
Pastoralism in India: Changes and Continuity

A Hybrid International Conference

Indian Institute of Technology Hyderabad, 8th and 9th May 2026



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Indian Institute of Technology Hyderabad



INTERNATIONAL YEAR OF
**RANGELANDS AND
PASTORALISTS**
2026

Pastoralism in India: Changes and Continuity

A Hybrid International Conference

Indian Institute of Technology Hyderabad, 8th and 9th May 2026

Conference organised and convened by Dr. Rashmi Singh

Dr. Rashmi Singh is an Assistant Professor in the Department of Liberal Arts at the Indian Institute of Technology Hyderabad. Her research examines the intersections of livestock management and biodiversity conservation, as well as climate change and labour dynamics in Indian pastoralism. Based on her empirical research, she advocates for the recognition of pastoralists' knowledge systems and their meaningful participation in rangeland governance and conservation initiatives.

Dr. Singh is the Co-Chair of the South Asian Regional Support Group and the Global Biodiversity Working Group for the International Year of Rangelands and Pastoralists (IYRP) 2026. She also serves as an Associate Editor of the journal *Pastoralism: Research, Policy and Practice*.

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I. ACKNOWLEDGEMENTS

This report draws upon the presentations, discussions, and exchanges that took place during the hybrid international conference *Pastoralism in India: Changes and Continuity*, held at the Indian Institute of Technology Hyderabad (IITH) on 8th and 9th May 2026. The conference was organised and convened by Dr. Rashmi Singh, Assistant Professor in the Department of Liberal Arts (LA), Indian Institute of Technology Hyderabad (IITH).

We extend our sincere gratitude to colleagues of the Indian Pastoralism and Rangelands Lab (IPRL), whose commitment and hard work transformed the conference from an idea into a successful event. We are especially grateful to Anjali Joy, Abhishek S., Naresh Rathod, and Dr. Ajay Immanuel Gonji for their dedicated support in planning, coordinating, and executing the conference.

We are grateful to the Head of the Department (LA), Dr. Aalok Khandekar, as well as the Office of LA for their support and cooperation throughout the conference. We also thank the various units and service providers whose assistance ensured the smooth conduct of the event, including the Centre for Continuing Education (CCE), the Souvenir Shop, the International Guest House, PGR Facilities Services, and Friends Tours & Travels. Their efficient management of accommodation, food, logistics, and travel arrangements greatly contributed to the experience of participants and guests.

We are particularly thankful to the artists from the Lambada community, whose music and dance performances enriched the conference and highlighted the cultural dimensions of pastoral livelihoods and heritage.

We also extend our sincere gratitude to all presenters, panelists, and participants for generously sharing their knowledge, perspectives, and experiences, which enriched the discussions and fostered meaningful dialogue throughout the conference.

Finally, we acknowledge the financial support provided by the Indian Institute of Technology Hyderabad through the Seed Grant SG/IITH/F356/2024-25/SG-197, titled *"Pastoral Knowledge Systems, Labour Shifts, and Conservation Challenges in Rangelands,"* awarded to Dr. Rashmi Singh.

II. BACKGROUND AND INTRODUCTION

Pastoralism remains a vital livelihood system for millions of people across the world, providing food, income, cultural identity, and stewardship of some of the planet's most extensive rangeland ecosystems. Through the management of livestock and the sustainable use of diverse landscapes, pastoral communities contribute significantly to biodiversity conservation, food security, and ecological resilience. Yet pastoral systems are undergoing profound transformations driven by the intersecting pressures of climate change, socio-economic transitions, changing labour dynamics, and evolving relationships between humans, animals, and landscapes.

Climate variability and environmental change are increasingly affecting pastoral livelihoods. Altered precipitation patterns, rising temperatures, extreme weather events, and shifts in vegetation dynamics are influencing pasture productivity, livestock health, and mobility practices. At the same time, broader social and economic transformations—including migration, educational aspirations, labour shortages, market integration, and changing livelihood opportunities—are reshaping the organisation of pastoral work and the transmission of knowledge across generations. These changes raise important questions about the future of pastoralism, the resilience of pastoral communities, and the sustainability of rangeland ecosystems.

Pastoral landscapes are also sites of complex multispecies interactions. Livestock, wildlife, pastoralists, and ecological processes are deeply interconnected, creating dynamic relationships that shape everyday decision-making and adaptation strategies. Understanding these entanglements is critical not only for supporting pastoral livelihoods but also for addressing wider concerns related to conservation, environmental governance, and climate resilience. As pastoral societies respond to contemporary challenges, their experiences offer valuable insights into adaptation, coexistence, and sustainable resource management in an era of rapid environmental and social change.

The significance of these issues is reflected in the United Nations General Assembly's designation of **2026 as the International Year of Rangelands and Pastoralists (IYRP)**. The IYRP seeks to raise global awareness of the ecological, economic, and cultural importance of rangelands and pastoral peoples, while promoting policies and actions that support their sustainable futures. Against this backdrop, there is an urgent need to strengthen dialogue among researchers, policymakers, practitioners, pastoral communities, and civil

society organisations to better understand the opportunities and challenges facing pastoral systems.

The hybrid international conference, *Pastoralism in India: Changes and Continuity*, held at the Indian Institute of Technology Hyderabad on 8–9 May 2026, was conceived in response to this need. Bringing together scholars, pastoralists, practitioners, conservationists, and policymakers, the conference provided a platform for interdisciplinary engagement on contemporary pastoral issues in India and beyond.

The conference was organised around three broad themes:

- ❖ **Climate Change:** Explorations of how climate variability and extreme climatic events influence rangeland dynamics, pastoral management practices, and local adaptations and responses.
- ❖ **Mobility and Labour Dynamics:** Investigations into pastoral mobility and labour-hiring mechanisms in the context of broader socio-economic transformations and market influences.
- ❖ **Multispecies Entanglements:** Studies that foreground human–animal–landscape relations, embodied ecologies, the ethical dimensions of multispecies interactions, and the knowledge systems that sustain pastoral lifeworlds.

III. CONFERENCE OVERVIEW

The conference, *Pastoralism in India: Changes and Continuity*, received 40 abstract submissions, of which 22 were accepted for presentation during the two-day event. Over the course of two days, the hybrid event brought together nearly 50 participants, including researchers, students, practitioners, pastoralists, and policymakers. The programme featured contributions from scholars working across diverse pastoral landscapes in India, including the Himalaya, western India, central India, and the Deccan Plateau. From a disciplinary perspective, the conference fostered dialogue among anthropologists, ecologists, geographers, environmental historians, sociologists, conservation practitioners, development professionals, and policy researchers.

DAY 1 (8th May 2026)

The conference commenced with registration and opening remarks by Dr. Rashmi Singh, who situated the event within broader discussions surrounding pastoralism and the International Year of Rangelands and Pastoralists (IYRP) 2026.

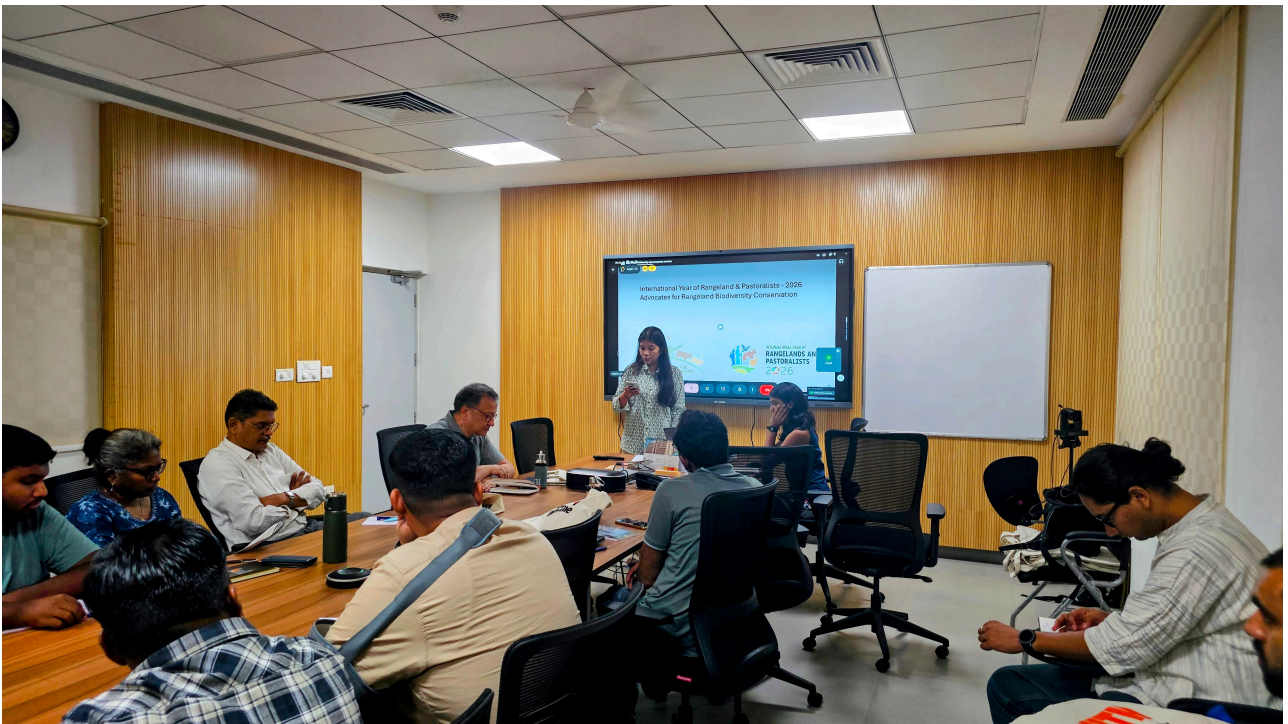


Image: Opening remarks by convener of the conference, Dr. Rashmi Singh

The first session, *Global Climate Change and Responses in the Pastoral Socio-ecological Systems*, examined how pastoral communities across different regions are experiencing climate change. Presentations explored changing pasture conditions, shifting migration patterns, uncertainty in resource availability, and locally grounded adaptation strategies in pastoral landscapes ranging from Spiti and Changthang to Kashmir.

The second session, *Commons, Access and Mobilities in the Pastoral Landscapes*, focused on access to commons, mobility, exclusion, settlement, and changing livelihood opportunities among diverse pastoral groups. Case studies from western India, Rajasthan, Himachal Pradesh, Uttar Pradesh, Uttarakhand, and the western Himalaya highlighted the challenges posed by shrinking commons, policy interventions, and transformations in pastoral mobility. The afternoon featured the release and screening of the documentary *Gyur Se: Shifting Grounds of Agro-Pastoralism in the Trans-Himalaya*, followed by an open discussion on changing agro-pastoral livelihoods in the Himalayan region.

