

Fading Lifestyle, Shrinking Commons

A PHOTO FEATURE
by G B MUKHERJI



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G B MUKHERJI

SUPPORTED BY



FOUNDATION FOR ECOLOGICAL SECURITY



**...and then I came across a talk
on TED by Allan Savory...**

"Now we know that desertification is caused by livestock, mostly cattle, sheep and goats, overgrazing the plants, leaving the soil bare and giving off methane. Almost everybody knows this, from Nobel laureates to golf caddies, or was taught it, as I was. Now, the environments like you see here, dusty environments in Africa where I grew up, and I loved wildlife, and so I grew up hating livestock because of the damage they were doing. And then my university education as an ecologist reinforced my beliefs.

Well, I have news for you. We were once just as certain that the world was flat. We were wrong then, and we are wrong again. And I want to invite you now to come along on my journey of re-education and discovery."

I dedicate this book to such 'mavericks' who have the courage to think fresh, untied to legacy learning and teaching, and back up their observations through decades of research and field experiments.

May your flock increase.











Fading Lifestyle, Shrinking Commons

Hartingaram is leaving. Very soon he will veer away from the path his ancestors were accustomed to take. Though this photo feature is a story of resilience, he is a failure – the barriers imposed on his lifestyle have been back-breaking. From owning and tending more than 250 heads of sheep and goats, his flock has been reduced to a mere fifty. The immediate causes being rampant, uncontrolled thefts in Madhya Pradesh and a law-and-order machinery that still considers transhumance – the seasonal movement of herdsman and livestock between summer and winter pastures – a destructive practice. More severe is the injury to his self-esteem: in the eyes of his community which he had hoped to lead to prosperity, in the eyes of his wife, and mainly, in the eyes of his children who like all children feel their father is 'the best'.

Being just 31, he views a couple of alternate livelihood options, though with trepidation. His family elders, however, are afraid of any change and are likely to push on till their position becomes totally unbearable, till their backs are crushed by unsympathetic State policies that see no value in pastoralism or their relevance to ecosystems. Is that time coming when nomadic herders will be considered just the left-behind debris of a vanishing culture...?

Best father.



First Frame:

The Centuries Old Eco-Contribution of the Nomadic Herders

This photo feature is not parading as a research paper on the nomadic herders of India or Rajasthan. There are already so many serious studies on them. It is, as the title indicates, an attempt to visually impress readers – especially policy makers – that a lifestyle that has survived centuries and undeniably fitting into the ecosystem, should not be allowed to vanish during their stewardship of the State. ‘Nomadic herding’ encompasses much more than its literal meaning: it is actually a practice that makes the best use of natural resources in the context of sustainability, availability, and environmental limitations, while producing wealth for the herder families as well as for the nation.

The number of people following this traditional lifestyle has been reduced to less than two per cent of the entire clan, leaving some 25,000 families. Their total disappearance would be a tremendous loss to the nation since their lifestyle cannot be substituted by another – including a settled one or one that does not have flexibility of movement-based climate adaptability, and is independent of market-dependent production inputs.

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This photo feature is also not a comprehensive depiction of the lifestyle and demography of all nomadic herder communities of Rajasthan. Again, there are many research papers that have dwelt on individual groups or aspects, including their relationship with settled villagers, the hardships they face in traversing forest areas, their social structure and decision-making processes. Instead, this document seeks to see the world through the eyes of two groups of about 20 families each, under the leadership of young Hartingaram and the not-so-young Jamaji, offering the reader a view of their typical lifestyle. Because Hartingaram is in his early thirties, he sees the future differently from elders in his *dera* or camp or ‘tents in alliance’ as described by Berland, like Nyamaji or Lakaji or even his mother Phulribai. Hartingaram and Nyamaji’s views on resource sustainability, use of common lands, and adaptation to climate change, even though not directly attributable to their awareness of these issues, are what this feature seeks to portray.

The author, in the course of interaction with these two and a few other groups, has observed recurring lifestyle changes which owe more to restrictions imposed by governments/villages and less to resource depletion or adverse climatic conditions. Indeed, discovering adaptations related to climate change became quite a challenge for us.

In the process of recording the lifestyle of Hartingaram’s and Nyamaji’s groups, the author found that the nomadic herdsmen of Rajasthan have no umbrella organisation influential enough to champion and articulate their cause or smoothen out difficulties with settled agriculturists and certain departments of the government. One is therefore persuaded to agree with the comment that: *“The future of pastoralism will depend heavily on political decisions made by national governments managing significant grassland zones...”*

And, if one may add, it will also depend on the tolerance the authorities show when occurrences like availability of crop residues attract herders into their jurisdiction. This attitudinal difference is quite apparent between the two adjacent States of Rajasthan and Madhya Pradesh, with officials of the latter State being comparatively more hostile to nomadic practice. It seems to be also true that, *“Although mobile pastoralism is the most viable form of production and land use in most of the world’s fragile drylands, it is*



increasingly under threat from legal, economic, social and political disincentives and barriers to mobility of livestock. State of the art findings on the viability of pastoralism are not communicated effectively to decision makers and alternative policy options still need to be formulated.” (International Union for Conservation of Nature/United Nations Development Programme 2008).

What about the Commons they live on? Commons, as has been urged, are not just open spaces but *“gifts of nature, managed and shared by a community which the community is willing and able to defend.”* (Anita Cheria et al, 2011).

But, in reality, can the marginalised, nomadic communities defend the Commons? This photo feature urges that the value of the Commons and their direct connection to the nomadic lifestyle must be recognised by the State.

“The first step in legitimizing the existence, survival and dignity of such (marginalized) communities therefore, is to recognize and acknowledge commons as a legitimate space.” (Dipankar Dutta, 2011). Otherwise, those who would prefer to stand by and watch nomadicism disappear would continue to misappropriate. As Anita Cheria says, *“Those who want to destroy a community destroy their commons...”*

This author-cum-photographer therefore hopes that, with the support of Foundation for Ecological Security (FES), it will be possible to influence the minds of policy-makers in Rajasthan and perhaps Madhya Pradesh, to treat the nomadic pastoralists as a valuable, vulnerable ethnic group deserving and entitled to continue their centuries-old practice, having a right to all national and State-sponsored development and welfare benefits.

“It’s hard to get the picture without the right frame of mind...” (Graffiti).

...Hopefully this photo feature will project the right frame of mind for readers to appreciate the big picture and the entire perspective on these issues.

Nomadic herding, also hunting, from some 15,000 years ago, seen on rock paintings at Bhimbetka, Madhya Pradesh, India.

‘Nomadic herding’ is a practice that makes the best use of natural resources in the context of sustainability, availability, and environmental limitations.

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I. PORTRAIT:

Kin of the Wayward Wind

"I was born the next of kin, next of kin to the wayward wind..."

The Raikas (also known as Gaadars or Dewasi or Rabari) are Rajasthan's most populous semi-nomadic group having a population of about 10 million as per the 2001 census. Globally, according to a 2003 FAO report, such nomadic herders number between 100 and 200 million.

The Raikas are mostly concentrated in the border districts of Pali, Jodhpur, Jaisalmer, Jalore and Bikaner. A very small proportion of them (less than 1.5 per cent according to one estimate) are predominantly nomadic, travelling with and grazing their flock of sheep, goats and a few camels across States often for as many as 12 months in a year. Some among them avoid Madhya Pradesh (MP) and prefer to go through Uttar Pradesh, Gujarat and Haryana.

But is the day coming when the PVC-slip-oned feet of the Raika herders and the split hooves of their animals will cease to journey in the direction of the rising sun, across the breadth of Rajasthan into west MP and then, as if that expedition





If the day comes when the Raika herders and their animals cease to journey in the direction of the rising sun, we would have lost – perhaps never to regain – a two thousand years old tradition.

was not arduous enough, retrace their steps? If that happens, we would have lost – perhaps never to be regained or recreated – a tradition which seems to have, one could say, followed the path of the wind across these dry regions of India for as many as two thousand years. (Many studies suggesting it was even more.)

You cannot but admire the spirit of these people – to go where friends are rare, where the elements are generally harsh, where there is no time to spare for one's family. *"Where will you be tomorrow?"* I ask Hartingaram the young *dera* leader, sporting a bright red turban and a white cotton jacket, fastened with strings fashioned from stitched cloth. *"Over there, on the other side of the rail line,"* he replies pointing out with his weather-beaten right arm, a spot just about 400 metres away. To a city dweller like me, 'the other side of the line' seemed to be even bleaker than the spot they were presently camping on.

Raika families, with their entire households, on the move. They stride on bravely regardless of obstacles to come and overcome.

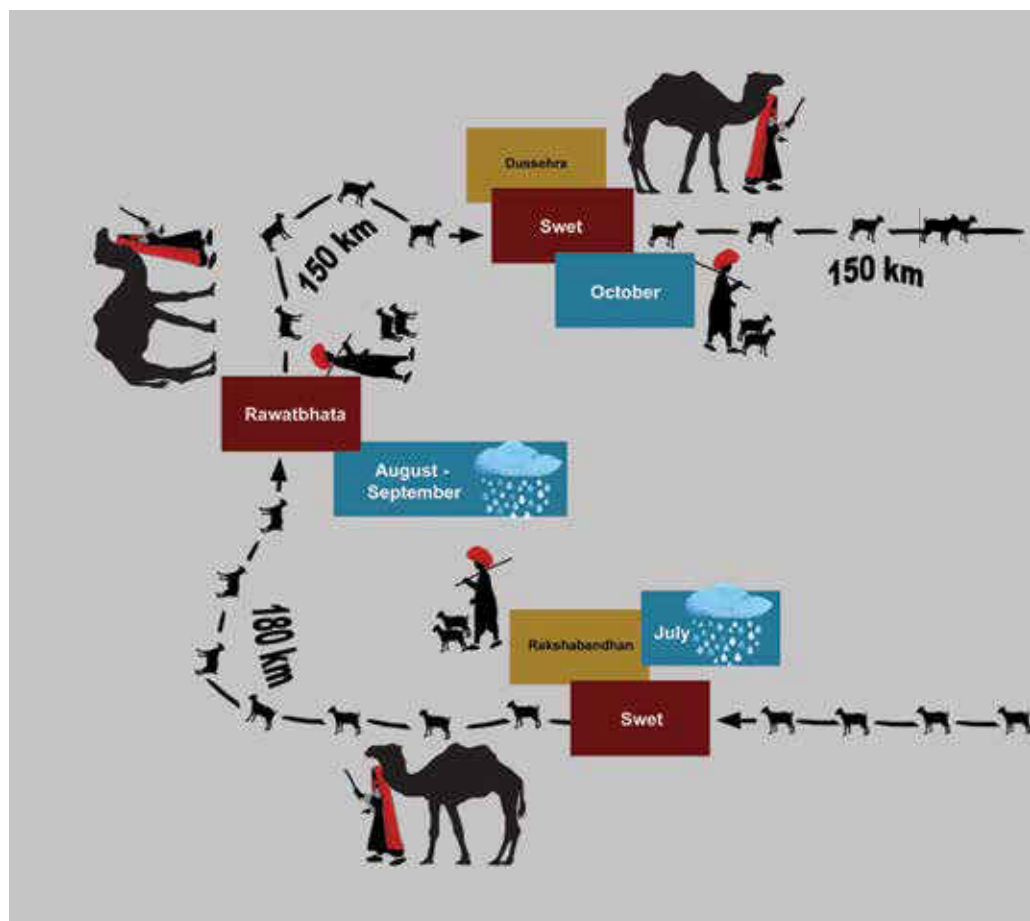
2. WIDE ANGLE: Life under the Open Sky

Nomadic herders are like threads linking peoples across landscapes and borders. The traders who buy wool and flesh from them, tea stalls that sometimes buy milk, shopkeepers who sell groceries, shops that charge their mobiles or sell *rakhis**, trinkets and artificial jewellery to the ladies, priests in temples along the route who offer solace and advice, bus drivers who offer lifts, chemists who are their doctors as well as veterinarians, farmers who invite them to settle on their land just ahead of ploughing... these are

Route taken by the Raika community in western part of India

Rajasthan

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(* For the Raksha Bandhan festival which celebrates bonds between brother and sister.)

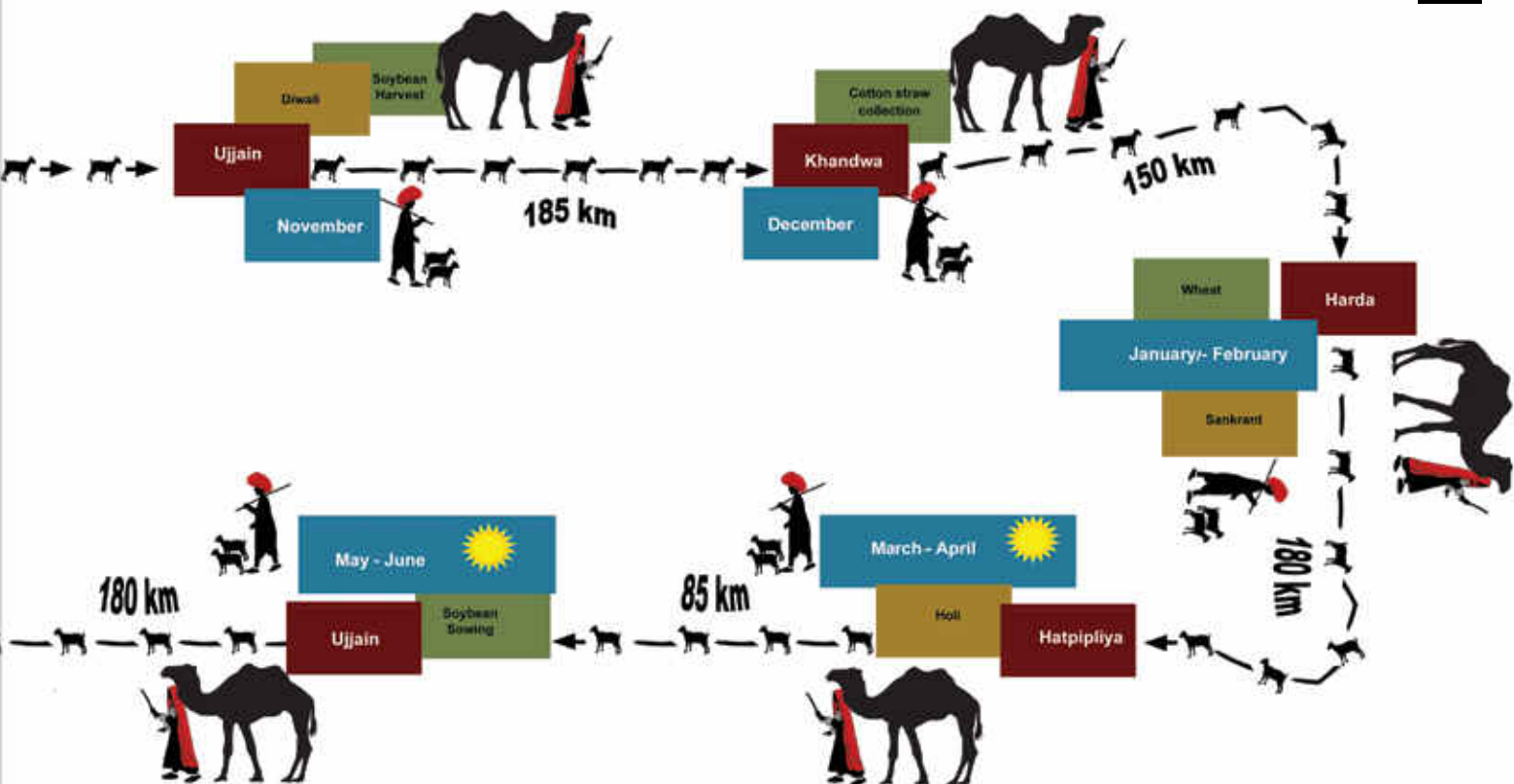
all relationship networks created by the herders. “*Mobile populations and nomads,*” as Aparna Rao and Casimir put it, “*ensure cultural fluidity by transgressing boundaries.*”

Though the Raikas are mostly on the move, they maintain ties with their ancestral villages or settlements through occasional visits and mobile phone calls to the elders left behind in more comfortable environs. Almost all have, many years ago, either abandoned their agricultural lands or entrusted their care to family members. Till now, they have not considered agriculture as a viable livelihood option – but while attitudes may be changing, the lands may no longer be regainable.

Many Rabaris have totally given up their traditional nomadic life and have settled in villages. Interestingly, according to the Rabari Samaj website, many from their clan have prospered in other vocations, some have migrated abroad, some have entered

Madhya Pradesh

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politics. Ideally, those in politics would be in the right position to spearhead a movement for recognition of this ancient occupation by the State. This has not yet happened. Rather, unfortunately, some of these personalities are actually advocating a shift from this life-on-the-move to a settled one and conventional employment. Later, we will highlight the disturbing consequences of such a switchover.

The Report of the National Commission for Denotified, Nomadic and Semi-Nomadic Tribes (DNTs), known as the Renke Commission Report 2008, also suggests a change but in a somewhat more supportive manner: *“Basic civic amenities be provided to the DNTs living in colonies and clusters... (but) times have changed and the communities have reached a dead end, where they cannot continue with their wandering lifestyle any more... top priority should be given to create new settlements where activities*

“With rethinking of rangeland ecology over the past decade, it has become clear that grazing and browsing are vital for ecosystem health and productivity.”

The World Initiative for Sustainable Pastoralism

Nomad trains entering Rajasthan from Madhya Pradesh.







Hartingaram's grandmother, at Chandrai village of Rajasthan.

like housing, education and creation of the source of income will be started simultaneously."

While their parents remain with the herds in the *dera*, the male children go to school, and the girl children generally remain in the camps helping their mothers – education is not for them! The young men work as labourers in construction sites or in fields, fill sacks or help truck drivers, or take on whatever job comes their way in and around their ancestral village. In Chandrai village, for example, home of Hartingaram's family and friends, we saw many children in uniform returning from school. Hartingaram's cousin Prakash, who escorted us around, assists a contractor for civil jobs. Such people would surely never go back to herding but I am certain there are many others who cannot resist the call of the open skies. In a manner of speaking, such migration to other vocations may be considered to an example of a failed adaptive strategy.

The travelling families live either in





Rabari makeshift roadside camp.

dhanis (temporary hamlets) outside regular villages but mainly in the *deras* or makeshift camps set up along the migratory routes. These nomads along with their company of animals are the ones making the most productive use of the Commons.

Based on literature that has delved into the origins of nomadic herding, it is said our early ancestors had the brilliant idea of confining in pens and enclosures the animals they hunted for food. Thousands of years later, as settlements grew and fields suitable for producing crops came to be limited and rationed, these domesticated animals could no longer be kept in large numbers within villages. Someone had to take them to the outskirts for grazing. Yet, agriculture and domesticated animal husbandry had to go hand in hand, essentially because animals were more reliable in time of climatic aberrations; when crops failed because of untimely rains or pests, the animals came to the rescue – providing food as also the opportunity to barter.

A time came when agriculturists engaged young boys to collect the village animals and take them for grazing further and further afield – till gradually they went so far they could not return the same day. From there, the practice of nomadic herding and camping evolved over centuries to the modern and matured version we see today. The royal families of Rajasthan allowed the herds to move through State property, including forests, as they were aware that wildlife and wildlife hunting would survive better if domesticated animals were allowed access to forest areas. Indeed, present

Animals are more reliable in time of climatic aberrations: when crops failed because of untimely rains or pests, the animals came to the rescue – providing food as also the opportunity to barter.



Wilderness camp at Rawatbhata, Rajasthan.

research findings substantiate this: *"In Kenya's Maasailand, the distribution of wild mammals was compared between parks, park border areas and outside parks. The greatest diversity and the highest concentrations of wildlife were found not inside the parks, but rather in the neighbourhood of grazing livestock. This surprising result shows that wildlife can gain from the presence of settlements and pastoralists. The existence of both land-use forms side by side is widely believed to be most beneficial for the maximisation of income and food security in rangeland areas."* (International Livestock Research Institute study quoted in *The World Initiative for Sustainable Pastoralism*, 2006).

In India, similar ways of life – like that of the Raikas – thrived. State authorities of those days understood that pastoralism and its unencumbered advance was better than confining herds to enclosures and arranging to feed them. Even without research inputs they knew that: *"This range of products and species contributes to making customary pastoral systems significantly more cost-effective and productive than the meat-focused ranching models that have been promoted in their place, with the potential to supply lower-cost products into markets. Even in terms of direct products alone, pastoralism has been shown to be from 2 to 10 times more productive than commercial ranching under the same conditions."* (The World Initiative for Sustainable Pastoralism, 2006).



Animal enclosure adjacent to village forest.

The colonial rulers' concept of 'scientific' forestry (that is, forests only for timber and revenue), 'scientific' management for vacant lands (that is, no grazing) and milk and meat production from individual households and animal farms impressed and influenced the minds of State officials. Anyone suggesting a continuance of pastoralism was considered to be in the Dark Ages. For the authorities, pastures had to be managed with input-output models for, in their minds, vegetation growth would decline where animals browsed. They overlooked the fact that most Commons fluctuate in terms of productivity according to changing weather conditions – with over-grazing being just one of the reasons for resource depletion.

The concept of fluctuation was beyond the vision of, and often antithetical to, the learning of conventional eco-system managers. With industrialisation, the emphasis changed further to production-oriented models: *"Branding non polluting communities as uncivilized and barbaric is one consequence of the industrial framework... All instruments of power are then used to ensure banishment from the commons."* (Anita Cheria et al, 2011).

That mindset is slowly changing – but unfortunately the death knell may ring for India's herders well before that happens. Interestingly, the western model itself is being repeatedly challenged with regard to management of the Commons and grasslands. There is now *"a perception that large scale nature conservation efforts have not been*

Authorities overlook the fact that Commons' productivity fluctuates mainly due to changing weather conditions – over-grazing being just one reason for depleting resources.



