

Common Voices

Issue 2

Pastoralism: From Conflict to Convergence

Maasai Rangelands in East Africa

Biocultural Community Protocols

Reviving Village Commons

Pastoral and Grazing Rights in Law

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in this issue...

	Editorial	4
	Pastoralism and Grazing Commons	6
N.S. Jodha: Community Dependence on Dryland and Mountain Commons		8
	The Future of Pastoralism: From Conflict to Convergence	10
	From the Commons, Through the 'Anticommons' and Back? Beyond Privatisation of the Maasai Rangelands in East Africa	14
	Biocultural Community Protocols: A Tool for Pastoralists to Secure Customary Rights to the Commons?	16
	Reviving the Village Commons: Sustaining Livestock Production, Agriculture and Dependent Livelihoods	19
	Pastoralism or Conservation vs Pastoralism as Conservation	21
	Pastoral and Grazing Rights in Law: The Journey for Legitimacy	27
	Addressing Challenges: Institutions and Initiatives	32
Workshop on Common Property Resource Institutions and Pastoral Production Systems		37
	Reading List	38
	Erratum	38

Cover Photo:
Camel herders of western India, adapted from a photograph by Ilse Köhler-Rollefson ©





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Welcome to the
second issue of

Common Voices

In this issue, we feature the first of a series of theme-based explorations on some of the more extensive physical resource commons.

Pastoralism and grazing commons will form the focus of this issue. In the near future, we also hope to bring out theme-based perspectives on fisheries, forests, water, knowledge commons, and so on. These will be interspersed with issues that are of a more general nature. Before we introduce the contents of this issue, it is important to take a quick look at the current scenarios and trends that drive the urgency to resolve issues related to pastoralism and grazing commons. To begin with, let us take stock of what the possible trends could be. The International Livestock Research Institute's (ILRI) report on 'Mapping poverty and livestock in the developing world', projects that fifty years from now, existing areas that are within livestock and rangeland based production systems and without any cropping potential, would face a risk of overgrazing and degradation, decreased food security, drought and limited access to local and other markets. Much of central Africa, southern South America and northern Asia fall in this category. The areas where there are mixed farming systems presently and that are likely to move to fallow or landless systems in the next fifty years, are likely to face reduction in range area, increased feed resource limitation, decreased farm size and difficulty in maintaining cattle. South and Southeast Asia, the Middle East and parts of Western and central Africa, and the eastern coastline of South America are broad regional examples. A closer look at Africa also suggests that the livelihoods presently dependent on livestock alone are likely to move towards mixed production systems in the next fifty years. They are likely to face possible loss, degradation or reduction in common property resources. Poor livestock keepers may lose out in transition to more cropping, and may eventually get sedentarised. There is a likelihood of increased conflict between pastoral and agropastoral people; restrictions in movement and croplands may serve as sub optimal pastures.

Let us also assess the statistics. The estimated population of the poor throughout the world is more than a billion. Of these, at least 550 million are livestock keepers. Approximately 336 million poor livestock keepers are from the mixed rainfed systems - South and Southeast Asia, the Middle East and scattered parts of Africa and South America. The poor dependent on livestock alone are about 60 million. There are another 103 million poor livestock keepers under mixed irrigated systems.

One may of course question the scientific basis of such analyses and their accuracy. Our intention, however is merely to highlight a few possible trends without being alarmist and to point out that we have already begun to see the ugly manifestations that such transition economies come to face: for example, the killings that happen almost every year on the traditional grazing routes of eastern Rajasthan and Madhya Pradesh in India, the stories of nomads who break traditional routines to tread into new territories as south as Andhra Pradesh, and the practice of absentee landlordism where powerful farmers engage poor shepherds to graze their herds on public lands.

To illustrate some of these issues further, we bring together a set of contributions that elaborate on critical issues surrounding pastoralism and grazing commons. Among the contributors are three well-known names: Purnendu Kavoori comments on the relationship between pastoralism and contemporary development interventions with particular reference to the prevailing situation in Rajasthan. Ilse Köhler-Rollefson traces recent attempts by herding communities such as the Raika in securing customary grazing rights by petitioning with the help of biocultural protocols. Esther Mwangi explores the underlying reasons for reconsolidation of individually held titled land parcels by Masaai herders.

Since grazing and agriculture go hand in hand in most arid and semi-arid regions, we also take this opportunity to showcase the pioneering work of N.S. Jodha on dryland and mountain commons. Jodha's work focuses on the dependence of the poor on India's drylands and the management of the commons in the Himalaya, two regions characterised by high levels of dependence on livestock grazing. In addition, we explore the compatibility between agricultural production and livestock grazing on the commons in Rajasthan by examining the results of interventions by the Foundation for Ecological Security and the BAIF Development Research Foundation. A report on the recent workshop on 'Common Property Resource Institutions, Pastoral Production Systems and the Green Revolution in Transition' highlights options for strengthening the commons along these lines.

Although India has an armoury of laws and legislations that touch upon these subjects, they do by no means reflect a comprehensive understanding of the complexities surrounding pastoralism and grazing lands. We examine the current policy and legal frameworks in the country that deal with these issues and bring attention to the need for an integrated policy on grazing that takes into account the country's diverse socio-cultural, biophysical and economic conditions.

One of the contentious issues that has been dominating recent debates in India has been that of human impacts on environmental sustainability and the conservation of biodiversity. Opinion has been divided over the place of people in protected areas, whether pastoralists and their livestock, forest resource collectors or just about anyone seeking access. We look into some of the main contributions from published literature on grazing in protected areas to understand some of the ecological and socio-political impacts.

Finally, we outline the work of ongoing initiatives and networks that are working towards improving pastoral livelihoods, systems and institutions. These include the Livestock, Environment and Development (LEAD) initiative, the World Initiative for Sustainable Pastoralism (WISP), the International Land Coalition (ILC), and the Rain-fed Livestock Network (RLN). The work of these and other institutions have the potential to reconcile some of the long-standing conflicts.

We would like to thank Lorenzo Cotula (IIED), Ced Hesse (IIED), Ruth Meinzen Dick (IFPRI) and Michael Taylor (ILC) for sharing key documents from which this issue draws extensively. These articles are included in the reading list.

We hope you enjoy reading these perspectives, and encourage feedback, alternate viewpoints and comments.

Editors

Pastoralism and Grazing Commons

For many of us, images of pasture lands are among the first that spring to mind when we think of the commons. Though Garret Hardin used them as a scapegoat in his elucidation of the ‘tragedy of the commons’, currently, our appreciation for these lands which contribute greatly to income and subsistence has become more nuanced.

They are invaluable to rural livelihoods as sources of fodder for livestock and go a long way in serving as security blankets during times of drought and food shortage. Grazing commons are a type of land-based common pool resource where the primary activity is to pasture livestock, hay and other fodder. They provide food security and life support to livestock on all continents where there is human habitation—coastal dunes and marshes, drylands, woodlands and uplands—and depending on their situation and type, a variety of pastoralist systems of management and use have evolved over the years. The benefits that human communities receive from these commonlands range from meat, milk and other dairy products, leather and wool, animals for traction and natural manure. A wide variety of animals are reared on these landscapes as are fodder species that occur naturally or are planted.

Ecological feedbacks and societal parallels

From an ecological point of view, a number of intuitive theories have been also put forth that hint at feedbacks between grasslands and grazing animals that date back to the fossil record. For example, it has been suggested that grasses and grazers represent a highly co-evolved system which developed on the basis of mutual benefits. The saliva produced by grazers stimulates growth in grasses, and grazers in turn disperse seeds and enrich grazing spots with manure. However, plant-grazer systems are complex and intricate, and even with our limited understanding of these systems, we know that there may be multiple states and threshold effects. And considering that grazing lands occupy about 85% of the earth’s terrestrial area, a greater exploration of these aspects would strengthen our understanding of overgrazing and over utilisation that may lead to sudden changes in productivity and may result in degradation.

Paralleling the coevolution of grasslands and grazers is that of human use of these ecosystems which has been ongoing for a few thousand years. Interestingly, in many parts of the world, traditional pastoralist use of common grazing lands has managed to maintain a tenuous, yet appreciable balance between use and over use. Some of these practices have evolved over a period of centuries and are characterised by complex land management rules, utilisation practices and regulatory mechanisms. Commonly owned or utilised pastoral landscapes are found on all continents, however, they are most widespread in Africa and inner Asia. Pastoralist communities in these regions include the Tuareg, the Fulani, the Somali and the Maasai in Africa, the Bedouin, the Baluch, the Basserri and the Turkmen in the Middle East, and the Kazakh, Mongols and Tibetan communities in the high Asian plateaux. These communities as well as pastoralists elsewhere are characterised by a high degree of mobility, sharing of

extensive communal grazing lands, and utilisation of mutual kinship ties for herding and other activities.

Changing pastoral systems

The last few decades have been an era of unprecedented change for traditional pastoralist communities using common lands. The changes range from socio-economic and demographic shifts, including pressures arising from population growth, migration and inequalities in assets; loss of grazing and production lands to urbanisation and development activities; conservation politics; and more recently, climate change and its associated impacts. One of the most important direct changes affecting pastoral communities and their way of life has been that of reduced mobility and sedentarisation. These developments have been particularly noticeable in Sub-Saharan Africa and Inner Asia. Despite strong evidence that enhanced mobility is a viable management strategy (and that sedentarisation can sometimes lead to degradation), traditional migrations of livestock herders are increasingly being curbed.

Although pastoral systems have been known to be resilient to climatic externalities in the normal course of events, extended periods of climatic variation and uncertainty coupled with a variety of other development-related issues are contributing to loss of livelihoods and destitution among pastoral communities. This is especially true for drylands and mobile communities in many parts of the world including Sahelian Africa and Asia where poverty adds to the problem. In the words of Ced Hesse and Lorenzo Cotula, ‘...*tackling these challenges requires enabling herd mobility while securing rights to natural resources; supporting pastoral livelihoods and their diversification; strengthening conflict management institutions and drought management systems; and strengthening their capacity to participate in policy debates*’. The flipside of this debate however explores issues such as livestock’s contribution to global emissions. A 2006 study by the Food and Agriculture Organisation (FAO) titled ‘*Livestock’s long shadow*’ reported that 18% of global emissions of greenhouse gases could be accounted for by the livestock sector (a figure higher than that of the much maligned transport sector). While it might be unfair to make such comparisons, convincing strategies to reduce livestock emissions especially with respect to the developed world’s intensive production and excessive consumption patterns needs to be charted out.

Much to the detriment of traditional rangeland management, a number of developing countries have also privatised their common lands, leading to a dispossession of pastoral livelihoods. Examples include privatisation of communal lands of the Maasai by the Kenyan Government to promote private ranching, and similar experiments in Botswana. More

complex changes have also emerged: Mongolia's post-socialist reform in the early 1990s (which aimed at radical economic and political reform towards democratic decentralisation) resulted in a dramatic resurgence of pastoralism. The beginning of the reform period saw the re-entry of a large number of families (mostly of former state employees) into the livestock sector which acted as a safety net during troubled economic times. There were also positive developments with respect to the resurgence of customary groups (such as *khot ails*) and constitutional protection for communal grazing lands. However, these reforms were by no means complete and a number of factors emerging from within and outside the livestock sector resulted in adverse alterations in grazing pressure and herd mobility, rising inequality, economic hardships and vulnerability.

More recently, there have also been changes in the way pastoral systems are perceived, which have direct impacts on landscapes. Emerging debates about environmental sustainability has resulted in attention being shifted from the production and output systems of pastoralists to broader concerns involving the long-term environmental viability of pastoral landscapes. Adverse consequences are attributed to livestock without taking into account the causes or context (e.g., sedentarisation which has unbalanced a pastoral system) within which recent degradation has occurred. While it is important to clarify these misconceptions, it is also equally important to identify systems that would be most conducive to changed scenarios of pressures that are inevitable in the future. The challenges would lie in identifying livestock management systems that can coexist with the oncoming pressures of sedentarisation, urbanisation, new agricultural systems and changing land tenures and political change. Finally, the commons are important not just from the point of view of resource management and regulation; their well-being is often directly linked to the social and institutional wellness of the communities dependent on them. The social cohesion and existence of a number of communities are dependent on their pastoral identity and the preservation of their traditional ways of life.

India

With over 500 million cattle, India accounts for nearly a fifth of the world's livestock population. Rural India is characterised by a large livestock population which is often a source of sustenance and resilience for farmers battling agricultural uncertainty, stagnation and low productivity. These small and marginal farmers who constitute close to 80% of India's farming community also account for nearly two thirds of the country's livestock. India also has a number of pastoral communities whose primary occupation is herding cattle. In parts of arid and semi-arid India where there is little arable land and limited pastureland, many of these communities are nomadic, moving continually or seasonally to graze their livestock and to barter goods. In the western Indian states of Rajasthan and Gujarat, communities such as the Rabari (Raika), the Maldharis and the Gujjars practice nomadic or semi-nomadic lifestyles. Similarly, in the Deccan Plateau region of Karnataka and Andhra Pradesh, communities such as the Golla, Kuruma, Kuruba and Dhangar are prominent. Pastoralism is also prominent across the Himalaya where

communities such as the Gaddis, Gujjars, Bakherwals and the Monpas practice varying forms of herding and significant altitudinal migration. Most of these pastoralist communities can also be characterised by their distinct herding practices and the indigenous breeds that they herd. On account of their itinerant lifestyles, herder communities are known for their resourcefulness and resilience, rich cultural histories and extensive knowledge of geography and natural history.

Although both small farmers and pastoralists have their own unique practices and cultural histories, one unifying factor is their use of common lands for grazing. Permanent pastures for grazing account for less than 4% of the area of the country, and much of this activity is dependent on grazing opportunities in fallow lands, forests and areas that are classified as 'wastelands' that are accessible. However, as a result of agricultural expansion, industrialisation and the restrictions imposed on grazing in forests, traditional pastoral institutions are increasingly under threat. The encroachment and shrinkage of communal or panchayat grazing lands commonly referred to as 'gauchar' and the intensification of agriculture in even marginal lands has resulted in very limited availability of grazing areas in states such as Gujarat. Despite that fact that they provide fuel, fodder and agricultural opportunities for the poor and the marginalised, many of these areas are officially classified as 'wasteland' making it easier for them to be diverted for industrialisation, particularly corporate land grab. A percentage of such lands that are redistributed in the name of providing land to the landless also ends up with the non poor. Sunita Narain, in her thought provoking article '*The "other" food crisis*', talks of growing fodder insecurity that the country is facing as a result of these activities. For the rural poor, fodder is often the single largest expenditure after food. Narain links the fodder issue to the larger land and water crises that are looming in rural India and also attributes this to the degradation of common lands. India's largest grazing lands are its commons, however, extensive pressure on these systems brings about degradation. The lack of availability of grazing on the commons also puts surrounding forests at risk as livestock pressure shifts to forest lands. A renewed emphasis on wildlife and forest protection, however, is expected to restrict herder access into forest areas in India.