The third and final session of the day, *Labour, Market and the Pastoral Livelihoods*, examined changing labour arrangements, market integration, migration, value chains, and livelihood diversification. Presentations explored pastoral transformations across Telangana, Rajasthan, Jammu and Kashmir, Andhra Pradesh, and Sikkim. The day concluded with a cultural programme by members of the Lambada community of Telangana, highlighting the cultural diversity and heritage associated with pastoral traditions.

DAY 2 (9th May 2026)

The second day began with the session *Contested Pastoralism: Ecological Conflict and Co-existence*, which examined interactions among pastoralists, wildlife, conservation initiatives, and changing landscapes. Presentations addressed themes of coexistence, conflict, land-use change, commons governance, and the implications of emerging conservation and carbon-credit initiatives for pastoral communities.

This was followed by the session *The Human and Non-Human Entanglements in the Pastoral World*, which foregrounded multispecies relationships and explored how pastoral livelihoods are shaped through interactions among humans, livestock, wildlife, forests, and grasslands. Drawing on case studies from Sikkim, southern India, Himachal Pradesh, and the western Himalaya, the session highlighted the relational and ecological dimensions of pastoral life.

Participants also viewed the documentary *Bagaal: Kingship, Continuity, and the Shifting Trails of Pastoral Life*, which explored changing pastoral livelihoods in the eastern Himalaya and stimulated discussion on adaptation and continuity in mountain pastoral systems.

The conference concluded with a roundtable discussion titled *Entangled Intersections: Commons, Climate, Mobility and Multispecies Futures in Indian Pastoralism*. The roundtable synthesised key themes emerging across the two days and reflected on future directions for research, policy, and practice. Closing remarks and a valedictory session brought the conference to a close, reaffirming the importance of interdisciplinary engagement and collaboration in addressing the challenges facing pastoral communities and rangelands in India.

IV. CONFERENCE PROCEEDINGS (DAY 1)

SESSION 1: Global Climate Change and Responses in the Pastoral Socio-ecological Systems

Chair: Dr. Aniket Alam, IIIT Hyderabad

Rapporteur: Anjali Joy, IIT Hyderabad

This session brought together four papers examining pastoral and agro-pastoral communities across the Western Himalayan arc, from the Spiti Valley and Kashmir to the Gaddi highlands of Himachal Pradesh and the Changthang Plateau of Ladakh. Taken together, they offered a multi-sited account of how pastoral communities are living with and responding to accelerating climatic and socio-economic change while simultaneously navigating shifting policy environments, market integration, and changing aspirations. Despite their geographic and community-specific differences, the presentations converged on several shared themes: changing pastoral routines, the erosion of traditional knowledge, growing climate uncertainties, and the recognition that resilience is relational, culturally embedded, and often unevenly distributed.



Image: Session 1 discussion

Rashmi Singh and Anjali Joy's work in Spiti showed how households are managing water scarcity, pasture degradation, and shifting human–animal relations, layered upon longer-term changes in climate and aspirations, thereby requiring a more nuanced and context-specific understanding of resilience. Inayat Chopan's study of the Chopan, Gujjar, and Bakarwal nomads of Kashmir illustrated how a single climatic event, such as an early unseasonal snowfall, can trigger a cascade of consequences, ranging from disruptions to apple harvests to fodder shortages and heightened tensions between pastoralists and farmers. Kirti Bhatia's account of the Gaddis in Bharmour and Sidak Kaur's study of the Changpa in Changthang similarly highlighted how climatic uncertainty is compounded by development pressures, market forces, and youth out-migration. Collectively, the panel made a strong case for rethinking resilience as a relational and dynamic process.

The speakers also emphasised the importance of not homogenising pastoral communities. Rashmi and Anjali provided an account of intra-community differentiation, demonstrating how birth order, class, and gender shape who can invest in infrastructure, who is compelled to migrate, and who has access to decision-making processes. Kirti's analysis of the Gaddis pointed to similar dynamics through the lens of Forest Rights Act entitlements, which themselves are unevenly distributed and accessed. Sidak's methodology, encompassing herders, youth, elders, migrant herders, cooperative members, and village heads, reflected a similar commitment to capturing heterogeneity rather than presenting a singular "community voice." This attention to differentiation within pastoral groups serves as an important corrective to policy discourses that often treat communities as homogeneous units.

The presentations also identified the state - through its policies, regulations, and development programmes - as a significant force shaping pastoral futures. Kirti discussed the Himachal Pradesh government's efforts to map and protect traditional migratory routes. While these initiatives signal a growing recognition of pastoral mobility, the broader policy environment remains insufficiently responsive to the pace and complexity of climate-driven change. Sidak argued for "co-produced, place-based adaptation pathways" rather than interventions that displace existing pastoral capacities. Similarly, Inayat called for collaborative, community-led approaches to the co-management of grazing schedules and pastoral resources.

What unified this session was its insistence that pastoral communities in the Himalayas are not merely victims of climate change but complex actors whose adaptive practices deserve recognition and understanding within their specific cultural and ecological contexts. The session ultimately called for the development of policy and research

frameworks agile enough to engage with pastoral knowledge systems rather than constrain them.

SESSION 2: Commons, Access & Mobilities in the Pastoral Landscapes

Chair: Dr. Nanda Kishore Kannuri, University of Hyderabad

Rapporteur: Naresh Rathod, IIT Hyderabad

There were six presenters in this panel session. Dr. Nanda Kishore Kannuri chaired the session and began by noting that the themes of commons, pastoralism, and human-animal relationships represented a valuable learning experience for him.

The session opened with a presentation titled “*Adapting to Shrinking Commons: A Study on Rabari Pastoralists in the Drylands of Western India*” by Pujan Mehta. Drawing on qualitative and quantitative field research, as well as participant observation, Mehta examined the micro-politics of land transformation among the Rabari pastoral community. He discussed how the expansion of limestone mining for cement production has led to the degradation and loss of common grazing lands traditionally used by pastoralists. The presentation highlighted how lands classified by the state as “wastelands” have increasingly been diverted for mining activities, restricting pastoral mobility and access to grazing resources.

The second presentation, “*Food Sovereignty and Access to Commons by Pastoral Nomads in the Western Himalayas: From Subsistence to Dependence*” by Afreen Faridi, focused on the Gujjar-Bakarwal pastoral community. Faridi argued that the contributions of pastoralists to the agrarian economy, particularly through livestock-based production such as meat, milk, and related products, remain largely overlooked. She highlighted how changes in land tenure systems in Jammu and Kashmir have affected pastoral communities, particularly through the growing distinction between privately owned land and commons traditionally used by pastoralists. The presentation also discussed the alienation of pastoral communities from grazing lands due to conservation initiatives and changing governance regimes. During the discussion, Rajesh Gupta observed that, following the implementation of the Forest Rights Act (2006), the Tribal Welfare Department became the nodal agency responsible for decision-making, while district administrations and forest

officials are responsible for implementation. He further noted that forest officials continue to bear responsibility for the protection and management of forest lands.



Image: Sudhir Kumar Suthar presenting his research in Session 2

The third presentation, *“Changing Lives: From Graziers to Agriculturists—The Sariska Story of Village Relocation”* by Rajesh Gupta, examined the relocation of settlements from Critical Tiger Habitats as a conservation strategy aimed at creating inviolate spaces for tiger recovery. Drawing on his experience as a senior forest official, Gupta discussed the challenges of human–wildlife coexistence within the Sariska Tiger Reserve. He noted that some residents have historically resisted relocation efforts and, in certain cases, tensions between local communities and conservation authorities have complicated wildlife protection initiatives. Gupta also highlighted the pressure placed on natural resources by livestock grazing, observing that water sources intended for wildlife are extensively used by livestock from villages located within the reserve. According to him, approximately 20,000 cattle from more than 29 villages graze within the reserve. Under the relocation policy, households are offered either a cash compensation package of ₹15 lakh or 1.6 hectares of agricultural land outside the reserve. Gupta emphasised that relocation is voluntary rather than coercive and noted that many relocated families have successfully transitioned from pastoral livelihoods to agriculture-based livelihoods.

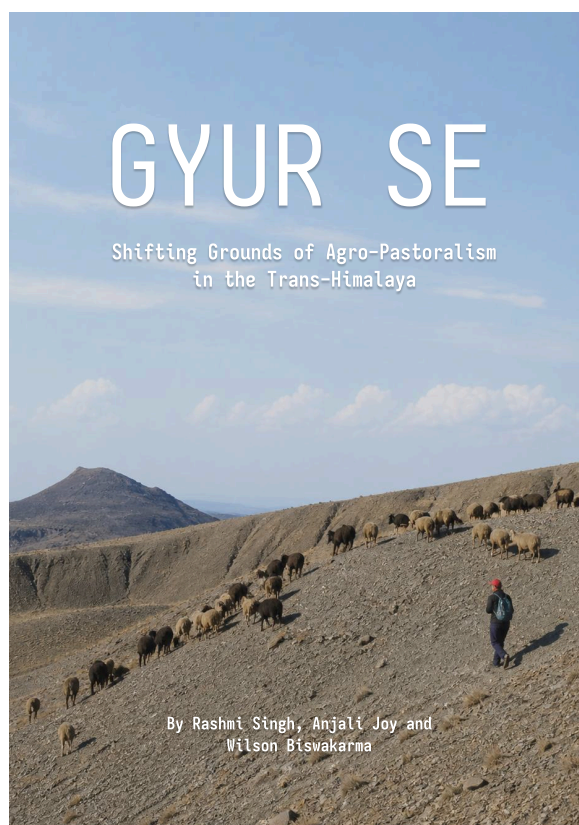
The fourth presentation, *“Poverty and Exclusion of Pastoral Groups: A Study of Northern Rajasthan”* by Sudhir Kumar Suthar, examined the socio-economic conditions of pastoral communities in northern Rajasthan, including the Joya, Jaluka, Gurjar, Raika, and Bharwad communities. The presentation focused particularly on the Bharwad community of Hanumangarh district, a region transformed by the expansion of the Bhakra and Indira Gandhi canal systems after Independence. Suthar organised his analysis around three key questions: (i) how discourses of development and modernity privilege farm-based livelihoods; (ii) how infrastructure development reshapes perceptions of space and temporality; and (iii) whether these transformations represent a broader paradigm shift within pastoral communities.