The western model of management of Commons and grasslands is being repeatedly challenged since large scale conservation efforts have failed.

successful." (Gueydon and Roder, 2003).

Further, "Through the LACOPE3 project, research teams from seven European countries are contrasting four pastoral systems ranging from Reindeer Husbandry in Norway to sheep grazing in Spain and Poland and cattle grazing in the Swiss Alps to understand how large scale grazing systems can lend itself to biodiversity improvements and habitat creation for target species..." (The World Initiative for Sustainable Pastoralism, 2006).

In course of their life and travels, the Raikas have learnt to adapt both to official pressures as well as variable climate and weather conditions. Perhaps their historical experience with the State has become imprinted in their genes – the nomadic herders do not want to settle and expose themselves to State authority. "Nomadism made them independent and unshackled, whilst sedentarization came hand in hand with surveillance." (Renke Commission Report 2008). Because of this ingrained distrust, occasional attempts by State authorities to interact with the nomads or induce them to settle down and avail State-sponsored educational schemes are generally not fruitful.

Their clan understands practical relationship issues with settled villagers (including their own extended families left in ancestral villages) but not complex issues like for instance politics, and even less the practice of agriculture, stall feeding and commerce. No wonder they do not seek to avail of welfare measures meant for all citizens.



Inclusive growth seems only for settled communities – move and you lose!

What the herders understand and love is movement. The soft shuffling sounds of the feet of their animals, the crescendo bleat of baby goats as their mothers return to the camp site after a day's walk, is reassuring to both herders and animals. Most herders welcome the daily change of scenery and sky, the scent of the earth and patter of rain falling on dry ground and on the back of their animals, even the heat of summer and the chilling winds of winter. To them these are signals that all is well with the world.

How do herders decide on their next camping spot? Normally, the group



Move and you lose.

leader and a trusted companion go to the roadside and wait for passing vehicles – sometimes a milk van or any other – and take a lift to potential sites roughly at the distance of an animal day's walk, a place with a reasonable amount of green and water. They also try to select a spot that does not come in the way of settled villagers yet not too far from low-branched trees that can provide food for their camels when tied up for the night.

Indirectly, this implies that their camps will never be very far away from the road, or from their standard, tested route. They may not be aware of what the places further away are like, but it is likely they will be discovered in the course of their grazing and then get filed away in their knowledge bank.

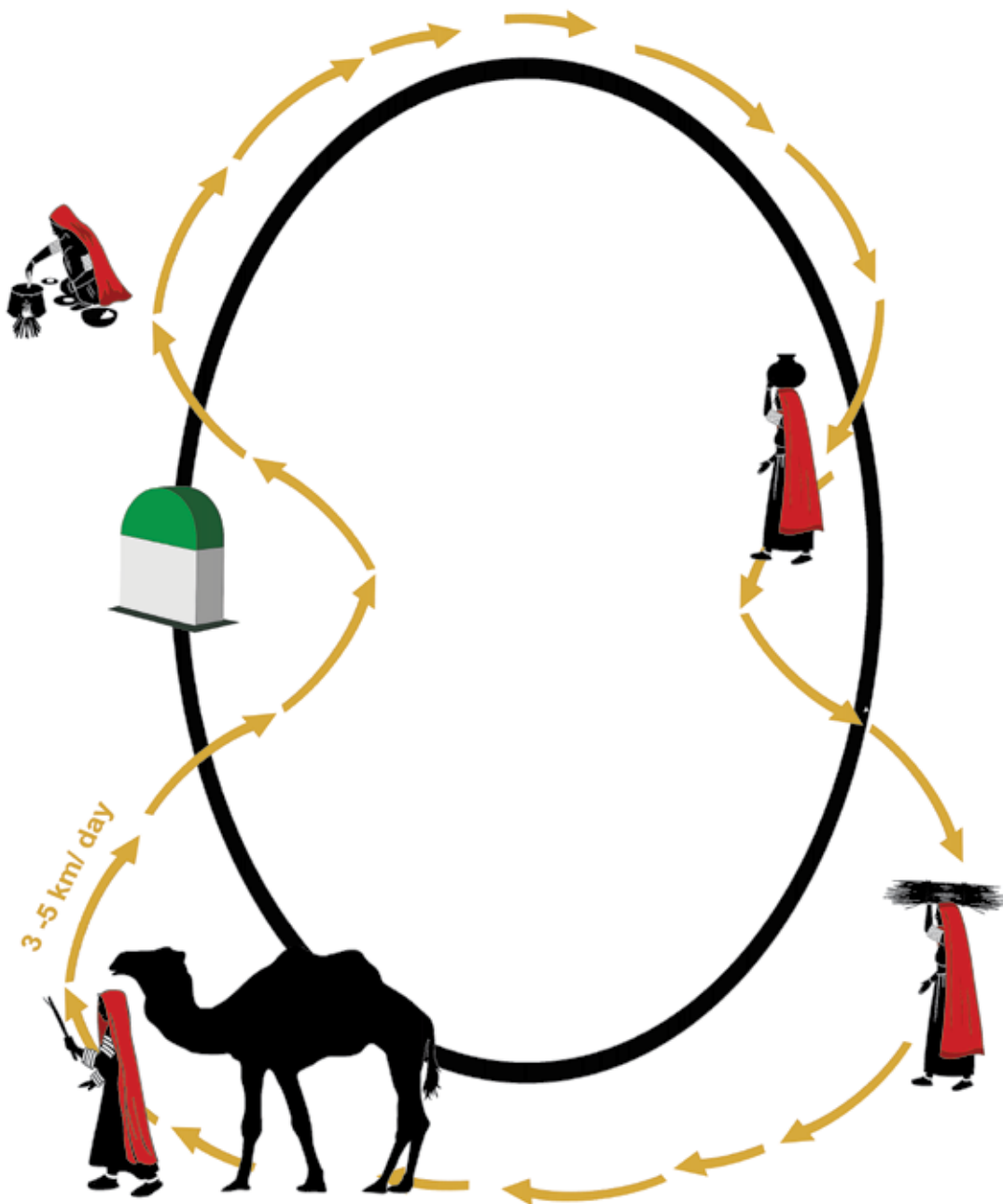
The Raikas, it bears repetition, are a peripatetic lot, their feet moving along landscapes with the fluidity of blood along veins. Their nomadic practice stems from the need to take their animals to places where grazing is available. Other reasons being their relationship with the settled agriculturists as well as the field-level officials of the forest department. We will touch upon this aspect later. They hate to stay in one place even for two days, except during mid-monsoon when they settle for two to three months near Pratap Sagar of Rajasthan close to the MP border, or in winter near the Dewas-Khatagaon region of MP, adjacent to the Narmada river.

I ask a researcher: Will such footloose 'outsider' groups ever be able to claim



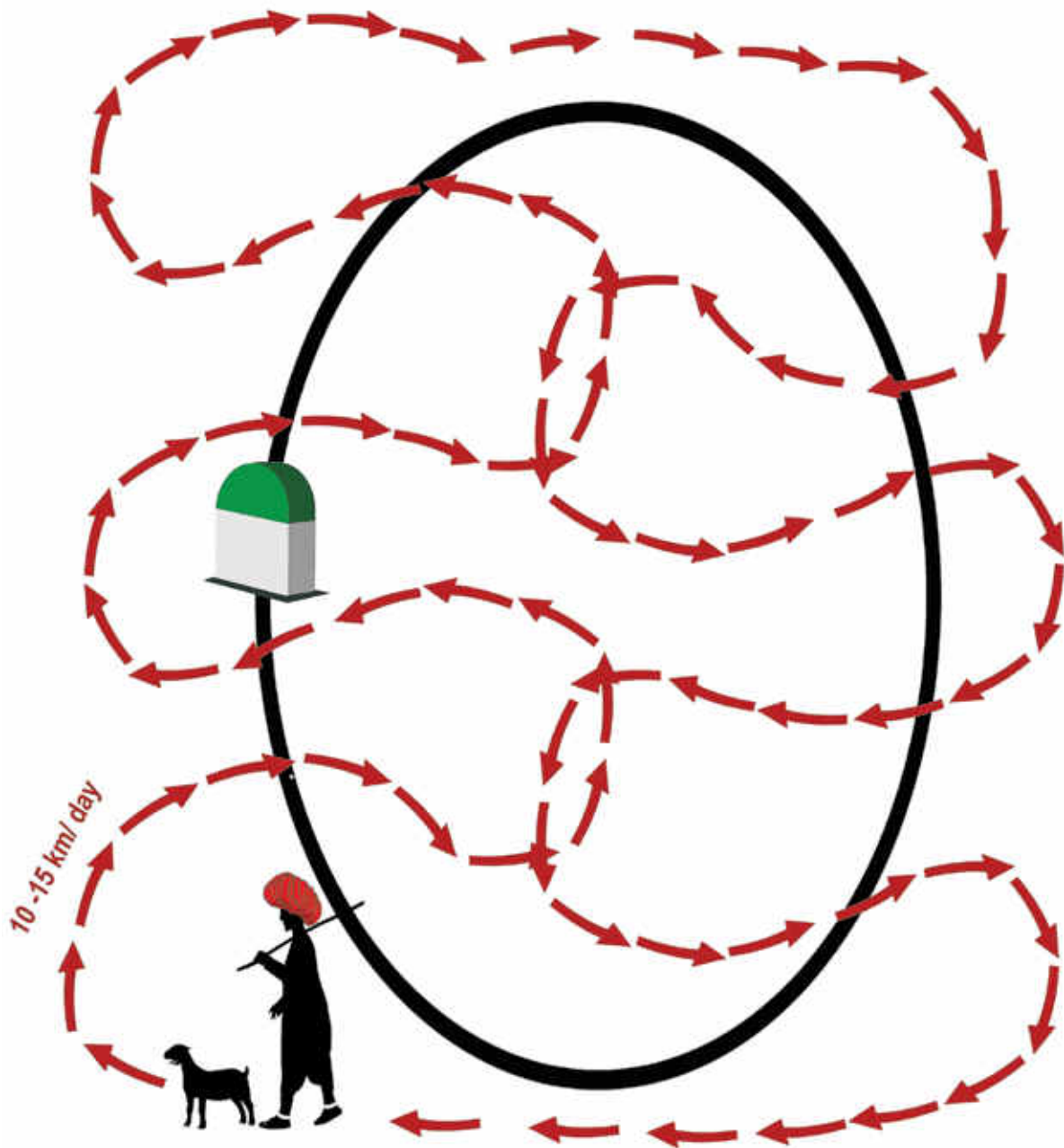


Women's perambulations in a location



Total distance travelled in a year: 1,500 km

Men's perambulations in a location



Total distance travelled in a year: 5,000 km



their legal and humanitarian rights? “Yes,” she replies, “*hopefully, with help.*” It would be appropriate to mention at this point that, as an immediate outcome of this project, many have been helped to open bank accounts, collect passbooks, and apply for various insurance and pension rights. Field-level camps have been organised by FES to meet bank and district officials at their doorstep at Rawatbhata, Rajasthan. These are the first of more to come. Meanwhile, the life of the herd families of Rajasthan continues to be tough.



Braving the fierce sun over arid lands, rain and myriad other natural and man-made problems every year, they continue to follow a tradition that their great, great, grandfathers have set. Indeed, it seems they have it in their genes to continue leading this life without stop (that is, if they are allowed to do so) along with their wives, kids, pots, pans, and their long-legged *charpais* (stringed cots), guarded by their deceptively weak-looking but actually ferocious dogs – yes, if allowed to do so



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by government policies and the market.

Mostly from the Marwari breed, the dogs are a part of every family – loving and protective in return for care and morsels of food. Daytime, they are under the *charpais* apparently sleeping but if a stranger, even if accompanied by a *dera* member, approaches, the dogs are ready to protect and bite. At night, they are on full alert and guard while their masters sleep. These dogs are hardy and, in spite of minimal grooming and attention, quite fit and lean.

The Rabaris are very cautious of strangers approaching their camp, especially if the attire gives him or her away as being alien to the area. Will the visitors evoke the law and cite reasons for why the nomads must vacate the spot or

Marwari breed guard dogs. May look weak but are actually ferocious.





Monsoon settlement, near Pratap Sagar, Rajasthan. Bushes for the goats, grass for the sheep.





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even the area? Does the stranger want to buy animal flesh and wool at ridiculously cheap rates? Are they agents of settled villagers who fear that the animals the Rabaris move with will spread disease? Or is the visitor a plain-clothes forest officer? Such fears are understandable as the Gaadars set up camp very close to a village or forest boundary, although somewhat hidden from the main-road view.

Phulribai vehemently objecting to my presence on our first visit to Hartingaram's dera! We found out much later that she is his mother.

It took us a couple of visits to convince the leaders that we had no ulterior motives but would really like to understand their lifestyle so as to be of some service to them. At the end of our conversation, with a large dose of hesitation, they allowed us to take some photographs. When we showed them the photos the next time we visited their camp, they were pleased. Taking photos and giving prints back to them became the practice thereafter, and it worked much better than displaying the image briefly on the camera screen.

Going to a hidden spot, in a secluded part of the undulating 'wasteland', to set up camp.





Hartingaram takes a break.

It took us some visits to convince the leaders we had no ulterior motive in photographs but rather wanted to understand their lifestyle and be of service to them.

Ginie's photo is now a precious possession to be carried everywhere.

On the Trail of the Herders

It is not easy to meet and talk to the herders for another reason – they are either moving camp, herding sheep, or settling down early in the evening after a gruelling day's march. So, we could talk for any length of uninterrupted time only at spots close to the grazing grounds like Mata Mandir, a desolate temple on the road from Eklingapuram to Bakheda village of Madhya Pradesh, or late in the evening in their camp. At Mata Mandir, while the animals, minded by two youngsters, grazed all around... we talked. Every so often, our friends had to get up and shout out instructions to the young minders or indicate by shrill whistles to the animals to remain in safe areas.

I must mention a strange defensive strategy of the Raikas – they will rarely disclose their actual names. So, only by keeping close track were we able to point out inconsistencies and perhaps, though I am still not sure, learn their actual names. I guess such a tactic blocks the establishing of records with the forest authorities and police. So, Nyamaji became Ramaji, Kamala became Sheetal, and so on. Our endeavour to include them in various welfare programmes of the Rajasthan government and giving them identity-cum-entitlement cards will, in some measure, negate this tactic! They will, on the balance however, have rights-supporting documents.

An interesting character we met right at the time of our first visit in 2013 is Nyamaji, the stubble-bearded, stain-toothed elder of the *dera*. “He never has a bath,





The illiterate and often inarticulate Nyamaji documented all the transactions of the 'dera' in his head!

Nyamaji becomes Ramaji or Kamala, Sheetal – Raikas rarely disclose their real names as a tactic to block record-keeping by foresters and police.

cleans his teeth or washes his clothes," is what Hartingaram told us many visits later.

This Nyamaji never had any information to give us nor an opinion on any subject, except to endorse parrotlike what was said by Hartingaram or his father Lakaji. Later on, however, we discovered that he is actually their treasurer! Otherwise known as the 'Munim', he documents every transaction in his head, since he does not know how to read or write. He also keeps record of the stock's increase or decrease, and handles all problems, disputes, and fines. The other herders help graze the animals and report losses and even health issues to him. So, even though Nyamaji is often inarticulate and apparently unperceptive, the others tolerate him. Astounding! I wish he could tell us about his earlier days and whether the climate, both weatherwise and politically, was then kinder to the Gaadar community.

The earlier Munim was Ambaji who is now retired and sits at home. Unfortunately, when we went to meet him at their ancestral village Chanderi in west Rajasthan, he was away. Neither could we meet Nyamaji again and quiz him about his accounting methods, since he had joined another *dera*.

I did, however, have an opportunity to discuss accounting matters with Jamaji a year later. He told me that he maintains record of payments (mostly fines) to foresters but no other transactions. He showed me some papers but these did not reveal much. Stock taking these days is done when animals are sheared of their wool. Individual

sale transactions are done in presence of witnesses but no paper records are kept.

Researchers have studied and favourably commented on the decision-making process among the herd families of a *dera*. It is consultative, including the ladies, but finally it is left to the elders and the Munim (treasurer). Often, other *dera* leaders are also consulted over mobile phones. Just as herding is a unifying practice, decision taking is one too. Domestic disputes and disagreements (always over “minor matters” according to Jamaji) are mediated by the elders – “men with men and ladies with ladies.” If the transhumant Raika lifestyle vanishes, it will also ring the death toll of the clan’s group loyalty and dependence.

The Raika ladies lead an exceptionally hard life. They have to rise very early and make food for the men to eat or take for a hurried lunch in the grazing fields. Likewise in the evening, they cook an early meal while the children and elderly female members pen the animals.

Penning is not a random affair. Just before dusk, keeping in mind the direction from which different flocks of sheep and goats will come, iron rods are hammered into the ground in rough rectangles and nets are tied in such a way that one end can easily be left open for the animals to enter. That end can then be pulled up and tied. They have to go through this drill every evening to ensure that thieves cannot easily access the animals without waking up the campers.



Border check-post animal movement record.





Ideal spot for camping!...



...and not so ideal! But often there's no choice.



Beds play double roles as roofs!

The way families set up camp is also very interesting. First the ladies plant their *charpais* as makeshift shelters and unload bedrolls, pots and pans from the camels on these. Sometimes the men help. They place wide utensils with water for the camels to drink, then tie the thirst-sated camels to nearby trees with low branches so the camels can feed through the night. Ladies, young and old, fetch water from a nearby source and start to knead dough and set up a site to light a fire and cook.

When the returning animals are still far away, the tied or penned young ones, actually too small to travel on foot, start bleating. Gradually, the volume rises and very soon the mother sheep and goats join in. For outsiders, this is an experience – for the herders, it is a time to get very busy. One would have thought that the mothers would go straight to their kids to tend them but actually, the baby sheep and goats have to be physically helped to suck milk from their mothers – this is done by calling or whistling out to the herd, isolating the mothers, and bringing them to their kids. Even very young children can whistle or call out gutturally. Suckling is an assisted process in which both the men and women herders participate.

When this is over with, the very small animals are tied to a line, very close to the family hearth in short nooses, after which the entire camp settles down. By this time the women, who had assisted in penning return to their hearths and prepare hot, sweet, milky tea in *kadhais* (a two-handled bowl-shaped frying pan). The men





**Penning the animals is a must –
to keep the thieves out and
the animals in. In MP particularly,
animal thievery is a grievous
problem.**

*The onset of dusk is a signal to
pen the animals.*



















come by, and sitting on their haunches share a smoke and the day's happenings and plan for the next.

Milking of the animals is generally done early in the morning before they are taken for grazing. The milk collected is partly consumed and a portion is made into sour curd. Animals are rarely milked dry. There will always be some left for the kids – it is in the interest of the herd persons that the small animals grow up fast. That is why, during the dry months of August/September to May, when the animals are as it is stressed due to scarcity of grass or leaves, very little milk is drawn from them, only the offspring are allowed to drink.

On the subject of milk, one must recount an exchange with a lady at Jamaji's *dera* in July of 2015. We saw a stainless steel container with milk being warmed up, and were told that it contained both sheep and goat's milk to be fed to a child. One main reason for keeping both types of milk in one container is because of their desire to restrict their kitchen luggage. Also, it did not go rancid easily whereas combining it with camel milk would. As regards nutritive value, Jamaji informed us that while goat milk, like that of buffalo, is rich, creamy and nutritious, sheep, camel and cow milk is nothing exceptional. Elsewhere, I had been told that camel milk is very good but for the smell!

The *dera* dwellers we interacted with and I believe most others, rarely sing

Taking care of the camels before settling down for the night.

In the dry months when leaves and grass are scarce, herders do not draw animals' milk but leave it for the offspring.



Suckling is an assisted process, physically bringing mothers and kids together.

or dance — as is so common in ethnic groups living in natural surroundings. Music and song for ancient communities have always been a great recorder and disseminator of a clan's traditions, beliefs and heroic deeds. Music also provided mental and spiritual solace, and reinforced determination to tackle adversities and an uncertain future. As Daniel Levitin puts it, *"Music has historically been one of the strongest forces binding together the disenfranchised, the alienated."*

But in case of the Raikas, the absence of musical evenings, under the starry or cloudy sky, is probably because they are living from moment to moment while creativity is to be nurtured at leisure. The closest they can get to musical diversion is in towns as an audience, and during social





Mother's milk is best!



functions in their ancestral villages. Even on such occasions, they may at best try their hand at a *tambura* (drum). Some Raika singers and musicians, however, living a settled life in villages of western Rajasthan, sing at functions and family gatherings; one or two have even performed abroad with the help of organisations like the Lokhit Pashu-Palak Sansthan or LPPS (a welfare organisation for livestock keepers).

The Raikas, and most nomadic groups like to dress colourfully and wear different types of ornaments. The men too, wear embroidered gowns and sport bright turbans. On festive occasions, ladies adorn themselves with nail polish and *mehendi* (henna tattoos).

Their relationship with the almighty is deep-rooted but also practical. The families, in order to save on space and weight rarely carry any Hindu deities, either as photos or idols but every morning, and often while cooking the day's first meal, they light incense sticks and pray to the Sun God. The sticks are then planted at the site of the fire to bless their food. On

specific religious festivals, they visit temples and offer sweets, flowers and cash.