The challenges posed by a large livestock base and poor access to fodder and common grazing lands are not just economic or ecological. Livestock rearing communities are among the most marginalised and least empowered of rural populations, lacking formal education and access to legal recourse to fight for their communal grazing lands or land rights. As an outcome of their close association with livestock, many pastoral communities also remain at the bottom of the caste heap. In India, however, these problems have not gone entirely unnoticed. Numerous organisations now focus on these aspects and are working towards on-the-ground remedial actions and policy change. From the point of view of the commons, a rational grazing strategy and agrarian reform could become the backbone of further efforts in this direction. Although there has been a gradual recognition of the customary rights of graziers, the actual process of securing tenure has been slow as has been the strengthening of village institutions to undertake these activities in an equitable manner.



N.S. Jodha

Community Dependence on Dryland and Mountain Commons

One of the pioneers of commons research in south Asia, N.S. Jodha's work encompasses a wide range of problem-centred issues revolving around environmental sustainability, agriculture and the dependence of the poor on common property resources.

Measuring human dependence on the commons

The thematic focus of Jodha's work has been on resource management issues and policies in environmentally fragile dryland and mountain commons. In this article, we focus on his contributions to common property research by showcasing a sampling of his contributions. These issues range from the critical role played by common resources in the livelihoods of the poor (and the reasons) in India's drylands, the interactions between the environment and society vis-à-vis common property resources (CPRs) in the Himalaya and a practical framework for re-empowerment and revival of management of the commons by its stakeholders.

Dependence of rural poor households on India's drylands

Some of the first large-scale documentations and analyses on CPRs were carried out by Jodha on India's dryland areas. His work demonstrates that changes in the status and productivity of the commons have direct consequences for

the economy and livelihoods of the rural poor. In a study conducted on 81 villages across 21 dryland districts across 7 states in rural India, Jodha measured the dependence of poor communities (small farm households and the landless) on CPRs. The commons in these districts included village pastures, community forests, wastelands, common threshing grounds, waste dumps, watershed drainages, village ponds and tanks, rivers, rivulets, riverbeds, etc., and the area under commons ranged from 9 to 28 percent of total village area.

The data revealed that 84 to 100 percent of poor households derived benefits such as food, fuel, fodder and fibre from common lands. In contrast only 10 to 28 percent of large farmers used CPRs and the benefits they accrued were fewer. Per household income from CPRs ranged from INR 530 to INR 830 depending on the region. Small, poor households benefited more than larger and richer households and common lands also serve as safety nets for the poor during periods of crop failure and uncertainty. Since returns

for individual users from degraded lands are not much for the rich, the poor who have surplus labour and fewer opportunities, accept these low paying options more easily. Harvesting of seasonal products and the opportunity to benefit from unskilled labour are additional factors that make the commons more attractive for the poor. In fact the results indicate that CPRs contribute more to poor households than anti-poverty schemes in some of the areas that were evaluated. An analysis of monetary data from this study also suggests that CPRs play a role in reducing inequalities in income between classes. These results call for their inclusion in poverty alleviation and rural development exercises.

One of the key findings of Jodha's work has been the documentation of decline of CPRs. This refers not only to physical loss in terms of area, but also recorded declines in productivity and changes in status, ownership and governance. In the three decades following India's Independence, the area under common lands declined by 26 to 63 percent in the dryland districts that were assessed. While population growth had a role to play, this decline was largely attributable to privatisation for the benefit of the poor as part of various welfare programmes. However, 49 to 86 percent of the privatised lands ended up being allocated to farmers who were better endowed. In a majority of instances where land was given to the poor, they did not have additional resources to develop the land, nor were they provided any support to do so. As a result, much of the land was sold, mortgaged, fallowed or leased on a long-term basis. The remaining common lands were overexploited resulting in declining productivity. These developments also have adverse consequences for drylands which are typically fragile ecosystems and hence prone to greater degradation and poor resilience. The decline in CPRs is often also very closely paralleled by that of a decline in social capital (especially the traditional institutions and mechanisms of governance).

Common property management in the Himalaya

As is the case of other biophysical zones, nature-society interactions in the Himalaya are governed by what are commonly termed mountain specificities or factors unique to many mountain borderlands. These include a high degree of inaccessibility engendering higher dependence on local resources, as well as fragility and low productivity of the environment which in turn forces tighter regulations and a diverse array of land use management and conservation measures. Institutional arrangements arising out of these systems are also shaped by physical as well as socio-political marginality that promotes social cohesion, collective risk management and cooperation. The inherent diversity of these systems result in the evolution of an equally diverse set of diversified resource use systems of which CPRs are a prime example. A high degree of collective stake in resource management has been a hallmark of Himalayan systems.

Over the years, administrative, socio-economic, demographic and infrastructural transformations in the Himalaya have diluted the imperatives of these mountain specificities giving rise to changed systems. Closer integration of these mountain areas by the state agencies and the role of market

forces especially globalisation brought about processes of change. Although beneficial on some fronts, these developments led to a gradual marginalisation of traditional arrangements relating to autonomy as well as collective resource management. The over-exploitation of CPRs and the erosion of governance systems has been one of the most visible effects of these processes. In the name of economic reforms, the state's interventions have been largely pro-globalisation. In parts of Tibet, Nepal, Pakistan and India (particularly Uttarakhand), vast areas are being assigned to private and corporate ownership. Similarly, protected area networks notified in this region curtail the rights of local communities to manage and utilise what have been traditional common resources.

Re-empowerment of local management of the commons

Faced with the decline of the commons, there have been several efforts to rehabilitate traditional systems that sustain livelihoods. However, Jodha says that 'pleading for revival of traditional arrangements for CPR management may amount to an exercise in futility, because, most of the objective circumstances associated with them in the past have completely changed to permit their revival and ensure their effectiveness in the present context.' For instance, enhanced physical access to markets and other external linkages have provided communities with a diversified set of resources other than traditional ones, thereby reducing collective concern for what was once critical local resources. New resource use technologies and systems have resulted in the marginalisation of traditional knowledge systems. In many cases, communities are also forced to respond to external interventions including perverse incentives such as those facilitating privatisation of common lands, illegal extraction with no penalties, low pricing for high value CPRs, political patronage, etc.

Although too complex and numerous to be addressed in detail, Jodha highlights three key characteristics of traditional systems. These include a strong community dependence on their natural resource base which in turn was responsible for a strong stake in the systems, local dependence on resources largely as a result of isolation and inaccessibility, and a superlative functional knowledge of systems which developed as a result of proximity and dependence on these resources. Jodha says that today's challenge would be in creating functional substitutes of these circumstances that existed in the past, so that communities are enthused to use their resources in a sustainable manner. The incorporation of these key elements in devolution plans is therefore likely to improve their chances of success in the long run.

Several public policy programmes have been initiated with a view to reviving traditional systems. These include projects such as User Group Forestry in Nepal and Joint Forest Management in India. So far, these large-scale projects have yielded mixed results. Even if they do not succeed in their entirety, these initiatives often help in the re-empowerment of communities.

The Future of Pastoralism: From Conflict to Convergence

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It is well known that in many parts of the world where pastoralism obtains, the state is in crisis, even on the verge of collapse. Elsewhere, powerful state structures have come down hard not just on pastoralists but on the practice of pastoralism. Why is it that pastoralists and state agents are locked today in seemingly antagonistic postures?

In this article, with the help of material from Rajasthan we have tried to show that this mismatch represents a particular conjuncture in the development process—a phase shall we say—and should not be represented as a fundamental incompatibility. It is argued that the present situation is as much a consequence of the envisaged nature of development as it may be attributed to the particularities of pastoral adaptation. We try to suggest an approach that ceases to see the relationship between development processes and pastoralism as a contest, but rather an exploration of the potential for harnessing each other's strengths in a complementary way.

Pastoralism and development intervention

For the most part, pastoralists get included as an afterthought in any discussion on policy, livelihood or environment. The voluminous Farmers Commission Report (Swaminathan 2006) for instance has but two pages on pastoralists (Section 1.7.2). While the suggestions made in these two pages are sympathetic and considered, they stand quite isolated from the rest of the report. There is nothing like a vision for pastoralism to be found here. The discussion on Rajasthan in particular is quite devoid of an awareness of pastoralism as a system of production and its place in a developmental scenario. Indeed for the majority of developmental actors, pastoralists continue to be viewed as backward and ineffective primary producers.

A first step towards questioning this view is to look critically at the specific aspects of policy that have directly shaped or sought to shape pastoralism. Based on material from Rajasthan, three areas constituting a bureaucratic/pastoral interface are considered here. First, the nature and impact of the government's programme to introduce exotic strains in the sheep population, second, the various efforts at the marketing of sheep products, and third, the governmental efforts at grassland development.

a) Pastoralists and the hybridisation programme

From the late 1960s and early 1970s a strategy of introducing exotic blood into the sheep stock of Rajasthan became central to the government's programme of 'developing' the region's livestock 'industry' (Dept. of Sheep & Wool 1981–82) as part of the broader programme of transforming Indian agriculture and husbandry through the introduction of exotic genetic material (George 1985). Correspondingly most, if not all, of the early bureaucratic literature is marked by a negative view of indigenous sheep-breeding traditions (Narayan 1948: 2; Dept. of Commerce & Industries 1950). Interestingly enough, local breeds selected for crossing were chosen on characteristics that effectively bypassed some of the most widespread breeds of the region (Dept. of Sheep & Wool 1975–76, 1983–84). The task of developing an artificial insemination infrastructure was also taken on in earnest (Dept. of Sheep & Wool 1975–76, 1981–82) even though reservations are amply attested to within government records (Dept. of Sheep & Wool N.D.[a]: 5). A related set of interventions that were meant to tie in closely

with the hybridisation effort took the form of a vaccination programme. In terms of the response from pastoralists, this was one intervention which met with great success. Paradoxically it was not the hybrid population that formed the basis of the 'success story' of this intervention effort, but the indigenous breeds of sheep, especially those maintained on a migratory basis (Dept. of Sheep & Wool 1986–87).

b) Pastoralists and state marketing interventions

Justification for intervention in market processes was largely formulated in humanitarian terms: 'The sheep farmers continue to be exploited by the middle man in mutton sheep and particularly in the sale of wool' (Dept. of Sheep & Wool 1976–77: 11). The basic strategy for intervention was the formation of cooperatives (Dept. of Sheep & Wool 1978) at the village level, under the aegis of the Department. Support was provided through operational and managerial subsidies in the initial stages. An internal criticism made of these co-operatives was that they focused exclusively on the sedentary sheep population and thus neglected the mobile sector. In response to this, the Department set up migratory sheep-breeders' societies (Dept. of Sheep & Wool N.D.[b]). However, no more than a fraction of the estimated total wool produced was purchased through these cooperatives. Tied closely with this wool-purchasing effort was a rather elaborate scheme for introducing imported technologies for shearing (Dept. of Sheep & Wool 1971–72). It will suffice to note that the number of sheep sheared annually by the Department was never more than the approximate number of sheep sheared by just one group of about 25 traditional shearers, using simple but very reliable technology (Dept. of Sheep & Wool 1985–86). This apart, the government invariably failed to maintain a high level of purchase in times of low wool prices (Planning Commission 1977). In the case of meat marketing, a central stockyard, multiple slaughter centres in different parts of the state, a freezing plant, and a meat-canning factory were set up. It is apparent however, that far from making a significant dent in the region's meat and small-stock trade, the government barely skimmed the surface of the existing marketing system (Dept. of Sheep & Wool 1986–87).

c) Grassland development schemes

The overall context within which the different strategies for grassland development were put forward is that of mitigating migration. The different 'schemes' were seen essentially as 'solutions' to migration, that is, as a way of stopping migration or reducing it. One of the important interventions that was supported by the World Bank aimed at building 100 hectare pasture plots in 158 selected villages in different districts of western Rajasthan beginning in 1974. The state government's own evaluation was that 'the scheme ha[d] by and large been a failure (Dept. of Sheep & Wool N.D. [3]: 1)'. Another rather more interesting plan to develop grassland resources was that of developing certain stretches of the Indira Gandhi canal as a pastoral zone (Dept. of Sheep & Wool 1979). Reportedly, some 50,000 hectares available at the tail end of the canal was to be

utilised for pasturage for 2,00,000 sheep for six months every year. However, although it is forty years since the proposal was mooted, it has yet to see the light of day.

Towards an alternative and integrated policy perspective

It is clear therefore that there is a serious need for a new perspective on pastoralism that not only does away with the bias towards sedentarisation and intensification, but actively seeks to optimise the contributions pastoralism can make.

a) Pastoral perspective on agricultural policy

Pastoralism and agriculture have evolved in the Indian sub-continent in a close and interdependent relationship. However, given the agrarian bias of the developmental vision and planning process, planning for agriculture has rarely, if ever, included a pastoral component. There are sound reasons for incorporation of pastoral production priorities in agriculture. Thus, changing crop cycles for instance, have an obvious consequence for not only the movement of pastoralists but for the quantum of resources available for their animals. Similarly, the lengthening and shortening of the fallow period can indirectly affect the age of sale of pastoral livestock. So also, the use of pesticides and chemicals in agriculture directly affects animals grazing on crop stubble. While it cannot of course be that agricultural policy become pastoral-centric, there is a clear need to incorporate pastoral interests in planning for agricultural growth and development.

b) Pastoral perspective on community and stakeholder relationships

Regardless of their caste composition and economic status, pastoral populations today are invariably marginal members of local communities. Unlike populations from depressed groups such as dalits, pastoralists are not as such discriminated against socially and in some instances pastoralists themselves are members of dominant groups. However, more often than not pastoral populations are neither at the top nor at the bottom of the social hierarchy. At the heart of the isolation of pastoralists has been the gradual meltdown of the 'accommodations' on the use of resources within the framework of traditional institutions. The reasons for this are fairly clear and derive from basic changes in the local production system and the dramatic expansion of agriculture. In the process pastoralists became marginalised and gradually ceased to occupy legitimate space in the institutional dynamics of local communities. This transition coincided also with the transition from 'traditional' political structures to the modern state and its local institutions. The challenge therefore is how to overcome this marginalisation in the present dispensation.

c) Pastoral perspective on irrigation

Large scale irrigation projects such as canals, as well as smaller interventions, such as check dams and anecuts, have without exception been geared to enhancing or improving the dependability of agriculture. This has led to the complete neglect of exploring options that are not developed around an agricultural model. In particular, the possibility that pastoral production systems based on low water utilisation and open grazing regimes can be part of a developmental package

woven around irrigation technology has never been explored. A large canal irrigation system, in contrast to a river system, is strong at its source and gradually weakens as it disperses its contents. What may for instance be a viable form of utilisation at the start or in its upper course will almost never be feasible at its tail end. We need therefore to think in terms of applications that can exploit dispersed and scarce resources, in which case pastoralism can indeed play a role in adding value to the sustainable use of modern canal irrigation projects in desert regions. As is obvious however, pastoralism does not figure anywhere in the frame of irrigation intervention, completely oriented as it is to intensive agriculture. What is necessary perhaps is that we leave the agricultural model behind and try and think from scratch whether indeed a pastoral model for the development of irrigation canal based production is feasible and worthwhile in the context of a desert ecosystem.

d) Pastoral perspective on forests

There are two important elements that need to be considered in developing a pastoral perspective on forests: 1) the impact of pastoralism on forests in terms of biodiversity and sustainable use of forest resources, and 2) the relationships between pastoralists and other forest community dwellers/users. It is usually argued by state agencies engaged in forest protection that pastoralists are an environmentally destructive presence in forests. Pastoralists on the other hand point out their contributions to under-storey diversity through their grazing and contributions of manure. It may be that a change in policy environment is required that encourages pastoralists to use the forest in sustainable ways – e.g., through constant movement and dispersal – rather than one that seeks to confine them through restrictions on mobility which then becomes part of a vicious cycle of deterioration. The second aspect also needs to be de-stereotyped. Even though there undoubtedly are conflicts of interests between pastoralists and local communities, there are also many instances of mutualistic relationships. While it needs to be recognised that forests are an ecological refugium for pastoralists rather than part of their essential niche, the present policy of seeking to limit their access or even exclude them is but one-sided.

e) Pastoral perspective on markets

The notion that pastoralism is a subsistence form of production although widespread is quite inaccurate. Even historically, pastoralists have more often than not functioned in the contexts of larger economies of exchange, and today they are completely enmeshed in it. However, since the emphasis of development intervention on enhancing productivity has come into conflict with the pastoralists' emphasis on resilience and livelihood security, this has been taken as an indication of backwardness. In contrast to subsistence agriculture for instance, which is invariably associated with localised economies of circulation with an emphasis on self-sufficiency, pastoral production even when oriented towards enhancing livelihood security rather than productivity is never a subsistence system. Pastoralist production systems are invariably, and more so today, almost always geared to market production. The directions in which pastoral production will develop—in terms of product selection for instance—will to a great degree be determined by market



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demand. On these grounds alone pastoral production systems should be recognised as forming a legitimate part of modern economies.