Mr. Suthar highlighted important differences between agrarian and pastoral households. Whereas agricultural households often retain some members at home, pastoral households typically require the labour of all family members in livelihood activities. He argued that many pastoralists have increasingly been compelled to reduce or abandon pastoral practices and shift toward agriculture, wage labour, or other forms of employment in response to changing economic and social conditions.

DOCUMENTARY RELEASE – *Gyur Se: Shifting Grounds of Agro-pastoralism in the Trans-Himalaya*

*By Rashmi Singh, Anjali Joy and
Wilson Biswakarma*

In one of the world’s highest human habitations, where temperatures plunge to -40°C and winters once cut the region off from the outside world for nearly six months, the people of Spiti continue to live and thrive. Rooted in a delicate balance of agriculture and animal keeping, they are known as agro-pastoralists - custodians of a way of life shaped by resilience, adaptation, and deep ecological understanding. Today, Spiti is increasingly known as a year-round tourist destination,



aided by expanding connectivity and a changing climate. Yet beyond this emerging image lies a more complex and intimate story of people, livelihoods, and landscapes in transition.

Gyur Se (changing) offers a rare glimpse into these lived realities. It traces how social and economic transformations, along with increased connectivity, are reshaping pastoral life and the fragile trans-Himalayan landscape. At the same time, it reflects on continuity on enduring practices, relationships, and knowledge systems that have sustained life here for generations. Pastoralism, one of the world's most significant rural livelihoods, stands at a critical juncture. Through over a decade of research and engagement by Dr. Rashmi Singh, this film brings forth the deep cultural and ecological knowledge of Spitian communities, their intimate human–animal relationships, and the shifting dynamics of demography and environment under the looming pressures of climate change.

This documentary was released in celebration of the International Year of Rangelands and Pastoralists (IYRP 2026).

SESSION 3: Labour, Market & the Pastoral Livelihoods

Chair: P. Vivekanandan, Chair, South Asia Support Group, IYRP 2026 and Executive Director Sustainable-agriculture and Environmental Voluntary Action (SEVA)

Rapporteur: Abhishek S., IIT Hyderabad

Chaired by P. Vivekanandan, this session brought together four presentations examining how labour dynamics, market forces, governance structures, and environmental change are reshaping pastoral livelihoods across India. The papers spanned a diverse range of pastoral landscapes, from the high-altitude pastures of Jammu and Kashmir to the arid regions of Rajasthan, the forest margins of Telangana, and the mountain villages of eastern Sikkim. Despite their varied geographical settings, the presentations converged on a common set of concerns: shrinking commons, changing mobility patterns, market integration, climate uncertainty, and the adaptive strategies pastoral communities employ to sustain their livelihoods. Anita Sharma's paper, "What is a Grassland to a Pastoral Nomad? The Case of the Bakkarwals of Jammu and Kashmir," offered a compelling reinterpretation of

mountain pastures as socially and historically constituted landscapes rather than merely ecological spaces. Drawing on research in the Warwan Valley of Jammu and Kashmir, she demonstrated how Bakkarwal pastoralists understand and claim pastures through embodied practices of migration, memory, and route-making. Rights and belonging are maintained through itineraries, narratives, and intergenerational knowledge rather than formal bureaucratic documentation. The presentation highlighted how pastoral mobility itself produces cultural landscapes and raised important questions about belonging and territoriality in a context where administrative and conservation regimes increasingly challenge customary forms of access and use.

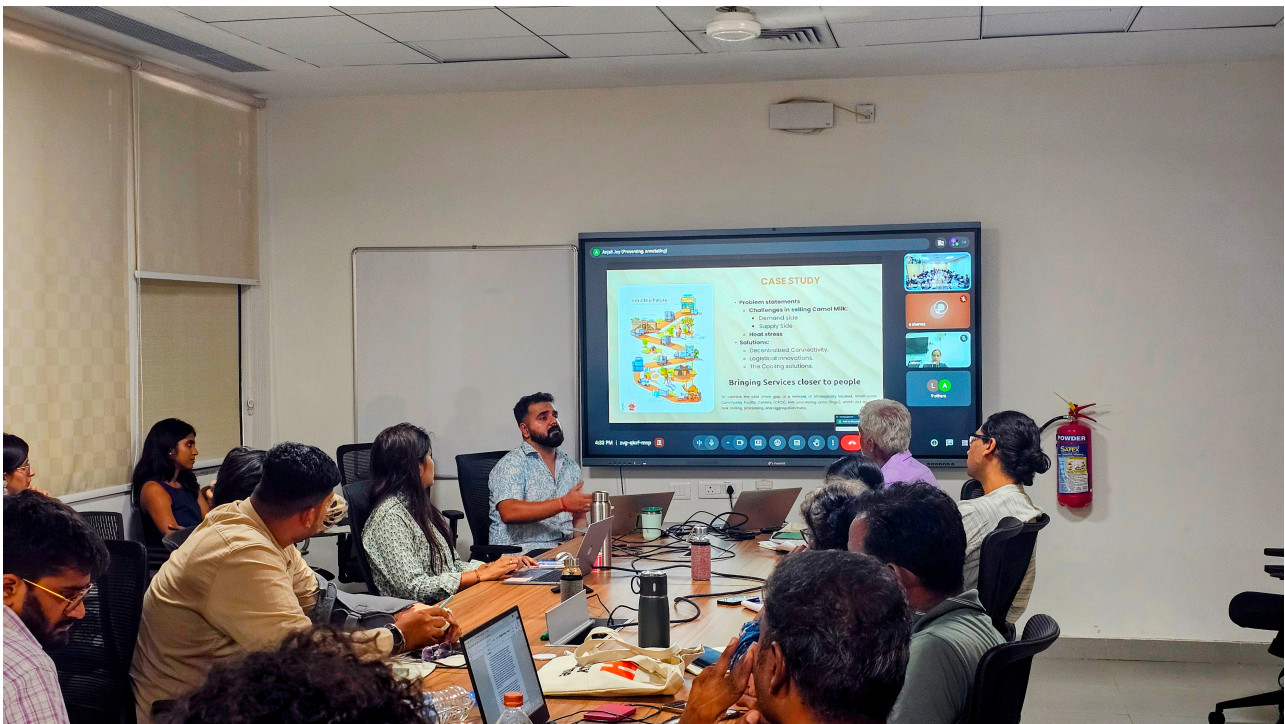


Image: Bhavuk Vijay presenting his research in Session 3

Bhavuk Vijay's presentation, *"Decentralized Renewable Energy and the Future of Nomadic Pastoralism: The Case of Raika and Rabari Communities in Western Rajasthan,"* focused on the potential of decentralized renewable energy (DRE) technologies to strengthen pastoral livelihoods. Drawing on field-based interventions with Raika and Rabari pastoralists, he showed how solar-powered cold-chain infrastructure can reduce distress sales of milk, improve product quality, and increase returns from dairy production. Technologies such as portable milk chillers, solar-powered reefer vans, and small-scale processing units were presented as mechanisms for supporting pastoral mobility while simultaneously enhancing economic resilience. The paper argued that such innovations could help reduce

pressures toward sedentarisation by making mobile pastoralism more economically viable.

Naresh's paper, *"Exploring Land, Laws and Livelihoods of Lambada Pastoralism in Telangana,"* examined the changing nature of Lambada pastoralism through a political ecology lens. He traced the historical transformation of Lambada livelihoods from mobile pastoralism and trade to increasingly settled and diversified livelihood strategies. The presentation highlighted the role of colonial and postcolonial governance, forest regulations, privatisation of commons, irrigation expansion, and development interventions in reshaping pastoral mobility. As access to common lands has diminished, many Lambada households have increasingly relied on agriculture, wage labour, seasonal migration, and livestock trade. Nevertheless, adaptive strategies and long-standing farmer–pastoralist relationships continue to sustain pastoral economies in the region despite growing ecological and legal constraints.

The final presentation, *"The Sun Decides the Day, the Market Shapes the Plate: Climate Change, Dietary Transition, and the Remaking of Everyday Life in Yuksam, West Sikkim,"* by Abhishek, examined how climate change, tourism, market integration, and educational out-migration are transforming everyday life in the eastern Himalayas. Drawing on ethnographic research in Yuksam, the paper explored two interconnected processes: the reorganisation of agricultural labour under rising temperatures and the transition from locally produced foods to commercially available and processed products. The findings suggested that increasing temperatures have altered the rhythms of agricultural work, compressing productive hours and intensifying labour demands. At the same time, improved connectivity, tourism-driven markets, and changing aspirations have contributed to significant shifts in dietary practices. The presentation argued that large-scale processes such as climate change and market integration are experienced through gradual transformations in daily routines, food practices, and livelihood strategies.

Taken together, the presentations underscored the complex ways in which pastoral and agro-pastoral communities are negotiating environmental change, market pressures, and governance interventions. Across the high pastures of Kashmir, the drylands of Rajasthan, the Deccan Plateau of Telangana, and the mountain landscapes of Sikkim, the papers demonstrated that pastoralism remains a dynamic and adaptive livelihood system. The session highlighted the importance of recognising pastoral mobility, indigenous knowledge, and community agency in policy and practice, while calling for more inclusive and context-sensitive approaches to conservation, development, and governance.

V. CONFERENCE PROCEEDINGS (DAY 2)

SESSION 4: Contested Pastoralism: Ecological Conflict and Co-existence

Chair: Dr. Rashmi Singh, IIT Hyderabad

Rapporteur: Swastika G. Kanade, IIT Hyderabad

The fourth session of the conference, chaired by Dr. Rashmi Singh, brought together five presentations examining the contested nature of pastoral ecologies, the impacts of conservation and development policies, and the emerging challenges posed by climate mitigation frameworks on grazing lands. Drawing on ethnographic research from Madhya Pradesh, the Haryana–Delhi Aravallis, Gujarat’s Surendranagar district, Himachal Pradesh, and a policy analysis of rangeland carbon credits, the panel highlighted how pastoralists navigate shrinking commons, multispecies coexistence, and top-down interventions that often disregard existing socio-ecological systems. Collectively, the presentations called for greater recognition of pastoral knowledge, the central role of women, and community-led governance as essential foundations for just and sustainable futures.

The session opened with a presentation by Rishi Raj, based in the Kuno National Park region of Madhya Pradesh, where Gujjar pastoralists have historically migrated with their cattle across multiple villages in search of grazing resources. Drawing on Donna Haraway’s concept of *nature-culture*, the study demonstrated how nature and culture are inseparable in pastoral lifeworlds. Livestock, with whom pastoralists migrate, have become “companions in exile” following land dispossession associated with the Kuno conservation project. The presentation argued that monetary compensation and alternative land allocations fail to address the deeper loss of pastoral landscapes and grazing grounds. Rishi contended that the issue is not simply one of conflict between pastoralists and wildlife, but rather a contestation between different understandings of ecology, calling for conservation approaches that move beyond rigid separations between nature and culture and instead recognise existing forms of multispecies coexistence.