What if they fall ill? Many research papers have described their traditional methods of treatment but it seems that most of this has been forgotten or at best not used, essentially because allopathic medicine cures faster and is easily available. Sometimes, when small animals fall ill and the elders do not want to get them injected, they feed them milk mixed with powdered turmeric. The children are taught to use neem twigs or locally available powders to clean their teeth and tongues. Toothbrushes and pastes are not popular. Indeed, I did not see even a single discarded tube as is most common around Indian village dumps. They have not heard of antibiotic resistance and their use and application of medicines from easily dispensable tubes is frequent. *(See pg. 153 for the tragic story of Dhiyabai.)*

They are however aware that certain plants can kill animals. So the herders are alert and keep the animals away from these. Animals that have consumed such poisonous plants are cared for



It takes seven steps for the menfolk to tie the traditional turban. Here, elder Hartingaram with grandchildren.





Setting up camp.

till they die and then either sold to traders or just left for wild animals to dispose off. If there is some hope of revival and a veterinary doctor is available, then they obtain medicines. But they rarely visit government dispensaries because the medicines there, according to them, “do not work”. One *dera* leader told us: *“The better medicines are sold to private practitioners. So, when we specifically ask about them, we are told that there is no stock.”* More information on this later.

The process of breaking camp is essentially a mirror image of setting it up. What appears to be one of the toughest jobs is the strapping of *charpais* onto the backs of their camels. For this, ladies of adjacent families come to help. The camels shriek in baritone... till the straps under their bellies stop hurting or squeezing.





Shyanaji holds up a branch of the white flowering lantana that is poisonous to animals, pointing to a sheep that died the night before.



Sick animals under home treatment. One unfortunately, is already dead.



Racing Against the Rain

The Gaadars have learnt to adjust their movements and camping to suit environmental and circumstantial compulsions. When water is scarce and not clear, as in summer, they improvise. I have seen young ladies painstakingly collecting drinking water with a small steel bowl, at a sliver of stream flowing over a broken rocky surface, and sieving it through their *dupattas* (scarves) into aluminum containers. They would then carry these on their heads back to their camp site, often about 500 m away.

This same flowing source downstream serves for bathing, washing and even further downstream for the small animals. Often, when the flow is very shallow and slow, the compulsion is to seek better sites. At the *dera* we were told that they would move the very next morning further down the plateau where there was a waterbody, till then they would make do. Tomorrow perhaps, another group would settle nearby and come to this same water source.

When they are in the vicinity of unfriendly villages, they heighten their night watch system – drawing up a duty roster and sleeping fewer hours. I was surprised to learn that their ferocious dogs are often not of much help as they can easily be tempted by animal thieves to eat food laced with sleeping pills. The trick is to be alerted by the first bark.

In the rainy season, the families sleep on their *charpais* under simple polythene cover while in summer, they sleep under. So, the legs of the *charpais* are visibly long. Turned upside and tied to the backs of camels, their legs act as safety posts for young animals and children to cling to. Most often, while at the camp, the toddlers are lulled

When camping on cropped lands, they find better drinking water at wells or pumping points.

The Gaadars have learnt to adjust their movements and camping to suit environmental and circumstantial compulsions. When water is scarce and not clear, as in summer, they improvise.



When water is scarce and not clear, the women painstakingly collect drinking water with a small steel bowl and sieve it through their 'dupattas' (scarves).

Herders prefer not to spend long periods of time near irrigated villages or waterlogged areas.

to sleep inside cloth slings tied to the corners of the *charpais*.

Cooking can be a problem during rainy days – but the Gaadars improvise. They cook under a tarpaulin cover and in order to divert flowing rainwater, they make a channel around the fireplace. In heavy rain, they place their stove inside a basin or *kadhni* (the high sides prevent water from entering). Obviously, the placing of incense sticks near the fireplace after obeisance to the Sun God is ruled out.

Their meal consists of vegetables with herbs and spices that are locally available. For instance, if seasonal greens are not growing in the fields, they make do with chilli plants. They uproot the entire plant (often with the permission of the villagers who allow them to settle on their crop-free land) along with the chillies, if any and cook this over a fire made of twigs and dry branches. (I was assured that the curry is very spicy and goes well with their thick, red wheat *chapati*.) The stove is most often just a broken earthen pot or a tin plate bent around its edges so as to cover three sides leaving the top and one end open. No, I did not see anyone using versions of the improved stove that has been promoted in every State of India for more than two decades!

Herders prefer to spend long periods of time in barren wastelands or the upland of waterbodies and dams. *"We will not stay near irrigated villages or waterlogged areas downstream of dams for long since constant exposure to wet and sticky soil results in sores in the hooves of the animals."* In the cropped areas of MP too, where



they seek post-harvest stubble for their animals, they avoid irrigated areas which are frequently multi-cropped. They also have to return to Rawatbhata (Rajasthan) before the rains as with the onset of the monsoons, the fertile areas of MP are quickly put under soya, mustard and other crops.

Herders plot their course according to the probability of rainfall, the availability of natural pastures on common lands, and expected invitations from farmers wanting natural nutrients on their fields just prior to ploughing or planting. Zalim Singh of Salri village, a 76-year old progressive farmer explains: *“The Gaadars have always been invited to stay on my lands after the crops have been harvested because the animals leave behind essential soil nutrients. Villagers who allow them to settle in their fields give them some 80 kg of flour, some oil and maybe a fistful of spices and cash. But I think the benefit far outweighs any potential threat of communicable diseases to the animals of the village, since we get our livestock regularly vaccinated.”*

And, according to LPPS-2014, *“The dung is highly valued and considered of higher quality than that of cattle or buffaloes because of the amount of tree vegetation in the diet.”* Even camel dung rates higher than cattle-buffalo dung. But quality dung regardless, many villages are not willing to accept Raika families and their animals, even though precautions against animal diseases can very well be taken in the form of vaccinations.

Herders plot their course according to the probability of rainfall, the availability of natural pastures on common lands, and expected invitations from farmers wanting natural nutrients on their fields just prior to ploughing or planting.







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The Raika ladies lead a hard life. Besides their duties in setting up and dismantling camp, they also rise early to make food for the men, hot milky tea after the penning, and an early night meal.







Dismantling camp is essentially a mirror image of setting it up.



Winding up camp is also a time to dress up. The ladies do not show their faces to strangers but she allowed me to shoot only after I assured her I would not reveal her face. I gratefully thanked her for the privilege.





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Winding up... The camel was not at all happy and went on bleating till the cot was in place and the rope tying it under its stomach did not hurt anymore.





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Camels meekly squat while the women pile on their households or rise gently so that the small kids – both human and animal – do not fall off!

Home on humps!











The herders do not use any fossil-fuel burning vehicles for shifting camp. The camel is their preferred mode of travel.







Some villagers welcome the herders, happy to have the livestock droppings fertilise their fields – others worry that the livestock carry sickness or will become aggressive.

If Gaadars follow traditional routes, they face less hardship than when they are forced to seek alternative ones either because of a particularly dry spell and therefore, resource unavailability, or restrictions imposed by forest departments. Villagers along new routes, not used to seeing them do not think like Zalim Singh. Instead, their reaction is: *"We do not want the Gaadars to come near us. Our sheep will fall sick when they drink water from any common source."*

Or others like Bagchi Bhai of Amakhora village (which lies across the border in Pratapgarh district of Rajasthan) says, *"We do not have so much cropped land to offer to them to graze,"* adding, *"but they are welcome to graze in the surrounding hills and sparse forest."* He and his friends do not think that the benefits they get from the livestock droppings outweigh the expenses of engaging labour to weed out unwanted plants that come up with the droppings. Indeed, for many, the sheer number of animals the herder communities move around with can be daunting. Some villagers in Rajasthan are afraid of the herders for "they can become aggressive" and use their feared *gopan* (a basic slingshot).

Others are unwelcoming because the herders sell their milk at very cheap rates to the collection centre over the two or three days of their camping in the area, in which time the locally-produced milk turns rancid or has to be turned into cheese. In most cases however, our impression has been that herders are no longer aggressive





A favourite dish is spicy chilly curry with thick red 'chapatis'.

No, I did not see anyone using versions of the improved stove that has been promoted in every State of India for more than two decades!













— indeed, how can they afford to be when they either have to sweet talk their way through difficult circumstances or put up with them.

Hartingaram and friends understand how a mobile battery bank works (donated by FES).

Mobiles for the Mobile

The ladies try to finish all chores by late evening for the nights are dark. I have not seen them using kerosene lamps but LED torches and mobile phone lights are common. They could do with small solar lights, the Luci type. It could very well, if one goes by international example, introduce them to reading. Their night vision is particularly sharp. One evening, a lady cooking a meal asked her child to fetch a bowl, waving in a direction with a hand but try as I might, I could not see any vessel. Yet, the child went over and picked it up unerringly!

Besides lights that can be used at night for facilitating household chores or for night schools, they are also in dire need of battery back-ups for their best communication and illumination aid — the mobile phone. FES has given them one and the feedback is very enthusiastic. I must ask here: any donors on the horizon?

Some years ago, not wasting time while walking with their camel train, the Gaadar ladies would spin thread from sheep wool on a simple spindle (made of two bamboo sticks placed perpendicular to each other, with a hook at the top end). This wool was then knitted into coarse, thick blankets that provide protection during winter and

Herders are also in dire need of battery back-ups for their best communication and illumination aid — the mobile phone.

Rope woven from shredded plastic is better for pulling water or tying up camels or household goods.





even from rain. While such blankets can still be seen covering *charpais* or providing temporary shelters, the actual spinning of thread is no longer in evidence. These days, thread made from shredded plastic sacks is spun to make strong ropes. The ropes are then used to tie camels or goods, and draw water from wells.

But the elastic, spongy and strong nature of the wool blanket, stitched like a large bag is still considered ideal for mounting household stuff on the backs of camels during shift of camp. Colourful covers made from a patchwork of wool and cloth can also be seen encasing water bottles. Such covering, we were told, helps to keep the water inside cool – yes, coarse wool to beat the heat!

Sheep wool is knitted into thick blankets that provide protection from cold and the rain. Stitched into a large bag, it is ideal for packing household stuff when shifting camp.

New Routes, Old Thinking

As mentioned in many papers on nomadic herding, pastoralism in most developing countries is looked down upon as inefficient practice. As noted by Paul Robbins, *“State-sanctioned panchayats... non-governmental organisations, and the State Forest Department all claim various areas of village and state ‘common’ land, each implementing and enforcing differing rule-systems for grazing and fodder cutting. These changes and intrusions have often led to enclosure or total institutional failure, as the older systems are erased by overlaying systems.”*

On the other hand, local literature describes why and how the Rajas of Rajasthan encouraged herders to live in and pass through State forests since herding was



Wielding the 'gopan' (slingshot): Ready, aim, shoot!



Nutrients and moisture in dung facilitate germination. Dung of grazing animals is even more effective!

considered to be complementary to the proper management of natural resources and wildlife.

But the herders have been stopped, under direction of the Apex Court, from entering or even passing through wildlife sanctuaries even if these were their traditional routes. In some areas, similar restrictions have been imposed on reserve forests by State governments, persuaded by the Forest Department that grazing is a major cause of deforestation. No matter what reputed studies like The World Initiative for Sustainable Pastoralism, 2006 say: *"With the recent rethinking and new understanding of rangeland ecology over the past decade, it has become clear that grazing and browsing is vital for ecosystem health and productivity. Many rangelands systems are ecologically grazing-dependent, and a reduction of mobility of herds or complete exclusion*



of herds often results in reduction of essential ecosystem services and accompanying system biodiversity, health and stability. Healthy rangelands are of value to many more stakeholders than pastoralists.”

New routes have been and are frequently being declared out of bounds by State governments that take the nomads away from their traditional source of food or water. So the herders are forced to travel longer distances along highways facing dangers of injuries to animals and to themselves. Very often, these routes take them to village environs which are hostile to their seeking fodder.

In difficult areas and circumstances, the herders will have to rely on learnt methods of adapting/compromising with different communities. Panchayats (grassroot local bodies) most times do not interfere if individual farmers offer their lands to herders to settle down for a night or two as the animal droppings supplement soil nutrients. In situations when some object and others invite, the Raikas themselves avoid getting into any conflict situations. By this time however, the Raikas are aware which villages are unresponsive and which are friendly. The friendly ones sometimes assist in emergencies, calling for transport to hospitals, for instance.

Government policies are partial to agriculturists, industrialists and settlers. These groups exert pressure and have champions in legislators, administrators, journalists, academicians and researchers. Legal experts espousing the cause of traditional, eco-friendly life styles are unseen and unheard of, yet there are many who are nature, forest and wildlife conservationists. So, if open brushland suitable and under use for grazing is available, huge investments will be planned for converting these into wildlife reserves

Olden days, the Rajasthan Rajas encouraged herders to live in and pass through their forests since herding helped to manage snatural resources and wildlife.



Sometimes herders are forced to travel only through dirty village routes.

“Traditional grazing lands in rural areas have over time either been illegally occupied or put to alternative use. Gradually, even sparsely-vegetated plateaus will become unavailable to the pastoralists.”

The Renke Commission

or surface irrigation projects so that tree cover and agri-crop output can be boosted.

Indeed, in most States of the country including Rajasthan and MP, by tapping subsoil water and thus extending irrigation, more and more areas of uncultivated Commons are being brought under cropping, and for longer cropping periods. Other areas are being earmarked for setting up industries or village and urban extensions and very often, setting up industries gets priority over agriculture. Till now, State governments have not heeded the observation of the Renke Commission 2008:

“Traditionally, grazing lands have been earmarked in rural areas but, unfortunately, with the passage of time, these lands have either been illegally occupied or have been diverted for some alternative use. This is adversely affecting the occupation of pastoral communities. In view of this situation, State Governments have to ensure that pastures and grazing lands as provided in the revenue records of villages and towns are restored to their original character. In addition, new pastoral zones with basic amenities for the pastoralists may also be developed.”

Gradually however, without any godfather to back them, available pasture or even sparsely vegetated plateaus will become unavailable for grazing. The small patches of browsable space left adjacent to their routes are being taken away from them. Indeed, even in somewhat friendly Rajasthan, the Forest Department has of late been vigorously cordoning off roadside grazing opportunities. Is it not possible for traditional lifestyles to continue to get at least a portion of their heritage space?



Stone boundaries now mark out areas declared off-limits by the Forest Department.



Targeting Goats

In the Indian context, the accepted definition of pastoralism is a livestock system where rangelands account for more than 75% of animal feeding time (Benlekhal, 2004). Where will traditional herders go? The route to survival for transhumants continues to be strewn with many policy obstacles.

Herds of goats have been specifically targeted, and banned by forest departments since, according to their conventional thinking, goats' manner of browsing is a primary cause for land and soil denudation. They are yet to recognise that it is the *"time (spent grazing in one place) rather than animal numbers, is what must be managed to avoid overgrazing, since overgrazing is the re-grazing of a plant that has not yet recovered from*



Disappearing breed of moisture-stress tolerant goat.

“In research plots in Western United States, cattle had been removed so as to stop desertification – but in fact I found the opposite!”

Allan Savory, *ecologist*

*being grazed.” (Voisin 1955, and Savory 1988, quoted in the *Global Review of the Economics of Pastoralism*, 2006).*

“When I came to the United States, I got a shock, to find national parks like this one desertifying as badly as anything in Africa. And there'd been no livestock on this land for over 70 years. And I found that American scientists had no explanation for this except that it is arid and natural. So I then began looking at all the research plots I could over the whole of the Western United States where cattle had been removed to prove that it would stop desertification, but I found the opposite, as we see on this research station, where this grassland that was green in 1961, by 2002 had changed to that situation. And the authors of the position paper on climate change from which I obtained these pictures attribute this change to “unknown processes”. (Allan Savory, 2013).

Knowledge upgradation, keeping up with the best national and international research on the issue, should certainly change the mindset of the diehard conservationists of today – and maybe we can even hope that they go on to become champions of the herders?

Why are Raikas keeping more sheep? Because the forest departments see red seeing goats! So, most herders have reduced their number of goats, even though these are often moisture-stress resistant, produce good lean meat and therefore, fetch almost two and a half times the market price of sheep. On an average, herds



these days have less than 10 per cent goats. *“Why should we breed this stock if our entire livestock movement is frowned upon on account of this breed?”* Yet conventional wisdom would indicate that, in the context of climate change, such breeds should instead be encouraged.

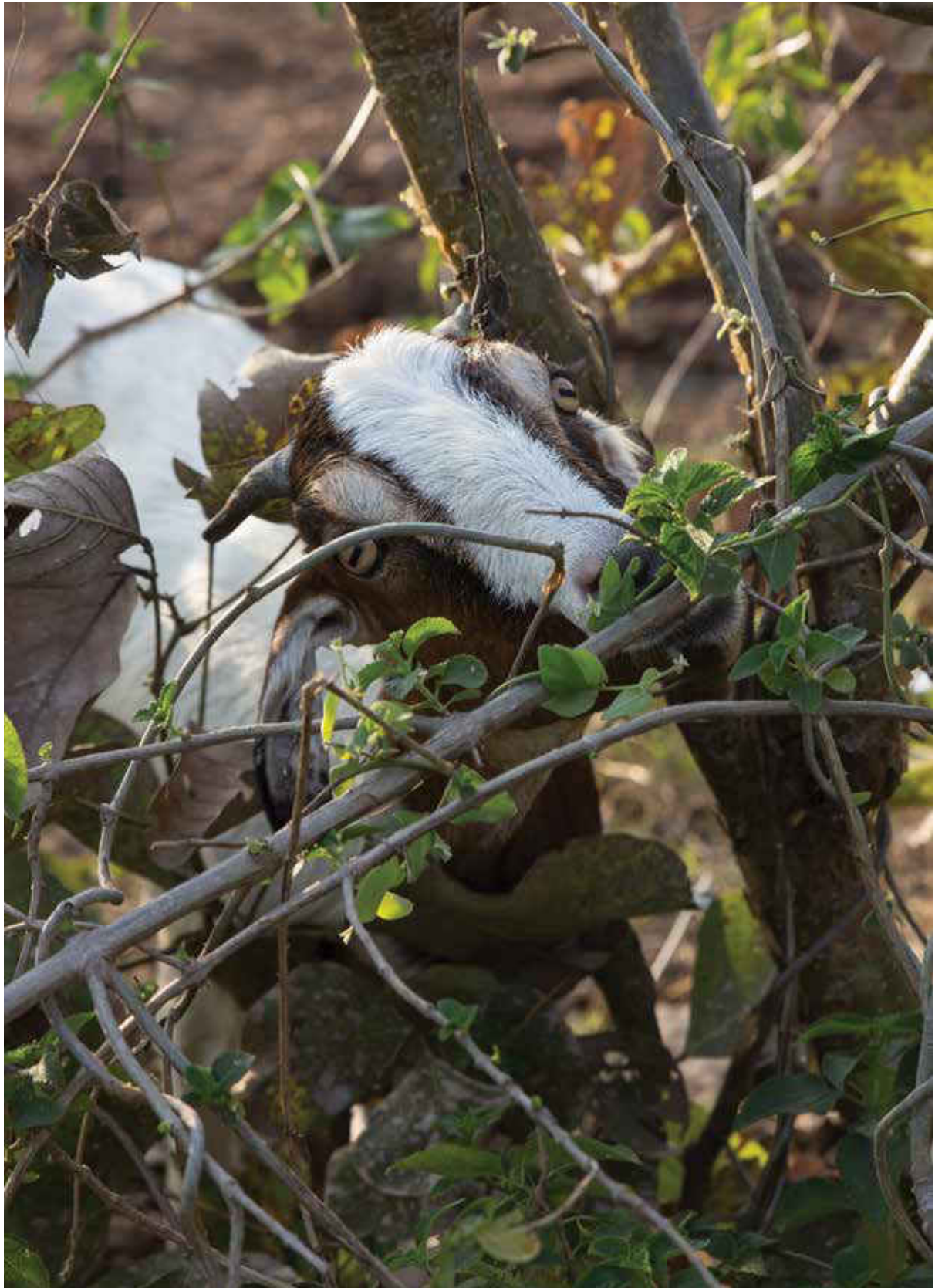
There is however, another practical reason for keeping more sheep – and it has to do with the kind of vegetation available in dry lands. Sheep are surface-browsers and so there are still some areas, especially during the rains that can provide nutrition for them. Goats, on the other hand, browse on leaves of certain bushes that are few and far between in Rajasthan.

Banning of browsing within forests wherein goats could have found such bushes and other foliage, and extension of the boundaries of such banned areas leaves just 52 metres of land belonging to the Public Works Department available for the herders on either side of the highway (as in the case of Rawatbhata, the favourite resting spot of the Raikas), all of which makes goat rearing and herding inadvisable. Additionally, we were shown large patches of stone-walled lands that come under the Commons category but are now encroached by the so-called ‘big people’. Thus leaving even less land for grazing and browsing by Gaadar animals.

While there are studies and writings confirming that goats browse on tender leaves and strip barks from tender shoots, interestingly there also are some studies, including recent ones, that place browsing in a broader perspective. Placing cows, sheep and other

“Intensive livestock grazing can be productively used in woodland areas – it’s a restoration tool to restore healthy successional dynamics to an ecosystem.”

Cornell Forestry Program





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livestock in forests to graze could prove to be a valuable tool for New York woodland management, say Cornell Cooperative Extension (CCE) agriculture educators and colleagues in the Cornell Forestry Program: *"We're trying to teach people that it's okay to use intensive livestock grazing to productively use woodland areas. It's a restoration tool to restore healthy successional dynamics to an ecosystem... Silvopasturing fits our landscape in the Northeast, where most pastureland is juxtaposed with forest. In the past we did a good job of telling people to keep animals out of the woods, but rules change."* (Cornell Chronicle, June 20, 2015).

Similar study-experiments are a crying need, especially in the semi-arid areas of India and in the face of impending and severe climatic stress right across the nation.

