crops like broom grass and cardamom as well as vegetables such as carrots, cauliflowers and radishes. However, in recent years, the residents have reported a significant decline in agricultural output due to pests, labour shortages and various other socio-ecological challenges. With these sources of income becoming less reliable, the government's promotion of homestays emerged as a promising and inclusive alternatives for rural employment.

The promises and reality of homestay tourism

The homestay tourism in Lamahatta has transformed the local economy and physical infrastructure in fundamental ways, aligning with the policies promoting rural tourism. In the absence of other employment opportunities, homestay has emerged as a promising alternative. The construction of homestays across Upper, Middle and Lower Lamahatta, the three divisions of the village, signals the policy's appeal. Further, the visible rise in tourist traffic, particularly in Upper Lamahatta, near the eco-park, points to the policy's success in drawing tourists beyond the usual destinations. For many residents, particularly those with access to prior resources such as land, capital and location advantages, the homestay economy has created stable income. For many, the policy has equipped them with small-scale opportunities for earning through roadside vending, nature guides and tourist drivers.

Nevertheless, the benefits of the policy remains distant from their aims for an "equitable sharing of benefits". Access to tourism is shaped by prior inequalities such as inaccessibility of land, capital and social networks. In Upper Lamahatta, where the tourist footfall is the highest, historically privileged families have developed large, resort like buildings that sometimes exceeds the six-room limit set by the West Bengal Homestay Policy 2017.

A humble dwelling in Lamahatta, Darjeeling (photo: Abhimanyu Chettri)

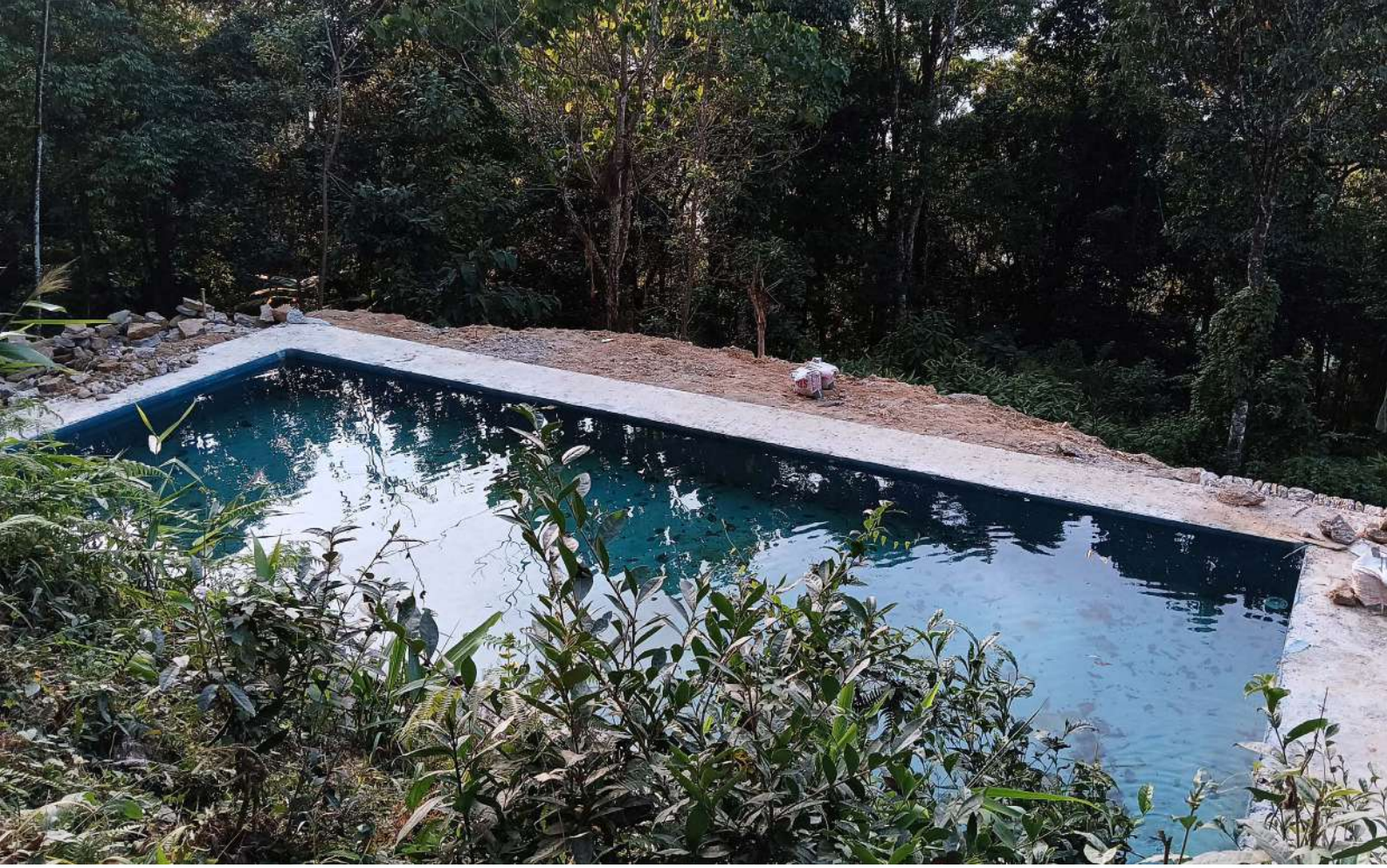
At the same time, many residents outside the hotspots struggle to draw tourists and are forced to rely on subsistence activities. The structural barriers are more vivid in the lower regions of the village, particularly Middle and Lower Lamahatta. These parts of the village have poor road infrastructure that often isolates them during monsoons and limits the access to tourists and emergency services on other time. Selected few with an economic buffer and political clout are however investing in homestays and other infrastructures such as swimming pools with an eye for a future return.