Moving to the Haryana–Delhi Aravallis, Sunil Harsana and Nitesh Kaushik examined how more than a decade of conservation-related interventions has resulted in a severe

shortage of grazeable land due to the expansion of thorny, grass-poor vegetation. Their presentation explored how longstanding systems of coexistence between Gujjars, livestock, and carnivores have been disrupted by rapid urbanisation and development in the National Capital Region. Key drivers of change included the spread of invasive species, acute fodder scarcity, predation-related losses, and governance failures, particularly inadequate livestock insurance and compensation mechanisms. The presenters argued that changing land-use patterns and policy shortcomings are fundamentally reshaping pastoral livelihoods in one of India's fastest-urbanising landscapes.



Image: Sunil Harsana presenting his research in Session 4

Research by Abhinav Rajan and Kavita Mehta on the goat and sheep herding Maldhari pastoralists of Surendranagar district in Gujarat highlighted women as the “feminine backbone” of the pastoral ecosystem. Women play a central role in managing households, livestock, milk production, and traditional veterinary knowledge, while also possessing detailed knowledge of animal breeds and species. Migration routes, the presenters noted, are guided by memory rather than maps, and encompass village-based pastoralism, short-distance movements within talukas, and long-distance migrations across districts and states. The *vidis* (commons) remain critical sites for the transmission of traditional ecological knowledge. However, these commons face increasing pressures from industrial

expansion, energy infrastructure projects, fencing, and invasive species. While a strong sense of stewardship and belonging towards the *vidis* persists, the presenters observed that traditional pastoral knowledge is increasingly being replaced by technology-oriented approaches among younger generations, presenting both challenges and opportunities for knowledge transmission.

Shaheen Badarudeen then turned attention to the Kullu–Manali region of Himachal Pradesh, where Gujjar pastoralists continue to practise seasonal migration between plains and mountains. Using Ribot and Peluso’s *Theory of Access*, the study distinguished between possessing rights and having the ability to benefit from resources. The presentation documented how administrative failures in permit allocation have created conditions in which informal payments often become necessary to secure access. Longstanding social partnerships and reciprocal relationships between Hindu and Muslim families, maintained across generations, are increasingly weakening among younger people. While buffaloes continue to hold cultural significance, their value is increasingly expressed in monetary terms. The presentation also highlighted how pastoralists strategically navigate identity in a culturally complex landscape, including dietary adaptations that facilitate coexistence. At the same time, intergenerational ties with livestock and pastoral environments are weakening, while tourism and alternative livelihood opportunities increasingly draw younger generations away from pastoralism. Technology was presented as both enabling and disruptive, facilitating communication and mobility while also contributing to the intensification of livestock production practices.

The final presentation, by Swastika G. Kanade, addressed an emerging policy challenge concerning rangelands and carbon markets. Historically classified as “wastelands” under colonial and postcolonial land-use frameworks, Indian rangelands are increasingly being targeted for Afforestation, Reforestation, and Revegetation (ARR) projects linked to carbon credit schemes. Using secondary data and thematic analysis of case studies from across India, the study examined the outcomes of social forestry programmes, Joint Forest Management (JFM), and Compensatory Afforestation (CAMPA) initiatives as potential indicators of how ARR projects may unfold in pastoral landscapes. The analysis found that top-down and exclusionary afforestation initiatives frequently lead to dispossession, loss of food security, restrictions on agro-pastoral livelihoods, and ecological degradation, often through the introduction of invasive species. In contrast, projects involving meaningful community participation generated more equitable outcomes, including livelihood diversification, women’s empowerment, rights recognition, and benefit-

sharing. The presentation concluded that carbon-focused interventions in rangelands can create genuine social and ecological value only when communities possess formal and legally enforceable co-management rights, and when climate action is guided by principles of procedural justice, distributional equity, and epistemic inclusion.

Throughout the session, discussions underscored that pastoral landscapes are not empty “wastelands” awaiting development or afforestation, but dynamic socio-ecological systems shaped by generations of knowledge, multispecies relationships, and cultural practices. The speakers collectively called for policy frameworks that move beyond tree-centric climate mitigation and exclusionary conservation models, instead recognising pastoralists as key stewards of India’s grasslands and open natural ecosystems. The session highlighted the urgent need for governance approaches that secure access to commons, value traditional ecological knowledge—including women’s expertise—and ensure that climate finance mechanisms such as carbon credits do not reproduce historical patterns of dispossession. Only through such inclusive and justice-oriented approaches, the speakers argued, can pastoral livelihoods and ecological integrity be sustained together.

SESSION 5: The Human and Non-Human Entanglements in the Pastoral World

Chair: Dr. Ambika Aiyadurai, IIT Gandhinagar

Rapporteur: Amshuman Dasarathy, IIT Hyderabad

The final session of the conference brought together three presentations from Himachal Pradesh in the Western Himalayas, Sikkim in the Eastern Himalayas, and the forest and grassland landscapes of Tamil Nadu in peninsular India. Building on themes that had emerged throughout the previous two days, the presentations engaged centrally with questions of herd–herder entanglements, pastoral knowledge systems, and more-than-human mobilities. Introducing the session, Ambika Aiyadurai emphasised the importance of critically engaging with and learning from pastoralist worldviews that challenge dominant assumptions about conservation landscapes, natural resources, and human–environment relationships.

The first presentation was delivered by Amshuman Dasarathy, Ajay Immanuel Gonji, and Rashmi Singh. Drawing on ethnographic research conducted among pastoral

communities living around the Khangchendzonga National Park in Sikkim, the presenters shared narratives passed down through generations regarding the impacts of a livestock-grazing ban imposed more than two decades ago. They examined how this conservation policy resulted in profound social and economic losses, including the large-scale displacement of pastoralists from their traditional grazing landscapes. Through a series of ethnographic vignettes, the presentation highlighted pastoralists' ecological knowledge and land-use practices, demonstrating how these perspectives challenge the assumptions underpinning exclusionary conservation approaches. The paper argued for greater recognition of local knowledge systems and pastoral relationships with landscapes in conservation planning.

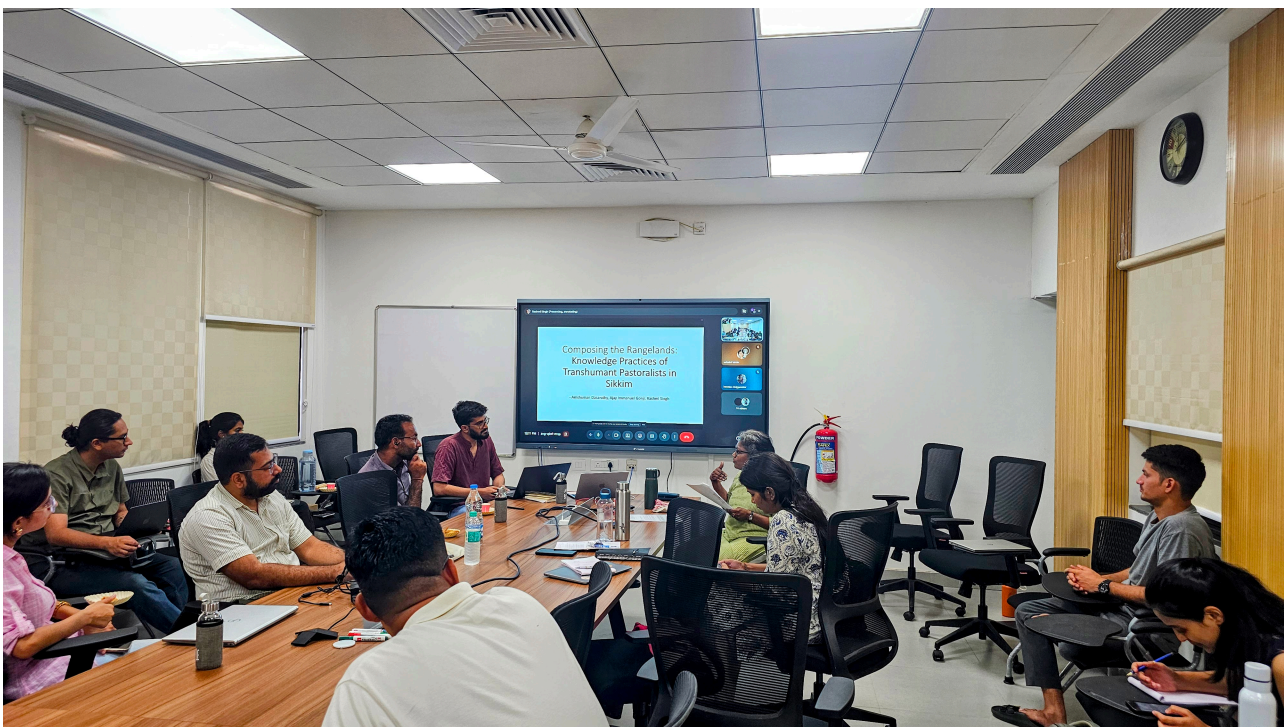


Image: Amshuman Dasarathy presenting his research in Session 5

The second presentation was made by Sachin Kumar, a Master's student whose research explores multispecies entanglements and social transformations among Gaddi pastoralists in Himachal Pradesh. Based in the Bharmour and Bassodhan regions of Chamba district, his work follows pastoralists and their herds through seasonal migrations across mountain landscapes. Sachin spoke extensively about his methodological approach, which involved travelling with pastoral herds and participating in everyday herding practices. He shared several compelling observations about the differing behavioural characteristics of sheep and goats, as well as the close relationships that mobile pastoralists develop with residents of villages and settlements encountered along

migratory routes. His presentation illustrated how mobility fosters enduring social connections that extend beyond pastoral communities themselves.

The final presentation of both the session and the conference was delivered by Raageshwari Saileshwaran, whose research examines mobile pastoral systems in the Theni district of Tamil Nadu. She emphasised the importance of understanding pastoralism through the situated knowledge systems of local communities. Her presentation highlighted differences between cattle populations found in the surrounding plains and those raised in the upland landscapes of Theni, underscoring the significance of recognising such distinctions for maintaining ecological integrity and livestock diversity. Raageshwari argued that mainstream conservation and governance approaches often fail to acknowledge the relational socio-ecological systems that sustain pastoral livelihoods. Her work seeks to address this gap by foregrounding pastoral perspectives and local ecological knowledge in discussions of conservation and land management.