Conclusion: An agenda for advocacy

There are broadly three steps towards 'developing a better understanding' which those engaged in intervention among pastoralists need to travel through. In the first phase, the preconceptions and assumptions of mainstream development vis-à-vis pastoralist populations have to be examined and critiqued. Even beyond state bureaucracies, resistance and anti-pastoral biases run deep in the developmental community. Invariably, sedentarisation and de-pastoralisation are seen as the solution to the challenges of integration and modernisation. Getting past this first step is most important, since from a practical point of view it prevents intervention energies from being spent on efforts that undermine the basic objectives and strengths of pastoralism. The second step is that of translating the logical rationality of pastoralism in semi-arid environments to concrete situations. The potential contributions that pastoralist systems can make towards livelihood security and sustainable resource use are hard to demonstrate in the short term or on the basis of economic criteria alone. For two reasons however, this situation is gradually changing. One is that the historical course of agricultural intensification and expansion – which formed the core of the developmental strategy in the past fifty years – has begun to run out of steam. It is becoming necessary therefore to look at alternative systems of production from a purely livelihoods perspective. Secondly, the ecological 'long term' is also beginning to kick in, as semi-arid and arid regions start to show the consequences of indiscriminate and short sighted resource exploitation. An institutional—and perhaps even political—environment is therefore slowly emerging in which pastoralist options are now open to consideration. The third stage of learning involves grappling with questions of social mobilisation. It is important to recognise that pastoralists do not form a community on a global scale. Representatives, in photogenic dresses, and their patrons, can meet at international forums and share each others' experiences, but their circumstances are vastly different. For pastoralists' struggles to acquire an effective voice they ultimately need to build partnerships and solidarity with other communities in their own societies and environments.

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From the Commons, Through the 'Anticommons' and Back?



Beyond Privatisation of the Maasai Rangelands in East Africa

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In the Maasai rangelands of East Africa, where rainfall is low and variable, property arrangements have over the past four decades undergone a major transformation, from collective arrangements to individualised rights. For example, most legally-backed group ranches have been sub-divided into individually-owned and titled units.

More recently, however, new arrangements involving the reconsolidation of individual parcels are emerging, despite theoretical expectations that high transactions and strategic costs of organising can impede such cooperation. This evolving scenario provides a suitable study case for exploring the dynamics of property rights and the effects of such changing institutions on the environment and livelihoods, including the implications of emerging adaptations.

In an earlier inquiry into the process of subdivision of collectively held land, I found that despite individual ownership, Maasai herders were starting to reconsolidate their pastures; about 38% of 154 individuals in three group ranches were pursuing joint management of their individual parcels (Mwangi 2003). A minority of these (5.8%) had started leasing their pastures at approximately USD 7-14/month, regardless of the size of the land parcel. All individuals continued with the age-old strategy of redistributing their herds among stock associates, age-set members, and other clan members.

In this essay I share initial findings from a study that attempts to understand why (and how) Maasai herders are reconsolidating their individually held and titled parcels. I will also share some initial findings on why they have begun to lease pastures. Although land over the past three decades has become a commodity that can be bought and sold in the market, the buying and selling of pastures is new among the Maasai. I will also share my thoughts on the institutional dimensions underlying both reconsolidation and leasing. There are good reasons for this study. Dryland ecosystems cover about 40% of Africa's land mass and support close to

50% of its population. Yet pastoralists, the dominant groups that inhabit these areas, are especially among the poorest in the world. In Kenya for example, close to 80% of the land mass has been classified as dryland and 65% of pastoralists are thought to live below the poverty line (ILRI). Climate change is a threat that compounds existing insecurities in the drylands. And understanding how the Maasai are adjusting to changes in property regimes, especially the emergent reconsolidation and its effects, can provide valuable insights into climate adaptation strategies.

I worked in a total of eight sites (former group ranches) in Kajiado District in south western Kenya, in areas that had undergone transformation from collective to individual rights. Four of these sites are located in areas that had individualised a decade earlier than the other four, and two sites are in areas where the path to individualisation has been blighted by extensive conflict (Mwangi *Forthcoming*). A total of 20 focused group discussions and 538 individual interviews were conducted. Data collection was in March-April of 2008 (for focus groups) and in December-March of 2009 for individual and key informant interviews.

About 77% of the people interviewed are reconsolidating their individual parcels, unlike less than half a decade earlier. Majority of them do that in an attempt to manage environmental risk. Because resources are distributed heterogeneously across space and time, reconsolidation helps people access more of the resources they need, such as pastures. However, labour shortages are an important factor too. Children now go to school, their contribution to herding

is reduced and hiring livestock keepers is difficult due to limited incomes. Reconsolidation allows the pooling of labour to tend livestock. According to local officials, reconsolidation reduces conflicts over trespass. Local fencing materials are not sufficiently durable over the long term and livestock can get around them. In short, pasture reconsolidation appears to allow access to more pasture, reduces the need for migration during drought, and helps relieve a labour shortage. It also builds solidarity among cooperators as there are less boundary disputes and accusations of trespass. It opens new avenues for shared work. For example, some groups have invested jointly in water infrastructure such as boreholes or dams, and maintain them jointly.

A variety of rules and norms determine how reconsolidated areas are used and managed. These rules determine who can graze where and when, and the number and types of livestock that can be grazed. These rules forbid leasing of pasture in areas set aside for joint use and management. Norms on the other hand impose tough restrictions on areas set aside for calves and other lactating livestock. Trust is an important factor as herders reconsolidate with people whom they trust, who are mainly family members, and friends who neighbour them.

About 258 of interviewed individuals engage in pasture leasing; 66% of them lease out pastures while 34% lease in. The cost of leasing has doubled over the past decade, with people paying USD 16-32 per month. Leasing periods vary between 2-12 months depending on the available grass on the parcel and on the intensity of the buyer's need. Entire farms or portions may be leased out. Those who lease in do so because they need to access more pastures, while those that lease out indicate that they need to increase their incomes. Most lease agreements are oral, mostly in the absence of witnesses and demand cash up front.

Leasing arrangements are subject to the mediation of rules. While there is no restriction on number, leases are restricted to cattle. Sheep are forbidden as their grazing is thought to be destructive to grass. Cultivation and cutting of trees is forbidden on leased land. Agreements cannot be terminated for failure of rain, but are instead extended, and most sellers are opting for shorter-term agreements. Agreements can be terminated and fines levied if rules are broken. There is a reputational cost to breaking lease rules as people tend to not lease to known rule breakers. Most leasing occurs among neighbours and friends (from near and afar), although some herders lease to strangers. But people tend to rely on reputation when identifying potential renters or rentees and there are no brokers as yet.

Overall, it appears that institutions, both rules and norms, are central to post-subdivision reconsolidation and pasture leasing. Both arrangements appear to be aimed at increasing access to pastures under a circumscribed range (due to privatisation) and under climatic conditions that are characterised by frequent and intense droughts. Scholars have suggested that the reconsolidation of spatially fragmented, individually owned resources can be severely challenged by high transactions costs, strategic behaviours

and cognitive biases (Heller 1999). These high costs derive from coordinating multiple and spatially scattered parcel owners and an increased opportunity for strategic holdouts by the multiple owners, causing a reduction in the value and utilisation of resources—the “tragedy of the anticommons” (Heller 1998; Parisi 2007;). Fragment reconsolidation can be achieved through markets or through regulation, or some groups can develop and enforce a stable system of rules and norms to mitigate the tragedy (Heller 1998). The reconsolidation of the Maasai range discussed here continues in the absence of external regulation and in the presence of thin markets for land. Instead, family, friends and neighbours have developed a system (however small-scale) that is allowing a reconsolidation of land fragments to increase the benefits and minimise the risks of resource use in their setting. This system is under-girded by a set of familiar rules and norms.

While I have characterised reconsolidation as a response to risk, to labour shortfalls, etc., I remain uncertain of the extent to which it may be motivated by a need to maintain social relationships (kinship, age-set, etc.) that are so critical to local production and which are at risk as privatisation and marketisation advances. It also remains to be determined the extent to which reconsolidation decisions were voluntary, or coerced by more powerful individuals or organised through the efforts of ‘property rights’ entrepreneurs. I explore these angles in further work.

What then for policy? Maasai herders have by their own initiative started what can be viewed as a recreation of the commons. Policy can strengthen this innovation in various ways. First, by strengthening people's ability to work together (i.e., by reducing the transaction costs of organising) in order to increase the size of units that are undergoing reconsolidation or even its pace. Second, by assisting in conflict resolution and other similar mechanisms that can help safeguard against group disintegration. Third, by providing information (e.g., on pasture availability) that can improve herder decision making. Fourth, by complementing the investments that herders make on their parcels such as boreholes or providing technologies (e.g., hay baling) that can allow for herders to exploit periods of peak grass growth.

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Biocultural Community Protocols: A Tool for Pastoralists to Secure Customary Rights to the Commons?

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On July 22 2010, the streets of Sadri, a small town at the edge of the Aravalli Hills in central Rajasthan were painted red with the trademark turbans and veils of a procession of more than 2000 Raika herders. Men, women and children had come to deliver an appeal to the Forest Department to restore their traditional grazing rights in the surrounding forests. The petition that they submitted not only made reference to India's Forest Rights Act, but also to the United Nations Convention on Biological Diversity. It was accompanied by a printed brochure entitled '**Raika Biocultural Protocol**'.

For hundreds of years, the Raika have grazed their animals on the forested slopes of the Aravalli Hills during the monsoon season, since at that time of the year the adjoining fields are under cultivation. This practice dates back to the time of the Maharajahs: well aware of the economic and livelihood importance of herding, these rulers provided the Raika with grazing privileges against a small fee. But the situation changed when the Forest Department took over the management and the Kumbalgarh Sanctuary was established in the monsoonal grazing areas. The final clinch was an order of the Central Empowered Committee in 2003 which eliminated the customary grazing permits that had been issued every year. Now the pastoralists can gain access to the forest only if they are willing to pay unreceipted “fines” whose amount is at the discretion of forest officials. In one fell swoop, the Raika have been transformed from rightsholders into trespassers – a fundamental difference, essentially entailing a loss of rights crucial for their livelihoods.

India’s pastoralist groups have been fighting back over the last few years, but at best reached temporary impasses. In 2003, the Rajasthani pastoralists took their case to the High Court which was sympathetic, but referred it to the Supreme Court where the case was left in limbo. Hopes were rekindled with the passing of the Forest Rights Act in 2006. After much lobbying by the LIFE Network, a group of NGOs that backs herders and supports community-based conservation of local livestock breeds, the Act had been extended to seasonal forest users, such as pastoralist nomads. But the implementation of this Act has so far been systematically prevented by powerful local interests who either deny existence of the Act or refuse to register the required forest management committees.

The latest ray of hope for the herders is the United Nations Convention on Biological Diversity (CBD), an international legally binding agreement to which India is a signatory. This convention commits its parties in Article 8j “to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity.” Furthermore it protects and encourages “the customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation and sustainable use requirements.”

Without any doubt, the Raika are prime representatives of communities whose lifestyle is relevant for the conservation of biological diversity. However, neither they nor any other pastoralist group had ever tried to make the case that their knowledge, innovations and practices should be *respected, preserved and maintained* as demanded in the CBD. This changed in 2009, thanks to Natural Justice, a South Africa based NGO that provides legal advice to communities who drew the attention of the Raika to the CBD as a “unique bargain for indigenous and local communities”. Natural Justice suggested that the Raika should develop a “Biocultural community protocol” to obtain their credentials as being *relevant for the conservation and sustainable use of biological diversity*. The idea behind Biocultural Community Protocols is that they are statements by communities about the genetic resources they are stewarding, about their Traditional Knowledge (TK)



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used to manage these resources, and their role in biodiversity conservation. They are established by means of a facilitated process in which communities learn about their rights over these resources under existing national and international legal frameworks and reflect the importance of traditional knowledge for their livelihoods and their aspirations for the future of this knowledge.

The significance of Biocultural Community Protocols lies both in the *process* of establishing the protocol and in the *product*, a document that puts on record the contribution of a community to biodiversity conservation. Biocultural Community Protocols have important meaning not only with respect to the Convention on Biological Diversity, but also the Global Plan of Action for Animal Genetic Resources which is an international agreement to conserve the world’s diminishing number of locally adapted livestock breeds, implemented under the guidance of the Food and Agriculture Organization (FAO).

The Raika were the first community to develop a full Biocultural Community Protocol and in it they describe the livestock breeds that they have been stewarding, including the camel, Nari cattle, Boti sheep, as well as Sirohi and Marwari goats (Raika Samaj Panchayat 2009).

Subsequently, another community followed suit: a subgroup of the Lingayat that lives in the Bargur Forest Range in the Western Ghats in Erode District of Tamil Nadu. They number an estimated 10,000 people and raise a unique cattle breed named Bargur or Barghur, besides managing the local forests. They also have detailed knowledge about ethnoveterinary practices. Their cattle keeping practices are imbued with ritual meaning. For instance, they believe in giving one day of rest to the animals per week and do not milk the cows on Monday, nor use the bullocks for ploughing on that day. In each herd, a couple of animals are devoted to God Matheswaraswmi and are maintained until they die a natural death. The Lingayat report a dramatic reduction of the cattle population over the last 10 years, so that now it numbers only about 2,500. They feel threatened by the spread of the poisonous Lantana plant as well as closure of the forests by the Forest Department.