In a workshop held in February 2015 at Indore, a scientist from Central Arid Zone Research Institute (CAZRI), Dr. Mahesh Gaur pointed out that the pastoralists' animals which the Institute had studied, and supported by evidence from GPS data, no longer grazed inside forests. Actually, the animals fed only on the Commons or private fallows. Therefore, according to him, the contention of foresters that pastoralists continue to destroy forests does not always hold water. In fact, this example to me highlights an interesting fact about animal memory. It seems that animals that have been denied entry for such long time into traditional forest routes have now learnt to follow a different path that their minders have taken them along. Quite possibly, in the new areas they are not push-herded and therefore, may actually prefer these for leisurely browsing.

Hanwanth Singh, a Raika elder, addresses a workshop on nomadic herding, held at Indore, MP, in February 2015.

Govt. policies are partial to agriculturists, industrialists and settlers whose champions exert pressure on their behalf. Where are the legal experts to espouse the cause of traditional eco-friendly lifestyles?



Import of cheap wool from Australia has hurt herders of sheep, goats and camels. Now traders no longer purchase their wool.

Wool Traders Come No More

Whether the climate is wet or dry, wool has to be sheared from the animals or else various types of insects and fungus can grow on the skin under the hair. This would affect the overall health of the animals and the mortality rate would increase. We were told that in earlier years wool was first collected by traders at the herder villages on eve of their departure, some days after the Deepavali festival (October). Thereafter, every three or four months, the traders would visit the camps along the herder route and collect the wool paying 10 rupees per animal. The raw wool was then taken to the Himalayan foothills and processed for reeled wool. The final product came mostly from the factories around Ludhiana in Punjab.

During subsequent visits, we learnt that the traders no longer came. Did this have anything to do with the comment made during our first visit that a recent change in government policy allowing the import of cheap wool from Australia has hurt both sheep and camel herders? This development has been reported on the website of the Lok Pashu-Palak Sansthan (LPPS), an organisation for the welfare of camels, sheep and goats that is based in Alsipura, Rajasthan. Consequently, the incomes of such herd owners, as also the earnings of the nomadic herders and traders, have already been reduced. Apparently India's is not an isolated case:

"Australian wool has substituted locally-produced wool in the manufacture of the



famous Afghan carpets... The result of this encroachment is that new wool facilities are being established in urban, rather than rural, settings, making it that much harder for local producers to recapture the market." (The World Initiative for Sustainable Pastoralism, 2006). The Gaadars we were interacting with hinted that they would need our intervention to spread awareness of this development and help reverse the decision.

The fact that the herds do not ever go back to their ancestral villages (where there would be no place for them to graze) but remain around Pratap Sagar of Rajasthan till about September, lends credence to the statement that the wool traders no longer come to shear wool at their villages. Hence the herders themselves have to shear their animals every three or four months.

Hence these days, *"Meat, not wool is the only regular income generator,"* said the experienced Lakaji, and it comes from selective selling of weak and injured animals. From another perspective, this means herders cannot afford to remain far from settled villages and townships.

The availability of animal-buyers in MP sometimes poses a larger problem – organised thefts. According to one senior herder who I do not wish to name, the local buyers often procure animals from thieves at very low rates, and then to conceal these dishonest deals, come to the *deras* and buy a few heads. So, if questioned about the source of their slaughtered stock – which rarely happens – the buyers can always



Too weak to go on, this animal will be sold.

**Meat not wool has
become the real income
generator.**

camouflage their underhand transactions!

We were once told that if income from selling flesh was insufficient, they would ask 'Seth Bihariji' (who lived in Jodhpur) and he would arrange a loan for them. At that time, we were also told that he comes once a year to his adopted *dera*. However, what we found difficult to believe is a statement that the Seth did not charge any interest on the money he lent herders because he saw this gesture as *pashu seva* (service to animals). Admittedly, there are many organisations in this part of the country that look after stray cattle. Perhaps the Seth saw his extending a helping hand to the herders' four-legged creatures in this light. Most villagers, however, believe and emphasise that such 'Seths' — a title uttered in rather deferential tones — are the actual owners of the herds, not the pastoralists. "*Seths are very rich agriculturists or traders with a lot of political muscle. Bihari Lalji is one such Seth,*" was a refrain we heard from many settled villagers.

Sometimes when the herders find it difficult to manage Seth's animals, they inform the Seth who may transfer all or a portion to another group. I was also told that the Seth gives out his stock for grazing with the stipulation that on their return in *Bhadon* (August-September), the Seth will decide what to do with the animals. Another statement we had to accept with the proverbial pinch of salt was that any increase of stock belonging to the Seth is never offset against any decrease in the personal



stock of any member of the *dera* (typically, Seth's animals range from 50 to 200 per herder – Hartingaram though had none). If indeed this is true, it indicates continuance of a relationship of trust that difficulties and environmental stress have not disturbed.

Who is this Seth? This mystery we could not figure out, nor did we pursue it. Every clan or group needs a patron and a godfather to whom it can refer anticipated and actual problems... and we did not want to risk the possibility of harming the cause of the nomadic herder-families in any way. There is no doubt a reason why the Seths like to keep their involvement in this practice hidden. Interestingly, however, they have not shown any tangible signs till now of helping the herder community organise themselves in any manner. That said, any policy that is designed must take into account the existence of large animal owners who may enlist the help of the herder communities to graze their animals. State support to them, if any, has obviously to be different.

A long-established tradition centered on animal welfare is the dominant motive of the herding community rather than profit. Adjusting their lifestyle to meet market-based demand is not their way of thinking or planning. Sell their animals they will if forced to, either because of illness in their family or for some other immediate requirement of money, but not otherwise. As Hartingaram and his cousin Jagdish told us during a conversation (June 2013), sheep and goats are animals that cannot speak. Therefore, *"is it not our duty to look after them and see they get some food to eat and water*

Any policy that is designed must take into account the existence of large animal owners who may enlist the help of the herder communities to graze their animals.

Once a Land of Milk & Ghee

The first time I met handsome Lakaji, Hartingaram's father, was when my friends from FES and I were surveying the Raikas around MP to test the possibility of working with a group. That was on 9th May 2013. At the time, he was a quiet observer and rarely intervened in the conversation. His son Hartingaram did most of the talking while Munim Nyamaji added some confirmatory notes. But thereafter, we have been meeting Lakaji quite often. He always seemed to be at the peak of physical and mental health. He spoke little but was and is still full of wisdom.

But exactly two years later, on our visit to his tiny camp, we were shocked to find him semi-blind. He had been noticing deterioration in his sight for a while but had done nothing, waiting for the malady to improve on its own. Gradually, however, it had become very difficult for him to herd the animals and keep them away from cropped areas all around. So, he was tending to a few camels (which were



Lakaji, Hartingaram's father, still full of wisdom.

big and visible) while the main *dera* was some distance away. Yes, he had been to many doctors who, besides offering no definite advice and providing him off-the-counter spectacles had ruled out *moti* (cataracts) and what's more, any cure. An active and healthy man had thus become a burden to himself and his family.

Lakaji was born some 62 years ago in a forest patch in Khudkhera village of MP where his group was grazing. The *dera* ladies assisted in his birth. Often those from nearby camps also came to help. In those days, he told us, *"no one delivered at government hospitals, which were in any case, few and far between."* Nowadays, while childbirth still happens mostly at the camp, in case of anticipated difficulties, deliveries take place at hospitals in the vicinity or their ancestral village.

It was in the Rawatbhata area of Rajasthan where we had the opportunity to sit with him, in presence of two other friends — Bhurijaji and another Hartingaram — and quiz him on his past life and his views on the future. He had walked to the meeting point from his *dera* some 10 km away after grazing animals in the morning. Yes, life had not permitted him to give up herding in spite



of his poor eyesight. He told us, however, that he had the assistance of a young 'servant' to ensure that the animals did not stray into protected forest areas, cropped areas being nonexistent in these parts.

Lakaji, like most elders of our times, recollects his childhood days with nostalgia: *"We had so much milk and ghee (clarified butter) and our 'chapatis' (flattened bread) were always soaked in 'ghee'. We also had lots of 'khopra' (coconut) and 'gur' (jaggery). The food we ate tasted so fresh – not like what we get these days. The 'atta' (flour) we get from the market now, and the Dalda (thick hydrogenated vegetable oil) give us 'gas',"* he emphasised, patting his stomach.

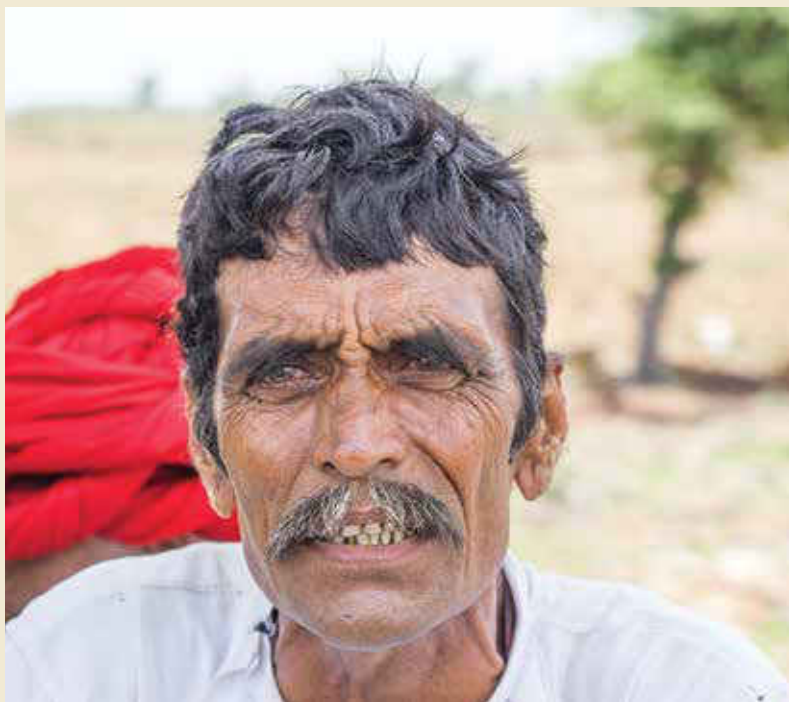
"We were so healthy those days," he recalled. *"Most of our ailments we could cure ourselves. If we had a cough, we would drink animal urine, for fever, we would drink the inside bark of neem, soaked in water."*

"But why do you not do the same these days? Neem trees are still around," I asked.

"I don't know," he replied. *"These do not work any longer. Perhaps some changes have happened to our bodies."* Bhuraji, sitting next to him nodded his turbaned head in knowing assent. Today, herders have been introduced to the regular use of antibiotics.

When was he given stock to herd on his own? He frowned, recalling, *"When about 20, I think. But by the time I was 12, I had been trained to manage and whistle directions to our stock. The animals too learnt to understand my commands."* This method of training continues even today for the youngsters. The only difference being that herds in earlier days were, Bhuraji told us, much larger – some 10,000 to 12,000 per *dera* and 400 to 500 at least per herder.

"There was so much land all around for us to graze without any interference and intimidation from anyone. We could stay in any spot for 10 days," Lakaji continued. *"Today, we face constant harassment and threats from the foresters. Either we are told that we have entered prohibited areas or warned not to enter areas likely to be declared protected."* Lakaji stretched his weather-beaten arm to point out new areas that were being declared out of bounds to them.



Friends Bhurijaji...

to check their education qualifications too." To my question as to whether he has educated his sons, he proudly replied "yes!" He has ensured that his second son (Hartingaram's brother) goes to college, his son-in-law is also educated and works at Hyderabad.

"I did not see Phulribai before the night of the wedding," stated Lakaji shyly, glancing awkwardly at the children watching and listening on. To a question as to whether he had a photo of their wedding, he said no. "In our times, we and our families were too shy to take photos, besides there were no such services." Lakaji went on to explain that after the wedding, Phulribai went to stay with her parents and after a year, Lakaji fetched her back to the *dera*. Hartingaram was born some years later.

What were the marriage arrangements like then? Were there many invitees? And many meat dishes? "Invitees were only to the extent our families could afford. Rarely did we go in for large borrowing of funds which is true even today." As for meat dishes, Bhurijaji and Lakaji said while they were served at marriages, in day-to-day life, most herders preferred simple vegetarian dishes. Rarely, say

"These children," he pointed out to Uma, a young girl who had been quietly listening to our conversation, "are scared to see uniformed men. They worry as to who of their dear ones will be arrested and taken away. When will he return? How will the families manage in the absence of the male members? Many questions without answers..."

At our prompting, he recalled pleasanter times. "I got married at Chandrai village when I was 25. It was a marriage arranged by my parents and elders. In those days parents looked for 'imandar' (reputable) families even if they were poor, and always from the same caste. Nowadays, parents have begun



...and Hartingaram senior.



"These days educated youngsters are thinking of banks."

would from us," explained Lakaji. *"If we have large sums with us, we take it home, wrap it up and bury it at some spot."* I asked whether they borrowed from villagers en route? *"Never,"* was the emphatic answer, *"they do not trust us, nor we them."* And where did they save large sums of money these days, in banks or post offices? *"No. We still send it home... these days, however, our educated youngsters are thinking of banks,"* said Lakaji. So our endeavour to get the Raika families to open bank accounts so as to avail of welfare benefits may find favour with the youngsters but the elders may still hesitate.

once in one or two months, would they have male sheep or goats slaughtered in honour of some guest or some occasion. *"But only male animals and chicken,"* emphasised Bhuraji.

"When we needed money, and the amount was small, we would ask the other families of the 'dera'. Quite often we would ask our family members at home, even my old mother who you have met. Larger sums, ceremonial expenses for instance, we would borrow from other 'deras', just as they





What lies ahead for young Uma?

Do We have No Rights of Our Own?

What about the future? I asked both Lakaji and Bhuriaji. Said Lakaji, *"I wish I had been educated and taken up a settled profession. Then I would not have had to face the hazards and uncertainty of herding as well as the thefts, threats and insults that we face almost every day... I could have looked after my children and grandchildren like others. At the same time, we like herding and this style of life. If allowed to continue, we could carry on forever but if we do not get support from government, most of us would have left this profession within two generations,"* rued the once proud, now broken Lakaji. *"We crave for the same freedom and access to grazing that we have enjoyed traditionally. Everyone threatens us with their restrictions and rights which we have to accept meekly. Do we have no rights of our own?"*

Hopefully, he will 'see' that day very soon. We too, FES and I, would be happy when Lakaji, Uma and the rest of the herder families are content once again.

to drink?" The animals are bathed and fed special foods. Just like the many *goshalas* (cattle homes) in Rajasthan, Gujarat and Madhya Pradesh, this ancient practice of the Gaadars is another way of showing compassion to dumb animals.

I remember Zalim Singh of Agar village telling us (January 2014) that during Makar Sankranti festival, the Gaadar ladies visit nearby villages and feed stray dogs, domestic sheep and goats with sweets (*jalebis*), savouries (*samosas*) and biscuits! In this way, both the animal-herders and the animals celebrate this festival which marks the advent of spring in India.

3. TELEPHOTO: Creating Assets with Zero Inputs

“What are commons? Commons are the gifts of nature, managed and shared by a community which the community is willing... to defend.” (Anita Cheria et al, 2011). Whether the community is able to is another matter.

There are always more powerful entities eyeing these resources. In common parlance, the Commons refers to grazing land, waterbodies, open spaces, barren, hilly tracts, etc., that are generally open to the immediate neighbourhood to use since no one person or unit has exclusive rights over these. The concept of Commons is often *“defined and understood to denote having a ‘shared ownership’ and responsibility over the said resources...”* (Anungla Aier, 2011). So, till shared responsibilities are not structured, those who are powerful find it easy to ignore traditional rights.

‘Common Property Resources’ or CPR is the term generally used but for this feature, I have chosen to use ‘Commons’ to mean spaces that are resource-rich even if these riches are not conventional or apparent, that have been available over ages for appropriate use, on which the lives and enjoyment of many stakeholders depend – and over which therefore, no one can claim exclusive rights.

“Portrayal of the commons as empty is one of the most insidious threats to its survival.” (Anita Cheria et al, 2011). ‘Uncultivable wasteland’ is the official term given to the Commons, coined to imply that these are unproductive lands. In Rajasthan, according to official statistics, such land covers 15,600 sq km. A small portion of this, adjacent to villages, is used for grazing local stock while that



A hardy species that grows on barren land and adapts its growth to browsing by goats.



in the distance, as well as the substantially rocky patches, are left alone. The animals of the pastoralists however, browse in these 'barren' Commons and produce milk, wool and kids. These 'assets on hooves' create incremental growth from almost zero inputs!

A "recent survey of CPRs (Common Property Resources) in the sub-humid to arid areas of India concluded that 69% of households were grazing their livestock on commons and 23% of them collected fodder from commons. All in all 37-68% of the annual fodder requirement for livestock was sourced from commons." (Kishore, 2012, quoted by LPPS-2014).

Indeed, many families and children beyond the periphery of our vision survive because of the Commons. Besides, only such breeds and plant species that are most suited to those harsh living conditions grow there and, most important, spread genetic biodiversity through random dispersal (hitchhike method).

The herders look for cross-breeding options for their animals all the time and take it up at least once in two years. *Deras* allow hardy breeds to mix to produce even harder animals that can survive in tough and unpredictable living conditions. An advantage from the breeding viewpoint is the ability of the kids to grow strong quickly enough to travel with the herd. Genetic wealth is thus produced on the move – interacting, adapting and mutating, needing no State and national-level investments to improve and stock genes through artificial means.

When any specific area is unable to support the number of heads herded by any group, the herders easily move on to fresh landscapes or if the situation is really adverse, dispose of a few male adults and kids. When the weather is favourable and, the Commons are resource abundant, they wait longer at the location – even supplement their stock. The practice of herding is an unsung environmental and accommodating asset. Had national and State programmes to provide insurance for crop failures been extended to nomadic herders as insurance against unforeseen losses due to the consumption of poisonous plants, contraction of illness and mainly organised thefts, it would have done them immense good. Perhaps this feature will enable this to happen.

Meat without Resource-Spend

“One goal of this study (LPPS Case Study 2014) was to quantify the economic outputs from the system in a defined geographical area of Rajasthan. For the purpose of getting an idea of the number of sheep kept in migratory systems, it sought to establish a complete list of deras and their patels from the Bali and Desuri tehsils of Pali district. As deras and patels differ from year to year, it was difficult to do this, but our estimate is that there are at least 40 deras from these two tehsils with an average of 3500 ewes, amounting to around 140,000 ewes. (Considering that there are about 900,000 sheep in the whole of Pali district, this seems roughly correct.) From 140,000 ewes, we would expect about 30,000 male lambs that would be sold for meat. At an average rate of Rs. 2,500, this would add up to Rs. 75,000,000, equivalent to around Euro 1 million. If we translate this into live weights and meat yields, we can calculate at an output of 11 kg for a 2-3 months old lamb = 330,000 kg live weight. With a dressing percentage of around 50%, this would mean 165,000 kg of meat. All this meat would have been produced without any use of non-renewable resources (fertilizer, tractor fuel, transportation of feed, etc.).”

Grazing on 'barren lands'.





**Pastoralists' animals browse in 'barren' Commons
and produce milk, wool, and kids.
Incremental growth from almost zero inputs!**



Private unirrigated lands in MP may be temporarily available (after harvest till the next plowing and sowing) to herders for grazing and resting. The contribution of the herd people to soil health improvement in all types of Commons as well as such unirrigated cultivated areas is substantial. When we asked some farmers of Dewas area of MP, they were unanimous in their opinion that if it were not for the nomadic Raikas, *“We would have to buy expensive artificial fertilisers that would soon make our lands useless for any crop.”* They continued emphatically, *“We would fall into the grip of the traders who would increase their prices every now and again. But the herders we know are happy to take payments in kind and do not charge much.”* Indeed, according to a study reported by DiversEarth, *“The movement of herds fertilizes the soil (3 tons of manure daily per 1000 sheep or 100 cows)”*, I am sure this value, in money-terms, as well as earnings from milk, wool, hides and flesh has been estimated for India and published too – but researchers, at a workshop on pastoralism in Indore in February 2015, regretted that they had not seen such data.

What Countries Owe to the Pastorals

“The aggregate results of the studies indicate that despite the widespread opinion that pastoralism is not an economically viable or rational livelihood activity, it contributes significantly to the GDP of many developing country economies: for example, approximately 8.5% in Uganda, 9% in Ethiopia and 10% in Mali. These proportions are lower than the estimated contribution of pastoralism to the economy of Central Asian countries like Kyrgyzstan where pastoralism represents about 20% of GDP.”

However policy makers should recognize that the largest share of the flow of benefits generated by pastoralism is obtained from marginal lands where other economic activities will usually provide lower returns.” – International Union for Conservation of Nature (IUCN) 2008.

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“The movement of herds spreads seeds over long distances (about 5 million seeds at 20 km everyday per herd of 1000 sheep).”

DiversEarth





The dispersal of seeds and spread of biodiversity through transhumance has been written about. But the importance of the findings of a study by DiversEarth that, *“The movement of herds spreads seeds over long distances (about 5 million seeds at 20 km every day per herd of 1000 sheep)”*, does not appear to have registered among most policy-makers, foresters, or settled agriculturists. The special property of sheep wool, designed to capture seeds including those of the fodder variety and dispersing them, has remained unacclaimed.

As for goats, *“Goats either within their digestive systems or on their fur can carry seeds over much longer distances compared to other means. As a consequence plants can enlarge their spread area and this contributes positively to the diversity of the species. Goats by their grazing practices reduce the vertical continuity of the shrub layer which depicts a positive impact on limiting and slowing down ground fuels to be transported to the air fuels during a potential forest fire. Also, trampling on the forest surface covered by dead plant materials and creating corridors prevents the spread of forest fire.”* (*On the Move – for 10000 Years... Biodiversity Conservation through Transhumance and Nomadic Pastoralism in the Mediterranean*, by DiversEarth, Switzerland, August 2014).