The presentations were followed by a vibrant and wide-ranging discussion involving participants from diverse geographical and disciplinary backgrounds. Several attendees shared stories from their own field sites that resonated strongly with the themes raised during the panel. Particularly memorable were accounts of herders and their animals—including Kharai camels and sheep—being reunited after years of separation, with individual animals recognising and responding to their former caretakers. These stories reinforced a recurring theme across all three presentations: the importance of recognising animal agency and the distinct personalities and social relationships that shape pastoral worlds.

Another common thread running through both the presentations and the discussion was the need to recognise that pastoralists often possess fluid understandings of space, identity, and belonging. As they move through diverse social and ecological landscapes, pastoralists negotiate multiple identities and relationships that cannot be easily captured through fixed territorial or administrative categories. The panel also highlighted how pastoralists frequently understand landscapes as dynamic and evolving spaces rather than static entities, a perspective that often contrasts with state-led conservation and development frameworks. The session concluded with a shared recognition of the importance of examining not only human–animal relationships, but also human–landscape, human–plant, and human–human relationships as interconnected dimensions of pastoral life. Together, these relationalities provide crucial insights into the complexity and diversity of pastoral systems across India.

DOCUMENTARY RELEASE – *Bagaal: Kinship, Continuity, and the Shifting Trails of Pastoral Life*

By Rashmi Singh, Anjali Joy and Wilson Biswakarma

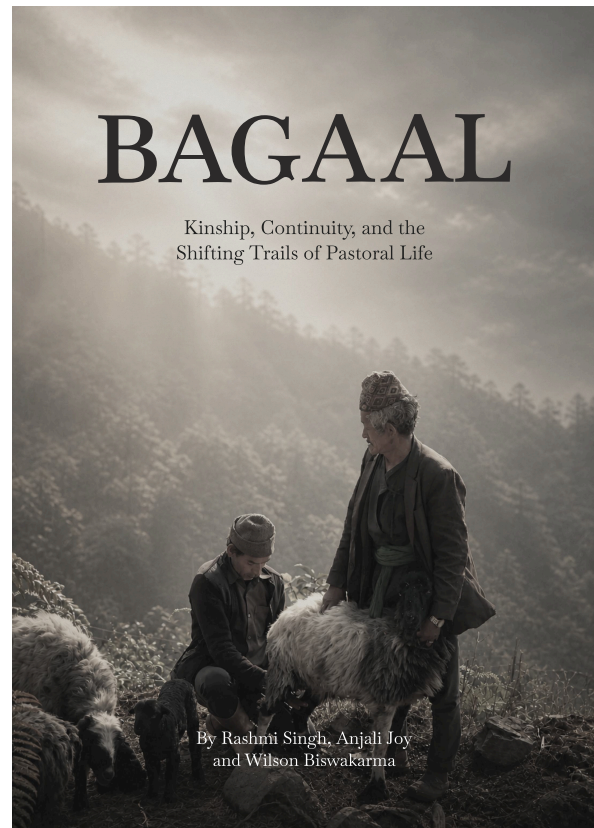
Bagaal (herd) follows pastoral communities in the Khangchendzonga landscape of Sikkim, located in the Eastern Indian Himalaya, as they navigate a way of life under pressure from multiple directions. Through the daily rhythms of herding, the four o'clock wake-up, the counting of sheep, the looking for threats of the predator and the herd dog barking through the night, along with the herder fixing the fire flame and the radio station from Bhutan, the film traces the intimate knowledge that generations of herders have.

Sikkim hosts a rich diversity of pastoral communities, including Gurung- the shepherds, Bhutia - yak herders, Chettri - the cattle herders and Magar and Rai - the owners of mixed flocks. The landscape is co-built by the pastoralists, their animals, and the wildlife.

But conservation policies, a changing climate, and the aspirations of a younger generation are each pulling at the fabric of pastoral life in different ways and for different reasons.

Bagaal does not look for a single cause or a simple resolution. Instead, it shows what it means to keep something alive, and thrive a life and livelihood along with these tensions. It looks for its answer in the people who, knowing all of this, choose to continue Pastoralism in the High Himalayan region of Sikkim.

This documentary was released in celebration of the International Year of Rangelands and Pastoralists (IYRP 2026).



VI. APPENDICES

A. CONFERENCE SCHEDULE

DAY 1 (8th May 2026)	
Time	Programme
08:30	Registration
09:20	Welcome remarks by Dr. Rashmi Singh
09:30	Session 1
11:00	TEA BREAK
11:30	Session 2
13:30	LUNCH BREAK
14:30	Documentary Release (<i>Gyur Se</i>)
15:00	Session 3
<i>Cultural programme at 18:30 by the members of the Lambada Tribe of Telangana</i>	

DAY 2 (9th May 2026)	
Time	Programme
09:30	Session 4
11:30	TEA BREAK
12:00	Session 5
13:30	LUNCH BREAK
14:00	Documentary Release (<i>Bagaal</i>)
14:30	Roundtable
16:00	Closing remarks & Valediction
<i>End of conference</i>	

B. CONFERENCE PARTICIPANTS

CONFERENCE ORGANISERS	
Name	Affiliation
Dr. Rashmi Singh	Indian Institute of Technology Hyderabad
Anjali Joy	Indian Institute of Technology Hyderabad
Abhishek S.	Indian Institute of Technology Hyderabad
Naresh Rathod	Indian Institute of Technology Hyderabad
Dr. Ajay Immanuel Gonji	Indian Institute of Technology Hyderabad

SESSION CHAIRS	
Name	Affiliation
Dr. Aniket Alam	Indian Institute of Technology Hyderabad
Dr. Nanda Kishore Kannuri	University of Hyderabad
P. Vivekanandan	Sustainable-agriculture and Environmental Voluntary Action (SEVA)
Dr. Rashmi Singh	Indian Institute of Technology Hyderabad
Dr. Ambika Aiyadurai	Indian Institute of Technology Gandhinagar

SESSION PRESENTERS	
Name	Affiliation
Anjali Joy	Indian Institute of Technology Hyderabad
Dr. Rashmi Singh	Indian Institute of Technology Hyderabad
Kirti Bhatia	Panjab University, Chandigarh
Sidak Kaur	Nature Conservation Foundation
Inayat Chopan	Shiv Nadar University

SESSION PRESENTERS	
Name	Affiliation
Pujan Mehta	Dr. B.R. Ambedkar University Delhi
Rajesh Kumar Gupta	Wildlife Institute of India
Sudhir Kumar Suthar	Jawaharlal Nehru University
Meetali Dhaka	Dr. B. R. Ambedkar University Delhi
Vinay Kumar	Ashoka Trust for Research in Ecology and the Environment
Dr. Afreen Faridi	JK LakshmiPat University
Bhavuk Vijay	SELCO Foundation
Jahnvi Kanabar	SELCO Foundation
Naresh Rathod	Indian Institute of Technology Hyderabad
Dr. Anita Sharma	Shiv Nadar University
Abhishek S.	Indian Institute of Technology Hyderabad
Rishi Raj	
Sunil Harsana	Centre for Ecology Development and Research
Abhinav Rajan	Sahjeevan
Shaheen Badarudeen	University of Hyderabad
Swastika G. Kanade	Indian Institute of Technology Hyderabad
Amshuman Dasarathy	Indian Institute of Technology Hyderabad
Raageshwari Saileshwaran	Edinburgh Napier University
Sachin Kumar	Indian Institute of Technology Gandhinagar

C. CONFERENCE ABSTRACTS

SESSION - 1

- **Climate Change and Improvised Resilience of Pastoral Communities in Spiti, Himachal Pradesh (Anjali Joy & Rashmi Singh, IN-PERSON)**

High-altitude rangelands are widely recognised as being extremely vulnerable to climate change, and among these, the Himalayan mountain ecosystems are considered to be among the most threatened; yet accounts from the Spiti Valley in India reveal a far more complex landscape than one of 'fragility', where adaptability to climate variability has continually shaped both the environment and the culture. Drawing on two months of fieldwork in ten villages with 85 participants, this study examines how agro-pastoral households here adapt to climate variability alongside tourism, labour migration and changing aspirations. Households respond to climate stressors such as water scarcity, pasture degradation, and shifting human-animal relations through strategies including crop diversification, community-governed rotational irrigation, informal labour exchanges, livelihood diversification, and migration. However, adaptation is uneven. While wealthier families invest in infrastructure and experiment with new crops, smaller landholders depend on migration, tourism, and diversifying their livelihoods. Factors such as birth order, class, and gender also play a role in shaping access to resources and decision-making. Focusing on documented local observations and community governance practices, this paper reframes adaptation as an improvisational process embedded in cultural norms and intergenerational knowledge, rather than as a purely short-term technical response.

- **Changing Pastures: Climate Change and Policy Transformations in Gaddi Pastoralism (Kirti Bhatia, IN-PERSON)**

Pastoralism in the Himalayan region has long been shaped by a close relationship between communities, their environment, and systems of governance. This paper focuses on the Gaddi tribe of Himachal Pradesh, a transhumant pastoral community primarily based in the Bharmour region, to explore how their traditional way of life is being reshaped in the face of climate change and evolving state policies. In recent years, changes

in snowfall patterns, degradation of pastures, and increasing climate uncertainties have begun to disrupt the seasonal migration cycles that have sustained Gaddi livelihoods for generations. At the same time, policy frameworks play a crucial role in determining access to forest resources and grazing lands. The Forest Rights Act, 2006 plays a particularly significant role for the Gaddi tribe, as it directly relates to their rights over grazing and forest use. This paper seeks to analyse not only how forest-related policies shape pastoral practices, but also how the everyday lives of the Gaddis are being affected by the combined pressures of climate change and governance structures. Recent efforts by the Himachal Pradesh government to identify and preserve traditional migratory routes indicate a growing recognition of pastoral mobility. This paper argues that Gaddi pastoralism today reflects a process of adjustment and negotiation rather than simple decline. Pastoralists are continuously adapting their practices, even as they navigate environmental challenges and institutional constraints. The study highlights the need for more responsive and inclusive policies that view pastoral mobility as a viable and sustainable adaptation to climate change, rather than as a problem to be controlled.