Their Biocultural Community Protocol was established in September 2009.

In July 2010, the Maldhari of Kutch who breed the Banni buffalo also adopted the approach: In their Biocultural Community Protocol they state that they consider themselves the custodians of the Banni grasslands that they have protected and nurtured for more than 450 years. An important component of this ecosystem is the Banni buffalo breed which produces high yields of milk with very low external inputs. This animal is disease resistant, can handle water stress conditions and goes for night grazing on its own. Other breeds associated with the Banni Maldhari are the Kankrej cattle that are sold or loaned as draught animals to farmers throughout Saurashtra, as well as the Kutchi goat, the Kutchi camel and the Pathanwadi and Dumba sheep.

In other countries too, the approach is developing its own momentum: The Samburu of Kenya and the Pashtoon of Baluchistan in Pakistan have established Biocultural Protocols.

The rapidly growing interest in Biocultural Protocols is also due to active awareness raising and advocacy by the pastoralists themselves and by the LIFE Network. In September 2009, Mrs. Dailibai Raika, a traditional animal healer, travelled to Nairobi to introduce the concept to leaders of African Indigenous Communities. Later in the year, the Raika and Lingayat Biocultural protocols were presented to the director of India's National Biodiversity Authority at a meeting in Delhi. Mrs. Daillibai Raika even journeyed to Montreal to participate in the 6th Meeting of the Ad-hoc Working Group on Paragraph 8j of the Convention on Biological Diversity. At a side-event organised by UNEP and Natural Justice, she explained about the role of the Raika as stewards of some of India's best known livestock resources, including the camel, and she handed over a copy of the Raika Biocultural Protocol to a high-level UNEP official.

In October 2010, at the 10th meeting of the parties to the Convention on Biological Diversity agreed on the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilisation. The agreement makes reference to community protocols, making them mandatory prior to any interventions that

concern the resources of biodiversity conserving communities. This is a great step forward and increases the legal standing of Biocultural Community Protocols. Care must however be taken that these provisions do not just remain on paper, as happened with the Forest Rights Act – but are actively implemented on the ground.

The LIFE Network is determined to make this happen and is optimistic that this newly developed tool will be an important stepping stone in finally getting recognition for India's animal cultures as guardians of its biodiversity. Besides the Raika, the Bargur cattle breeders and the Banni buffalo herders, this includes an endless diversity of groups, ranging from yak breeders in Ladakh and Spiti, to the sheep and goat herding Golla of the Deccan plateau, to the Toda buffalo breeders in the Nilgiri Hills, to name just a few. What all of these communities have in common is that they utilise marginal areas and natural vegetation with their locally evolved breeds. These traditional systems are not only important for the conservation of biological diversity, but also for India's food security. Giving them recognition and securing rights over their resources is crucial for their survival. Biocultural Community Protocols could go a long way in achieving this.

Despite their potential, biocultural community protocols are not a magic bullet. The process of establishing them requires ample time for genuine community processes to take place; otherwise there is danger of abuse by outside actors. One criticism includes that they may give rise to biopiracy and represent an implicit acceptance of the prevalent Intellectual Property Rights system. The term "community" is fraught with problems and often criticised by indigenous leaders. Finally, BCPs should ideally be backed by strong data that can be verified scientifically.

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Reviving the Village Commons: Sustaining Livestock Production, Agriculture and Dependent Livelihoods

Can agriculture and livestock exist synergistically in dryland commons? In this article, we explore the case of Rajasthan where the commons are integral to both activities. We look at the case of five districts in the state of Rajasthan where planned interventions by the Foundation for Ecological Security (FES) and the BAIF Development Research Foundation demonstrate that it is possible to increase agricultural benefits as well the availability of fodder biomass in rural commons by adopting the right kind of watershed development practices.

The context

In the study area within Rajasthan, common lands constitute between 30–88% of the village area. Landless, marginal and other farmers constitute 80% of the population, signifying heavy dependence on the commons for agriculture. In a situation typical of drylands with low and uncertain rainfall, the dominant land use scenario is a mixed-farming system that supports both agriculture as well as livestock keeping. Although in some cases agriculture and livestock keeping exist synergistically, there is also the threat of conversion of common lands earmarked for livestock to agricultural land. These include *beed* lands (20-30% of land) which are reserved for grazing and fodder collection. Such a scenario can increase the vulnerability of communities dependent on fodder from the commons, particularly Below Poverty Line (BPL) families which accounted for 20-40% of households.

The intervention was carried out within an operational area of 429 villages. Average expenditure per ha of common land ranged between INR 12,000 to 18,000 per ha. This expenditure targeted activities such as soil and water conservation, preservation of natural regeneration, seeding, and plantation of trees and fodder.

Results of the intervention

As a result of systematic development and management activities, a significant increase in agricultural production

as well as palatable biomass was recorded. Healthy increases were recorded for both grass biomass availability as well as plant cover. Average grass biomass increased from 0.26 tonnes per ha to 8.5 tonnes per ha, whereas coverage improved from 50% to 80% with a marked increase in palatable species. Average values of palatable species increased from 30% to 70% and there was a recorded improvement in fodder quality. In watersheds including Thoria, trees per ha increased from 29 to 289. On the whole, in regenerated commons and commons under watershed management, the monetary value of palatable fodder (trees, shrubs and grasses) from approximately INR 1,600 per ha to nearly INR 5,700 per ha from the second year of production. Although alternatives such as *Jatropha* promises an income of INR 8,000 per ha, the dividends are available only from the sixth year of intervention. The increase in fodder availability has also been instrumental in the increase in numbers of livestock by approximately 8.5%. Populations of buffaloes, sheep and goats increased, whereas those of cows decreased. Cross bred animals in villages increased from 17 to 58. On the whole, it has been estimated that these interventions were responsible for meeting nearly 60% of fodder requirements of 40,000 poor livestock keepers. Another significant benefit has been the increase in milk production and sales that were facilitated by cooperatives set up for this purpose. With respect to agriculture, better water management has resulted in an increase in area under double crop (rabi crop),

which in turn translates to a greater quantity of dry fodder during lean periods. A decade of intervention has also had a positive effect on the water table which was elevated by approximately 10 ft. It can also be assumed that these community managed commons are also contributing to a number of ecosystem services.

As important as the livelihood level improvements are the positive impacts on management and governance by the communities themselves. A culture of democratic decision-making has evolved, local people have gained rights over their common properties and encouragement also comes from the government which has acknowledged the role of these participatory mechanisms.

Good practices

When carrying out ground-based ecological restoration and development of common property resources (CPRs), interventions need to be carried out across different levels ranging from bio-physical activities, social and institutional arrangements, and carrying out facilitation in an appropriate manner. Coordination across spatial scales (ranging from individual land parcels and villages to landscapes and regions) is also vital. For landscape level planning needs to be translated to patch-level action substantial time, effort and monetary investments are required.

Identifying the current status as well as traditional land management practices in these areas needs to be done in consultation with local people. Mapping of land use and ownership categories is crucial to study design. In many cases, additional inputs can be obtained from existing databases on land cover and property rights as well as production related data. Degraded areas need to be identified for restoration where they may be used extensively and substantial effort should be expended in the identification of potential sites of ecological value. A collaborative effort between facilitators, experts and local people is desirable to understand the interlinkages between interacting land uses such as pastures, forests, sacred groves and agricultural lands.

Facilitating agencies need to gain a deep understanding of the complexities and interlinkages between different groups of people who are organised under caste, class, gender and occupation-based groups, to name a few. A thorough, and often long-term, understanding of these aspects is necessary for agencies to fulfil their own role in facilitation. We highlight the key insights regarding appropriate practices along three operational angles of intervention:

Bio-physical aspects

- Experiment with proven cost-effective technologies that are locally developed. These perform the dual role of empowering local technologies and are likely to reduce future dependence on outside agencies or technology. Similarly, use locally available biomass and physical resources to curtail the costs of civil works.
- Within land parcels, develop a suitable matrix of different types of fodder which meets the requirements

of different types of livestock. Locally available species, especially those which have been traditionally known to be used, might be most appropriate and ecologically viable.

- Sustainable management of livestock commons also entail investments towards constructing structures that protect the soil (bunds, trenches, etc.) and exclude livestock (fences, hedges, stone-walls, trenches, etc.) during certain periods, preparation of seedbeds (by weeding, burning, tilling and manuring), collection of seeds and planting. Sufficient funds also need to be earmarked for maintenance activities and repairs.

Social and institutional aspects

- Engage with state governments and legal custodians of the commons (e.g., local government departments) to secure tenurial rights for local communities. Initiate dialogue between government agencies and local community-based organisations like gram panchayats.
- Work towards strengthening existing traditional governance institutions. Frame inclusive rules for membership, as well as develop management guidelines for activities and sharing benefits. Devise work plans and space allocation plans for physical work and rotational schemes. Develop democratic mechanisms for dealing with rule breakers.

The role of facilitators

- Facilitating agencies need to engage with government agencies towards securing rights and tenures, and make both government as well as local institutions aware of provisions and policy support for the same.
- Provide funds or seed grants to initiate and carry out programmes in, or develop ways and means to access further grants if required. Develop plans for long-term sustainability.
- Identify, suggest and execute appropriate technology interventions. If local solutions are not available, this will also mean sourcing material, technologies or exports from outside the system and adapting to local situations.
- Work towards capacity building across individual and institutional levels keeping in mind the complexities of social relationships and interlinkages in the region.

Lessons and implications

Livestock keeping has been found to be positively correlated with the availability of common lands for grazing animals and collecting fodder. If availability of forage and fodder declines so does the vulnerability of the poor who are dependent on this form of subsistence. It is therefore imperative to develop synergistic schemes which support both agriculture as well as livestock. On a positive note, this project demonstrates the capacities of CPRs to be restored to provide benefits across the spectrum. Not only have these interventions resulted in good economic sense and benefits for agricultural production and livestock, a variety of ecosystem level properties are also shown to be improving in the long term. Most heartening perhaps, are the benefits for local empowerment in terms of the creation and strengthening of durable, democratic institutions that can manage their CPRs sustainably.

Pastoralism OR Conservation

VS

Pastoralism AS Conservation



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During the decades leading to the new millennium, a large number of protected areas were established the world over. As the sustainability debate gained momentum, the environmental viability of traditional practices such as grazing were questioned.

Livestock grazing and fodder gathering from protected areas were restricted in many newly established parks. The continued threats of disease transmission from livestock to wildlife also led to calls for removal of grazing animals from protected areas. While the sustainability of grazing in protected areas is still being argued, what is evident has been the loss of livelihoods, dispossession of land and impoverishment of numerous traditional livestock rearing communities who accessed these areas as customary grazing spaces before parks were established. In this article we explore a few examples from India which could potentially help in reconciling interests in wildlife and livestock.

Cattle and conservation in Bharatpur, Rajasthan

Commonly held perceptions of the negative impacts of livestock grazing on biodiversity have led to the exclusion of pastoralists from using land or land resources in attempts to conserve 'natural ecosystems' and the services they offer. Michael Lewis (2003) in his case study situated at the Keoladeo Ghana National Park in Bharatpur, India highlights an example where this assumption was proved false. Lewis provides detailed insights into the positive impacts that grazing of livestock had in maintaining the biodiversity of the reserve and the subsequent management decisions that led to its decline, predicated on assumptions that had never been tested. Through this example, he warns that a one-size-fits-all approach to conservation can prove dangerous to the habitat in question and detrimental to the livelihoods of those who depend on these resources.

The wetlands that are now protected at the Keoladeo Ghana National Park, one of India's best known bird sanctuaries, were 'created' by the Maharaja of Bharatpur in the 1890s through the construction of canals and dykes that expanded and deepened the already existing marsh. This environment lent itself to growing into a hotspot for wintering and resident birds. Over the years, the decline of wetland habitats in north India, accelerated after Independence when large tracts of land were converted for agricultural use, led to a higher concentration of birds and other fauna in the Bharatpur wetlands. This ecosystem therefore is not 'natural' in that it is not representative of the physical and ecological characteristics of the region, had natural succession been allowed to take place.

With the transfer of this land from the royal family to the central government after Independence in 1947, the area was excluded from the government's push for conversion to agricultural land on account of its resources being able to sustain the livelihoods of villagers in surrounding villages. Grazing of cattle, among other uses of firewood collection and harvesting of non-timber forest products was an important use of the resources available. The interaction between human societies and resource use was instrumental in maintaining the ecological balance of the area. However, with increasing recognition of the area's rich avifaunal diversity, conservationists in the country and abroad pushed for increased protection of the area from external anthropogenic influences (they claimed that allowing grazing of cattle in the forest was causing a decline in biodiversity) and in 1981, Bharatpur was declared a national park.

Lewis also provides a brief overview of the legal restrictions that became applicable and the influence of the western approach to conservation, which is important in understanding the implications of the law on access to forest resources at the Bharatpur park. India's Wild Life (Protection) Act, 1972 was modeled around the US national park model which lays a heavy emphasis on preservation or 'natural management'. This includes the complete exclusion or elimination of human interferences. Under Indian law, a national park is governed under this Act. In the case of Bharatpur, the implementation of this law provided legal justification to already existing and growing appeals to eliminate domestic animals from grazing in wildlife sanctuaries.

Although the ban came in to effect in 1981, villagers continued to use the reserve for grazing, but soon the government took more stringent methods of enforcement and a year later a stone wall was built around the perimeter of the park. This sudden restriction of access led to conflict, accompanied by violence in some instances.

The Bombay Natural History Society had in the 1970s reported a decline in bird populations in the area. In the assumption that such a decline was caused by the impacts of cattle grazing, they initiated a ten year study in the area to record and examine all aspects of the ecology of the park. By 1986, a mid-study report revealed that there was a significant decline in bird diversity in the park since the ban on grazing and fodder collection was enforced. It was found that a few weed species had taken over the wetlands and had choked the canals that supplied water to the marshes. This adversely impacted fish populations, which in turn affected bird numbers and diversity. Further, with the uncontrolled growth of weeds in the grasslands, the area became susceptible to fire. It was discovered that the species of plants that the cattle were grazing were not suited to the dietary needs of their wild cousins. The report concluded, contrary to the assumption the study was based on, that natural management was not viable in the context of the Bharatpur park. However, this recommendation conflicted with the 'hands-off' management regime that was dictated by the Wild Life (Protection) Act. The implications of this have proven to be complex for park managers. The Forest Department, who is a custodian of the park, has allowed for a controlled amount of fodder collection, but has not lifted the ban on cattle grazing. Although villagers continue to make their way with cattle across the barrier, there are far fewer cattle than that proposed by the report's findings in order to restore the ecological balance that once existed.

What Lewis successfully highlights through the case study is that optimal management solutions must take into account local influences, and importantly human influences, where such exist. He cautions against the use of universal conservation models, which more often than not derive from theoretical knowledge and not field tested research. The purpose of bringing to light such case studies is not to oppose but to challenge the adoption of management policies based on assumptions of negative impacts that are not tested on the field. It is also important to consider that in India, as in many developing countries around the world, such reserves

of rich biodiversity exist as isolated systems in a fragmented landscape. Inputs and outflows within an isolated or restricted area can include anthropogenic factors, and where they do, must be considered while developing a suitable management strategy. The dominant view on how ecosystems should be managed often overlooks the importance of human use and management in maintaining or even enhancing biodiversity.