Across the village, many lack digital literacy and the subsequent access to tourism networks that are necessary for visibility on social media platforms. Similarly, a large section of the homestay owners has limited exposure to hospitality practices and fails to reach out to the network of tourism operators in Siliguri, Kolkata and Darjeeling. The increasing investment of external factors such as the Marwari business houses, bhadralok – the elites from urban Bengal and others with access to capital, networks and technical know-now risks local displacement and marginalization of local population who lack these resources.

The successes of the policy

(1) Decentralisation of Tourism beyond Urban centres: The emergence of the homestays has expanded tourism beyond established centres like Darjeeling, benefiting previously overlooked peripheral areas.

(2) Rural Economic growth: The rise of homestays has created new streams of income and economic opportunity in rural



Swimming pool construction underway at a homestay in Lamahatta, Darjeeling (photo: Abhimanyu Chettri)

communities. Homestays have emerged as a potential adaptation strategy to address the challenges posed by declining agricultural production.

(3) Infrastructural growth and targeted development: The promotion of homestay policy has encouraged investments in road networks and tourism infrastructure, including parking sites, eco-parks, and shopping complexes.

(4) Women's economic empowerment and subsistence diversification: The growth of homestays has boosted the market for organic products, allowing women to engage in garden farming and set up roadside stores to sell theses. While these ventures may not yet provide a substantial source of income, they have the potential to grow in significance.

Challenges of the policy

(1) Unequal distribution of benefits: The homestay economy benefits local elites with existing resources, better infrastructure, and better connections. In contrast, less affluent families face numerous challenges and struggle to compete and earn a profit.

(2) Reinforcement of socio-historical injustices: The existing structural inequalities pertaining to class, caste, and historical access to land and resources significantly affect one's ability to benefit from homestay tourism. Moreover, the lack of road access further exacerbates these inequalities.

(3) Vulnerability to seasonal fluctuations: Homestay operations face significant challenges in income stability, as they

are highly dependent on factors such as weather conditions, social media promotion, and political events. Unlike hotels, they so far fail to attract a steady, all-year-round flow of income.

(4) Commodification of land and culture: As land and cultural practices gain more significance in terms of tourism, they undergo significant changes. Farmlands that were once cherished for their productivity, along with cultural practices that held communal significance, are increasingly valued in terms of their economic worth for the tourism industry.

(5) Precarious employment conditions: The homestay tourism model, with its uncertainties in terms of revenue, pushes many of its providers into economic precarity, as they find themselves in informal, low-paying service positions with minimal job security, benefits, or advancement opportunities.

