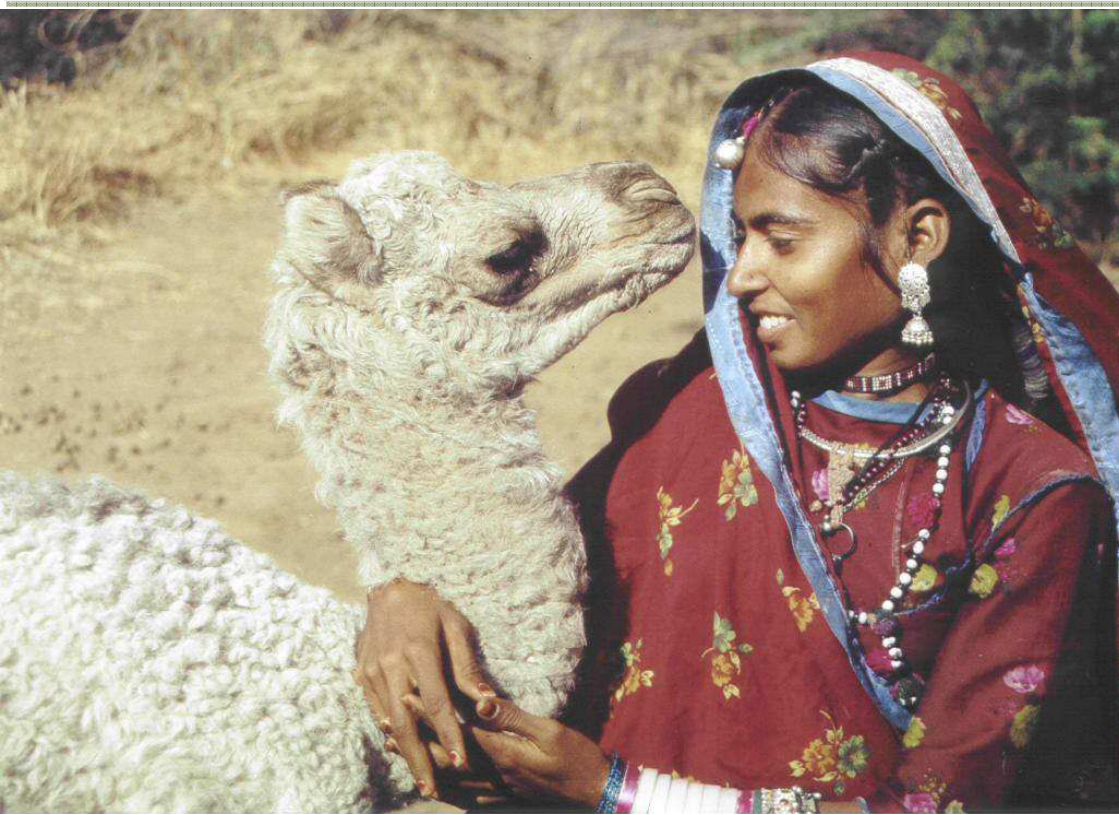


2009

# Raika Bio-Cultural Protocol



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## OVERVIEW

This protocol specifically:

- Sets out our biocultural values and explains how we, the Raika, have developed and preserved unique breeds of livestock and traditional knowledge associated with them, and how our pastoral lifestyle has developed the co-evolved ecosystem of Rajasthan's forests which we have traditionally conserved and sustainably used;
- Details our customary decision making process involved in providing free prior informed consent to any actions that relate to our grazing rights, animal genetic resources and associated traditional knowledge;
- Illustrates the disastrous impacts that our exclusion from previously communal grazing areas and forests is having on our lives, livestock, genetic resources, traditional knowledge and the forest ecosystem itself;
- Articulates our forest access rights and rights over our genetic resources and associated traditional knowledge under Indian law;
- Calls upon the National Biodiversity Authority to:
  - Recognize our local breeds and associated traditional knowledge as set out in the Raika Biodiversity Register and to include it in the Peoples Biodiversity Register;
  - Facilitate the setting up of Biodiversity Management Committees under the local bodies (Panchayats or Municipalities) where we live and to support these Committees in ensuring the conservation and sustainable use of our breed diversity and traditional knowledge;
  - Strengthen *in situ* conservation of breeds of the Raika and include them in the BMC being initiated by the government.
  - Advise the Central Government and coordinate the activities of the State Biodiversity Boards to protect the customary grazing rights of the Raika so as to safeguard our traditional lifestyles that ensure the conservation and sustainable use of the our breed diversity, associated traditional knowledge and the local ecosystem;
  - Ensure that our prior informed consent (according to customary law) is obtained before any decision are taken that affect our traditional way of life or access is granted to our breed diversity and associated traditional knowledge for research or for commercial purposes, and further ensure that we receive a fair and equitable share of the benefits arising from the utilization of our breeds and traditional knowledge according to mutually agreed terms; and
- Calls on the Secretariat of the UN Convention on Biological Diversity, specifically under Article 8(j) of the Convention, to recognize the contribution of our traditional lifestyles to the conservation and sustainable use of biological diversity in Rajasthan; and calls on the UN Food and Agriculture Organization to recognize the importance of our animal genetic resources and to recognize livestock keepers' rights.