..ecology is a valuable tool for making conservation decisions, but the attempt to apply ecological insights as universal conservation truths is highly problematic, fraught with risks, easily politicised and frequently ineffective.

The vast majority of people living around Indian national parks – and perhaps in the nation as a whole – disagree with park policies prohibiting grazing and human use. They do not see it as a crime, or the herder as a criminal.

– Lewis 2003

In the context of pastoral societies and their role in managing resources and ecosystem services, maintaining vegetative cover through sustainable practices can contribute to enriching ecosystem services, not just for pastoralists and their livestock, but also for other land users that benefit directly or indirectly from such services.

Grazing by the Gaddi community in the Himalaya

In a study that examines the impacts of grazing practices of the Gaddi community in the state of Himachal Pradesh in India on land regeneration and biodiversity, Vasant Saberwal (1996) challenges two assumptions of the conservation focus: (a) that democratic governments can restrict human resource use within protected areas, and (b) that human land use for subsistence leads to degradation and a decline in biological diversity. He addresses these assumptions and their fallouts from a case study of the Gaddi community in Himachal Pradesh, and their pastoralist practices in protected areas of the region. The Gaddi are a distinct tribe of semi-nomadic agropastoralists who migrate semi-annually with their livestock (predominantly sheep and goats) from lowlands in the Siwaliks (the foothills of the Himalayas) in the summer to alpine meadows in the highlands to take advantage of seasonally available pastures at varying elevations. Their economy is a mix of commercial herding and subsistence cultivation, which takes place within permanent villages along migratory routes.

Grazing practices of the Gaddi, like those of many communities across the country, and other parts of the world, have continually been criticised as having contributed to

land degradation and biodiversity decline. This assumption, endorsed by provisions in the law governing protected areas, has led to the government enforcing strict regulations and restrictions on access and resource use. Based on data of an ongoing study to assess the impacts of Gaddi practices, Saberwal demonstrates that regulations that restrict the use of resources by the community have largely failed in meeting policy objectives.

Access to grazing resources by the community has been a complex issue. Saberwal traces the current Gaddi access to grazing land to grazing rights that were established more than 150 years ago. Historically, these lands belonged to the kings of small princely states. The kings allotted rights to these communities to graze specific tracts of forest land. In due course, the takeover of forest lands by the British administration, with a focus on timber production from forest lands, resulted in the imposition of restrictions on grazing access, and in combination with disincentives such as increased taxes, access to grazing pastures was continually, and increasingly, restricted. In the post-Independence era, the state government, through the Forest Department, has continued the attempt to restrict access. Restrictions on the numbers of animals each herder is allowed to graze, on camping and movement during migration, and on extent of the area open for grazing have discouraged the Gaddi from continuing their traditional pastoral practices. However, in most districts, the Gaddi wield considerable political influence and often this has led to a circumvention of bureaucratic policies of exclusion.

The pro-protectionist conservation lobby and officials of the Forest Department contend that Gaddi overgrazing leads to accelerated soil erosion and a loss of biodiversity in intensively grazed areas, which has led to a domination of the landscape by species of exotic weeds. Saberwal in his research finds that there has been little scientific evidence that these practices have directly led to large-scale degradation. To counter this claim, Saberwal lays emphasis on the fact that livestock populations have increased significantly, attesting to the regenerative capacity of these forests. He also mentions that the impacts of Gaddi livestock grazing are possibly overshadowed by those of the larger cattle population belonging to settled cultivators.

Attempting to challenge the second assumption, that human land-use patterns cause environmental degradation and loss of biodiversity, Saberwal draws from experimental evidence to refute the claim. He examined the difference in vegetation composition between two winter grazing sites subject to low and high grazing intensity respectively. He found that there was a higher tree species diversity in the low grazing intensity site and a higher number of shrub species in the high grazing intensity site. Further, the heavily grazed site had a greater standing crop. These differences are attributed to the fact that the high intensity grazing site is at an earlier seral stage of ecological succession than the other site. The higher grass and shrub standing biomass can also serve to increase the soil-conserving ability. An analysis based on the transect method showed that species richness increased rapidly outward from Gaddi camp centres. Species diversity was low and there was a dominance of the weedy species *Rumex nepalensis* in

the immediate vicinity of camping sites. However, Saberwal concludes that reduced species diversity due to Gaddi grazing practices is highly localised and insignificant at the level of the overall landscape (Saberwal 1998).

Recognition of the difficulties associated with implementing restrictive policies, and the fact that human land-use practices need not lead to degradation or to a decline in biological diversity, should lead to more inclusive conservation policies within protected areas as well as an expansion of the conservation focus beyond protected-area boundaries.

– Saberwal 1996

In conclusion, Saberwal advocates that in the absence of evidence that some human land-use practices lead to degradation or a decline in biodiversity, restrictive policy should give way to more inclusive conservation policies within protected areas, and the focus of conservation should extend beyond protected area boundaries. The inclusion

of a local community's interests in the development of conservation initiatives might encourage greater support by the community in implementing such initiatives. He recommends that the governments of the Himalayan states, where migratory pastoralism is common practice, should rethink the biological value of these regions in the context of resource use by these communities. And that the scientific and conservation community needs to reassess the dynamics of human-environment interactions. Supported by claims from other parts of the world as well, Saberwal suggests that not all human resource use is incompatible with biodiversity conservation. An acknowledgment of this possibility will reduce the social and economic costs incurred with displacement from protected areas, which are inevitably borne by marginal communities.

Incentives for conservation involving grazing communities in the trans-Himalaya

In many parts of the world, traditional subsistence pastoralist practices are often linked to environmental degradation through overgrazing and decline in wildlife populations due to resource competition and habitat change. The pro-pastoralist approach has questioned the validity of such assumptions and has often suggested that not all human land use patterns are detrimental, and that if the responsibility of managing resources is devolved to the community using the resources, there is a greater chance that they will be managed responsibly without causing adverse impacts to habitats.



In India (which supports the world's largest livestock population), less than 5% of the land area is under protection as a 'wildlife reserve', and a majority of these reserves are not free from livestock and grazing pressures, amongst other uses of forest and land resources. Wildlife conservationists have often argued that deterioration of natural habitats and declines in wildlife populations are caused by exploitative use of land resources by communities, foremost amongst which is the overgrazing of livestock in these areas.

A number of studies carried out by conservation groups such as the Nature Conservation Foundation have focused on the human-ecosystem interactions in the Trans-Himalayan region in India. The arid mountainous region covers the Tibetan plateau and the Tibetan marginal mountains. Most of the region has a pastoral history dating back several millennia. Livestock reared by these communities are well adapted to the hostile conditions of these pastures and provide a range of products and services.

The region also supports rare and endangered species of flora and fauna, including the bharal (Himalayan blue sheep), the snow leopard, the kiang (wild ass) and the Tibetan gazelle. Conclusive studies have shown that populations of many wild ungulates and large carnivores are under serious threat, and this threat has often been attributed to overgrazing or overstocking of livestock by pastoral communities. The pressures that are exerted by these communities is the reduction of wild ungulate populations through hunting and due to competitive pressures on foraging resources by domestic livestock, hunting of large carnivores like the wolf and snow leopard and retaliatory killing of large carnivores due to predation of livestock.

In attempts to promote conservation of the ecosystem and the wildlife assemblages unique to this region, the pressures on pastoral communities in recent years has included the restriction of access to rangeland resources, risk mitigation in changing environmental conditions and loss of livestock to predation by carnivores.

Mishra *et al.* in their studies have attempted to demonstrate that overgrazing has led to land degradation and negatively impacted the population structures of wild ungulate population. They have advocated for the inclusion of wildlife conservation concerns while negotiating resource management options, and have cautioned against the promotion of unrestricted resource use to pastoral communities.

In a paper titled 'Socioeconomic transition and wildlife conservation in the Indian Trans-Himalaya', Mishra (2000) contend that the assumption that human communities and impacts on natural resources are constant is false and misinforms decision-making with respect to land use and resource extraction. They claim that socio-economic changes, especially in the late 1980s and early 1990s, have resulted in an escalation of livestock population, and seem to have contributed to the current high levels of overstocking. Even in these remote and isolated areas, socioeconomic changes driven by external factors (e.g., an increased dependence on the market based economy, changes in government policy,

etc.) along with intrinsically driven changes (e.g., changes in social and cultural values) have significantly altered land and resource use patterns of these communities.

Overstocking seems to be a classic case of the tragedy of the commons, as livestock is individually owned while the land is communally grazed.

Creation of (even small) inviolate areas and managing livestock stocking density in others are urgently required as the next step.

– Mishra 2001

These studies have shown that competition for foraging resources between domestic livestock and wild ungulates has led to adverse changes in population structures of the latter. In advocating the inclusion of conservation objectives in government policy, Mishra recommends the demarcation of areas which must be free from livestock grazing and other resource extraction practices. In a study on the effects of overgrazing on the bharal population in the Spiti Valley, a region where most of Mishra's work is based, the results indicate that "under the present conditions of high livestock density and supplemental feeding, restricting livestock numbers and creating livestock-free areas are necessary measures for conserving Trans-Himalayan wild herbivores. Mediating competitive effects on bharal through supplemental feeding is not a feasible option" (Mishra *et al.* 2004). A review by Mishra and Rawat (Mishra & Rawat 1998) also refuted the claim made by Saberwal (see above) that the Gaddi pastoralist practices do not have damaging impacts on rangeland citing inadequate data to support the claim and an exclusion of factors such as changing lifestyles and socioeconomic influences in determining long term impacts. The unprecedented increase in livestock numbers therefore may not be ecologically sustainable.

To demonstrate the use of incentive based mechanisms to increase participation of the local community in conservation interventions while ensuring benefits / an offset of losses incurred in carrying out conservation action, the Nature Conservation Foundation in collaboration with the International Snow Leopard Trust initiated a pilot programme in the Kibber Wildlife Sanctuary and surrounding villages (Mishra *et al.* 2003). In this region it was found that the levels of livestock predation by the snow leopard and other carnivores were high, and retaliatory killing by herders threatened the populations of these carnivores. The intolerance towards predatory carnivores only increased as a result of existing governmental schemes of compensation proving to be highly inadequate. The value of livestock that families believed they lost to wild carnivores was estimated at half their average annual per capita income. The incentive

programme is designed to offset the costs of conservation to local people, to make wildlife conservation beneficial to them and to extend their limits of tolerance towards wild carnivores.

Centrally administered preservationist programmes relying entirely on the use of force to attain conservation goals have limited applicability in wildlife habitats owned or traditionally used by local communities. Unless there are tangible economic returns, local communities are unwilling and often unable to adopt conservation-friendly practices in the course of their production and consumption activities. Incentive programmes endeavor to set in place conditions under which local communities will be economically willing and able to conserve nature.

– Mishra *et al.* 2003

One initiative of the programme was to assign responsibility to the village council to set aside land that was regularly grazed in exchange for monetary compensation, and implement a moratorium on all forms of extractive use. This demarcated area was to be free of livestock grazing and human use for five years. After four years of protection, reports that wild prey density of bharal had increasing supported the basis for such an initiative. A livestock insurance programme was also initiated in 2002, where villagers contributed monthly premiums towards insuring their livestock. This programme is supported by an external funding agency until the system can be self-sustaining. The incentive programme also includes incentives for better antipredatory herding with monetary rewards being paid to herders from the insurance fund.

This programme has garnered support from the pastoralist community. One of the reasons that this programme has seen success is the fact that the responsibility of initiation and monitoring rested with village representatives. The system for collective decision-making rests with the village council. It ensures equal access of families to common resources, and equitable distribution of responsibilities among them. Most of the grazing land is communally owned by village councils,

many of which have traditionally leased out parts of their distant pastures to nomadic graziers from other parts of the Himalaya. The local livestock is owned by individual families, but are herded communally.

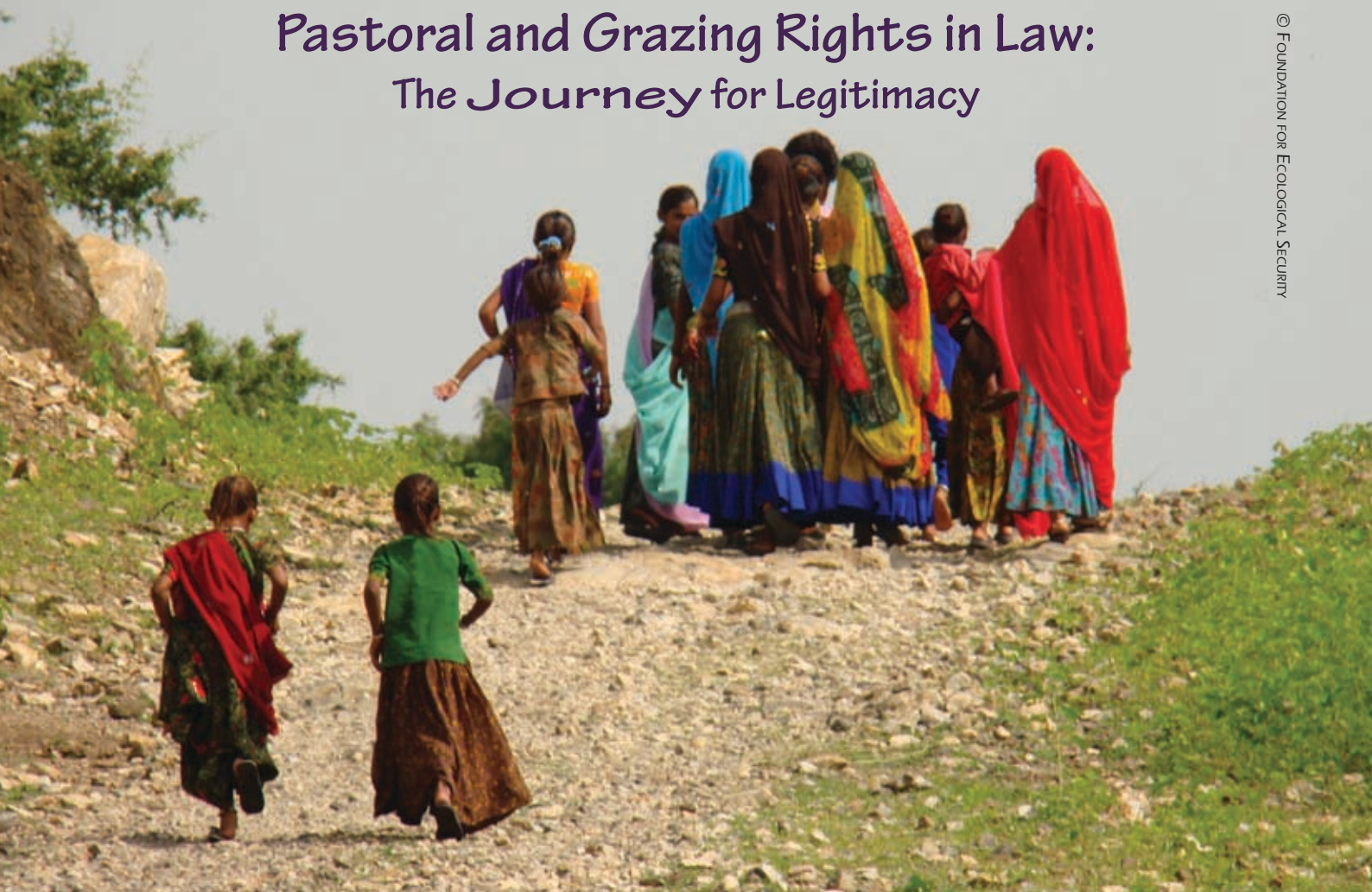
What the study on the success of the incentive based programme stresses however is that such schemes only provide a short term remedy. The dependence on external funding agencies to provide monetary support indicates that such programmes cannot be implemented on a large scale, and where they are effective on a smaller geographic scale, have limited sustainability. The promotion of such programmes within pastoral communities in other parts of the country without a proper understanding of the social and economic implications could prove ineffective or even damaging to the social-cultural fabric of the already marginalised communities. The inclusion of their interests and their participation in decision-making can increase acceptance of conservation interventions if the benefits to the community can be demonstrated qualitatively and quantitatively in a relatively short period of time.