- **Weathering Uncertainty: Relational Resilience and Everyday Adaptation in Changthang's Pastoral Systems (Sidak Kaur & Arundhati Jagadish, ONLINE)**

The Changthang plateau in eastern Ladakh sustains a high-altitude pastoral socio-ecological system where the Changpa have historically practiced nomadic and semi nomadic pastoralism within a densely relational landscape of human and non-human interactions. This system is undergoing rapid climatic and socio-economic transformation driven by shifting precipitation patterns, development pressures, market integration, youth out-migration and livelihood diversification- dynamics fundamentally reshaping rangeland ecology, land use, mobility patterns and local adaptation responses. This study aims to understand resilience mechanisms embedded within Changthang pastoralism by examining how Changpa pastoralists sustain and reconfigure adaptive capacities, highlighting relational practices that enable both continuity and change. Drawing on socio-ecological systems frameworks and formal resilience indicators, we employ context-specific indicators to Changthang's mobile, transhumant realities. These are reinterpreted through a relational and vernacular lens to move beyond conventional approaches that overlook locally embedded, socially constructed forms of resilience, by understanding it as being emergent from relational processes among herders, livestock, landscapes, and institutions as opposed to a static, measurable system property. Resilience is thus

understood not merely as absorbing shock and recovering, but as a place-based and dynamic process of living with uncertainty and embedded in the networks, relationships and ethics constituting pastoral systems. This research employs an ethnographically informed mixed-methods approach integrating 30 key informant interviews across 13 settlements in Changthang and peri-urban Leh. Participants included diverse actors: Ladakhi and Tibetan Changpa herders, youth, elders, migrant herders, institutional actors, village heads, cooperatives, and non-profits. Data was translated from Ladakhi, transcribed, and systematically coded using NVivo, enabling identification of climate responses, mobility practices, herd management strategies and ethical dimensions of multi-species entanglements constituting vernacular resilience mechanisms. Conclusively, this study highlights the critical disjuncture between situated, relational practices and current interventions, arguing for co-produced, place-based adaptation pathways that build upon rather than displace existing pastoral capacities and knowledge systems.

- **Climate Uncertainty and the Erosion of Traditional Migration Rhythms in Kashmir (Inayat Chopan, ONLINE)**

In the high-altitude landscapes of Kashmir, pastoral nomadism is a living system woven into the seasonal rhythms of the mountains. However, the growing unpredictability of the climate characterized by declining overall snowfall and erratic seasonal shifts is disrupting these ancestral patterns. This research examines how early, unseasonal snowfall, such as the 2025 event, forces Chopan, Gujjar, and Bakarwal communities to descend from mountain pastures weeks ahead of schedule. Using a qualitative approach grounded in local ecological observations and case studies of recent climatic disruptions, this study explores the "cascading crisis" caused by seasonal mismatch. When nomads are forced into lower valleys prematurely, they encounter unfinished apple harvests, leading to fodder shortages and socio economic tension with orchardists. Beyond material hardship, these shifts represent an erosion of traditional ecological knowledge, as the "old wisdom" that once guided migrations is no longer sufficient to navigate a volatile climate. This work contributes to the conference by highlighting the multispecies entanglements between herders, livestock, and the horticultural landscape. It argues that for pastoralism to remain viable, adaptation must move beyond individual resilience toward collaborative, community led co-management of grazing schedules and land use. By centering the nomadic experience, this research provides vital insights into the survival of pastoral lifeworlds in one of the world's most ecologically sensitive mountain regions.

SESSION - 2

- **Adapting to Shrinking Commons: A Study on Rabari Pastoralists in Drylands of Western India (Pujan Mehta, IN-PERSON)**

Across the globe, large swathes of pastoral land continue to undergo increased land-use and land tenure change for development and conservation initiatives. The local communities continue to be displaced and dispossessed as 'marginal', their livelihood practices considered 'unproductive' or backward, and their land termed as 'waste'. In contemporary India, this expansion over land has been followed by a process of establishing legitimacy with new sets of legislations and land technologies over previous property regimes that came under the control of the state and private actors, especially in the rural landscape. Drawing from the fieldwork around a mining-adjacent village in borderland India, this study examines the political economy of adaptation practices to increasing land fragmentation in a pastoral community in the arid regions of Kutch, Gujarat. Through the case study of Jadva, now surrounded by private agricultural lands, reserve forests, Adani Cement Plant and Township and a limestone mining site. The Rabari pastoralists (a traditional nomadic camel herding community), now show newer forms of economic activities and participation in larger markets through different formal and informal livelihood arrangements. Using mixed methods, I show how changes such as sedentarization, non-farm livelihoods, changes in herd composition and forward market linkages have emerged in the village structure in an attempt to (re)orient or (re)negotiate their access to shrinking pastures. In adopting a relational lens, I focus on the multiplicity and complexity of the 'responses from below' being contingent across social, geographical and temporal scales. This study offers perspectives from political geography and critical agrarian studies, to understand these new sites of transition post-dispossession of commons, and the embedded politics around it. Furthermore, it contributes to literature by complicating the image of pastoralists as being marginal, mobile and inherently vulnerable-to-change; to being actors active in adaptation-to-change within their surroundings.

- **Changing Lives of Graziers to Agriculturists: The Sariska Story of Relocation of Villages (Rajesh Kumar Gupta, ONLINE)**

The voluntary relocation of human settlements from Critical Tiger Habitats (CTH) is a pivotal conservation strategy for establishing 'inviolable spaces' necessary for tiger recovery. Following the local extinction of tigers in Sariska Tiger Reserve (2004–2005), relocation efforts were revitalized under the 2008 National Tiger Conservation Authority (NTCA) guidelines, offering residents a choice between Option I (Cash Package) and Option II (Land Package). By 2025, 11 (5 complete and 6 partial) of the 29 target villages (1,041 families) had been successfully relocated to five sites outside the reserve boundaries. This study utilizes a random-sample questionnaire survey to evaluate the livelihood transition of these families and their subsequent quality of life. Beyond traditional economic indicators, the research assesses psychological well-being and happiness levels to determine the long-term sustainability of the relocation framework. Results indicate a significant shift in subsistence patterns, with a decline in livestock-based income and a corresponding increase in agricultural production and wage labor. A distinct correlation was observed between compensation models and respondent satisfaction: hybrid package recipients reported the highest satisfaction (84.7%), followed by those opting for cash (76.8%) and land (76.3%). Notably, over 90% of relocated families reported happiness levels equal to or greater than their pre-relocation state, suggesting successful psychological adaptation. These findings underscore the transformative potential of well-managed relocation projects in reconciling conservation goals with human developmental needs.

- **Poverty and Exclusion of Pastoral groups: A Study of Northern Rajasthan (Sudhir Kumar Suthar, IN-PERSON)**

This study attempts to understand life conditions of pastoral groups in the northern Rajasthan. This region is now considered as food bowl of Rajasthan due to expansion of canal irrigation and green revolution. However, with the expansion and modernization of agriculture the region witnessed loss of livelihood options for the pastoral communities. The loss of pasture lands has resulted into these groups leaving pastoral responsibilities and switching to other professions especially agricultural laborers. Most of these groups were traditionally also associated with various activities like weaving. With the pastoralism gone and switch over to new professions have also resulted into gradual

disappearance of these traditional arts and skills. Based on an ethnographic account this paper argues that the preconceived notion that green revolution resulted into better life options for traditional rural communities may not be true. In case of pastoral groups green revolution came as a threat to their very survival. Most of these groups have either switched to permanent agriculture or have moved to other nearby regions in search for better employment opportunities. In addition, in the rural social hierarchy these groups are considered at the bottom hence face various forms of exclusion and marginalization especially caste-based marginalization. For an inclusive rural development, role of state in ensuring livelihood opportunities for these groups becomes essential. This paper will highlight some of these issues while looking into the wider notion of rural development.

- **From Mobility to "Forced" Settlement: Livelihoods, Rights, and Everyday Discrimination Among Mobile Indigenous Communities in UP and Uttarakhand (Meetali Dhaka, ONLINE)**

Mobile Indigenous Communities have historically played a crucial role in maintaining socio-ecological systems globally through pastoralism, seasonal mobility, and the sustainable use of Common Property Resources (CPRs). Communities such as the Van Gujjars, who practised transhumant forest pastoralism in the Himalayan region of Uttarakhand and the Bagarias, who combined pastoralism with trading in Uttarakhand and Uttar Pradesh, have long relied on flexible mobility as a livelihood strategy, cultural identity and ecological practice. However, state-led sedentarisation, conservation policies and development interventions have profoundly transformed their traditional lifeworlds through their resettlement and restricted access to forests, pastures, and historical migration routes. Nevertheless, the communities present their resistance and agency in multiple nuanced ways. Therefore, this paper aims to understand how the changing socio-political terrain influences their contemporary forms of livelihood, their legal and socio-political status in resettlement landscapes and the everyday experiences of discrimination by local society and state officials. It deploys a qualitative ethnographic research by combining secondary global literature with in-depth interviews, focus group discussions, and field observations. By situating their lived narratives within the broader debate around pastoralism, the erosion of the commons, and state governance, it also interrogates how mobility, marginalisation, and resistance persist under constrained conditions of uneven development.

- **Pastoral Mobility and Seasonal Transitions: Ethnographic Insights from the Plains of Himachal Pradesh (Vinay Kumar and Saloni Bhatia, IN-PERSON)**

In popular and academic imagination of pastoralism in Himachal Pradesh, it is most often associated with high-altitude landscapes, flocks of sheep and goats, and the itinerant Gaddi shepherd. However, such representations obscure the fact that transhumant pastoralism in the region unfolds across ecological gradients, from the plains, through the mid-hills, eventually to alpine pastures and then back to the plains. Drawing on preliminary ethnographic insights from ongoing fieldwork in the Una and Kangra districts, this study shifts attention to these less-examined phases, particularly the role of the plains in pastoral systems. Based on initial interactions with both pastoralist and non-pastoralist community members, the research focuses on two key phases: (1) periods of settlement in the plains, and (2) the transition towards upward migration to summer grazing grounds. Early findings suggest that pastoralists in the plains are engaged in complex socio-ecological negotiations, managing access to grazing resources, navigating relationships with local agrarian communities, and adapting to shifting weather and climatic conditions. The study further examines how pastoralists determine the timing of migration. Decisions are shaped by a constellation of factors, including weather variability, fodder availability, grazing pressure, accumulated experience, social networks, and emerging gender dynamics in decision-making. Field observations also point to notable climatic shifts with pastoralists reporting unusually high temperatures in the plains and significantly reduced rainfall in recent months, in addition to challenges brought forth by increased deer populations that may compete with livestock. In response, some are considering advancing their migration schedules. These accounts suggest that changing climatic conditions are beginning to influence migration timing, rendering this transitional phase increasingly uncertain and analytically significant. As part of an ongoing ethnographic inquiry, this study foregrounds the often-overlooked importance of the plains within pastoral systems in Himachal Pradesh and underscores the need for more sustained research on pastoral transitions across ecological gradients as well as emerging challenges.