Other grass and nutrient plants that are spread by sheep and goats.





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In such areas dung beetles thrive. They are natural decomposers with little carbon footprint.





Such lands support other minute life-forms (tiny frog, photo right), mostly unresearched.

‘Bio-Taxis’ vs. Global Warming

Plants that rely on such methods of multiplication, including in protected forests, may face survival and extension risks if this option is suddenly removed on basis of uninformed decisions and resulting barriers. And, in the context of anticipated global warming and the resultant erratic rainfall and temperatures, such a natural and inexpensive method of spreading genetic biodiversity on ‘bio-taxis’ appears to be a

very compelling reason for the practice to go on.

Indeed, we were told by one senior forest officer-scientist that some species of plants like *Spondias* (Kantanbia) and *Gmelina arborea* (Khamar) can germinate only after they have been processed in the gut of browser animals or after special treatment and nursing. The Forest Department is also aware that during the dry season, only the seeds that have been digested, moistened and softened in the





stomach of animals germinate well. In the context of an impending series of very dry spells and fear of desertification, it appears logical that new plants can be helped to germinate and hopefully survive if they have been given the right conditions at birth that is, softened, moistened and nutrient-fortified.

An overlooked but important component of herding is 'freeloading'. Wild animals are provided food right at their table without having to venture outside their sanctuary. *"Carrion-eating birds keep watch over transhumance and often survive only because of this practice."* Vultures, disappearing in many parts of India, are often seen around herder camps. Gandhisagar Wildlife Sanctuary in MP *"has emerged as the second best nesting site for critically-endangered vultures because of abundance of food and safe habitat..."* And, according to ornithologist Ajay Gadikar (*The Times of India*, Jan. 19, 2015), *"thousands of cattle (goats, sheep and cows) from the neighbouring state come to graze. Many of them die here which provides necessary food for the vultures."*

At the Indore workshop on pastoralism, this was a point raised by Jamaji. He recalled that many foresters have admitted that wildlife has survived on the flesh of animals that the herders have virtually carried to their 'doorstep'. However, wildlife will benefit as long as the herders themselves do not overuse pain-killer medicines like Diclofenac. Quick education and intervention by the government is warranted here.

'Bio-taxis' are a natural and inexpensive method of spreading genetic biodiversity.



This fact has been reported in other countries too: “For example, in many cases in Pindos (Greece), it was found that the presence of Egyptian Vulture (*Neophron percnopterus*) and Golden Eagle (*Aquila chrysaetos*) depends on the maintenance of the open pastoral landscape.” (Tsiakiris). “For the preservation of many vultures, landscape structure and diversity is essential. Vultures can find food more easily in open pastoral landscapes and sick animals are a valuable source for them.”

Banking on Hooves

“Pastoralists often flourish where they are allowed to do so. The world has hundreds of millions of them, and probably another billion people who combine farming with keeping livestock that graze on common pastures. By some estimates, they occupy 45 percent of the planet’s land surface – approaching four times more than farmers who till the soil.

The grass may not always be green, but the pastures are certainly productive. The livestock of Mongolia are responsible for a third of that country’s GDP. In Morocco they deliver 25 percent. In Sudan and Senegal, 80 percent of agricultural productivity comes from pastures. The herds of alpaca, vicuña, llama, and guanaco in the Andes provide food, fuel, clothing, and transportation. Cashmere goats are moneymakers in Tibet. Cattle dung is the main fuel and fertilizer in rural India. Yaks feed millions in central Asia. The global market for camel milk is \$10 billion. While minding their animals, pastoralists tend trees producing gum arabic that turns up in everything from Coca-Cola to paint; they harvest thousands of tons of medicinal plants and honey by the tanker-load; they escort desert tourists and guard wildlife. Oh, and they produce meat – the most popular foodstuff on Earth.” (conservationmagazine.org – September 7, 2010.)



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Vultures that are threatened in many parts of the country owing to consumption of Diclofenac and Dioxin-laced animal carcasses, thrive in areas along herding routes, since herder animals are largely toxin free.





Drylands awaiting rain, and digested-moistened seeds and nutrient-rich droppings from transhumant animals.

Only One Option Left to Mankind

I would strongly urge readers to watch the thought-provoking 2013 presentation on TED 2013 by Allan Savory from which this transcript has been extracted:

"This picture is a typical seasonal grassland. It has just come through four months of rain, and it's now going into eight months of dry season. And watch the change as it goes into this long dry season. Now, all of that grass you see aboveground has to decay biologically before the next growing season, and if it doesn't, the grassland and the soil begin to die. Now, if it does not decay biologically, it shifts to oxidation, which is a very slow process, and this smothers and kills grasses, leading to a shift to woody vegetation and bare soil, releasing carbon. To prevent that, we have traditionally used fire. But fire also leaves the soil bare, releasing carbon, and worse than that, burning one hectare of grassland gives off more, and more damaging, pollutants than 6,000 cars. And we are burning in Africa, every single year, more than one billion hectares of grasslands, and almost nobody is talking about it. We justify the burning as scientists, because it does remove the dead material and it allows the plants to grow.

"Now, looking at this grassland of ours that has gone dry, what could we do to keep that healthy? And bear in mind, I'm talking of most of the world's land now. Okay? We cannot reduce animal numbers to rest it more without causing desertification and climate change. We cannot burn it without causing desertification and climate change. What are we going to do? There is only one option, I'll repeat to you, only one option left to climatologists and scientists, and that is to do the unthinkable, and to use livestock, bunched and moving, as a proxy for former herds and predators, and mimic nature. There is no other alternative left to mankind."

Goats – and Scapegoats!

According to the World Initiative for Sustainable Pastoralism (WISP) under IUCN, *“‘Overgrazing’ is usually a convenient and more palatable scapegoat for other causes of land degradation and although land degradation may be evident around permanent settlements and water points, where livestock mobility is reduced, it is much less evident in open rangelands where mobility is unrestricted. Where mobility and locally owned institutions for land management are maintained, the results are biodiversity conservation and sustainable land management. Where mobility is constrained it has led to serious over-grazing and land degradation.”*

When opportunities to browse become reduced, herders will be forced to graze their animals more intensively on available Commons or take them on new routes. The availability of area per animal will increase and the resultant stress on plant regeneration will be blamed on the practice of herding, not on policy decisions. True the country needs electricity, water and other development projects, but livelihoods and practices generating substantial GDP surely deserve attention and space too.

It is obviously desirable that State officers revisit their traditional training inputs, get exposed to latest research on the subject of grassland, arid-zone, transhumant practice, and accordingly update their approach. This will enable them to design inclusive plans that allow sheep and goats to freely move and graze (as different from settling for days in an area), and spread biodiversity in selected routes along forest and large rocky patches. If certain areas have become extremely fragile, the cause needs to be ascertained and it may not solely be on account of livestock movement. It may even be due to restrictions on transhumance and consequent depletion of soil nutrition so that seeds cannot germinate.



In the context of global warming, recall that we have travelling diversity and seed banks of another kind at our doorstep – ones we keep failing to recognise...

Crops versus Creatures

The study by Bremen and DeWitt has deep implications in the Indian context. If rainfall is scarce and unpredictable, crops will immediately suffer but not animals. If seeds, fertilisers and pesticides have been procured through heavy borrowing, maybe institutional credit, there is bound to be frustration, mental agony and stress among farmers and their families if crops fail. This might, as many reports suggest, lead to suicides, especially when repayment possibilities are not in sight. Traditional herding, on the other hand, being input-independent and animal health being stress tolerant over longer periods, herders are likely to face no such pressures. In fact, one has not heard of a single instance of a herder committing suicide on account of excessive, un-repayable borrowings while doing their job. Herders, as has been pointed out in these pages, do face mental tension and stress because of various reasons, but these rarely lead on to suicides.

Another lesson is about diversity. In the context of global warming and unseasonal rains and drought, the option to quickly switch seeds so as to enable farmers to grow crops that can withstand such changes has almost disappeared. We read that hundreds of varieties have been lost because crop engineers have discarded most in order to market the 'best' – if there can ever be such a one in the context of climate change. *"One thing is that there is no such thing as a best one. Today's best variety is tomorrow's lunch for insects or pests or disease."* (Carry Fowler, 2009). Obtaining appropriate varieties from seed banks located in developed countries would practically be impossible, even though saving seeds is an international effort.

But we have travelling diversity and seed banks of another kind at our doorstep – the ones we keep failing to recognise. The sheep and goats that interbreed (or are assisted to do so by the herd persons) and adapt to climate change as they grow and move, are our insurance and a time-tested adaptive option – still available even if climatic changes are very drastic. Should we forgo this opportunity? Can there ever be an engineered, stall-fed, climate-proof 'best' stock? If communicable diseases overtake the 'best', following the argument of Carry Fowler, where will we find the 'second' or 'third' best to feed the country and provide livelihood to all the millions of transhumant families?

"Nomadic herding was an adaptive response to climate-induced resource depletion and availability. In large and small measures, this factor is working even today, and the magical contribution of groups like the Raikas of Rajasthan (India) to food production, out of degraded and depleting Commons, continues, yet unsung and unheralded. With adaptation methods honed over centuries, their practice is likely to best withstand future periods and adverse effects of climatic stress." (G.B. Mukherji, *Valuing Variability*, 2015).

Varying climate of the Commons unlike that of croplands may not affect nutritional status of animals – a fact herders may have realised intuitively centuries ago.

One should not overlook the fact that barren Commons also facilitate percolation of rainwater. After rainfall, water seeps through cracks in rocks or under stones and boulders strewn in millions across surfaces. Small plants grow in such niches and provide nutrition for browsing animals which, in turn, leave behind digested nutrients with seeds that can germinate. Studies show that for browsing animals, *"low water availability produces a small amount of biomass of good quality."* (Bremen and DeWitt quoted in *Valuing Vulnerability*, 2015). So, variability of the climatic pattern of the Commons, unlike that of croplands, may not affect the nutritional status of animals – a fact that herders may have realised intuitively while selecting routes many centuries ago.

4. LANDSCAPE MODE: Changing with Climate Change

In a larger context, herders have acquired special adaptive skills to climate and resource conditions that have been honed over many generations. Application of these skills enables them, and many others who come into contact with them (such as traders, veterinarians, wool merchants, etc.), to make a living while at the same time maintaining and creating national assets. Their skills not only relate to the act of herding, tending to and breeding animals, they extend to intangible skills in understanding climate and eco-systems and adapting accordingly. Intertwined is their need for mobility since they know that daily movement translates into fitness, better survival options, and better chances of escaping contagious illnesses.

As mentioned, when circumstances turn adverse, like impending restrictions on their movement through forests, they have the option to reduce their stock of goats and increase sheep in their livestock mix. When water is scarce and the seasons continue to be erratic, the herders selectively breed those animals that are best suited to survive moisture stress. The disappearing breed of goat (*see photo on pg. 90*) that Hartingaram showed me in the initial stages of our interaction can draw its weekly quota of water from grass and crop stalks that are apparently dry.

The herders do not use any fossil fuel-burning vehicles for shifting camp. For them the camel is their preferred mode of travel, meekly squatting while *dera* ladies pile households onto their backs, or rising gently so that the small kids (both human and animal) do not fall off, and walking for as long it takes when moving camp.

In return for this service, the animals need access to low branches of neem (*Azadirachta indica*) and babul (*Acacia nilotica*) trees and some water to drink. The few camels that every *dera* owns feed only on the leaves on branches that their necks can reach. Foresters are of





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Lunch-break!

It certainly is not the herders' lapse that the improved stove programme that reduces their need for fuelwood has not been extended to them.

the firm belief that while goats and sheep are a major cause of land degradation, camels are a cause of stunted tree growth if not deforestation – if so, one might ask why do forest managers advocate lopping off low-level branches as a good practice for timber species to grow straight and tall?

The herders, we are convinced, do not cut down trees for cooking their meals. On all occasions, especially during our unannounced visits to their camps, we saw them cooking over fires using small, dry twigs or branches. Fires are often started at camp sites with camel dung painstakingly collected by small children. It certainly is not the herders' lapse that the improved stove programme that reduces their need for fuelwood has not been extended to them.

However, a most innovative way of adaptation to climate change and resource depletion is what we saw during one of our visits to the MP area. When we first met, Hartingaram's *dera* and the 20 families that belonged to it were a distinctive group, behaving as one entity. When we visited them in early 2014, the families had split up into four sub-groups. They had joined sub-groups from other *deras* so as to traverse different routes and explore the possibility of tapping grazing resources around hitherto unexplored new villages. What had influenced them to change their traditional routes, was it heavy rainfall or lack of it? Hartingaram replied that it was "*availability of grass and water for the animals.*" Later he added, "*local hospitality.*"



The herders do not cut down trees for cooking meals. They use small dry twigs or branches for cooking fires, or camel dung.





Child collecting camel droppings to make a cooking fire.

So, contrary to their standard practice, they took the risk of investigating new areas based on hearsay rather than experience. If that experience turned out to be good and the villagers were not antagonistic, then the new route would be included whenever in future the weather turned dry; if not, the traditional route would continue to be followed. *"Would the original families of your dera again meet up?"* I asked Hartingaram. *"Maybe,"* he sounded a little uncertain but placing his right palm over his heart, he added, *"But we remain in touch because some of us are blood relations."*

When we met the next time in August 2014, we were told that the new routes had been tried out successfully and would continue to be followed, avoiding those villages that were exceedingly antagonistic. *"We are nowadays so used to hostility,"* Hartingaram lamented, *"that pleading with folded hands, and removing our turbans as a submissive gesture, have become routine."*

If climate change, as anticipated, takes place over long stretches across many years in dry Rajasthan, there is every possibility of settled agriculturists abandoning their unirrigated fields and seeking alternate livelihoods in urban growth centres. This has happened over many landscapes adjacent to Rajasthan and in western Uttar Pradesh in particular. *"...Heat stress – not high rainfall, flooding, or moisture – is most strongly associated with migration. The risk of a male, non-migrant moving out of the village is 11 times more likely when exposed to temperature..."* (International



Food Policy Research Institute reported in *The Smithsonian Magazine*).

So it is quite possible that over time, abandoned cropped areas with whatever stubble and vegetation remains will again be available to herders. Indirectly, regional warming may enable the practice of herding to continue! Indeed, the health of such abandoned lands could improve. *“Transhumance facilitates the creation of carbon sinks in the ground (up to 100 tons of CO₂ per hectare)”* – DiversEarth, 2014. Incidentally, animal browsing on cultivable lands prior to cropping stops traditional burning of stubble, thereby reducing CO₂ emission.

What happens when restrictions are imposed on grazing in areas of sparse vegetation? We were shown nutrient-rich grasses and other types of small, thick-leaved plants that grow well and spread for a while but thereafter their spread decreases because goats and sheep are not there to eat, digest and spread the seeds to germinate widely. Whereas some animal-edible species grow into thick bushes and sometimes, certain plant species that are harmful to sheep and goats proliferate and cause trespassing animals to suffer and die.

“Goats have been found to defoliate smallest branches of trees without damaging the twig in behaviors studies at Central Arid Zone Research Institute (CAZRI), Jodhpur. Their browsing habit tends to reclaim saline soils by consuming salt-laden leaves of the range plants and contribute fertility to soil by even distribution of essential

Goats defoliate smallest branches of trees without damaging the twigs, as behaviour studies of the CAZRI (Central Arid Zone Research Institute) show.



A villager threatens Hartingaram for entering his land even though there are no crops on it, just stubble for sheep-food.

manure on the lands they graze." – 'Ekta'. Is this fact not of importance in the context of salt crusting of untended lands and Commons? Salinity goes hand in hand with desertification. So, a natural, time-tested system that consumes the salt of the land, through leaves and then converts it into animal flesh needs to be welcomed.

I come back to the point that herders have to relieve their animals of wool periodically, roughly once in four months, even if there are no buyers. This is because excess wool tells on animal health – both in terms of overall strength and stamina as well as on account of the insects that move in. What effect will an increase in temperature and overall dryness have on animal health? Literature and opinion on this is still emerging, but it seems that dryness will benefit animals and they will face less attack from insects that tend to grow under their wool. This is the same reason why herders do not like to stay for long in the wet and moist areas around irrigated projects of Rajasthan or MP. The wet interspaces between the split hooves, we were told become breeding ground for various types of insects and bacteria and if continually exposed to moisture and slush, animals can fall seriously ill.

However, *"Extreme heat can have a profound effect on productivity, especially if the onset of heat is sudden, not giving livestock ample time to adapt. It goes without saying that growth rates are reduced in hot weather, as livestock forage less and have reduced appetites. This situation is often worsened by dry, poor quality forage.*



If temperatures subside, there is often a risk of acidosis or bloat as livestock engorge on feed. High temperatures can also be detrimental to embryo survival and fetal development. Heat stress lowers the natural immunity of animals, making them more susceptible to disease. It is not uncommon to see cases of pneumonia in extremely hot weather. In general, animals will have less tolerance for parasitic and other opportunistic diseases.” (Susan Schoenian, 2010).

Herders are often forced to sell animals to meet social needs and accommodate other expenses like fines imposed by authorities. During good times, they sell their rams while keeping and caring for the kids and females. This is their normal situational coping strategy. Repeated droughts, expected as a result of global warming, is likely however to have serious effect on the health of animals and so, more will have to be sold off as sick. Herder purses will gradually deplete, by about 30% in an average year, that is, roughly equivalent to the annual stock increase. However they will decrease much more drastically if mass thefts continue – an issue that’s been flagged earlier as well as later.

If the herders were taught marketing and negotiating skills, they could draw up credible stocking and selling plans and determine the best options for making profits, and for buying more heads from other *deras* at the apposite time. Bhurijaji had told us that for a family to live reasonably well, it needs between 350 to 400

For a family to live reasonably well, it needs around 400 animals – whereas these days it is around half that. As long as restrictions on grazing continue, how can the herders live advantageously?



More and more traditional grazing routes are being declared closed to herders.

heads whereas these days the number is barely 200. The nomads will not be able to live advantageously as long as restrictions continue to increase and hamper their grazing and stocking.

Renewable resource management is considered to be fruitful if its annual increment is used in order to produce some other kind of valuable resource, including animal flesh or energy.

Renewing Resources Rightly

Taking all factors into consideration, the question inevitably must be: How are bio-renewable resources to be put to optimal use? Renewable resource management is considered to be fruitful if its annual increment is used in order to produce some other kind of valuable resource, including animal flesh or energy.

Leaving aside the sanctuaries, national parks, other protected areas like conservation and community reserves where the Apex Court of the country has imposed total entry restrictions and removal of any vegetative matter, the Commons and forests of other kinds should logically be available for optimal management and use by forest dwellers and nomadic herders. An outcome of the Forest Rights Act 1996, though not specifically stated in the preamble, was expected to be that forest dwellers, settled and transhumant, nomadic and pastoral, would be helped to optimally use the land that was settled to them.

But, in practice, governments are cordoning off more and more traditional grazing routes by constructing long stone walls. Building walls, in other words, between the earth's natural resources and the resource-renewers.

5. AUTO FOCUS: Watch over Waste

A fact that is bound to impress any discerning observer accompanying the nomadic herders is the remarkable absence of waste at their halting places, more so of discarded materials manufactured from non-renewable resources and petroleum. The clothes they wear, the blankets they use, their utensils, their drinking water flasks, are mostly biodegradable or made of metal. We felt hesitant in sharing water with them from the synthetic water bottles we were carrying, items of travel that have become such an integral part of 'civilised' life.

The nomads rarely use plastic containers except for fetching and carrying water because they are lighter. And I assume they use plastic sheets to cover their living space during the rainy season because of their suitability and transportability. During the rains, there were excessive flies and one did get whiffs of animal waste but the herders, with their frequent site changes, manage to get round this problem. At the peak of summer, on the other hand, there were no wastes visible nor any odour. When herders leave a site, they seem to ensure that their friends, including farmers, are least inconvenienced and continue to be welcoming in the next season.

From early days, children are guided not to relieve themselves near waterbodies. They are trained to accompany the elders to designated depressions some distance away, carrying water in containers for washing.





Their clothes, blankets, utensils, are mostly biodegradable or of metal. We felt hesitant to share water from our synthetic water bottles – which have become such an integral part of ‘civilised’ life.



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No sight of plastic waste.





Stages of settling up a 'chullah' (stove) for the evening meal.

6. SUPER WIDE LENS: Fencing in the Wanderers

*"I have a home everywhere, yet I search in vain
For my country is every country.
I am a wanderer and wherever I look
I think I belong there."*

– **Rabindranath Tagore** in *Prabasi*; (translated from Bengali)

What will happen if this nearly two-century-old practice of the nomadic herders is lost? Culturally, India would have lost yet another facet of its people and animal biodiversity, so-called "wastelands" would become unproductive; the demand for flesh and wool would be substituted by produce from stall-fed animals; complaints of artificially-treated and hormone-injected meat would become frequent; stall-enclosed animals would become prone to attack of communicable diseases; exotic strains would wipe out hardy, climate-adjusted local breeds; demand for flesh would induce villagers to increase village stock and unsustainably degrade grazing grounds around villages; displaced herders would become a socially disruptive force or have to be trained for jobs quite different from their traditional skills; girl children and mothers would become vulnerable – and so maybe like Kyrgyzstan, the Government would have to initiate new programmes with a lot of fanfare and borrowed finances to bring back the practice into circulation!







“Until the beginning of the 1990s, pasture management had been based on the high mobility of livestock herds, similar in some respects to the traditional nomadic system. The demise of the Soviet Union sharply reduced that mobility. Overgrazing, especially in areas close to villages, resulted in serious degradation, while more distant pastures remained unused... (BMZ, 2002-15).