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Pastoral and Grazing Rights in Law: The Journey for Legitimacy



How many pastoralists are there in India? What is the extent of common lands in various parts of the country? What is the impact of pastoralism on the economy, communities, and the environments that they frequent?

Some might consider being armed with such demographics as a touchstone of equitable and democratic policy making and governance. If so, what does that make a state that has no accurate answers to these questions? India's myriad laws and general development policies that touch on the subject of grazing and pastoralism are not informed by a comprehensive understanding of the same. Rather, they rely on an inherited colonial reasoning that is essentially prejudiced and anti-pastoral.

Through its laws that criminalised several hunting and grazier groups, the colonial state considered pastoralism detrimental to its interests, particularly with regard to forests. The colonial state introduced the term 'wasteland' as a formal administrative category - a medieval English term for lands from which the government could not collect tax. Communities practising pastoralism and grazing have shared a long and difficult relationship with the colonial and the modern state. The innocuous sounding Cattle Trespass Act, 1871, was one of the early laws that reflected the conflicts between pastoralists and settled agriculture. It facilitated the establishment of pounds for stray cattle, the idea being to protect the interests of farmers or investors in agriculture who were empowered to impound stray cattle (including camels, goats and sheep) that

damaged their land. The Act was also meant to protect against damage from cattle to public roads, canals and embankments. This Act is still in force in many states of the country.

Neither did pastoralists really benefit from land reforms post-Independence, relying on vast common lands instead of valuing land ownership. In addition, the implementation of land reform laws of the 1950s resulted in a decline in the availability of common lands. Government officials found it more convenient to distribute common grazing lands as private land pattas/landholdings to the landless, rather than deal with bigger and more powerful landlords. Thus millions of hectares of lands classified as 'wastelands', which were largely sub-marginal lands unsuitable for cultivation, and were distributed and became privatised. However, in the process of privatisation of common lands, 49–86 percent of the privatised common property resources (CPRs) ended up in the hands of the non-poor. The disappearance of pastoral commons is cited by pastoralists and by academics like Kanchan Chopra and N.S. Jodha who have studied this phenomenon across the country.

Pastoralism in forest laws

The most significant of forest laws—the Indian Forest Act

(IFA), 1927, was responsible for the consolidation of vast tracts of lands as 'forest lands' under state ownership. Forest land is distinguished here on the basis of categories of forests such as reserved, protected and village forests and these distinctions have connotations with regard to the nature of peoples' rights existing on them. In the 2001 issue of *Seminar* (No. 499), Kanchan Chopra notes that legal ownership of 95.8% of the forest area is vested in the state. Only 2.5% of the forest area is with corporate bodies defined as 'municipal and other corporate bodies, village panchayats, etc.' The present day scenario is not very different.

While section 26 of the IFA prohibits grazing and trespassing of cattle within reserved forests, the IFA states that the forest settlement officer (section 15), in the process of settling claims while declaring reserved forests, can set aside alternate forest tracts for the purpose of pastures or collection of forest produce. However, in practice, in the process of settlement of rights in the declaration of reserved forests (sections 3-9 of the IFA), grazing rights as 'claims', were overlooked in many areas, which resulted in the extinguishing of such customary rights in vast forest regions of the country. There were other forest tracts where grazing could be permitted under the IFA. Reserved forests could be declared as 'village forests', which could serve as areas where grazing of livestock was permitted (section 28). Certain areas, including forest lands and wastelands could be declared as 'protected forests' where pastoral activities could be permitted (section 29).

Even the Imperial Gazetteer of the Indian Empire in 1907, recorded that 'unclassed' forest lands (neither reserved nor protected) had fewer restrictions on public use and that protected forests could either remain in a state of transition into reserved forests, or could remain as such, whereby local communities were allowed to exercise some rights over the same. The Government of India Gazetteer of 1975 also holds that local people have virtually unrestricted rights of felling trees and grazing livestock in protected forests. According to Kanchan Chopra, it maybe inferred from the above that local communities had access to protected forests both by law and by convention.

Before the Forest Acts of the 1800s, grazing was a free ranging activity which was circumscribed by the declaration of state forests and its various institutional mechanisms such as prescribed grazing areas and fees. Legal analyst Usha Ramanathan reports an interesting instance from the 1970s where the Madhya Pradesh Government attempted to restrict the movement of 'foreign animals' within its boundaries and imposed higher grazing levies on pastoralists from outside the state. This was subsequently struck down by the Supreme Court which termed this act discriminatory.

Judicial intervention and grazing rights

An analysis of the role of the Supreme Court (SC) in addressing issues related to pastoral concerns shows that the direction of its interventions has not been complementary to the latter's interests. The main reason for this is that forest laws per se discourage grazing in forest lands. Two important cases being addressed at the SC have serious implications for grazing within forest areas. These involve the Forest Conservation

Act (FCA), 1980 and the Wild Life Protection Act (WLPA), 1972. The FCA mandates Central Government permission before reserved forests can be de-reserved, or used for any non-forest purposes (section 2 of the Act). It set up Forest Advisory Committees at the state and central level to look into applications for the same. The WLPA facilitates the creation of protected areas (such as national parks and sanctuaries) and prohibits hunting of various species listed on its schedules.

Two cases were filed in the SC, one addressing the non-implementation of the FCA [T. N. Godavarman Thirumulpad vs Union of India and ors (WP No 202 of 1995)] and the other concerning the issue of settlement of rights in National Parks and Sanctuaries and other issues under the WLPA [Centre for Environmental Law (CEL), WWF vs Union of India and ors (WP No 337 of 1995)]. These cases have led to fundamental changes in the pattern of forest governance and decision-making. For instance, in the Godavarman case, while making a distinction between forests and forest lands, the Apex Court assigned a dictionary meaning to the term 'forests'. The Apex Court while directing for adherence of section 2 of the FCA, with its new meaning, held that no non-forest activity (such as grazing) should be carried out in any forest area without prior approval of the Central Government. In the CEL case, the SC stated that even if FCA permission existed for non-forest use, within national parks and sanctuaries, no non-forest use (like grazing) can be permitted.

The *Forest Case Update* (www.forestcaseindia.org), a web-based resource tracking these cases, observes that the Supreme Court has in effect divested the Central Government (with respect to forests) and the State Legislature (with respect to national parks and sanctuaries) of all powers of dereservation/denotification. Thus, while the Godavarman case prohibited non-forest use of forest land without Central Government approval, the CEL case prohibited dereservation of any forest without Supreme Court approval. Read with the SC definition of the term 'forest' – the import of these cases becomes significant if one wants to view options for advancing the case for grazing rights in these areas.

Forest policies and Joint Forest Management

The 1952 Forest Policy introduced immediately after Independence betrays its predisposition. "*Speaking generally*", says the declaration, "*all grazing in forests, particularly unlimited or uncontrolled grazing, is incompatible with scientific forestry*". Many decades of peoples' struggles such as a widespread civil society debate on the draft Forest Bill in 1982 and the well-known Save the Western Ghats March (SWGGM), from November 01, 1987 to January 30, 1988 led to the unanimous adoption by Parliament of a more enlightened National Forest Policy in December 1988. The two major objectives of this policy are to maintain ecological stability and meeting the basic needs of people living in and around the forests. The policy further emphasises that with regard to the symbiotic relationship between the tribal people and forest, the local communities living in and around forests should be involved in the protection, regeneration and development of forests, and have the first charge on forest produce like fodder, fuelwood and raw material for rural artisans. The policy also prohibits leasing of forest lands to industry for captive plantations

and marks a major departure from the earlier commercially oriented policies of 1894 and 1952.

Following the National Forest Policy 1988, the Government of India, Ministry of Environment and Forests (MoEF) passed a national resolution in June 1990 providing more specific guidelines regarding the formation, functioning, rights and responsibilities of community forest management groups—the idea of Joint Forest Management (JFM). However, in planning and implementing programmes aimed at developing these degraded lands, whether under JFM or watershed development, livestock are perceived as a hindrance to development, and the primary cause of wastelands. JFM working plans are often conceived and implemented with total disregard to the presence or needs of pastoralists. Official policies relating to forest, agriculture or livestock, largely perceive local breeds to be unproductive and an environmental burden. State policies, plans and financial packages have attempted to replace local ‘unproductive’ animals with crossbred varieties for higher productivity and environmental rejuvenation. While the merits of this approach are not yet visible, there is a discernible silence on addressing the real issue of fodder and water crisis.

Afforestation and biomass-enhancing interventions on degraded lands and on JFM lands, by and large, have focussed on growing plantation crops which are useless as fodder. Some states like Gujarat, Haryana and Punjab have banned grazing completely under JFM, while other states have allowed for rotational grazing as reported in the 1998 study conducted by The Energy Research Institute in for the MoEF (<http://envfor.nic.in/divisions/forprt/jfm/html/eval.htm>). In programmes to regenerate lands, the policy of ‘zero-grazing’ or a complete ban on grazing coupled with a complete ban on goats has regrettably become the predominant formula of “success”. This also has negative consequences for the environment.

Forest Rights Act and grazing

The promulgation of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (hereafter Forest Rights Act or FRA), was a landmark event. The Act seeks to undo the historic injustice of ignoring rights over forest lands, as mentioned in the earlier sections of this article. The FRA holds the potential to recognise grazing rights within forest lands and even protected areas.

However, representatives from campaign groups such as the Campaign for Survival and Dignity point that the existence of forest rights, especially community rights to minor forest produce, grazing rights, and the right to conserve, protect, and manage community forest resources, is not acknowledged by the MoEF in any of its recent positions. They highlight the positions that the MoEF has taken in court, particularly in the ongoing Godavarman case, stating that issues are articulated as if the Forest Rights Act does not exist. Similarly, international negotiations on REDD (Reducing Emissions from Deforestation and Forest Degradation) are also stated to be proceeding on the basis of policy documents that ignore the existence of forest dwelling communities and their legal rights under the FRA. There is also significant concern expressed by pastoral communities over the growth of plantations,



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often through compensatory afforestation programmes in lands that are community grazing lands, where they have unrecorded rights.

It has been clarified that the FRA is not only a law to accord individual rights over lands. The gram sabhas have a right and responsibility to protect forests, as well as recognising forest dwellers’ rights of ownership over minor forest produce, right of use of grazing areas, and other such community rights. The FRA has come into a direct confrontation with the erstwhile approach to forest land management, but efforts such as the recent MoEF-established committee to enquire into the implementation of the FRA will provide insights into resolving conflicts between differing perspectives.

Policy making and unknown commons

As noted earlier, customary uses of pastoral common lands is neither documented, recognised or incorporated in legislation. The implications are that since pastoral communities are often not counted when common lands are acquired for development projects, or when their grazing activities are restricted (such as within national parks), they often go uncompensated. Despite the legal restrictions, wildlife areas in India almost invariably continue to be used in many ways and by many communities. Conflict with the state

Box 1: Global developments on pastoral policies

Pastoralism is the dominant form of land use of 25% of the world, supporting over 20 million households. Government policies in many parts of the world have decried pastoral mobility as a form of risk response, and have instead encouraged privatisation, subdivision of group ranches and sedentarisation of livestock, particularly in Africa. For instance, Esther Mwangi's studies on the transformation of property rights in Kenya's Maasai land states that the Kenyan government borrowed from agencies such as the World Bank, USAID, Swedish aid agency, Canadian development agency and the United Kingdom under Livestock Development Programmes, to promote the creation of ranches and to reduce livestock accumulation tendencies. Mwangi's research (featured in this issue) show that re-aggregation mechanisms and collective action more generally, are crucial ways for maintaining the flexibility that is necessary for livestock production in variable environments, rendered even more risky after subdivision. For instance, the IUCN supported World Initiative for Sustainable Pastoralism has concluded that mobile pastoralism is economically superior and advocates greater mobile pastoralism. It also advocates supporting the non-market values of pastoralism. There is also recognition of the need to reduce vulnerabilities of pastoralists the world over. Agencies such as the World Bank are now actively backing programmes like the Arid Lands Resource Management Project in Kenya which views livestock mobility as being key to ensuring food security.

It is clear that overcoming the constraints to pastoralism is not a simple matter of adjusting one or two policies: in many countries a whole range of policies impose unnecessary constraints on pastoralism. Besides a range of local factors, the implications of various pastoral countries' policies on international trade in livestock and its products remain inadequately addressed. In the following sections of this issue, we feature the international initiatives towards sustainable pastoralism, issues relating to land rights and livestock-environment interactions.

marks such resource use, and is most starkly seen in cases like Kumbalgarh Wildlife Sanctuary in Rajasthan (used by Raika camel herders) and the Gir Wildlife Sanctuary in Gujarat (the pastoral grounds of the now resettled Maldharis). There are few reliable estimates of the scale of dependency of graziers over protected areas (national parks and sanctuaries). Even lesser known is the extent of grazing in reserved and other forest categories. Even in the absence of such data, most of the policies governing forest lands, particularly protected areas, are antithetical to the idea of grazing in these areas or making alternatives available to such communities.

The extent of common property land has come into question from time to time. Some of the initial work done on CPRs has been to estimate the extent of 'wastelands'. It is considered necessary for policy formulation to be well equipped with exact estimates of the nature of dependency on CPRs. However, as Kanchan Chopra shows in her articles, there are several problems with the existing studies done on estimating CPRs and at best, the figures are only indicative of the nature of the CPR-based economy.

Chopra points out that the problems in estimating the extent of CPRs result from the fact that rights to CPRs are a matter of observation and record, based on degree of access arising out of both ownership and use. Apart from varying estimates, arising out of methodological differences, the data on wastelands do not distinguish between private, communal, open access and state ownership. Policy interventions, in order to be appropriate and successful, need to be informed

about the kind of property rights on wastelands.