(6) Inadequate regulations and implementation within the policy: The homestay policy serves as a guideline rather than a legal enforcement, which has led to inadequacies in terms of implementation. Some homestays do not fit the defined characteristics of a homestay and function like hotels, operating outside the regulations that apply to these. There is a need to establish a more effective framework and ensure stricter implementation.

Conclusion

In conclusion, this critical reflection highlights the insights gained from my ethnographic fieldwork in Darjeeling, a prominent tourism destination in India. I have examined the barriers that prevent equitable access to the benefits of tourism, particularly focusing on the ways in which the growth of homestay tourism interacts with pre-existing socio-historical inequalities. This intersection leads to the marginalisation of certain families who are unable to capitalise on the opportunities presented by the government's promotion of homestays. Ultimately, the findings illustrate that many individuals in Lamahatta, Darjeeling, are not able to benefit equally or fairly from the burgeoning homestay economy. The disconnect between policy intentions and their practical implications demonstrate the inability of market driven, free-hand economy in addressing rural inequalities. The policy needs to ensure inclusive participation by introducing stronger equity safeguards that factors in the local realities.

Policy recommendations

(1) Targeted Infrastructure Development: The policy should identify the underserved regions in the site of implementation and priorities the improvements of infrastructures in these regions.

(2) Equitable access to training and capital: The policy should be complemented by other government projects such as low-interest loans and other funding sources that provides access to capital or land, particularly to individuals who are below the poverty line.

(3) Enhance community participation and ownership: The policy should make provisions for village level tourism boards that includes representations from all village segments including the historically disadvantage groups.

The Lamahatta village church, overlooking Sikkim and the surrounding mountain ranges, Darjeeling (photo: Abhimanyu Chettri)

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An unpaved village road, Lamhatta, Darjeeling (photo: Abhimanyu Chettri)

Homestays and Tourism: A Study of Western Arunachal Pradesh

Swargajyoti Gohain (Ashoka University & Leiden University, Netherlands)

Initiative: The promotion of homestays and state-sponsored tourism.

Where: Arunachal Pradesh.

Intended outcome: generation of income for local population and promotion of local culture.

Introduction

This paper is an investigation into the effects of the promotion of homestays and state-sponsored tourism in the Himalayan border state of Arunachal Pradesh. Based on my survey of homestays in Tawang and West Kameng districts in 2017, 2018, and 2022, this paper reveals discrepancies between the concept of homestay as offering a local experience, and its actual functioning as locals try to adapt their ways of life to a tourist culture.

Context

Tawang and West Kameng are two predominantly Tibetan Buddhist districts in the western part of Arunachal Pradesh. The Buddhist Monpa communities, the major ethnic group in this region, had strong religious and cultural ties with Tibet and were tax paying subjects of the Tibetan state before an Indian paramilitary expedition consolidated the India-China boundary in 1951. Today, both Tawang and West Kameng showcase their Buddhist cultural heritage. Tourism brochures advertise the various nunneries, monasteries, monastic dances and Buddhist monuments and festivals of the region. Apart from cultural tourism, ecotourism centering around endangered, vulnerable species in Tawang and West Kameng, such as the red panda, black-necked crane etc., have inducted these places into the tourism circuits of India.

In Tawang and West Kameng, urbanization has been largely sponsored by the Indian state, and primarily directed towards servicing the Indian army, given that the entire area is a sensitive border zone, between India and China's Tibet Autonomous Region. Tourism and the promotion of homestays have also relied on state patronage.

Implementation

Homestays are a relatively recent initiative in West Kameng and Tawang, constituting what Jean Michaud (1991) calls the main 'endogenous' tourist activity, that is, an activity which sees the maximum participation of resident local population. While family-run guesthouses and small hospitality enterprises have been on the rise for some decades now in the two districts, given that they are tourist destinations, homestay as a concept received a boost in 2016 after

Tents in eco-resort, Arunachal Pradesh (photo: Swargajyoti Gohain)

the Incredible India Bed and Breakfast/ Homestay Establishment initiative of the Government of India. This initiative was mooted to allow clean affordable lodgings to both domestic and foreign tourists while giving the latter an opportunity to stay with an Indian family and experience 'authentic' Indian cuisine, customs and traditions (Alphons 2018).