If stall-feeding becomes an industry – it bears re-emphasis – then ‘quick-buck’ businessmen may substitute the hardy breeds with high-yield flesh and milk producing animals that will need special feed, nursing, and artificial nurture. Unscrupulous profiteers may inject hormones into animals for fattening, besides falling to the temptation of feeding these animals all kinds of contaminated mixes. What effect these will have on human health, only time can tell. This apprehension is not without foundation: there have been many press reports of hormone-injected chicken served by multinational companies that has resulted in abnormal growth of hair in children.

And what will happen to the women and children? And old people? Their nutritional status will decrease for milk, the readily-available off-the-tap nourishment, will not be available. Our hope is that policy-makers and the public on reading this feature will visualise the debilitating consequences – and act before it is too late.

Scientists believe that intensive farming for meat and milk is one of the

“Over the last 50-60 years there has been an attempt to ‘sedentarise’ the nomadic communities. If the attempt succeeds, it will increase our dependence on imports for animal rearing. Therefore it is important to evolve an enabling policy in order to support pastoral ways of life.”



biggest sources of man-made greenhouse emissions. *"...So long as humans keep cattle, generally speaking, extensive systems of livestock rearing, like pastoralism are much more environmentally friendly than intensive systems, which can destroy huge swathes of forest and emit large amounts of man-made greenhouse gases in their production systems."* Also, *"The amount of methane loaded into the atmosphere from dung could have been much higher but for the humble dung beetles, which are declining in numbers across the globe... due to changing agricultural practices, like keeping cattle indoors, and widespread use of anthelmintics to control worms in cattle."* (Down to Earth magazine, Sep. 30, 2013; quoting a University of Helsinki study). Dung beetles, as we have seen are found all along the route taken by the herders, not just at village dung heaps.

"Rajasthan Solar Energy Policy, 2014 has been issued in compliance to the announcement made during the Budget Speech 2014-15 to pave the way for establishment of 25000 MW solar capacity..." Rajasthan being a sunshine-rich state,



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a recent development initiative across its arid regions has been the earmarking of areas for setting up huge solar power-generating complexes, according to various reports. Nearly 90 projects in Jodhpur, Jaisalmer and Bikaner have been planned. One is not sure if the areas to be marked out of bounds are presently being used by the herders or not. If yes, then this will be one more reason for less land available for transhumance. Is energy for the distant many at the expense of a lifestyle the preferred answer?

Some suspect that governments in the back of their minds do not want to settle grazing rights over the Commons. To them such lands are available for attracting potential big-time vote influencers – and without any great effort. All that would be needed is a declaration by the State that the percentage of Commons, for any number of reasons, would henceforth be reduced. But a little later, instructions would go to the district authorities that the resulting 'excess' may be handed to industrialists or large agriculture/horticulture farmers or private institutions that can put on a mask of 'public purpose'







like hospitals, engineering or management schools. According to one study, *“the area of CPRs (Common Property Resources) has already decreased by 37 and 63% between the early 1950s and the early 1980s.”* (Jodha, 1986 quoted by LPPS).

Does that seem far-fetched? Well, in MP, FES-accessed documents show that the percentage of *nistar* (common land for pasture, grass, bir or fodder reserve, including for nomadic grazing) has been reduced in stages from seven to five to only two per cent in 2000! (Through amendments to the Nistar Policy of 1994; Subs. by M.P. Act No. 23 of 2000.)

“The tragedy of the commons is a land grabbers’ charter the world over” was the harsh but apparently credible observation of The World Initiative for Sustainable Pastoralism, 2006.

“People’s homelands and commons are not taken away in one go. It has four distinct stages... Wealth of the marginalized is declared the property of the larger society... The dominant define the rights of others... The rights vest with the state as also the right to modify these rights... The rules are changed... the dominant have abrogated to themselves the power to suspend all rights of the dominant.” (Anita Cheria et al, 2011). Shared and traditional rights of usage of Commons may be many but all a usurper needs to do is to ‘first take away the rights of herders, then after a

“...extensive systems of livestock rearing like pastoralism are much more environmentally friendly than intensive systems which can destroy huge swathes of forest and emit large amounts of man-made greenhouse gases in their production systems.”

Down to Earth magazine



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The pup has its supper too.

Slowly the nomadic sector is being throttled. Where are the champions to show that transhumance is a time-tested, pasture and Commons-friendly practice?

while, re-vest the right on another body in the guise of doing 'public service'.

Slowly but surely the nomadic sector is being and will continue to be squeezed into non-existence. Where are the champions to show that transhumance is a time-tested, pasture and Commons-friendly practice? Who will pay heed to observations published in reputed journals like the *conservationmagazine.org* that "*herders have long traditions of collectively managing their pastures? Whatever it may look like to the outsider, there is no free-for-all. And second, ecologists now realize that reports of desertification are greatly exaggerated.*"

In fact, in most places, in most cases, cattle and other animals grazing the grasses and browsing the bush are, as a recent report from the International Union for the Conservation of Nature put it, "*vital for ecosystem health and productivity... Far from wrecking the land, pastoralists and their animals have for thousands of years conserved biodiversity, held back the desert, stored carbon, and prevented erosion. Pastoralism is the best way of managing the fickle climate of the dry grasslands of Africa and elsewhere. If climate is going to be less reliable in the future, perhaps even drier, then the skills and knowledge of pastoralists will be of even greater value.*"



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Animal Husbandry to the Rescue

Will there be a vacuum on the grazing lands if the already depleting herder groups disappear? Not likely. Encroachers will gradually move in. In semi-urban areas these will be exploitative builders and in rural areas, a mix of poor landowners wanting to hedge their risks in context of uncertain rainfall and climatic conditions, or better off farmers wanting to be even better. Will these encroachers and the villagers have many heads of livestock? Very unlikely – for who will graze the stock? Probably the village children competing with schooltime, or the elderly, or part-time labour. A great incentive would be to take up stall feeding. Policy makers may actually encourage this because to many organisations funding development programmes, this is apparently one sure way of increasing output and income. Policy makers are likely to overlook the fact that traditional herders produce animal wealth at zero input cost.

If more and more groundwater exploitation programmes are planned in the Indus basin (which includes both Rajasthan and MP) then a time may come when irrigated areas may







A one day old seeks its mother among the skirt-folds of the lady who helped in its birth.

revert to being rainfed. According to two agro-irrigation experts, for the country as a whole we have, “almost dried our rivers and are emptying ground water resources by reckless extraction. Extensive use of chemical fertilizers and pesticides is polluting not only surface water resources but ground water too. It sounds a paradox but agriculture is now creating an unprecedented crisis for the environment. The trend has to be reversed.” (Y. Nanda and S.K. Kumar, *Tol* 2015).

Already, according to the Gravity Recovery and Climate Experiment (GRACE) 2015 in the Indus valley, “the source of fresh water for millions is the second most overstressed with no natural replacement to offset usage.” Will olden-day models then have to be redesigned to meet the impending crisis? Will ‘agro-animal husbandry’, not just agriculture, be our savior?

The range-free animals herded by the pastoralists survive for most of the time on vegetation uncontaminated by pesticide and artificial fertiliser, especially types that are considered to



Making Food from Nothing

"The uniqueness of the Raika system of livelihood lies in the fact that they create food out of leftovers: out of nothing. The Raikas and other such pastoral groups are responsible for making India the largest producer of lamb and goat meat."

"Today the biggest threats faced by the Raikas are the constantly shrinking grazing spaces and the theft of their animals. Climate change is not much of an issue, in fact, for a community that has thrived on uncertainties, coping with the fallouts of climate change is not difficult."

"By bringing together the best breeds from far and wide, the Raikas ensure that animal biodiversity is maintained. Therefore, decline of this way of life would entail a decline in animal biodiversity. Policy makers ought to take cognizance of the various international agreements like the Convention of Biodiversity (CBD) that India is a signatory to, and take appropriate measures to create access to benefit-sharing and knowledge-recognition protocols that secure the interests of the pastoralists. It is very important to emphasise to the pastoralists themselves their contributions to ecology and economy."

These were points made by **Dr. Ilse Kohler Rollefson**, Advisor to Lokhit Pashu Palak Sansthan (LPPS) in Rajasthan. She was one of the many voices heard at the workshop held in Indore in February 2015, attended by many representatives from the Raika community and from institutions working on and for nomadic herding. Other viewpoints expressed were:

"Over the last 50-60 years there has been an attempt to 'sedentarise' the nomadic communities. If the attempt succeeds, it will be impossible to feed all the animals belonging to these communities from the static grazing sources within the country. It will only increase our dependence on imported inputs for animal rearing. Therefore it is important to evolve an enabling policy in order to support pastoral ways of life. The contributions of the Raikas in terms of meat, manure, milk, etc. would run into a few hundred



Today, the contributions of the Raikas in terms of meat, manure, milk, etc. would run into a few hundred crore rupees.

crore rupees (1 crore = 10,000,000) and it is unfortunate that no research agency or agricultural university has thought it fit to try and value these contributions in any seriousness.” – **Kamal Kishore**, Coordinator of Rainfed Livestock Network (India).

“One of the main reasons why farmers do not allow Raikas on their land is the fear of animal-borne diseases which might lead to a loss of animals in their village. Solutions like vaccination of animals before the Raikas leave for their annual migration was proposed as a likely solution to this impasse.” – **Zalim Singh**, farmer from Agar (Madhya Pradesh).

“The pastoralists studied by us avoided grazing inside forests, this was supported by GPS data. Instead these animals grazed on Commons or private fallows. Therefore, the belief among foresters that pastoralists always and invariably destroy forests is questionable.” – **Dr. Mahesh Gaur**, Senior Scientist, Centre for Arid Zone Research Institute (CAZRI).

“Lack of access to education and health facilities were the key challenges confronting the Raikas today.” – **S.S. Rathore**, Member of the National Commission on Nomadic and Semi-Nomadic Tribes, Government of India.

“The land rights of the Raikas need to be secured by the government. The right to education of the Raikas needs to be honoured, and it is up to the State to ensure that they are able to access education without difficulties.” – **Avjendar Singh** from the Department of Social Welfare, Government of India.

“The decline of the Commons – which are of key importance for pastoral communities like the Raikas – has greatly impacted their way of life. It is important to harness the inherent wisdom and knowledge of the rural communities in order to achieve balance between natural resources, social structures and rural livelihoods. Studies are needed to better appreciate the processes and linkages that lie in the interface between the pastoralists and natural resources. The Raikas need to organise themselves, in order to make their voices heard and their needs appreciated by government agencies.” – **Ramesh Bhati** of Sahjeevan (Kutch, Gujarat) and **B.K. Sharma** from FES (Bhilwara, Rajasthan).

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What the Raikas Say...

“When we migrate, we face a lot of difficulties. In many cases, in places where we pitch our camps, we are asked by the host villages to move out. We also face a lot of difficulties in accessing health facilities.”

“Our first concern is access to and through forests. We come all the way from Rajasthan, and the absence of forests when we come to MP poses immense difficulties for us. We request that the Forest Department there give us access to small patches of forests and see how this works out... Lack of medical facilities for our animals is another major challenge that we face... We also do not have access to ration shops.”

“Our lifestyle is nomadic and livestock-rearing is our traditional avocation. When we come to MP from Rajasthan, we do not have access to legal recourse even when some of our members get killed... Another major challenge is the declining numbers of our animals. There are many reasons for this. Fodder shortage is one. Forests have declined. Traditional species of fodder are not available – the Angrezi Babul has become a dominant species where we migrate.”

Members like Krishnaji felt that the decline in their animals was also due to a decline in the diversity of the fodder species available for forage. While Naina Devi points to the enormous difficulties that the Raikas face due to their inability to access public services like health, education and ration shops, also the theft of their animals.



Many young male children leave the villages to attend school and come face to face with the comforts of settled life. The girls are left behind...

“Herders have long traditions of collectively managing their pastures. Whatever it may look like to the outsider, there is no free-for-all.”

conservationmagazine.org

be dangerous to human health and have been banned in many countries. Range-free chicken costs much more than broilers not only because it tastes better and its eggs are naturally yellow but because of reduced salmonella risks. Likewise, range-free goat flesh is tastier and has little toxic contaminants. Hence there is a strong case for the Animal Husbandry Departments of States to convert this age-old practice (range-free sheep and goats) into a lucrative business using all the tools of marketing, and with an ‘organic’ branding.

In the not-too-distant future, we may witness a scenario that some may now consider far-fetched: the rearing of animals in several irrigated spaces in competition with food crops, and their transport to market or processing points using depleting petroleum-driven transport to meet an ever-increasing demand for animal flesh.

Leaving aside these scary scenarios, nomadic herding may see its end simply because young, male children often left in the ancestral village, attending schools and getting exposed to the comforts of settled life will not like to continue the practice. According to Hartingaram and his father Lakaji, in just two or three generations nomadic herding may vanish – unless government support is available for its continuance.

As it is, according to LPPS 2014, *“With the loss of grazing lands, flock sizes have decreased, with for example, the average flock size in the ‘shepherd belt’ of*



Rajasthan declining from 200-300 to 60-70 sheep over a period of 10 years. The numbers of keepers of small stock have also declined, with many former shepherds and goat rearers now working as daily wage labourers."

Guarding a forest boundary earlier open to grazing.

If the Fence Eats the Crop...

At the time of writing this section, a disturbing piece news reached us – Hartingaram sold off a large number of animals in disgust after the theft of 60 heads just two months ago in MP, followed immediately by another theft in a different *dera*. Leave aside any action against the thieves (stated to be members of an inter-state gang that carries camels across the border for slaughter), the State police, according to the herders, instead of arresting the thieves had charged the herders for resisting with sticks and injuring a thief on the leg! A written complaint has been sent to the National Commission on Nomadic and Semi-Nomadic Tribes, but the outcome is not known to the affected Raikas.

I recall that at the Indore workshop, thefts in MP were highlighted as one of the most serious challenges being faced by the Raikas and the continuance of their practice. According to a case study by the LPPS in 2014, *"The largest threat as perceived by the Raika is from theft of animals by members of communities such as Kanjar, Mavliya and Vagri. Most often the stealing is done by two people riding on a*

"To put it differently, if the fence eats the crop who can save the crop and to whom can the crop complain?"

The Renke Commission Report



motorbike, one of them steering the bike, the other one lifting sheep. But the Raika also tell of gangs of 20-30 men armed with piles of stones that wear black clothing and drive up at night in pick-up trucks. They park their trucks in some distance then stealthily pick up sheep from the edge of the herd. In case, they get noticed, they start throwing stones. Thefts can also happen while driving the sheep along highways... especially dangerous is when flocks are on their own with a single herder, for instance when drinking at ponds. A single person is not in a position to fend off rustlers."

This is also echoed in the report of the Renke Commission (2008) set up by the Government of India, "Most of the Denotified and Nomadic community members face abuse of human rights by the law enforcing authorities, realtors, politicians, landlords, and the village communities. They are exploited by every one of them. They are many a time victims of the misuse of power by the police and the caste communities in the

villages. They are arrested or illegally confined for any theft or burglary indulged in by others... To put it differently, if the fence eats the crop who can save the crop and to whom can the crop complain? If the State, which is supposed to look after the welfare of its citizens, becomes the tormentor, who can rescue its subjects and to whom can they look up to for help?"

It is not only the law and order machinery but other regulatory functionaries who set up hurdles to the smooth continuance of the pastoralist lifestyle. "What do you do when, in the course of your travels alongside forests, you come across strangers cutting down trees?" I once asked a Gaadar minding sheep quite close to a forest patch that had recently been made out of bounds for them. "We do nothing," he replied, "We do not want to interact with the foresters more than we are forced to



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Herders are wary of strangers approaching the camp.

for they may very well accuse us of some wrong doing and then fine us.” We have seen documents that record the realisation from fines that bear no relationship to the number of animals involved.

‘Rent seekers’ are certainly not limited to the functionaries of the forest departments. We were told that the local veterinary officers of Rajasthan have misused a State Government direction proclaimed some four or five years ago, that herders would get free supply of 680 medicines against payment of one rupee per head of animals owned by them. Actually however, these medicines are not available at the village dispensaries but have to be bought from the private shop owners. One can only assume how the medicines arrive there. *“The ones kept in the dispensaries are non-effective and we rarely take them,”* said one *dera* leader who I do not wish to name for obvious reasons.

We were told that likewise, it was proclaimed by the Rajasthan Government that five litres of kerosene and five kg of wheat would be available to the herders for four rainy months but these are seldom obtainable. A Gaadar questioned the logic of a four month allocation for the herding community when they do not stay more than two and a half months in Rawatbhata area. The Rajasthan Government has yet to think of mobile ration cards. (According to Washington Bangla Radio/PIB India broadcast on Dec. 1, 2010, about two lakh nomadic Gujar and Bakarwal families in Jammu

“Most of the Denotified and Nomadic community members face abuse of human rights by the law enforcing authorities, realtors, politicians, landlords, and the village communities. They are exploited by every one of them...”

The Renke Commission Report



Nomads do not receive the benefits of different government schemes for BPL (Below the Poverty Line) families. The Rajasthan Government is yet to think of issuing mobile ration cards.

and Kashmir are being brought under the Public Distribution System (PDS). *“They will be issued temporary ration cards so that they get rations while migrating from one place to another without any difficulty,”* said the State’s Minister for Consumer Affairs and Public Distribution, Qamar Ali Akhoun. This meets their long-standing demand as due to their migratory nature *“they had not been receiving benefits of different government schemes launched for BPL families.”*

While it is established in various studies and reports – and in this feature – that obstructive policies of government and government institutions are a major reason for the disappearance of transhumance, we came across unverifiable allegations of decisions taken by the Forest Department that seem not only to be discriminatory but also has the potential for generating inter-group tension and conflict. In Rawatbhata area of Rajasthan, a State that apparently is better disposed to the Raikas, the Forest Department has since 2011 been taking one rupee from each head of herder stock that comes to that area – but does not allow any grazing in the ever-increasing enclosed areas and boundaries! However, for the Gujar community which rears buffaloes for producing milk and *ghee* (a local favourite) there is, we were told, no such restriction! It seems just a matter of time before conflicts arise between the buffalo keepers and the nomadic sheep and goat herders. Gujar cow owners must be unhappy too.



Herders can diagnose and treat common animal diseases.

The Case for Collaboration

As would have been noticed by the discerning reader, this photo feature is not making out a case for outright protection of nomadic herding over agriculture or forestry practices. What we are stressing is the desirability of accepting – through imaginatively-designed collaborations – that there is a place for each model of living and conservation. Why can't there be multiple areas of cooperation between various departments and the nomadic community? Why can't there be a grievance redresser body at each State and district level with coordination functions assigned to and performed by the district administration?

Indeed, why is it not possible for the foresters and the veterinarians of the State to engage the herders to plant fodder-producing trees/plants along the grazing routes (the herders know what species will best suit the eco-conditions just as the foresters) and protect them from being felled or at least inform on any concerted effort by a vandalising group? Who does not have a mobile phone these days? I imagine the off the cuff reply would be: *"But they do not stay long at one place... so who will look after the plants?"* Well, the present method of getting outside labour to plant areas that do not belong or are of no use to them, offers less of an answer.

Traditional methods of treatment of sick animals are largely forgotten – allopathic medicines cure faster.



Herders removing *Prosopis* thorns from the camel's foot....

“The global market for camel milk is \$10 billion. While minding their animals, pastoralists tend trees producing gum arabic that turns up in everything from Coca-Cola to paint; they harvest thousands of tons of medicinal plants and honey by the tanker-load; they escort desert tourists and guard wildlife. Oh, and they produce meat – the most popular foodstuff on Earth.”

conservationmagazine.org

From Coca-Cola to Paint

Consider instead what the *conservationmagazine.org* (September 7, 2010) says: “While minding their animals, pastoralists tend trees producing gum arabic that turns up in everything from Coca-Cola to paint; they harvest thousands of tons of medicinal plants and honey by the tanker-load; they escort desert tourists and guard wildlife. Oh, and they produce meat – the most popular foodstuff on Earth.”

In return for this service, the herders should be allowed to follow their traditional routes with minor restrictions (explained to them in terms of long-term use and conservation), and jointly managed. Planners can refer to the tested model offered by Allan Savory, 2013, centering on what he calls ‘holistic grazing’. What has to be recognised, however, is that grazing rights will be the catalyst for getting the herders to actively improve the resource base of the Commons and the forests as well.

In most States, the provision of the Forest Rights Act 2006, as it is commonly known, has not been implemented for the herding community, and this certainly is a lapse.

“Only if property rights go from the informal to the legally backed and well fined formal mode, can there be progress,” said Peruvian economist Hernando De Soto many years ago.

*...while another holds tight the nose and mouth
of the animal.*





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Why not train the herders to provide basic veterinary care to animals in villages along their route?

Nomadic Vets?

Why not rope in the herders, after imparting proper training to them while on the move, to provide basic veterinary care to the animals of the villages on their route? Many studies have recorded their prowess, generated by 'heritage-information transmitting methods' to treat injuries and many types of animal illnesses.

According to a prominent dispenser of medicines in Rawatbhata market, the herders now know the names of many modern, allopathic medicines both for treating their animals as well as their family members. A State-sponsored training programme, on the lines imparted to health workers, can ensure that the allopathic medicines, especially antibiotics are used in proper dosage and over recommended periods.

What About Human Rights?

What about the issue of Human Rights that the nomadic community has not heard of? National and International conventions prescribe that traditional lifestyles, practices and cultural beliefs should be supported and nurtured, not obstructed. Besides, the right to education and health, all other government-sponsored welfare programmes have to be extended to all communities even if they are nomadic. This photo feature we hope will draw attention to this major lacuna so that not only can State governments rectify this failure but the community too can demand the formulation of imaginative procedures for availing benefits under such rights.

The Sad Story of Dhiyabai



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During our visit to Shanklaji's *dera* in August 2014, a lady showed us her injured foot, bandaged with a strip of cloth after application of a popular antibiotic ointment. She was unable to say as to what would be the required frequency and period of application. Her name was Dhiya and this is her sad story...