Development policies and pastoral rights

Development programmes have not all been favourable to the idea of grazing. It is estimated that while livestock population in India has increased, permanent pasture and grazing land has reduced by more than 50%. Simultaneously, the loss of forests has resulted in the loss of innumerable valuable species of both fodder and medicinal plants that form an important part of the diet of animals. On the other hand, there has been a dramatic shift in cropping patterns from diverse food crops (millets, pulses, oilseeds, legumes), which were rich in crop-residue fodder value, to cash crops (cotton, tobacco) and hybrid crops with decreased or no fodder value.

Land in the country is at a premium. Wastelands are being coveted not only by agricultural interests but by corporate interests as well. Vast tracts of wasteland (read commons) in Rajasthan were earlier targeted for bio-fuel plantations. The Society for Promotion of Wasteland Development (SPWD), a non-government organisation headquartered in Delhi, had released a study, *Promotion of biofuel in India: Issues and prospects* in August 2006. The study was carried out in six states, including Rajasthan, where it was found that most of the actual wasteland - rocky barren lands, ravines and deserts - was unfit for cultivation, while the remaining wasteland (grazing land) was heavily encroached upon. "Hence, if rocky barren lands, ravines and deserts, which are actual wastelands, are removed from the list then the only land remaining is the panchayat land or village common land. The status of most of the revenue



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common lands is heavily encroached. Will these encroachments first be cleared? Will electoral politics let it happen?" the study enquires. In response to the protests against its biofuel policy, the Government of Rajasthan has rescinded the same.

In another instance from Gujarat, the people of Zarapara village near the Mundra port, revolted against the proposed Mundra Special Economic Zone (SEZ). On April 15, 2010 over 3,000 villagers forced the panchayat to cancel the resolution by which 400 hectares of the *gauchar* land (pasture) was given to the company and declared that not an inch of the land would be given for the SEZ, potentially the biggest in the country. The above instances illustrate the potential for similar conflicts if a clear policy on grazing and livestock issues does not inform development planning in the country.

Closely linked to the rights over grazing are policies dealing with livestock, which have an equal bearing on pastoral community welfare. Towards this, the governments of Orissa and Andhra Pradesh have introduced market-oriented livestock policy reforms. However, policies on grazing need to integrate several other aspects in addition to livestock development. Greater articulation on grazing rights, access to different categories of land (forests, revenue, commons), promoting the mobile aspects of grazer communities, while ensuring their participation and stakes in democratic processes – all these concerns, reflected in the other articles in this issue of the newsletters, need to inform a grazing policy.

Conclusion

Despite one or two developments, India is still some distance away from developing an integrated policy on grazing and pastoralism that covers its various dimensions. While demanding such a policy in the country, in view of the diverse socio-cultural, economic, climatic, and geographic conditions,

advocates also argue for region/ecosystem specific policies—such as for the mountainous ecosystem in the Himalaya. While some distance between science and policy-making might always remain, comparatively lesser efforts have been dedicated in both fields to pastoral issues, resulting in a narrow space for cross-fertilisation.

Although pastoralism has made a significant contribution to the country's economy and social fabric, its existence mandates explicit support and promotion by means of official policy. Much of the analyses of policies related to pastoralism point to the need for greater integration between the Ministry of Agriculture (MoA) and the Ministry of Environment and Forests (MoEF)—the main ministries associated with this subject—to ensure that pastoral interests are guaranteed. This requires a review by the MoA of certain activities which enjoys its endorsement such as intensive agriculture and cross breeding of indigenous livestock with exotics. The MoEF, being in charge of implementing laws that have an inherited colonial bias against pastoral communities, can ameliorate its 'adversary' image among communities by undertaking a policy reform exercise that reviews its approach to grazing particularly in areas under forests.

Pastoralism has been declared dead several times earlier, but has remained resilient and adaptive through various challenges. The future of pastoralism is based on a range of social, economic and political considerations, which should be based on an appreciation of traditional production systems, indigenous knowledge and strategies of coping and resilience in the face of ecological uncertainties. This would need a simultaneous review of the existing policy of silence on pastoralism, and a rethink of the legislations that openly discriminate against pastoral communities and practices in economic, social, and environmental governance.

Addressing Challenges: Institutions and Initiatives

Over the last few decades, traditional grazing systems and pastoralism have undergone a series of changes that have far reaching consequences for human livelihoods and environmental sustainability. However, although these changes have been rapid and widespread, governments across the world have been slow to recognise and respond to these pressures. Recently, a number of advocacy and capacity building programmes have been initiated by organisations focusing on environment and development. These aim to develop viable, sustainable management options for livestock herding communities through a variety of mechanisms. In this article we showcase the work of four ongoing international initiatives that work towards improving pastoralist livelihoods.

LIVESTOCK, ENVIRONMENT AND DEVELOPMENT (LEAD) INITIATIVE

In a majority of developing countries across the world, pastoral livestock as a traditional economic sector has remained an important contributor to national economies, and provide food security in many rural areas. However, the livestock sector, like all other production sectors has been subjected to constantly changing market pressures and has seen upheavals in the recent past. Economic liberalisation has led to changes in the quantitative characteristics of livestock production, and changes in demand and supply has led to an unequal redistribution of resource access. These changes have seldom been accompanied by the necessary policy and regulatory framework to ensure that the interests of pastoralist groups are accounted for. Such a scenario has led to further marginalisation of these communities, environmental damage and land degradation.

The potential of the traditional modes of livestock production to contribute to poverty alleviation and food security is high. As pastoralists utilise resources on ecologically fragile and otherwise unproductive land, sustainable practices can increase the viability of these resources. The economic benefits of their livelihoods must also be more easily accessible to these communities. This can be achieved through improved marketing of livestock and associated products, improved access to processing and marketing of non-timber forest products, and indirectly through benefits obtained from responsible tourism.

Livestock production, especially where traditional systems have undergone change, has a range of environmental impacts, including deterioration of the natural resource base, water scarcity and pollution, global warming, and diminishing biodiversity. This compels a closer look at pastoral systems of livestock production and resource management. Depletion and degradation of natural resources exacerbates insecurity of livelihoods and control of resources that are part of common property regimes. A dynamic economic valuation framework to assess the contribution of the sector in economic terms has also remained largely absent.

The Livestock, Environment and Development (LEAD) Initiative was formed to address the environmental consequences of livestock production, particularly in the light of rising demand for food products of animal origin and the increasing pressure on natural resources. LEAD is a multi-stakeholder initiative, coordinated by the FAO's Animal Production and Health Division.

This initiative works towards the protection and enhancement of natural resources affected by livestock production while at the same time addressing poverty alleviation. It provides the necessary decision support tools to promote the adoption of policies that encourage the use of sustainable production systems. It also promotes research on livestock environment interactions and creates awareness on the complex interactions of human needs, animal production and the sustainability of global natural resources.

LEAD carries out research and analysis to determine the consequences of the livestock sector's growth on the environment and structural changes that impact human-livestock relations. It maintains a database of this information which it makes available through synthesised reports and reviews, and identifies and promotes technologies that help mitigate the negative impacts while positively influencing the output and returns to livestock farmers. LEAD coordinates through regional networks and facilitates collaboration amongst partners, and through its 'Research Network' disseminates information on research and development related to livestock-environment interactions. This network has also served as a platform for scientific debate and for the identification of sustainable practices of livestock rearing. Partners of the network also have access to decision support tools for research, extension and policy formulation that are developed by LEAD. It has also promoted, on a larger scale, the networking of civil society groups, government agencies, research institutes and other organisations. The purpose of supporting such networks is to enable the bringing together of other stakeholders for dialogue, to exchange ideas and

to identify issues that need to be addressed. In India, such a network was coordinated between 6 states and brought together stakeholders at the state and national level. One of the outcomes of this interaction was the development of strategies to mitigate negative impacts of the livestock on the environment while advocating systematic integration of livestock in watershed development programmes.

LEAD also provides sustainable livestock management tools. An example of this has been the pastoral drought management tool, which was intended to provide a cost-efficient and sustainable approach to drought management, natural resource management and pastoral production in arid and semi-arid areas of Sub-Saharan Africa.

Pastoral livestock herding constitutes an important part of the livestock sector. Livestock production also plays an important role in the management of drylands, characterised by low productivity and unstable environments. As pastoral

systems have historically been adapted to these conditions, the viability of these practices must be assessed as it forms one of the main interactions between the poor and the environment in their dependence on common property rangeland resources. These systems are rapidly undergoing changes, in response to changing management strategies and government policies that undermine the sustainability of the practice, and have a poor understanding of the dynamics of such systems. Management strategies adopted by pastoralists in changing regimes of access will depend upon the stability and security in accessing these resources. Initiatives such as LEAD therefore do prove essential in establishing the viability of pastoral management systems, and in encouraging increased investment in practices and infrastructure to enhance pasture productivity while retaining sensitivity to the social – cultural fabric of these communities in achieving the goals of sustainable development.

For more information visit <http://www.fao.org/agriculture/lead>.

WORLD INITIATIVE FOR SUSTAINABLE PASTORALISM (WISP)

Many commonalities exist in the issues that pastoral communities around the world face. Their livelihoods have come under pressure due to a variety of circumstances that include population growth and consequent pressures on natural resources, environmental degradation and unsound development and trade policies. Governments have consistently failed to engage pastoralists in the decision-making processes that affect them. Communal property (in traditional pastoral societies) which is owned and managed by a community is subject to uncertain and insecure land tenures. And under the popular development agendas of many developing countries, restrictions on mobility favouring settled farming, and denial of access to resources has put their mode of securing a livelihood in jeopardy. Such policies often stem from the misconception that pastoralism is an outmoded practice and is economically unviable. (These trends however appear to be changing, with several governments across Africa and Asia recognising and regulating tenure rights and access over pastoral resources.) In addition, changing climatic patterns as a result of climate change and desertification have rendered rangelands more vulnerable, further destabilising the pastoralist way of life.

More often than not, pastoralists belong to socially and economically marginalised communities, and inhabit remote areas. This physical and social exclusion has not been conducive to allowing pastoralists to effectively come together and better organise themselves in order to collectively influence decisions that impact them and the resources they depend on.

The World Initiative for Sustainable Pastoralism (WISP) is a network facilitated by the International Union for the Conservation of Nature (IUCN) with the goal of *enhancing the creation of an environment for sustainable range management, improved pastoral livelihoods and pastoral empowerment*. This objective necessitates a global platform where issues common to pastoralists across the globe can be

addressed. WISP facilitates organising these communities by promoting interactions between pastoralists, and between pastoralists and government and non-government agencies, intergovernmental bodies and the private sector.

WISP operates on the premise that mobile pastoralism is a form of productive and sustainable land management, and continued utilisation of the world's drylands depends on viable pastoral systems. It advocates on behalf of pastoral communities across the world by providing the social, economic and environmental arguments to promote pastoralism as a viable and sustainable resource management system.

WISP functions through a central Project Management Unit (based at IUCN ESARO), a Pastoral Advisory Group (PAG) and a Partners Coordinating Committee to coordinate between various partners working on specific management themes. It has also set up an electronic network (WISPnet) which currently consists of over 1,200 members. The PAG is routinely consulted over major decisions of WISP to ensure inclusion of all interests and is a key mechanism for guiding thematic planning by WISP in setting its agenda.

WISP brings pastoralist representatives together at global and regional pastoral gatherings. To sustain engagement with pastoralist communities, their inputs are regularly sought through various agencies that work with these communities at national and regional levels.

In addition to facilitating global meetings and regional gatherings, WISP works towards providing information for pastoralists, concerned organisations and governments. WISP also makes available advocacy and resource management tools that not only help empower pastoralist communities, but also inform appropriate decision-making processes. It develops these tools and resources by drawing from a wide

base of case studies, research and repositories of traditional knowledge and management systems from across the world.

WISP provides appropriate advocacy tools to help pastoral communities influence key policy decisions, have greater access to instruments of the law to assert their claims, and demand better implementation of laws favouring sustainable pastoral resource management where such laws exist. It achieves this through strengthening advocacy for pastoral rights and development both directly, through advocacy action at global and regional levels, and indirectly, through building capacities of pastoral communities and promoting pastoral organisation. It also promotes the formation of coalitions and networks that enable pastoral communities and organisations to act collectively.

To promote economic security of these communities in an environment of unfavourable trade policies and insecurity over rights and access to resources, WISP provides inputs and impetus to governments to address market influences on livestock production and include these influences on the

sector while deciding economic policies.

These tools are designed to help these communities in influencing policies that determine their livelihoods and access to resources supporting their livelihoods, having increased access to development benefits and being better informed in managing their resources in combination with traditional management practices that are in use.

A global platform such as the one that WISP facilitates is crucial in helping throw light on common issues that pastoral communities around the world are subject to, and in enabling them to draw from good practices and lessons learned by the sharing of experiences. It is important to acknowledge however, that in many cases, impacts on the livelihoods of pastoral communities can often result from changes in the immediate environment, and can have location specific attributes, including social and political environments that are drivers of such changes.

For more information visit <http://www.iucn.org/wisp>.

INTERNATIONAL LAND COALITION (ILC)

International debate platforms have recently begun to see increasing attention being paid to issues of land and land rights, and these issues are finding their way into global agreements. Rangelands used by pastoral communities around the world fall under a wide range of property and access rights. Of particular relevance to the management of such land as common property is the generally recognised communal land tenure, where the land and access to resources on the land 'belongs' to a local community, as does the primary responsibility of managing the resources. Access rights can overlap with property rights, and such an overlap often results in a complex set of rules and regulations over the control and use of the resources. Such complexities can give rise to disparities, which often lead to conflicts among stakeholders who have claims over the pasture land, or need access to resources on pasture land to sustain their livelihoods.

The world over, tenure insecurity is identified as a root cause of poverty and food and livelihood insecurity amongst the world's indigenous peoples, of which pastoralists form a significant proportion. An estimated 350 million indigenous peoples represent approximately 5% of the global population and 15% of the world's poor. When legal recognition over a community or individual's right over land or resource is absent, or its ambiguity makes those communities susceptible to exploitation, the mobile livelihoods of pastoralists make them particularly vulnerable to losing these rights to competing interests. In many cases, these competing interests include the state's takeover of the land for promoting industry, agriculture or mineral exploration or the conservation lobby's assertion to protect these fragile lands and restrict access to resources.

The International Land Coalition (ILC) is a global alliance

of civil society and intergovernmental organisations that works towards promoting secure and equitable access to and control over land for the poor through advocacy, dialogue, knowledge sharing and capacity building. The ILC recognises that tenure security is the necessary basis for sustainable management of rangeland resources. Pastoral communities are often socially and economically marginalised in many of the developing countries, and livestock rearing and the use of fragile rangeland resources forms the basis of sustaining the livelihoods of millions of people. Insecurity over their rights therefore can lead to further isolation and increase insecurity of sustaining their current practices of managing resources and securing a livelihood. Secure and equitable access to land and its resources therefore contributes to identity, dignity and inclusion of these communities in society.