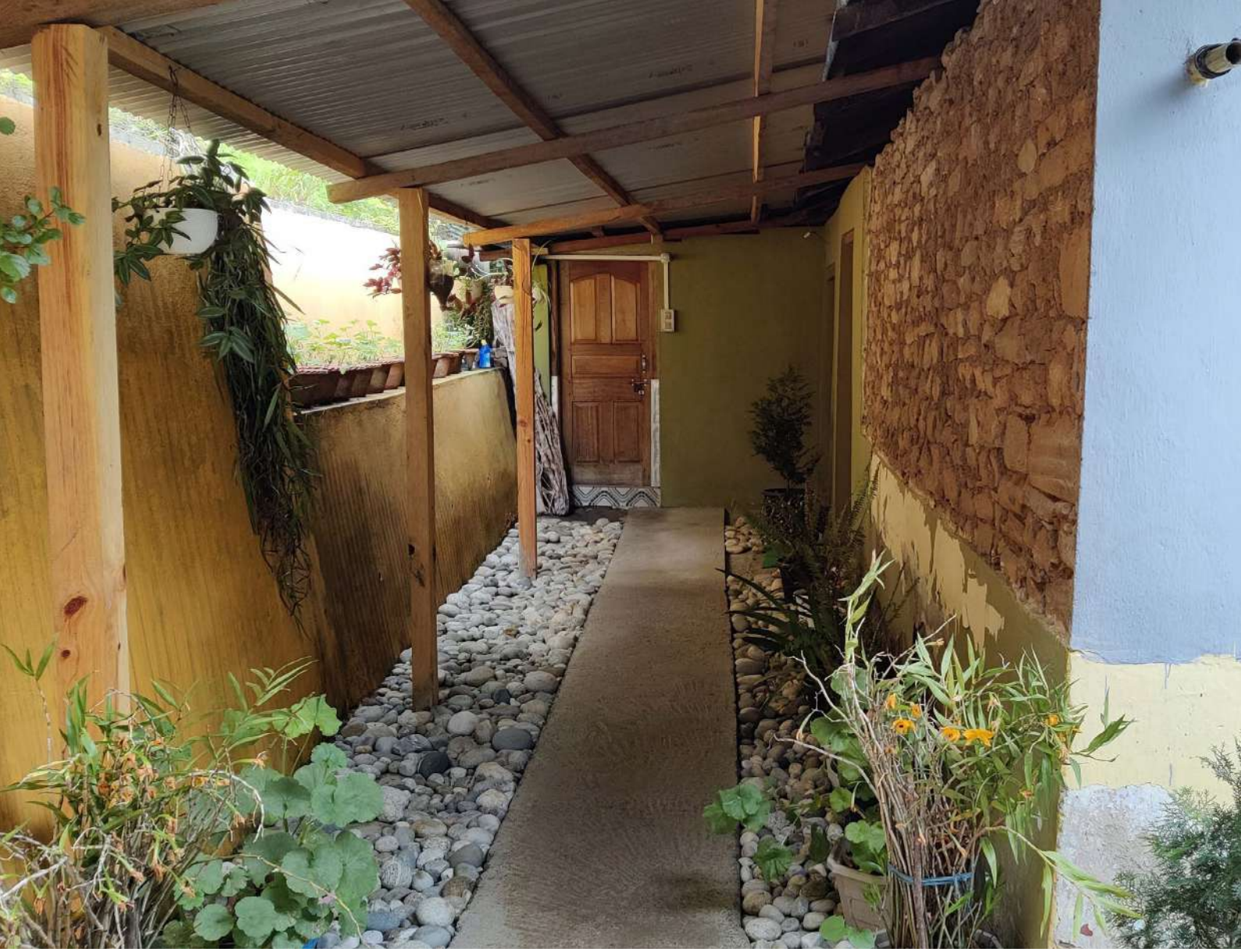
The state tourism department is directly involved in selecting and registering homestays that in their view meet the eligibility requirements. Homestays in Arunachal Pradesh were part of a major flagship programme of the Arunachal Pradesh government called the Chief Minister's Paryatan Vikas Yojana (CMPVY) started in 2016. Till 2020, around 270 unemployed youths had availed this scheme to open restaurants, run tour operator agencies, establish hotels and homestays. On 22nd January 2020, chief minister Pema Khandu distributed Point of Sale (POS) machines to beneficiaries of the CMPVY. POS machines facilitate order processing and payment transactions between homestays and guests. At that occasion, the chief minister stated: "As tourism is the future of Arunachal Pradesh, the introduction of POS facility in homestays is timely…Tourists, especially from outside the country, hardly carry cash on them. Hence, cashless payment at hotels, homestays, and transportation through credit or debit cards is of utmost importance" (NE Now 2020). In 2016, there were 17 government approved homestays in Tawang and 11 in West Kameng districts (Arunachal Tourism, 2023). In 2018, there were 27 homestays in West Kameng.