- **Food sovereignty and Access to Commons by Pastoral Nomads in Western Himalayas: From Subsistence to Dependence (Afreen Faridi, ONLINE)**

The Himalayas of South Asia are home to many tribal communities. The Gujjar-Bakarwal tribe of Jammu and Kashmir are one of the largest transhumant tribal groups which undertake seasonal migration across the Himalayas along with their flock. The collaboration of modernisation project under neoliberalism during the period of the Covid-19 pandemic and rearrangement of the federal structure have reshaped the various spaces occupied by this pastoral tribe and their ecological occupations. It is the contention of this research proposal that the destitution of tribal societies in India through an analysis of tribal policies, programmes and research based on 'exclusionary' politics is simplistic and misleading. The Indian state has promoted policy tools that enable such groups to represent their interests and become collaborators in the policymaking process however, its policies of market orientation and globalisation have burdened pastoralists through privatisation and commercialisation of community-regulated resources (Agrawal 2005). In this regard, there is a need to view state and market mechanisms as a tool of 'integration' of tribes into the mainstream mode of production which at once exploits and impedes the socio-economic progression of tribal communities. Furthermore, there is a need to analyse land and livelihood policies for determining the shifts in modes of production and reproduction utilised by tribes, in the 'modern' nation-state against the predominant market system, through the notion of 'adverse inclusion' (Nathan & Xaxa 2012). The proposed paper locates renewed land and livelihood policies in Jammu and Kashmir as an anthropogenic tool of ecological dispossession and ethno-nationalism which peripheralizes the native pastoral communities in this Western Himalayan state. Such an analysis would unravel the impact of state policy - through variance in land use and political representation - on informal agrarian production undertaken by nomadic pastoralists of Jammu & Kashmir living in border areas affected by climate duress and extreme weather conditions in the Himalayas. As researchers locate climate change and multiple vulnerabilities (Sajad and Batool 2022; Malik and Ford 2024), this research seeks to explore the 'metabolic rift' occurring within the tribe itself and the factors contributing to it. Set against the changing federal structure and state policy, stormy political climate and new policy land regimes in Jammu and Kashmir, the research shall locate the shifts in informal ecological labour and food production regimes within the tribe and its consequences for the region's environment and native ecologies. In the context of the lived experiences of the Gujjar-Bakarwal, political ecology (Sultana 2022; Long 2024) will be used to view the impact of changed federal structure and climate change on spatial and

social mobility of the tribe. The proposed paper shall use ethnographic narratives to situate access to food and livelihood within the Gujjar-Bakarwal community as the ever-growing city engulfs their traditional settlement zones in the winters. Such an analysis would unravel the prospective impact of social fragmentation and political representation on the nomadic pastoralists' ability to produce and procure essentials for social reproduction.

SESSION - 3

- **The Chilled Frontier: Innovative Cooling Strategies for Nomadic Dairy Value Chains in Western Rajasthan (Bhavuk Vijay & Jahnvi Kanabar, IN-PERSON)**

Pastoralism, a practice viewed estranged by most, despite the climatic and social challenges holds deep significance to the communities in India. For instance, Raika and Rabari communities, groups of iconic nomadic pastoralists from the landscape of Western Rajasthan are currently navigating a perilous intersection of climate change and restricted market access. The study underlines collaborative interventions that reconceptualize the dairy value chain through Decentralized Renewable Energy (DRE). Traditional dairy systems in these regions face systemic bottlenecks, most notably the lack of decentralized cold chain solutions which distress sales and limits the economic viability of nomadic life. By examining a Dairy Causal Loop, based on programmatic pilots, it was identified how the absence of cooling solutions can cause low productivity and high input costs. To counter the lack of cold chain access and energy deficit on the go, pastoralists received solar-powered portable can chillers and instant milk chillers. This allowed us to study the qualitative impact on produce quality during herd mobility. Separately, other pastoralists were provided with solar-powered reefer vans to preserve milk quality and bridge the gap between remote grazing tracks and processing hubs. For further processing at the establishment, solar-integrated Milk Processing Units and Community Facility Centers were implemented. These enabled product diversification (such as ghee and mawa), thereby increasing pastoral dairy income. Our prototype research suggests that by decentralization we have reduced the pressure on pastoralists to settle prematurely, thereby supporting traditional mobility while enhancing economic resilience. This approach not only stabilizes the livelihood of the herder but also ensures quality preservation of the produce. The study concludes with policy-relevant insights on how

DRE can be scaled to transform the livelihood for the community and ensures the future of Indian pastoralism is both mobile and bridges the modernity gap.

- **Exploring Land, Laws and Livelihood of Lambada Pastoralism in Telangana (Naresh Rathod, IN-PERSON)**

Pastoral communities have historically played a crucial role in sustaining rural economies and ecological systems across India through mobility, livestock rearing, and the management of common resources. Among these communities, the Lambadas of Telangana, India, have experienced significant transformations in their pastoral livelihoods due to changing land relations, state policies, forest governance, and agrarian expansion. This paper examines the intersections of land, laws, and livelihoods in shaping contemporary Lambada pastoralism in Telangana through the framework of political ecology. Historically associated with nomadic trading and pastoral mobility, the Lambadas have undergone a gradual transition from mobile pastoralism to semi-settled and agrarian livelihoods under colonial and postcolonial governance structures. As Bhangya Bhukya argues, the Lambadas' transformation from a nomadic community into a politically recognized tribal identity reflects broader processes of state control, sedentarization, and social marginalization (Bhukya, 2010). Simultaneously, forest laws, privatization of commons, irrigation expansion, and developmental interventions have reduced access to traditional grazing landscapes, thereby intensifying livelihood insecurity among pastoral households. Drawing on political ecology, the paper argues that pastoralism is not merely an ecological adaptation but a socio-political process shaped by power, environmental governance, and resource control (Robbins, 2012; Agrawal, 2005). In Telangana, shrinking commons and restrictions on mobility have transformed traditional pastoral practices, compelling Lambada households to diversify into wage labour, seasonal migration, agriculture, and livestock trade. Studies by Kanna Kumar Siripurapu on sheep penning systems and pastoral mobility in the Deccan Plateau demonstrate how pastoral economies continue to survive through complex farmer-pastoralist relationships and indigenous ecological knowledge systems. These adaptive strategies reveal the resilience of pastoral communities despite increasing legal and environmental pressures.

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- **What is a Grassland to a Pastoral Nomad? The Case of the Bakkarwals of Jammu and Kashmir (Anita Sharma, ONLINE)**

This paper examines the social geography of a high mountain pasture extending from the Warwan valley in the Jammu and Kashmir Himalayas. Grasslands are often represented in scholarly literature as generic ecological spaces defined primarily by their flora, fauna, and patterns of use. Departing from such representations, I argue that mountain pastures are socially and historically constituted landscapes rather than undifferentiated ecological zones. I trace how a specific grassland emerges as a form of cultural cartography through the repeated seasonal movements of those who return to it year after year. Focusing on the pastoral community of Bakkarwals and their herds, the paper explores how generations have accessed and inhabited this pasture, which is now understood as an inheritance passed down by forefathers and clan members to subsequent generations. Such understandings point to a mode of spatial claim-making and tenure that operates outside, and often alongside, bureaucratic regimes of documentation and territorialization. Instead, rights and belonging to the pasture are sustained through embodied practices of migration, memory, and route-making. I show how knowledge, tradition, allegiance, and pride associated with this grassland are transmitted through itineraries, narratives, and traces that collectively inscribe the landscape over time. By foregrounding these practices, the paper situates the pasture as a lived archive of pastoral mobility and intergenerational knowledge. Engaging with the CFP themes of “Mobility & Labour Dynamics” and “Multispecies Entanglements,” the paper contributes to conversations on pastoral migration, situated knowledge systems, and the embodied ecologies of mountain landscapes. It further reflects on the more-than-human processes of co-becoming through which pastoralists, animals, and pastures mutually constitute one another, raising broader ethical and political questions about mobility, belonging, and landscape in the Himalayas.

- **Changing Lives in Yuksam, Sikkim : Market Integration, Food Systems, and Pastoral Livelihoods (Abhishek S., IN-PERSON)**

This paper examines the intersecting processes of market integration, food system change, and livelihood transformation in Yuksam, a historic village in West Sikkim located in the eastern Indian Himalayas. Drawing on ethnographic fieldwork and key informant interviews, the study traces three mutually reinforcing transformations: first, the reorganisation of agricultural labour under rising heat stress caused by climate change;

second, the displacement of local subsistence diets by commercially produced and processed foods driven by road connectivity and tourism; and third, the role of education-led out-migration in accelerating dietary change within households. The paper argues that Yuksam is undergoing a compound livelihood transition—in which environmental, economic, and cultural forces operate not sequentially but simultaneously—with significant implications for food security, local agriculture, and the long-term sustainability of rural livelihoods. These findings contribute to broader debates on nutrition transition, rural market integration, and the lived experience of climate change in mountain communities.

SESSION - 4

- **Between the Domesticated and the Wild: An Ethnography of the Migrant Rajasthani Gurjar Pastoralists in Sheopur District, Madhya Pradesh (Rishi Raj, IN-PERSON)**

This paper is an ethnographic study of the lives of migrant Gurjar pastoralists from various parts of Rajasthan settled in the Birpur and Karahal Tehsils of Sheopur district in Madhya Pradesh. Traditionally dependent on cattle rearing, milk production, and seasonal mobility, the Gurjars have established their settlements in and around forested landscapes that are simultaneously inhabited by other communities, livestock, wild ungulates, predators, and the state's conservation apparatus. The study explores the everyday lives of these migrant Gurjar pastoralists and how it is constituted through the interactions between humans, cattle, forests, and their inhabitant wild ungulates and predators. It attempts to understand how multispecies interactions are affected by conservation programmes, wildlife protection policies, and the expansion of protected areas like the Kuno National Park. Restrictions on grazing, predation of livestock, encounters with state actors, and anxieties around a looming relocation define and determine multispecies entanglement in this context. The study employs ethnography as its methodology, using participant and non-participant observation, in-depth interviews, and informal conversations as data-collection techniques. Also, telephonic interviews to gather supplementary data. By exploring human-wildlife conflict and coexistence, the paper contributes to the growing field of multispecies ethnography by depicting how pastoral lives are a production of interactions among humans and animals, both domesticated and wild, in an overlapping landscape of forests and pastures, defined by

ever-evolving conservation and wildlife protection interventions. It thus covers in its fold and contributes to various themes in human-animal relations studies and the disciplines of ecological anthropology and political ecology. Demonstrating the interactions and dynamics between pastoralists, their livestock, and the local wildlife set in the larger context of wildlife protection and conservation programmes makes this paper relevant to the conference's "Multispecies Entanglement" sub-theme.