Self-treated and dressed injury.

We meet Dhiyabai in the month of June 2014 when her *dera* reached Rawatbhata for their monsoon 'break' from long-distance route marches. In the seventh month of her pregnancy, she was busy doing patchwork on a blanket. When we noticed a carelessly-tied cloth bandage on her left foot, she casually mentioned that earlier on that day her toenail had broken when a rock she was moving fell on it. So, she had bandaged it with a strip of cloth – no it was not fresh or clean – after applying an ointment available in her *dera* (either some antibiotic or povidene/iodine).





**Government doctors
are few, private ones
are expensive. So often,
herders have to fend
for themselves
medically.**

She explained to us that for such injuries, most often they have to fend for themselves as *sarkari* (government) doctors were few and far between and generally unhelpful; private doctors on the other hand were expensive even if practising close by. Earlier days, according to Leelabai of the same *dera*, they would use a mixture of goat dung, *haldi* (turmeric) and salt but this would take longer to heal, often resulting in the nail falling off. So now, due to the compulsion for quick healing, they prefer modern medicines. Yes, very soon they would forget the old method.

January 2015: Seven months later, we re-visited Jamaji's *dera* somewhere near a village curiously named Ghattiya (in Hindi it means 'no good'). Dhiyabai was not there that first day, being on her way back from Pali (Rajasthan) where she had gone for treatment after delivery of a baby boy. We were told that at Pali she had lost her baby within just one and a half months of his birth. According to the doctors, the child died because of an infection that it had caught while in the womb. Her *dera* mates did not say so, but we suspected that the source of the infection was her injured foot tied with dirty bandage, followed by continued walking over animal dung. She herself had caught a fever that could not be attended to in MP. Gaadar ladies and men have to live and work day in and day out, there is no question of taking rest!

Pallavi, an FES researcher, met Dhiyabai who returned the next day. She told Pallavi that about 15 days after our first visit she began suffering from high fever



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and pain in her foot. So she went to the Eklingapura Health Centre in Rawatbhata across the border in Rajasthan and at the government hospital there, gave birth to a premature baby. As the child was weak and sickly, she did not return to the *dera* but took it to Pali where her family elders live. Unfortunately, the child also caught some infection and after one and half months it was no more. Dhiyabai stayed in her father's place till she was mentally adjusted to return.

March 2015: When I visited her *dera* again, she was in the midst of packing up camp to travel to another destination. Only in her eyes could I see a shadow of her loss.

But her movements, her immersion in her work seemed to say, 'this is our life'. They see birth and death so often they share their happiness and sorrow with their *dera* family. Dhiyabai is just one of many who have given up thinking of any sympathy and support from the world outside.





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This photo feature hopes to draw attention to the nomads' right to all government-sponsored welfare programmes, including education and health.

What About the Future of the Children?

Specifically, what about the future of their children? While the sight of camel trains, carrying load of tiny tots, pots and cots is colourful and romantic, they conceal stories of hard lives. The children are not likely to see that other face of the world progressing along a different path – along which good health, good education and nutritious food may be found. Their hands wield sticks to herd sheep, pull ropes to secure their animals or to pile their households on the backs of camels, fetch water over long distances, clean utensils, peel vegetables and sew torn clothes – they don't hold pencils, pens, books, educational toys or tablet PCs. State and national schemes for children, in particular the girls, are only there for settled children it seems.

But why does it have to be so? Some 15 years ago, I had visited the Ladakh region of the Himalayas, where the nomadic Changpa community had been motivated to allow one or two teenagers from among them to attend residential schools for a part of the year. Thereafter, they were paid by the State to travel with the nomadic groups across the barren mountains, imparting primary education, functional-commercial skills, preventive health and simple environmental knowledge to all the other children and even adults. This was done most often at the end of the day, under the glow of a camp light while the mothers and ladies cooked.





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National educational schemes for children – particularly the girls – are only for settled children, it seems.

The governments of MP and Rajasthan can very well begin a programme on these lines, calling it 'Teach in Tents', either as a government initiative or through NGOs. In the initial stages at least, this would be operationally more workable and emotionally more acceptable than asking children to leave for unknown residential schools. And, keeping in mind what available educational statistics proclaim: 'The State is not a good parent or teacher!'

Angel Investors in Pastoralism

"A recent emergence in the national economic scenario is the start up business sector supported by 'Angel Investors'. Can we hope that these 'Angels' can also be attracted to make similar investments in the social sector, with linked financial gain? It should be possible to design schemes with government and NGO support to make investment in the 'Teach in Tents', 'Ethno Tourism' or any such transhumant welfare programme an economically paying proposition. When successful (as per proper evaluation formats), government can then pay back the capital invested together with a percentage interest to such 'Angel Investors in Social Change'. The idea is not new but surely worth looking into in the Indian context." (TED Talk by Toby Eccles, 2013).

Suggestions to extend educational facilities for the nomads' children interestingly raise a paradoxical question: If education is suggested alongside continuance of the herding practice, will the former itself not become a disincentive for the latter? Perhaps yes, in the short term. Market and work-related education, and skills development, will demonstrate to herders that their children need not compete in the open market with other



Why not a 'Teach in Tents' programme?

children but focus on areas in which traditionally they have no competition. We have seen small children following their elders' techniques of guiding sheep with just appropriate whistles and guttural sounds. They know which animals need extra care and have to be carried in their arms or on camel back. All herder families can persuade one or more mothers, with shrill bursts of whistles, to disengage themselves from the rest of the herd and come feed their kids at close of the day. Even old Nyamaji knows all the animals in his charge as well as the ones that are sick, or likely to fall sick and therefore, to be disposed off.

The entire clan has learnt the art of negotiating price with flesh buyers as well as how to ward off small-time antagonists. All the functional skills of the herders need only be imaginatively dovetailed with existing government programmes and schemes in order to make them more productive. For instance, they can become better veterinary extension agents than those following some other avocation settled in villages.

No profession or production-based system functions in isolation. If one party provides a service, another benefits, and the two complement one another. From the charging of mobiles to the buying of provisions to the organic manuring of lands, the settled trading community or villagers gain from the presence of the herders. In

Market and work-related education, and skills development, will demonstrate to herders that their children need not compete in the open market with other children but focus on areas in which traditionally they have no competition.



Girls stay back to help their mothers in the camp.





Festival day: Applying turmeric paste on animals.

addition, the villagers get first preference in animals available for meat or wool.

Indeed, the relationship seems quite strong and supportive: when we asked the people of Eklingapuram in east Rajasthan (named after a small Shiva temple situated at the junction of two roads, one descending from a high, stony plateau and the other proceeding further along the ridge), they feigned ignorance about the whereabouts of the herders. We were, however directed to meet the temple priest. When we did so, he too was guarded and asked many questions. Only on being satisfied that we had no quarrel with the herders, indeed quite the opposite, did he tell us where to find them. Why? Obviously, because they did not want to jeopardise a mutually-beneficial relationship built up over the years.

Hartingaram told us later that most herders that come there visit the temple and the adjoining shops to buy provisions, medicines, charge mobiles, drink tea and chat with fellow herders from other *deras*. Such social relationships will definitely be threatened if government policies make the continuance of pastoralism difficult. There would be many who would argue, *"So what? Something else will, of course, fill up the vacuum after a while."* But we came across many others who didn't favour this view at all.

From the charging of mobiles to the buying of provisions to the organic manuring of lands, the settled trading community or villagers gain from the presence of the herders.

**Eklingapuram
Plateau...**
**Where 40-50 groups of
herders settle before the
monsoon sets in.**

The Rawatbhata-Eklingapuram plateau is beautiful. For miles, one can travel along the windy edge of the high, rocky ridge and then suddenly a wide area of bare grazing ground swings into view. On a clear day, the blue waters of the Pratap Sagar dam are visible in the distance. It is to this area that around 40 to 50 groups of nomadic herders, connecting to their clans over the mobile network, make their way during the early monsoon and settle down near the dam. Further afield is the Gandhi Sagar sanctuary through which the herders must pass after the monsoons and enter MP.



I have been to this area twice and am convinced that there is a very strong case for the practice of nomadic pastoralism to be incorporated into any tourism plan of Rajasthan, with Rawatbhata being a most appropriate place for the programme to take off. This could be on the pattern of successful experiments tried elsewhere (Greater Himalayan National Park, Kullu District of Himachal Pradesh).

A university in Rajasthan can have a



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website that would offer researchers and serious tourists an opportunity to travel and stay nights with the herders, participating in their lives and understanding their ancient lifestyle. Prior to that, selected herder groups could be trained by universities, in consultation with institutions promoting tourism, to pitch improved tents, provide eco-friendly toilet facilities, cook simple meals and serve these in a clean and hygienic manner, offer camel rides to surrounding forests, display and sell their handicrafts, recount stories in the evening, sing or dance if they can, and provide great photo opportunities. Selected villages along the route could provide camping sites and could be similarly trained to meet all the standard requirements of tourists.

Tourists may also be encouraged to share and teach the herders whatever skills they have – such as functional literacy and education, plantation, producing animal products and by-products, soil and water conservation, whatever it takes to involve them emotionally and keep them happy. The income received in advance from the tourists/researchers would be transparently and logically distributed to the participating groups and villages. A win-win situation all around, with the transhumant tradition being given a new fillip.





City dwellers may find it difficult to understand the lures of a herder's life.

Why Hartingaram Carries On

Herding is a life that city dwellers would generally find difficult to understand. It is a continuous series of hardships and conflicts. So why, according to them as also those Raikas who have given up this practice and become politicians, do Hartingaram and his clan continue on their path? One reason is that these herders are very competent and confident in doing their job and indeed, have no other skill or education, and

hence hesitate to sacrifice a life of certainty for the unknown. I presume they still live on the hope that a welfare state will look after their interests. Yet some youngsters who have no such expectations continue to leave the nomadic life behind. In fact, during our visits, we rarely saw young boys at the camp except for brief spells during school recess.

The total number of functioning *deras* that originate in Rajasthan, move on to Madhya Pradesh and then return,







Young apprentice, now on holiday from school in the ancestral village, learning herding skills.

“The future of pastoralism will depend heavily on public impressions and political decisions regarding their ability to manage and conserve natural resources.”

is estimated to be around three hundred. Each such *dera* has, on an average, 25 families. So, the movement is about 25,000 families strong. There is, however no organisation continuously championing their cause. With two or three representatives of each, some *deras* do meet once in a while, just as there are some organisations like the Rajasthan Pastoralist Development Association or the LPPS of Pali District that convene interaction between herder representatives, government functionaries, and academicians.

But there is no formal structure that continuously raises, discusses and spearheads the concerns of the nomadic herders and their cause, not even at government level. The groups we interacted with are aware that inter-*dera* meetings occasionally take place (mainly during the monsoon period) but most elders are skeptical of their purpose or effectiveness. The charge of one rupee collected per animal before each meeting is also cause for some anxiety about how the rupee is spent.

At the same time, herders agree that for pressure to be put on policy makers it is necessary for them to organise themselves into a formal federation... but who will guide them and work towards this? Many are not sure that their elected representatives will do this. Indeed, elsewhere one heard that the elected representatives to the State or national chambers forget their cause once exposed to a different world. Reportedly, some of them have even suggested that nomadic groups should give up their practice and join the mainstream. Obviously, supporting the cause of the herders will not be easy. As highlighted elsewhere, *“The future of pastoralism will*

depend heavily on political decisions made by national governments managing significant grassland zones. Government policies are very unlikely to be uniform in this respect, and pastoralists are thus likely to gravitate to regions where conditions are most favourable."

Unfortunately, the herders of Rajasthan will not be able to avoid MP even if restrictions and thefts there become very frequent and severe – essentially because between rains, Rajasthan is too dry. Farmlands across the eastern border, on the other hand offer grazing opportunities as well as income in cash and kind from the agriculturists in return for dropped nutrients on their lands.

National Commission Raises Hopes

A development that surfaced at the Indore workshop of Feb 2015 was the setting up of a National Commission for Nomadic and Semi-Nomadic Tribes. With one of its members located at Indore, in neighbouring MP, there is the possibility of this body playing a major role in ensuring protection to the Raika and similar herder groups, and acting as a 'grievance redresser' body. It could well have some degree of influence on State officials. It could also play a proactive role in the formulation of a national policy for this sector.

Additionally, there might be a need to maintain a financial corpus for legal aid to herders if, as mentioned by the Renke Commission of 2008, law and order authorities institute false cases just to 'teach them a lesson' for raising protection-related issues with higher-ups.

Resource sharing and conservation issues are occasionally discussed amongst herders, especially during extreme climatic conditions, but never with government in the Forest or Land Departments. Jagdish, Hartingaram's cousin is convinced that their grazing land, if not continually cordoned off, would provide sufficient grass for the number of animals they move with, providing the rains arrive on schedule. Sometimes, as happened in the year 2013, the rains arrived late. The herders had not anticipated this and so when they landed up in the Eklingapuram plateau about the time they normally do... there was no grass. The animals became stressed and so did the families for they could not find drinking water at the known sites. If they were given Met data that the rainfall was likely to be low they could have modified the timing of their journeys, remained near Ujjain and Indore, and not travelled towards the drier regions of Rajasthan.

Rainwater harvesting and moisture conservation programmes on the Rawatbhata plateau could have provided relief, but herders have apparently not been approached by the district administration to take up such projects along the route. Some isolated attempts that we saw for ourselves involved labour drawn from faraway villages. Those people would have no interest in maintaining such projects.

If the *deras* increase their stock, they may not be able to extend their grazing area since area restrictions are regularly being imposed. The *dera* leaders, including Jagdish, do not seem to comprehend the relationship between the carrying capacity of their grazing area and the effects of continuous feeding on it. The rain can come to the rescue. If it is timely, they can stick to their settled routine and route. If not, they would have to divert to newer areas, as indicated by advance reconnaissance.

'Carrying Capacity'

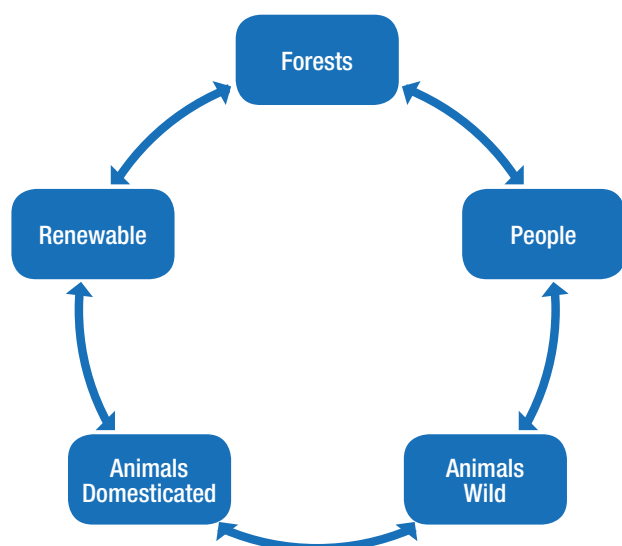
Interestingly, ecologists are also questioning the use of the term 'carrying capacity' since according to them it applies to static systems in equilibrium wherein ideal benchmarks can be set in order to compare and apply control measures. Pastures, the Commons and degraded forests by their very nature denote irregular environmental conditions and are, therefore, of 'variable'







Forests, a renewable resource, are as much for people, livestock, soil and sub-soil life as for trees and wild animals.



carrying capacity. (*Valuing Variability*, IIED 2015). So, the herders are ahead of conventional concepts and Jagdish cannot be faulted for his thinking that rainfall is all that really matters.

Most do not think of nor have they ever been approached by anyone to consider tailoring their grazing practice and methodology to the irregular and variable carrying capacity of the lands they pass through. Such planning could happen when the State seriously implements the provisions of the Forest Rights Act 2006 which relates to pastoralists. Savory's tested method has been described in the text. Traditionally, the motivation of the herders has always been to look after their animals and not the lands they pass through. Also,

individual groups cannot think of any conservation measure or practice since other groups, less enlightened, may not observe the necessary restrictions.

The spirit behind the passing of the Forest Rights Act 2006 is that forests are not only for trees and wild animals but also for people and the pastoralists with their livestock. Linking this with the renewable nature of forests, and sustainable management ought to become the guide of the future. Sanctuaries, National Parks and protected areas must of course be kept out of any such joint management except as provided and permitted under the Forest Rights or any other Act.

Grazing is not the primary cause for degradation of forests. Besides the observations of Savory, other studies and experiments have forcefully suggested that grazing is essential for the growth of grass and soil stabilisation. *"When a ruminant grazes grass, the grass is cut from this height to this height, and it immediately does something very*

interesting. Any one of you who gardens knows that there is something called the root-shoot ratio, and plants need to keep the root mass in some rough balance with the leaf mass to be happy. So when they lose a lot of leaf mass, they shed roots; they kind of cauterize them and the roots die. And the species in the soil go to work basically chewing through those roots, decomposing them – the earthworms, the fungi, the bacteria – and the result is new soil. This is how soil is created. It's created from the bottom up. This is how the prairies were built, and the relationship between bison and grasses." (Michael Pollan, 2008). The forests of Rajasthan, it would appear, need ruminants rather than stone boundaries!

Herding is an investment-free practice. The animals live on what nature provides. Occasionally, we have heard that if grass is really scarce, the herders spend money



Abandoned rainwater-harvesting attempts.



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A French pasture researcher established that overgrazing was not related to the number of animals grazing but was a function of time – whether animals remained too long in the same place or returned too soon after grazing.

to buy fodder from villages. What if fodder becomes scarce? They have not dwelt on this possibility or about periods of prolonged drought that is now feared will hit all central India. Has the time not come to invest in the land they go through so that drought risks are minimised and the practice survives longer? Media reports that Maharashtra periodically bans the entry of livestock from Gujarat so as to conserve fodder for their own animals. Unless soil enriching, ground and tree fodder plants are planned over degraded lands through which herd families pass, similar issues may arise between Rajasthan and Madhya Pradesh in the not so distant future.

But our Forest Departments have to become aware of the changes happening in the traditional thinking and training on forestry, and acknowledge that a time has now come when periphery forests, just like the deep ones, have to be managed under different paradigms. One such suggestion is, “...*Holistic Planned Grazing... based on minimizing overgrazing through maintaining a high graze/trample/recovery ratio on the land at all times... and the application of high physical impact – trampling, dunging and urinating – on the land in short periods interspersed with much longer periods for plant and soil life recovery.*” (Allan Savory, 2013). Settled villagers as well as herders with animals can also have a role in its sustenance, if imaginatively involved.

Living Lawnmowers

This is what the website of a respected eco-conservation trust says: *Grazing animals eat selectively and often choose the more dominant plant species, which*



allows less competitive plants to become established and increases species diversity. As they graze across the landscape, the animals decide for themselves where to concentrate their efforts and create a mosaic of different sward lengths and micro habitats.

Lying, rolling and pushing also serve to increase the structural diversity of the sward. This is important for ground nesting birds like lapwing and snipe that need a

varied sward structure to successfully rear their young.

Trampling creates areas of bare ground, which is beneficial in moderation. It creates nurseries for seedlings that might not otherwise survive and creates habitats and hunting grounds for open ground, warmth-loving invertebrates and reptiles.

Dung creates a whole ecosystem by itself! Conservation grazing animals are usually grazed in extensive, low pressure systems so there is little need for chemicals to control internal parasites. This means that a whole range of wildlife moves into a cowpat to set up home – more than 250 species of insect are found in or on cattle dung in the UK and these in turn provide food for birds, badgers, foxes and bats.

The choice of livestock used for conservation grazing is very important. Differences in feeding preferences, physiology and behaviour mean that different animals and breeds are needed to manage different habitats: sheep prefer to nibble shorter grasses but will also select flower heads, which can result in a decrease in species diversity if not properly managed. Many traditional and hill breeds have a strong browsing requirement to their diet, so are good for scrub control. Their small size means they can access areas that machinery can't.

(<http://www.wildlifetrusts.org/conservationgrazing>)

The Overgrazing Myth

"The myth, or deep human belief of thousands of years, that has permeated range science and all organizations and institutions, is that overgrazing is due to too many animals. In thousands of PhD dissertations range scientists assumed this to be scientific fact. So much so, that no one either defined overgrazing (other than too many animals) or produced any evidence linking overgrazing to animal numbers. Fortunately, considerable plant physiology research on defoliation of grasses and the subsequent effects on root sacrifice (to provide the energy for regrowth) enabled a French pasture researcher to establish that overgrazing was a function of how long a plant was



exposed to grazing and how long it was before it was re-grazed. In other words, overgrazing was a function of time and not of animal numbers. Whether there is one cow or a thousand does not alter the fact of overgrazing but merely changes the number of plants overgrazed if the animals remain too long in the same place or return to it too soon following grazing.” (Allan Savory, 2013).

Foresters we met in MP opined that herders if allowed access to forest areas will not adhere to stipulations on prescribed routes but may go deeper inside. They may even set up camps that may be detected long after. Yes, indeed this is possible – just as forest staff legally authorised to collect fines for trespassing within forests may go beyond the boundary in order to meet their collection target. However what we are repeatedly harping on in this feature is *inclusive control* wherein all parties are consulted in a spirit of cooperation, and management and control mechanisms are jointly laid down.

This may be difficult at the beginning, but it should not be impossible. The result of settling rights under the Forest Rights Act 2006, once vehemently opposed by conservationists, has not resulted in any increase in deforestation in private allotments, according to a study in a district of Rajasthan conducted by the International Growth Centre UGC, April 2013. The State of the Nation's Forestry Reports too do not show any loss of green cover.