Anu Homestay, Arunachal Pradesh (photo: Swargajyoti Gohain)

Anyone wishing to open a homestay has to apply to the Director of Tourism in Itanagar to obtain a Registration Certificate (RC). The RC has to be renewed annually otherwise it is cancelled. The homestays have to submit annual reports to the District Tourism Office based on which the tourism department prepares a tourist arrival report. Potential homestay owners can fund the project costs by applying for up to 40% in government subsidy, 60% bank loan from Apex Bank and 20% could be self-generated income. Without the subsidy too, the state government gives up to 5 lakh rupees as a one-time grant to each of the homestays.

Challenges and Outcomes

Maharaj Pandit (2014: 986) suggests that homestay could be a way forward in generating local employment combined with environmental conservation. While some homestays contribute to conservation, in many of the urban parts of Arunachal Pradesh, homestays replicating small hotels are increasing the carbon footprint. In concept, homestays cater to a new category of tourists who are looking for an authentic cultural immersion rather than luxury and comfort. However, homestays in the Himalayan towns I surveyed do not reflect a changing mindset among domestic tourists, who continue to seek hotel-like facilities and service in the homestays. The inhibitions of the homestay owners in delivering local food, cuisine and atmosphere to guests are not due to any lack of desire. They are happy to share their homemade dishes, such as dried meat



Corridor in Homestay, Sangti, Arunachal Pradesh (photo: Swargajyoti Gohain)

and fermented food with visitors if the latter express interest. It is the dominance of a mainstream tourism culture in the official approach to homestay tourism that creates this lack of initiative to serve local flavours.

The Arunachal Pradesh government advertises the concept of homestay as meant for "Travellers who want the quality of a hotel stay combined with the flexibility of self-catering facilities." Yet, there is a vast difference between what is promised and what is offered. In only one among all the homestays I surveyed, the owner welcomed visitors to the central hearth with a fireplace. Others had a very hotel-like lobby with a reception counter. According to a White Paper on the Incredible India 2.0 campaign launched in 2017-18, the classification for Approval and Registration of Incredible India Bed and Breakfast/Homestay Establishments will be given only in those cases where the owner/promoter of the establishment along with his/her family is physically residing in the same establishment and letting out minimum one room and maximum six rooms (12 beds) (Ministry of Tourism 2022). This cap is not applied in many of the homestays. The government vision, which has its objective of promoting local culture through homestays, is compromised.

The homestays in my study serve the goal of staged authenticity, a term given by Dean MacCannell to show how sites of tourism replicate the desire in tourists for a view of what is true, as they seek authenticity in other "times" and other "places" away from their everyday life. Homestays offer a staged, even distorted view of what is local culture in order to cater to the sensory comfort and convenience of tourists.

There are further challenges that arise from regional and global politics. The government of India initiative wishes to tap into the tourism potential of the Buddhist Himalayan regions because of the scope of Buddhist cultural tourism and adventure and ecotourism. But Tawang and West Kameng are restricted in terms of entry compared to Ladakh. Foreign and Indian tourists need the Protected Areas Permit (PAP) and Inner Line Permit (ILP) respectively in order to cross the Arunachal Pradesh state boundaries, which is owing to the latter's sensitive border location. This inhibits tourist flow. Yet, in 2015, when the Indian Prime Minister inaugurated the rail-line to Naharlagun, a town near the state capital of Itanagar, locals staged protests fearing influx. We see multiple negotiations here. State anxieties about geopolitics and national security conflict with state sponsorship of tourism, while on the part of the local people, there is a tension between the appeal of tourism income and the perceived threat to culture and identity.