The Conference on Hunger and Poverty held in November 1995 set the foundation for the creation of an alliance of civil society and intergovernmental agencies called the 'Popular Coalition to Eradicate Hunger and Poverty'. The objectives of the alliance were based on the universal recognition of the importance of equity in access to land for rural development. The mandate advocated for increased access of the rural poor to land, water and common property, among other productive assets, and their participation in decision-making processes at the local, national, regional and international level. In 2003, with a primary focus on ensuring secure access to land to the world's rural poor, the organisation was transformed into the ILC. The ILC is credited with having brought back to global debates and development agendas, the issues of land, land rights and security of access to land resources.

The ILC works with both indigenous peoples' groups and pastoralists to share and build knowledge on land rights. The ILC hosts and facilitates gatherings where representatives of

pastoral communities and associated civil society groups and other agencies can engage in knowledge sharing discussions to identify emerging issues and threats. It operates as a member-based organisation, and a Secretariat coordinates between its members and facilitates and supports collective action. Members of the Coalition include civil society groups, non-governmental organisations and intergovernmental organisations from around the world. Progress of the ILC's initiatives are assessed and reviewed at the biannual conventions of the Assembly of its members. At this convention, the strategy for the coming years until the Assembly meets again is laid out.

The ILC works closely with pastoralist organisations and indigenous peoples to build capacity within these groups to strengthen their abilities to engage and negotiate with government and local authorities. It helps initiate and sustain dialogue between governments, local authorities and minority groups.

In many countries, the issue of improving secure access by the poor to land touches on fundamental inequalities in rural communities, if not in the country at-large. As difficult as it may be to achieve, there is a growing body of knowledge, international opinion and global agreements that secure access to land by the rural poor is fundamental to reducing rural poverty, stimulating rural economic growth and protecting the natural resource base on which current and future generations depend.

In the past few decades, the loss in access to land for pastoralists has been greater than for almost any other resource users, seriously compromising their livelihood options.

– Bruce H. Moore, Director, ILC

In addition to engaging at the regional and local level, the ILC works in coordination with other networks of pastoralist organisations, and collaborates with international networks such as the WISP (also featured in this section). Coordination with a wider network of such individuals and organisations

is necessitated by the fact that pastoralist rights over land tenure can be effectively addressed, secured and asserted through enabling pastoralist organisation. The ILC together with other partners assists in the use of advocacy tools by these communities for sustainable rangeland management for securing pastoralist resource rights and the legal processes through which pastoralists make or defend their claim over resources. This is done by the facilitation of meetings and workshops for exchange, and the compiling of resources that highlight good practices. Such meetings and workshops are also ideal venues to highlight examples of successful formalisation or assertion of rights.

ILC aims to strengthen the capacity of local institutions, civil society organisations, and non-governmental organisations to promote tenure security for those whose livelihoods are based on the use of common property. Supporting collective action and community organisation can increase the ability of community groups to successfully negotiate secure access and tenure to the commons. Additionally, ILC seeks to increase the visibility and capacity of local, rural institutions who advocate on behalf of securing the commons.

Securing rights over land or land resources is also subject to external conditions that arise within a particular context on a geographical, socio-economic or political scale. In recognition of this, the ILC has increasingly supported 'regionalisation' by setting specific regional goals. This makes addressing the specific goals within a local, regional or national context more relevant and also enhances ownership of groups that are beneficiaries or participants in achieving those goals.

A necessary tool for empowering pastoralist communities and organisations working with these communities is adequate, appropriate and timely information that can help leverage their influence in the decision-making process and asserting rights, and make informed decisions in managing resources. Towards this end, the ILC regularly provides syntheses of case studies from around the world and makes available information by which these groups can access instruments of the law to enhance advocacy tools.

More recently, an important focus of the ILC has included the issue of climate change and desertification. It is not only these changes that are an impending threat to the relationships that pastoralists have with the rangelands they have used, but also the changes in land and resource use policy as a response to the phenomena. Pastoralist lands typically being ecologically fragile have rendered these communities the 'canary in the landmine' to impacts of climate change.

It is important that the linkages between land governance, land tenure and access rights, land degradation and rural poverty are acknowledged and addressed. Security over access or land rights is but one part of empowering pastoralists towards securing their futures. The conversion of land to other uses resulting in the dispossession of land by pastoralists exacerbates the cycle of resource conflict, environmental degradation and increasing poverty.

For more information visit <http://www.landcoalition.org>.

THE RAIN-FED LIVESTOCK NETWORK (RLN)

COLLABORATING TO SAFEGUARD THE WAY OF THE INDIAN LIVESTOCK HERDER

Livestock provides sustenance to millions of pastoralists and farmers (whether landless, marginal or small) in India who own more than 70% of the livestock in India's rain fed regions, raised under extensive grazing and mixed crop-livestock systems. Livestock contributes significantly to rural food and nutritional security, particularly in case of women and children, and constitutes up to 40% of agricultural GDP in semi-arid areas and 70% in arid areas. In years of drought, it can account for 80% of household income in these regions.

Farmer and pastoralist communities have developed and managed diverse local breeds that have adapted and developed their resilience in relation to environmental challenges, including disease and parasites, food availability and climatic conditions. This has resulted in a high diversity in animal genetic resources, and a high degree of adaptability and resilience among these rural communities, and their agricultural systems.

An uncertain future

Livestock-dependent communities' livelihoods are threatened with a variety of policy and programmatic adversities. The introduction of exotic breeds through government policies poses a significant threat to the resilient indigenous breeds. The neglect of non-dairy livestock and its contribution to the rural economy is indicative of an unsubstantiated bias towards other strains of livestock. High input – high output production systems affect fragile ecosystems in livestock habitats, and many of the country's common lands (nearly 21 % of India's landmass), which are critical for resource-poor livestock keepers, are gradually being diverted, depriving livestock of a food base. Few initiatives existed to address these issues.

The Rain-fed Livestock Network

In 2008, key non-government organisations (NGOs) working on animal husbandry in the Indian drylands came together to form a multi-stakeholder consortium to address the concerns of livestock holders and herders, through a unified representation.

They sought to use this common platform to enhance their learning, and to present a coherent perspective to decision-makers in government, donors, and the public, on livestock-based livelihoods, threats facing the concerned communities, and the opportunities this system of production created as a risk mitigation strategy, in complementing rain-fed agriculture and enhancing the rural economy equitably. The Rain-fed Livestock Network (RLN) took shape, where there existed a void.

The RLN is anchored by the Foundation for Ecological Security, and operates through an active core group of NGOs who are specialists in the area of livestock and natural resource management. The core group members are: Foundation for Ecological Security (FES), Lokhit Pashu Palak Sansthan (LPPS), Rajasthan, Sahajeevan, Bhuj, Kutch, Seva Mandir, Rajasthan, Watershed Organisation Trust (WOTR),

Maharashtra, and Watershed Support Services and Activities Network (WASSAN), Andhra Pradesh.

The network's objective is to strengthen the knowledge, information and analytical base on livestock rearing, with specific reference to arid and semi-arid regions, required to encourage and support favourable policies, planning and increase public investment for livestock development in these regions.

RLN works on priority areas related to livestock issues, identified through, and adopting, a holistic approach. RLN works by building multi-stakeholder and sectoral partnerships that increase the spiral of learning and influence. RLN collaborates with NGO networks focusing on specific themes, such as the Deccani Sheep Network, Karnataka, The LIFE Network; the South Asia Pro-Poor Livestock Policy Programme (a joint initiative of NDDDB and FAO), and Intercooperation India. Other partners include the livestock research institutions of the Indian Council of Agricultural Research, state agriculture and veterinary universities, corporate sector representatives and government departments working in the livestock sector. The advantages from these collaborations and partnerships is seen in the sharing of good practices and strategies, the provision of technical support and the design of pilot interventions.

The road ahead

India's 11th Five Year Plan recognised the need to develop government policies and programmes that favour of livestock rearing in arid and semi-arid regions. Encouraged by this, the RLN has embarked on articulating a programme of public investment for the livestock sector and advocating its implementation through the upcoming 12th Five Year Plan.

Recognising the role of extensively managed livestock systems in socio-ecological resilience, especially in arid and semi-arid areas, the network's priority initiatives will be geared to promoting and strengthening the same.

While scale is an important factor in the network's objectives, an 'action-learning cycle' is equally critical to the conceptualisation and development of the network's actions. The network's partnerships strive to highlight and address location-specific diversity, while simultaneously carrying out activities at a relatively 'large scale' and for an appropriate duration. The RLN looks ahead to a future where its earlier momentum is sustained through this approach.

To avoid a homogenising 'panacea trap' that is sometimes the fall-out of such endeavours, the RLN strives to highlight the significance of the diversity of location-specific, regional perspectives to inform strategies at all scales.

*For more information visit www.rainfedlivestock.net.in
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Workshop on Common Property Resource Institutions and Pastoral Production Systems

The need for convergence between agriculture and livestock development

India, September 2010

The Foundation for Ecological Security (FES) in collaboration with Anthra and the Centre for Social Ecology (CenSE) organised a workshop on the theme 'Common Property Resource Institutions, Pastoral Production Systems and the Green Revolution in Transition: From Conflict to Convergence' at Pune on September 3 and 4, 2010. The workshop was convened as part of the preparations for the 13th Biennial Conference of the International Association for the Study on Commons (IASC) which will be hosted by FES in Hyderabad in January 2011. The objective of this workshop was to provide a forum to explore options for strengthening common property institutions and pastoralism as an alternative production system for sustainable resource use.

Participants at the two-day workshop included practitioners, representatives of educational and research institutes, and members of shepherd communities from Maharashtra, Karnataka and Andhra Pradesh. A few key participants included Nitya Ghotge, Anthra; Purnendu Kavoori, CenSE; Ajay Dandekar, Institute of Rural Management in Anand; Madhav Gadgil, renowned environmentalist; Kamal Kishore, Rain-fed Livestock Network; Viren Lobo, Society for Promotion of Wastelands Development; S.H. Tekade and R.M. Kulkarni, Maharashtra State Sheep and Goat Corporation; and P. Vivekanandan, Sustainable Agriculture and Environmental Voluntary Action.

Some of the key speakers spoke about pastoralists and pastoralism, comparing both historical and contemporary perspectives. Within the context of common property they raised the need to look at pastoral communities, their production systems and the specific niche they create for themselves in response to change. The workshop further highlighted the need to study the 'new commons' such as dams, land belonging to factories, etc.

There were discussions on case studies presented from the southern states where communities have staked their claim to the right to graze on common lands. Some positive examples of synergy between settled farmers and pastoralists were discussed, a case in point being the demand for sheep and goat manure by organic chiku farmers in the Dahanu region of Maharashtra which have benefited sheep rearers of Ahmednagar district.

The presentation made by the Maharashtra State Sheep and Goat Corporation, Pune showcased their work, undertaken in collaboration with sheep and goat rearers, and included conservation of sheep breeds such as the Madgyal as also wool improvement.

Workshop deliberations highlighted the fact that there has been a reduction in budget allocation for the animal husbandry and dairying sectors over the last nine five year plans.

Other issues raised included the acute shortage of fodder and water that adversely affected livestock productivity. While watershed development is a major intervention for rainfed regions of the country, the focus has largely been on agriculture development, and there is need for convergence between livestock and agriculture development especially in rainfed areas. A few issues raised by participants for policy dialogue included the need to do away with the term 'wastelands' as land termed 'waste' was actually part of the commons and very useful for many marginal communities. Many of these lands are the first to be allotted for purposes other than grazing, without analysis of the livelihood basis and use of these lands, often by the poorest communities.

Discussions also focused on implications of the Forest Rights Act (2006) on pastoral communities. The Act requires documented evidence of land use over a 75 year period to assess claims and rights over land. This is often impossible for pastoralists to submit as they do not have the papers to prove the same. Land acquisition acts are often in favour of the government and sometimes industry, and it is extremely difficult for communities to access or acquire lands for purposes such as grazing or fodder development. In addition, under the Green India Mission, tree planting has been given priority for carbon credit generation; this could lead to further destruction of grasslands.

A session on gender and pastoralism was coordinated by Soma Parthasarathy. The need to look at gender issues in the pastoral context as also deeper study on the subject was stressed.

The workshop was the first in a series of three workshops being organised prior to the 13th Biennial Conference of the International Association for the Study on Commons. These regional workshops, covering southern, western and mountain regions of India, will identify priorities for policy dialogue and will centre-stage issues related to the sustainable development and management of common pool resources.

The workshop report is also available at: <http://sapplpp.org/news1/workshop-highlights-the-need-for-convergence-between-agriculture-and-livestock-development>.

Contributed by the Conference Coordination team (with inputs from S.E. Pawar, Nitya Ghotge, Purnendu Kavoori and Rahul Chaturvedi).

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Online resources:

- <http://www.iasc-commons.org/text-resources/grazing-and-pastoral-commons>
- <http://www.iucn.org/wisp/>
- <http://www.landcoalition.org/>
- <http://www.fao.org/agriculture/lead/en/>

Erratum: In *Common Voices* Issue 1, on page 13, the expansion of NABARD was erroneously stated as 'National Bank for Agricultural Reconstruction and Development'; this should have been 'National Bank for Agriculture and Rural Development'. The editors apologise for overlooking this error.



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13th IASC International Conference
10 - 14 January 2011, Hyderabad, INDIA



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Sustaining Commons: Sustaining Our Future

IASC Update

Dear Friends,

We are very pleased to update you on the progress of the 13th Biennial Conference of the International Association for Study of the Commons (IASC), which will be held in Hyderabad, between January 10 and 14, 2011.

The Conference is emerging as a knowledge exchange platform, drawing the interest and participation of practitioners, academicians and policy makers alike, who are coming together to share and learn from their experiences in collective action and local self governance. We have received more than a 1000 abstracts from participants belonging to 85 countries. All abstracts were blind reviewed by at least two reviewers, with more than 70 international and Indian reviewers assisting the process. The papers promise disciplinary diversity, with those on ecology, economics, social sciences, legal aspects, and a host of practitioner presentations.

The Opening Ceremony will be held on January 10, 2011, where Prof. Elinor Ostrom will deliver the keynote address. Prof. Elinor Ostrom was awarded the 2009 Nobel Memorial Prize in Economic Sciences, and she is the Arthur F. Bentley Professor of Political Science and Co-Director of the Workshop in Political Theory and Policy Analysis at Indiana University in Bloomington.

There are 14 very interesting pre-conference workshops to choose from, along with 15 different choices for one- and multi- day field visits that are being organised in close coordination with partners—Non Governmental Organisations and departments of the Government of Andhra Pradesh.

IASC 2011 also includes an exhibition spanning all five conference days, offering exhibition spaces and the unique opportunity for exhibitors to build networks that would further their objectives, and to draw the attention of a global audience to the causes they represent.

It is also the first time that video presentations have been invited as part of the conference programme; the move has been welcomed by filmmakers and organisations alike, who are bringing in their films from across the world to loop into the range of discussions that the conference provides grounds for.

With talks, presentations, discussions and book launches, interspersed with several workshops, field visits and social events, IASC 2011 offers a packed, and very interesting programme over all five days—January 10–14, 2011.

Further information about the conference and details of registration, events, and accommodation are available on the conference website: <http://iasc2011.fes.org.in>.

Registrations for the conference are now open. IASC and Foundation for Ecological Security (FES) very much look forward to having you at IASC 2011.

Contact us

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