More Studies Wanted

What has not yet been captured is how much deforestation, if any, has taken place around villges where community rights have been settled under the Forest Rights Act, or studies showing the status when such allotments are combined with joint





An elderly villager in MP suspiciously viewing the entry of Hartingaram's animals.

management and support. What is being highlighted, therefore, is the urgent need for such studies across the country, wherever rights have been settled plus management inputs from State governments on such lands. Follow up on the work of Voisin and Savory may be a good place to start.

The new management plan could include the re-establishment of corridors in village and reserve forests through which animals are allowed to pass and not linger for more than a day or two – but before that, the mechanism for jointly deciding the role of both the foresters and the pastoralists in supporting forest growth and biodiversity has to be decided. As the Raika elder pointed out at the Indore workshop, *“The absence of forests puts us to immense difficulties when we come from Rajasthan to Madhya Pradesh.”* As quoted earlier, he suggested the Forest Department try out giving the nomads managed-access to small patches of forests and see if it worked.

There seems to be a general reluctance among the Gaadars to settle down near villages. There is every possibility that friends may turn to enemies due to problems that can arise over resource use, especially during the cropping season or under climatic stress. In a clash of interests, agriculturists will surely win – they have government support. On the other hand, in places like the high plateau in the rainy season, the herders will not need to interact with settled agriculturists or traders for more than a day. This evolved lifestyle seems therefore, to be acceptable to both settlers and nomads as well as being resource-friendly. So it makes little sense to persuade villagers to allow herders to settle in village forests.

Most villages, however, do not object to herders settling in for a night in the

Recognition of Forest Rights



The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 specifically prescribes in Clause 3(d) and Clause 4 the right of settled and transhumant, nomadic and pastoral communities to use, graze, access and get their rights established. The Act, and the Rules under it, lay down the procedure for every State Government to implement it quickly and faithfully. It also prescribes non-curtailment of the existing rights till the matter is settled.

adjoining 'village forest' or harvested lands as long as there is no fear that they will thereafter settle down permanently. When herders are forced to change their route and move close to villages which have traditionally not welcomed their entry, there is every chance of conflict. Sheep and goats are not allowed even on plots awaiting planting, on the belief that the smell of their urine is repulsive to village cows.

Farmers who Favour Herders

Old women were most emphatic in their rejection of herders and their animals. On the other hand, farmers who welcome herders to settle on lands on the eve of cropping dismiss such statement as unfounded. *"The smell of sheep and goat urine does not last more than two*

Chapter I: Clause 2. Under Definition (o), *"other traditional forest dwellers"* means any member or community who has for at least three generations prior to the 13th day of December, 2005, primarily resided in and who depend on the forest or forests land for bona fide livelihood needs.

Chapter II: Clause 3.(1) For the purposes of this Act, the following rights, which secure individual or community tenure or both, shall be the forest rights of forest dwelling Scheduled Tribes and other traditional forest-dwellers on all forest lands, namely: (d) *other community rights of uses or entitlements such as fish and other products of water bodies, grazing (both settled or transhumant) and traditional seasonal resource access of nomadic or pastoralist communities.*

Chapter III: Clause 4.(1). Notwithstanding anything contained in any other law for the time being in force, and subject to the provisions of this Act, the Central Government hereby recognises and vests forest rights in: (b) *the other traditional forest dwellers in respect of all forest rights mentioned in Section 3.*

Under the Rules amended in 2012, functions of the District Level Committee: The District Level Committee shall – (b) *examine whether all claims, especially those of primitive tribal groups, pastoralists and nomadic tribes, have been addressed keeping in mind the objectives of the Act.*

days and the benefits in terms of organic manure are far greater.” One farmer of Agar pointed out, “When herder sheep graze in my mustard fields, I do not object for I have seen that the animals prefer the weeds to the mustard plants!”

In one village of the milk-producing Gujar community at the entrance to Rawatbhata plateau, where conflicts with the herders over common grazing resources were most expected, we were surprised to learn that there were none. Why? Because the surrounding area was vast, and there were green pastures set aside for the village cattle to graze, away from the inhospitable areas used by the Gaadars.

But behind this scenario, was something more revealing in terms of inequity and discrimination by the State. When settled villages relocate, as this one did reportedly two generations ago, the local administration came forward to assign grazing areas along with house sites for them – whereas the nomadic herders’ right to allocated grazing, notwithstanding the provisions of the Forest Rights Act and Rules, continues to be overlooked.

Attempts to settle nomadic communities, as commented on earlier, have generally been a failure. The blame has always been laid on the herdsmen, never on unimaginative and impractical planning. State government schemes and plans, however, continue to push for this. To me, a jarring note





To me, a jarring note in all settlement plans remains: how can people skilled in an age-old practice suddenly cope with such a crucial change?



in all settlement plans still remains: how can people skilled in an age-old practice suddenly cope with such a crucial change? The chances of failure loom large – so too consequent social tensions.

In the case of the nomadic herder families, an added but crucial component

Stock and Stage Posts

So as to accommodate herders like Hartingaram who now want to leave their traditional lifestyle yet not be totally divorced from it, the time has come to visualise a hybrid system wherein those who are experts in herding, and those in stocking/multiplying, are facilitated to collaborate through the setting up of 'stock and stage posts' (SSPs) along the route with provision for renting them.

At appropriate places, herder families desirous of settling down (as different from a programme to settle all) may be allotted grazing land, which they can then develop with fodder species and trees. Other herders can then split up their operations between movement and stocking, paying rent per head per day to deposit portions of their herd in such stage posts as convenient, and taking them back after a while. This facility could as well be extended to villagers who wish to keep animals but cannot do so in addition to agriculture. These would be like a kind of *Pashu-shalas* (animal homes) on traditional herding routes.

Such SSPs can form the nucleus of any processing venture branded as range free. Corporations that already have agro-business programmes under their Corporate Social Responsibility Scheme can be roped in for support.

These ideas can be further developed if acceptable to the State and the herding community. FES, in view of the goodwill it has already generated among some sections of the Raika community would, I believe be happy to facilitate such development.

is their belief that they are doing God's work by looking after animals that cannot feed or fend for themselves, so they move continuously to find good grazing.

On this topic the Renke Commission says, "*The Commission has already recommended the setting up of residential schools for the children of nomadic tribes. It is suggested that similar residential schools be run for the children of pastoral communities and should be located on the migratory routes of these communities so that the parents find it easy to send their children to such schools and to remain in touch with them during their movement from one place to the other.*" Can we suggest something that addresses both the issue of movement and static education? I have attempted something on these lines in proposing 'Stock and Stage Posts'.

7. ZOOMING IN: The Plain Dangers of Sedentarisation

The future of the nomadic herders cannot brighten unless State governments help to link their life and work with village life, and with social and area development programmes along the route. Linkages with villages will endure only if they are of mutual benefit. Joint afforestation programmes, animal health interventions, tourism, are all primary bonders as suggested in these pages. The enabler-cum-facilitator, can only be the State.

Which could be the spearheading department? Most State governments seem to consider their Animal Husbandry Department of secondary importance – at the same time expressing concern that this sector is not as robust and productive as they would like it to be. Rajasthan's plan documents regret that: *"Low productivity and very large numbers are major development constraints faced by the sector for all the species. Almost 60% of all cattle and about 80% buffaloes are nondescript and have very low milk and work output."*

Yet according to a case study by LPPS, 2014: *"Livestock keeping has always been the economic backbone of Rajasthan's rural area. More than 80% of rural families keep livestock in their households. The contribution of the animal husbandry sector to the GDP of the State has been estimated to be around 9.16%. About 35% of the income to small and marginal farmers comes*





Young Haji proficient in all the household and animal camping chores but totally illiterate.

from dairy and animal husbandry. In arid areas the contribution is as high as 50%."

Further, "Based on a total sheep population of Rajasthan of about 9 million head, at least two million ram lambs are produced and sold each year by the pastoralist sheep rearers," – and in the national context – "India is the largest exporter of sheep and goat meat worldwide, amounting to 22,608 MT and valued at almost 7 billion rupees in 2013-14. The vast majority are raised in drylands in extensive pastoralist systems." (*Valuing Variability*, International Institute of Environment & Development, or IIED, 2015).

The Animal Husbandry Department seems, therefore to be most appropriate for spearheading the new policy and policy makers must acknowledge the one crucial component of this sector: the



output of flesh, milk, wool, and export income, that nomadic herding generates comes from areas fit for nothing else and without any State investment! In some States it could very well be the Social Welfare or the Rural Development Department.

Unless the State recognises that pastoralism is a great contributor to its economy, the urge to support it will be lukewarm. Other sectors will claim more preferential treatment. I would not venture suggesting large-scale marketing of goat and sheep milk of the herders since it is presently a good source of nutrition of the nomads' own young, and there is the fear that if linked to markets, elders may sell all of it to the detriment of child and family health. Nevertheless, pastoralist milk does sustain many tea shops and village families even if for limited durations. Production and marketing of milk at the stage posts, leaving a good portion for nutritional support to the children of the herders seems to be a feasible plan.

The Rajasthan Government, though it takes a stepmotherly view of the nomadic animal husbandry sector and has no welfare programme for nomadic or semi nomadic tribes, does, however, offer residential educational facilities for both boys and girls in places like Udaipur, Jodhpur and so on. Their motive, to put it bluntly, may be to put an end to the nomadic practice so that in the next few generations their lifestyles are mainstreamed.

The factual position not taken into account in such planning is the enduring impression that while the family may be persuaded to send boys away to residential schools far away, "How can we send our little girls and who will help their mothers?"

"The assumption that mobile pastoralism is archaic and economically irrational has long been part of the motivation behind

Extracts from a Policy Document declared in 2013-14 for nomadic and semi-nomadic groups of the Government of Rajasthan, Social Justice and Rights Department, Jaipur:

1. Housing scheme for de-notified, nomadic & semi-nomadic tribes (for 1,000 households): *Rs. 7.00 crore (Rs. 70,000 per household)*
2. Hostel schemes:
 - a) Construction of hostels for de-notified, nomadic & semi-nomadic tribes (7 hostels): *approx. Rs. 15.75 crore;*
 - b) Operational expenditure for hostel: *approx. Rs. 65.00 lakh*
 - c) Non-recurrent expenditure: *approx. Rs. 40.00 lakh*
3. Residential school scheme:
 - a) Construction of 1 residential school building: *approx. Rs. 10 crore*
 - b) Operational expenditure for school: *approx. Rs. 70 lakh*
 - c) Non-recurrent expenditure for residential school: *approx. Rs. 50.00 lakh*
4. Pre-matric scholarship scheme for de-notified, nomadic & semi-nomadic tribes: *approx. Rs. 3.00 crore*
5. Special educational assistance till matric: *approx. Rs. 1.8 crore*
6. Upper matric scholarship scheme for de-notified, nomadic & semi-nomadic tribes: *approx. Rs. 3.00 crore*
7. Bicycle distribution to students of de-notified, nomadic & semi-nomadic tribes: *approx. Rs. 1.00 crore*
8. Scooty distribution to students of de-notified, nomadic & semi-nomadic tribes: *approx. Rs. 1.60 crore*
9. Proposed grant for employment/self-employment scheme: *approx. Rs. 2.00 crore*
10. Skill development scheme: *approx. Rs. 2.00 crore*
11. Annual prize/training/musical instrument purchase scheme: *approx. Rs. 50.00 lakh*
12. Promotional expenditure: *approx. Rs. 10.00 lakh*

GRAND TOTAL: Rs. 50.00 Crore (1 crore = 10 million)

the policy of sedenterisation. This belief has persisted and still influences policies in the drylands, despite evidence to the contrary. Yet evidence has been available for some time showing that pastoralism out-performs other land use systems in the drylands and that it is the most economically rational way to sustainably manage the drylands.

"Rather than exerting huge efforts to increase incomes through investment in alternative production systems, development planners would be well advised to first explore the options for enhancing this existing value. However, this needs a more thorough look at the factors that are currently constraining the system and a greater recognition of the aspirations of the producers themselves." (The World Initiative for Sustainable Pastoralism, 2006).



“Evidence has been available for some time showing that pastoralism out-performs other land use systems in the drylands and that it is the most economically rational way to sustainably manage the drylands.”

The World Initiative for Sustainable Pastoralism

8. FLASH PHOTOGRAPHY: The Way Forward

We now offer the following suggestions for an inclusive approach towards nomadic pastoralism so that an ancient tradition of our colourful country can continue, and the nation, the State and the people realise what rewards the herders can bring to the Indian exchequer and environment if allowed to link to mainstream development.

We must allow them space to grow. Instead of making it difficult for them to survive with this lifestyle, let them have a choice. Why should they have to play in an uneven field? When plantations, say of fuelwood are established in village forests, restrictions are imposed on their use and removal by the planting department after consultations with the villagers. After five years, the area is returned to the village with the proviso that green trees should not be felled. Yet, when lands that have been traditionally grazed by the herd people are taken away, no such principles apply. Why cannot the health of the land be restored in consultation with the traditional users and then returned to them for grazing under mutually acceptable conditions? Is equity only for settled people?

Can a national policy and State policies incorporate these viewpoints? And, hopefully, go beyond...

Can we take a few small steps so that they can continue to take their long strides?

How to lengthen the life of pastoralism... and make optimal use of the Commons:

Acknowledge that nomadic families have as many legal and human rights as any others to continue their profession and seek support from a welfare State. Acknowledge that they should have approachable Grievance Redressing Structures along the routes they pass through in every State, and access and appeal to the National Commission on Nomadic and Semi-nomadic Tribes.

Recognise that the notion of carrying capacity cannot be based on 'equilibrium' concepts because dryland productivity is primarily rainfall-dependent and therefore, the fixing of static, input-output grazing and plant-growth models are inappropriate. Because, "What is needed is an acceptance in policy and law that mobility is absolutely essential for the environment and for the economies of drylands. Policies across the board must be designed to enable mobility, and specific laws are required





for the protection of migration routes and for regulation of transhumance.” (The World Initiative for Sustainable Pastoralism, 2006.)

Jointly Nurture Commons: Assess carrying capacity all along grazing sites and routes under non-equilibrium scenarios and jointly manage grazing through zoning, timing, planting of fodder trees and grasses that bind and consolidate the soil, supported by in situ animal manure; create water harvesting structures under watershed development programmes; establish wayside fodder banks on pay and carry basis.

Jointly Nurture Forests: Help in the germination of plants that need softening through the animal gut; disseminate seeds pre-monsoon through sacks with small holes tied to the neck of animals or, as in some parts of Himachal Pradesh, feed animals seeds that need to be propagated the night before they graze in forest areas; use animals to consolidate soil and nurture the growth of grass; stop advance of invasive, thorny species into forests.

Design Skilling Programmes on specialised tourism packages, preventive health and welfare of all animals of the area.

Introduce Visionary Programmes like acknowledging and paying for ecosystem services, plant and animal biodiversity conservation, and asset spreading; enable herder families opting to settle down on large plots along their routes where they can attempt limited agriculture and horticulture; where they can hold the stock of herders on payment basis for short duration when climatic conditions are adverse; and where they can collect and market meat and wool.

Initiate Innovative Programmes to attract ‘Angel Investors’ who invest in social sector schemes which allow for profit.







“What is needed is acceptance in policy and law that mobility is absolutely essential for the environment and for the economies of drylands. Policies across the board must be designed to enable mobility, and specific laws are required for the protection of migration routes and for regulation of transhumance.”

The World Initiative for Sustainable Pastoralism, 2006

9. POST PROCESSING: Case for a Benevolent State

A tradition of two centuries cannot be allowed to simply disappear. There is, therefore, a strong case for a benevolent State to devise innovative, complementary and supportive programmes for the continuance and growth of nomadic herding.

Pending formulation of policy, the States could begin by issuing executive-enabling orders, with the Government of India harmonising and coordinating the campaign.

Here are a few suggestions which bear repetition and flagging:

- a) *Establish legal rights* as provided under the Forest Rights Act, 2006, over traditional herding routes and procedures, and for ensuring sustainable browsing for all traditional herding groups, and a format-cum-rule for using village water and grazing resources.
- b) *Support projects* in universities and research institutions to study the practice of transhumance and its relevance to vital aspects such as the maintenance of sustainable ecosystems, livelihoods, valuation, and contribution to GDP.



Rajasthan Sets the Trend

On 10th February 2016, senior officers of the overnment of Rajasthan attended a powerpoint presentation by the author and in the presence of FES agreed that,

"Since the contribution of the nomadic community of the Raikas to the GDP of the state of Rajasthan is not really in question, and the possibility of skilling and managing grazing in degraded lands including in peripheral forests being high, the desirability of extending development and welfare programmes while they are on the move being obvious, and the extent of the issue relates to just about 25,000 odd families, the Government of Rajasthan may, as a forward-looking pioneer consider and accept the desirability of having a policy on the continuance of the practice of nomadic herding for the State of Rajasthan and link the same to the optimal use, nurture and utilisation of degraded lands along the routes that they follow."

- c) *Establish a mobile communication network* to convey welfare, development, market information and weather-related messages to the *deras*, and in return obtain real-time information on problems and status from the field. Such a network is likely to reduce profiteering by village-level functionaries.
- d) *Link up with Government departments to train herders* to become travelling ambassadors to promote selective social and area development programmes including animal welfare, open space development, plantation, afforestation, and watch and ward. Enrol them in all national and state welfare entitlement programmes like public foodgrain distribution, various insurance, especially for the girl child, pensions for the elderly, credit and banking. Involve Angel Investors for social change. (See pg. 158).
- e) *Link up herders with relevant departments, institutions, traditional healers and private practitioners* who have customarily been helping herder families to imbibe alternate livelihood and functional skills and provide peripatetic education including on nutrition and veterinary services for the villages they cross – the idea being to turn peripatetic herders into active friends both of the government as well as of the villagers.
- f) *Select promising youth (boys and girls)* from every *dera* and train them in functional literacy, preventive health, maternal and child care, etc., and entrust them to impart such knowledge, with the help of NGOs, to *dera* members on the move, under the 'Teach in Tents' programme.
- g) *Provide skills to enable dera members to invite anthro-sensitive tourists* to travel with them, experience their lifestyle, hear their stories and music, partake of their food, and in the process enable them earn extra income. Villages en route can also join in. Such skilling should be complementary to their traditional lifestyle model.

Soft Advocacy Works

How can the pressure to initiate a change in thinking, resulting in a series of executive instructions and culminating in a policy at the State level, under an overall national policy best take shape? It must be through 'soft' advocacy, we are convinced.

The team that set out on this venture, joining hands with other organisations that have been seeking these changes, hope to make presentations frequently at various policy-making levels, hold public exhibitions and talks, so as to generate pressure from the media, social media, voter's constituencies as well as the public in general. But the method we hope to advocate has to be soft and polite, not agitative. This approach, we feel will be more effective over the long term and create minimum antagonism.



Wanted: Innovative, supportive and complementary programmes to ensure continuance and growth of nomadic herding.

- h) *Include families of youngsters in the land for landless programme* so that at least one member of the family may stay and hopefully get educated, while the rest continue on their traditional way. However, this plan will succeed if the income from herding-related activities can increase through State support.
- i) *Establish a system to alert health and veterinary institutions along the route* so that they or their animals may get treated for any illnesses contracted on the way. With advance notice, others can prepare to provide services like stocking or providing foodgrains under the Public Distribution Scheme (but for this a prerequisite is the issue of mobile PDS cards).
- j) *Include herders in a scheme to produce, brand and market 'Range Free Protein',* through selected outlets and over the internet, so that meat consumers provide substantial support for continuance of their lifestyle.

These lines from a Hollywood musical seem to say it best:

*"Oh give me land, lots of land, under starry skies above
Don't fence me in
Let me ride through the wide open country that I love
Don't fence me in..."*



End of the Feature?

In a way... yes.

For understanding and documenting a moving tradition, can there ever be an immediate end? I will always find more and more to photograph, describe and analyse. Yet I must pause and let two things happen. First, the friends who will review the draft, make constructive suggestions, design and convert the creation into a readable and usable form should take over. Second, and this is most important to me and FES: persuade decision makers to come out with a set of guidelines, office orders and instructions so that the Raikas and hopefully, people like them in Rajasthan, in the adjoining states and in the rest of the country can live a life they chose to, in peace, in harmony with nature and the settled communities.

Ultimately, we hope to see a national policy on nomadic herding. Our Raika friends, especially Phulribai would then acknowledge that we have been of some service, and perhaps bless us all.

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ABOUT...



THE AUTHOR:

G B Mukherji is a retired Secretary to Government of India. He has more than 37 years of experience in the social development sector and has held positions both in the State of Odisha as well as in Government of India, at New Delhi.

He has, throughout his career been documenting social life in the rural interiors of the country. This Photo Feature is his first opportunity to describe an ancient but vanishing lifestyle, highlight its relevance, socio-economic-environmental value and promote its continuance through a combination of writing, photography and soft advocacy.

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The photographs, taken with Canon 60D camera and Tamron 24-70 f 2.8 lens, are copyrighted.

Please contact the author or FES for its use in favour of soft advocacy.



FES

FOUNDATION FOR ECOLOGICAL SECURITY

The **Foundation for Ecological Security (FES)** is a nationally and internationally recognised NGO, registered in 2001 under the Societies Registration Act 1860. FES is committed to strengthening, reviving or restoring the process of ecological succession and the conservation of land, forest and water resources in India.

Known for its large-scale work on common lands and waterbodies spanning across socio-cultural and agro-ecological geographies, FES works in 30 districts in eight States of India.

FES hopes that – with the help of well-wishers – it can take up the cause of the nomadic herding community, empower and enable them to fully avail their humanitarian and legal rights to continue following their traditional practice, while claiming their rightful dues from Government and society.

In the absence of such hand-holding support, the mobile but dispersed community of nomadic herders families will find it very difficult to influence policies in their favour – indeed, as has happened, competing groups will encroach upon their rights.

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Acknowledgements

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Thank you all from the core of my heart.

G B





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