- **Traditional Pastoralism in a Changing Landscape: Livestock, Knowledge, and Livelihoods in the Haryana Aravallis (Sunil Harsana & Nitesh Kaushik, IN-PERSON)**

Pastoralism has historically been an important livelihood system in India, particularly in semi-arid and forested landscapes where agriculture is limited. Pastoral communities have traditionally relied on livestock rearing, seasonal grazing, and forest resources to sustain their livelihoods. However, rapid socio-economic and environmental transformations have altered pastoral systems across the country. This study examines the changing dynamics of pastoralism in the Haryana Aravalli landscape, focusing on continuity and transformation in livestock rearing practices. Using field interviews, focus group discussions, and ecological surveys conducted across villages such as Mangar, Damdama, Dhauj, and Kherla, the study documents the dependence of local communities on livestock and forests. The findings reveal that while pastoralism continues to remain an important livelihood strategy, it is undergoing significant transformation due to urbanization, habitat fragmentation, changing fodder practices, livestock diseases, and increasing human-wildlife interactions. Traditional ecological knowledge and community tolerance toward wildlife still persist in many areas, demonstrating continuity in pastoral worldviews. The study highlights the importance of integrating livestock management, veterinary care, and conservation planning to support sustainable pastoral livelihoods and coexistence with wildlife in human-dominated landscapes.

- **Coexistence in the Commons: Pastoral Grasslands of Surendranagar, Gujarat**
(Abhinav Rajan & Kavita Mehta, IN-PERSON)

This study examines multispecies entanglements in the semi-arid grasslands of Gujarat's Surendranagar district, positioning pastoralism as a dynamic system of human–animal–landscape relations. The study emphasises how pastoral lifeworlds are shaped by daily interactions between Maldhari pastoral communities, livestock, wildlife, and grassland ecosystems. In Chotila and Thangadh talukas, it focuses on community-managed *vidis*, *gauchar* commons, and Reserved Forests—landscapes where pastoralism thrives in spite of growing ecological and socioeconomic pressures. Nearly 2,000 sheep and goat pastoralists rely on seasonal grazing schedules that support ecological processes and their livelihoods throughout these commons. In addition to sustaining pastoral economies, these grazing systems have an impact on habitat heterogeneity, vegetation patterns, and nutrient cycling in grassland ecosystems. These environments simultaneously support a diverse range of wildlife, highlighting the close relationship between biodiversity and pastoral livelihoods. The study recorded 18 mammalian species living in these shared landscapes through camera-trapping surveys, community interviews, and youth participation in field research. These include herbivores and smaller mammals that share ecological niches with livestock, as well as large carnivores like the Striped Hyena (*Hyaena hyaena*), Indian Grey Wolf (*Canis lupus pallipes*), and Leopard (*Panthera pardus fusca*). These species engage in a complex web of interactions shaped by pastoral practices rather than living in conflictual isolation. Grazing preserves open grassland habitats, livestock carcasses sustain scavenger guilds, and pastoral mobility patterns lessen sustained pressure on specific grazing patches. Traditional ecological knowledge, which is reflected in herd management techniques, seasonal mobility, pastoral vigilance, and culturally ingrained tolerance toward predators, is essential to these dynamics. Even in the face of ecological uncertainty and livestock depredation, these knowledge systems allow for negotiated coexistence. However, these multispecies relationships are increasingly being disrupted by contested grazing regulations, invasive plant species, renewable energy infrastructure, and rapid land-use changes. These stresses weaken the generational transfer of pastoral knowledge in addition to fragmenting habitats. This study promotes conservation frameworks that acknowledge pastoral stewardship, multispecies ethics, and the role of traditional ecological knowledge in maintaining resilient grassland landscapes by emphasising pastoral commons as living socio-ecological systems rather than “wastelands.”

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- **‘Doodh ka rishta’ in the Changing Times: A Case of Muslim Gujjar Pastoralists of Mandi, Himachal Pradesh (Shaheen Badarudeen, IN-PERSON)**

The study illustrates the changing relationship between the Muslim Gujjar Transhumant Pastoralists and their buffaloes. The ‘theory of access’ by Ribot and Peluso (2003, 2020) on social change form the theoretical framework for the study, while the data was collected through ethnographic fieldwork and participant observation as part of the ongoing doctoral research. The concept of ‘access analysis’, involves the mapping of beneficiaries, identifying access mechanisms, and the underlying power relations of access. The study shall discuss various aspects of ‘access’ from the political ecology of resource control, land use change, and capital, to the role of Traditional Ecological Knowledge, kinship, ritual relationships with ecology, in understanding social change among the transhumant Gujjars and their buffaloes. The study illustrates the dynamic nature of access, and the role of ecological settings in shaping the nature of interaction between the human and the non-human counterparts.

- **ARR and Carbon Credits in the Indian Rangelands: The Social and Ecological Implications (Swastika G. Kanade & Rashmi Singh, IN-PERSON)**

Indian rangelands, often misclassified as "wastelands" due to colonial legacies, are becoming hotspots for Afforestation, Reforestation, and Revegetation (ARR) projects for the emerging carbon credit market. This research explores existing plantation efforts in the rangeland ecosystem to develop a policy roadmap for a socially just and ecologically appropriate ARR initiatives. It uses secondary data analysis and thematic analysis of published case studies on afforestation across Indian rangelands. The study evaluates outcomes from programs such as social forestry, Joint Forest Management (JFM), and Compensatory Afforestation (CAMPA). Findings reveal that top-down, exclusionary afforestation projects result in significant ways of failure, including loss of food security, criminalisation of local agro-pastoral livelihoods, dispossession, rangeland ecosystem destruction, and ecological lock-in from invasive species. At the same time, cases with community participation demonstrate positive outcomes such as livelihood diversification, women’s empowerment, rights recognition, and equitable benefit-sharing. The study concludes that ARR in rangelands can generate genuine value only when communities hold formal, legally enforceable co-management rights. The proposed

roadmap synthesizes evidence-based propositions, advocating for a climate justice approach that mandates procedural recognition, distributional equity, and epistemic inclusion.

SESSION - 5

- **Composing the Rangelands: Multispecies Pastoral Labour in Sikkim (Amshuman Dasarathy, Ajay Immanuel Gonji & Rashmi Singh, IN-PERSON)**

Based on ongoing research in the pastoral lands of the Sikkim Himalayas, this paper addresses the growing calls for deeper engagement with the knowledge practices of transhumant pastoralists. By attending ethnographically to the subtle, creative and embodied craft of mobile livestock herding, our work sheds light on the different ways in which herders and their livestock co-create the rangeland landscapes they move through. Drawing from multispecies and new materialist scholarship, the thrust of this work is to move towards more meaningful dialogue with pastoralist world-views which centre conceptions of nonhuman agency and ecological labour, rather than passive conceptions of rangelands as natural resources to be either exploited or conserved. By shedding light on the entangled relationships between the herders, livestock and the living landscape, the ambition of this work is to document the ways in which the pastoral herd is understood to compose the ecological milieu of the Himalayan rangelands rather than act upon it from an ontological distance.

- **Multispecies pastoralism at the Forest–Grassland Interface: Ecology, Relationality and Governance in Southern India (Raageshwari Saileshwaran & Amaradeepa Siddhuraju, IN-PERSON)**

Pastoral systems in India are frequently framed through reductive binaries of vulnerability and degradation, positioning herders either as victims of climatic precarity or as agents of ecological decline. Such narratives privilege anthropocentric and equilibrium-based assumptions, obscuring the dense relational processes through which pastoral landscapes are constituted. This paper reconceptualises pastoralism in southern India as a field of multispecies entanglements shaped by dynamic interactions among livestock, wild herbivores, predators, vegetation regimes, monsoonal variability, and the

situated knowledge systems of pastoral communities. Drawing on multispecies studies, political ecology, and semi-arid grassland ecology, the paper synthesises existing research to examine how grazing rhythms, seasonal mobility, and plant community dynamics generate ongoing cross-species feedback processes. Moving beyond competition-centred accounts of livestock–wildlife relations, it foregrounds temporal differentiation in grazing practices, species-specific foraging strategies, and vegetation-mediated ecological effects that collectively shape habitat heterogeneity and resilience. In doing so, the analysis highlights human, animal and landscape relations as materially and ethically co-constituted through embodied practices, affective attachments, and moral economies embedded in pastoral lifeworlds. The proliferation of invasive woody species and intensifying rainfall variability further reconfigure these entanglements, altering trophic dynamics and patterns of mobility. Using forest grassland interfaces in western Tamil Nadu as an illustrative context, the paper examines how conservation governance frameworks often mis-recognise these relational dynamics by relying on static models of degradation. Recognising pastoral landscapes as co-produced socio-ecological formations is essential for advancing climate-responsive, ecologically attuned, and socially inclusive grassland governance in rapidly transforming semi-arid regions.

- **Multispecies Entanglements and Transformation among Gaddi Pastoralists (Sachin Kumar, IN-PERSON)**

This paper examines the relationships between Gaddi pastoralists and their sheep in Chamba District, Himachal Pradesh, through a five-dimensional framework: language, ethics, spirituality, embodiment, and socio-economic/materiality. Based on ethnographic fieldwork in Bharmour and Bassodhan of District Chamba, the analysis shows how sheep remain the material, social, and spiritual core of Gaddi lifestyles. Vertical transhumance and biological synchronization continue to shape daily rhythms, seasonal migration, embodied techniques of care, intimate interspecies attunement and skilled herding practices. Socio-economic pressures such as market integration, restricted mobility, shifting agricultural practices, and invasive forage species have led to new grazing patterns, localized looping strategies, and declining herd sizes that reshape labor regimes and risk management. Linguistically, intensive embodied knowledge persists alongside a conspicuous absence of conventional naming: herders recognize individuals through descriptive, behavioral categories rather than proper names. Ethically and spiritually, a hierarchical cosmology that casts Gaddis as subordinate to a divine shepherd structures

duty-based care, producing affective restraint even where emotional responses are observable. The paper shows how economic and policy pressures such as markets, mobility restrictions, and land-use change ripple through Gaddi–sheep relations, reshaping language, bodily care, ritual practice, and farmer–herder ties. These shifts are framed as changes in multispecies entanglement: human and animal lives are co-constituted, so altering one register reworks others. Empirically grounded in Bharmour and Bassodhan, the study contributes an account of pastoral adaptation and a theoretical move to analyze change as multidimensional causality. It offers an exploratory perspective that highlights relational qualities like embodied knowledge, ritual ethics, and material livelihoods alongside ecological and economic observations.





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