Conclusion

The homestay project calls for deeper empirical studies. Very few critical studies have been published on the outcomes of homestay tourism. While homestays can generate income, visibility, and development gains for marginal regions, they can also increase marginalisation by forcing local culture into stereotyped frameworks, and by increasing carbon footprint. Empirical studies can alert us to the environmental and social costs of tourism in these fragile Himalayan regions. They will push us to be attentive to the local context as we develop infrastructures of endogenous tourism like the homestays.

Recommendations

(1) State support for promoting and marketing local foods through trade exhibitions and GI (geographical indication) tags. This will give national visibility to local dishes and products, and will incentivise homestays to serve these dishes.

(2) Greater state investment in infrastructure equity (roads, electricity) and subsidies so that people across different sections of society can avail the opportunities of the homestay scheme.

(3) State intervention to prevent the haphazard spread of homestays and to safeguard against environmentally harmful behaviours of both homestay owners and tourists.

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Author's Bio

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Gate to Thembang Fortified Village, Arunachal Pradesh (photo: Swargajyoti Gohain)

Futuring Heritage consortium, January 2025 (photo: Futuring Heritage project)

Endnote

Community Involvement in Conservation and Livelihood Initiatives in the Eastern Himalayas: Reflections on Practices and Policies is produced by the Futuring Heritage project consortium, in which academic and societal partners cooperate. This consortium emerges from the five-year research project 'Futuring Heritage: Conservation, Community and Contestation in the Eastern Himalayas', funded by the Dutch Research Council (NWO). This project has been jointly initiated by Leiden University (the Netherlands) and Ashoka University (India). The project takes heritage as a shared standpoint between academia, research collaborators and field experts to explore how the cultural and ecological significance of the Eastern Himalayas is interpreted, engaged with and valued by local inhabitants. The logic of conservation—seeking to protect, preserve and sustain recognised value—often parallels heritage-making. Through 'Futuring Heritage', we examine how such framings shape everyday relationships with place.

Engagement with field experts, including NGOs and international organisations, forms a central part of the project's analytical and methodological approach. Organisations working in community development, environmental protection and cultural documentation increasingly

act as intermediaries in the production and promotion of heritage, in ways that place local inhabitants—human and more-than-human—at the forefront of heritage debates.

Methodologically, collaboration beyond academia enables more sustained, ethically grounded and multifaceted approaches to understanding how heritage circulates between community aspirations, policy initiatives and global discourses of conservation. The authors of this publication share this commitment, and, as a consortium, we continue to learn together how heritage is negotiated, contested and re-made in imagining the futures of the Eastern Himalayas.

https://www.universiteitleiden.nl/futuringheritage

Integrated Mountain Initiative (IMI)

The Integrated Mountain Initiative (IMI) is a civil society led network platform with the mission to mainstream concerns of the Indian Himalayan Region (IHR) and its people in the development dialogue of India. It functions as a platform to integrate the knowledge and experiences of multiple stakeholders working across the IHR, and uses this to inform and influence policy at the national and state level.

https://www.mountaininitiative.in

North Eastern Social Research Centre (NESRC)

The North Eastern Social Research Centre (NESRC) is a centre of research, documentation, and networking in Northeast India. It attempts to combine serious intellectual pursuits with civil society collectives active among marginalised groups in the region. Its focus of research has been the tribal and indigenous people, gender, livelihood issues, and peace and conflict. It accords importance to addressing emergent issues in the region including development-induced displacement, gender implications of customary laws and the rights of children.

https://nesrc.org

Community Involvement in Conservation and Livelihood Initiatives in the Eastern Himalayas: Reflections on Practices and Policies examines how across the Eastern Himalayas environmental conservation is reimagined. Drawing on collaborations between researchers, NGOs, and policymakers, the publication bridges science and policy through grounded, participatory approaches rooted in local knowledge and cultural values. Divided into two sections—Community Conservation and Land Use and Livelihoods—it explores how grassroots initiatives, traditional governance, and indigenous stewardship can sustain biodiversity, while engaging growing market dependency. Case studies from Arunachal Pradesh, Sikkim, Darjeeling and Meghalaya reveal that environmental conservation can succeed when aligned with community values, whereas neglecting them risks creating social and cultural frictions. Together, these contributions, written by participants to the Futuring Heritage research project consortium, offer critical insights into creating inclusive, context-sensitive strategies for sustaining the ecological and cultural heritage of the Eastern Himalayas amidst mounting ecological and social pressures.

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