## OUR BIOCULTURAL VALUES

**Where we live:** We are the Raika, an indigenous pastoral community who live in Rajasthan, North West India. We number about 1m people, with the Maru Raika living across the State and the Godwad Raika living in Pali, Jalore and Sirohi.

Despite the arid climate and the region's dryland ecosystem, we have lived in the region for over 700 years rearing unique livestock and acting as custodians of the local environment.

**Our origins:** At a spiritual level, we believe that we were created by Lord Shiva. The camel was shaped by his wife, Parvati, and it was brought to life by Lord Shiva. But the camel's playfulness caused a nuisance, so Lord Shiva created the Raika from his skin and sweat to take care of the camels. Our spiritual universe is linked to our livestock breeding, and our ethnicity is inextricably intertwined with our breeds and way of life. We have always considered ourselves a distinct indigenous community, a fact that is recorded, for example, in the 1891 Marwar census undertaken on behalf of the Maharaja of Jodhpur.

**Our traditional livelihoods:** We are indigenous nomadic pastoralists who have developed a variety of livestock breeds based on our traditional knowledge and have customarily grazed our camels, sheep, goats and cattle on communal lands and in forests. This means that our livelihoods and the survival of our particular breeds are based on access to forests, *gauchar* (village communal grazing lands) and *oran* (sacred groves attached to temples). In turn, our animals help conserve the biodiversity of the local ecosystems in which they graze and we provide assistance to the area's local communities. In this way, we see our indigenous pastoralist culture as both using and benefitting from the forests, in a virtuous cycle.



## **WE PRESERVE UNIQUE ANIMAL GENETIC RESOURCES AND HAVE ASSOCIATED TRADITIONAL KNOWLEDGE**

**Animal genetic resources:** Through our interaction with the forests, *gauchar* and *oran*, and through selective breeding for generations we have created breeds that are particularly hardy, able to forage and digest rough vegetation, withstand the dry Rajasthani environment and to walk long distances – all attributes that “high performance” exotic breeds do not have. Local breeds need fewer inputs and are less susceptible to disease and are well-suited to harsh conditions. The animal genetic diversity they embody enables us to respond to changes in the natural environment, important attributes in the context of climate change adaptation and food security. Their genetic traits and our traditional knowledge associated with them will also be of use in breeding for disease resistance, and may provide us with other diverse economic opportunities under the forthcoming International Regime on Access



and Benefit Sharing or a future International Treaty on Animal Genetic Resources for Food and Agriculture.

Specifically, we maintain the following breeds that are more fully described in Appendix I:

- **Cattle:** Nari and Kankrej;
- **Sheep:** Boti (officially the Marwari) and Bhagli (officially the Sonadi);
- **Goat:** Marwari and Sirohi;
- **Camels:** Mewari, Marwari, Malvi; Bikaneri, Jaisalmeri

Many of our breeds are intrinsically migratory, and cannot be stall bred. Just as our lifestyles are suited to the conditions they require to survive, these breeds are suited to our biocultural realities.

**Traditional knowledge:** Our traditional knowledge relating to breeds and breeding has arisen from centuries of experience of tending these particular breeds in Rajasthan. We have traditional customs that ensure the genetic diversity of our breeds, such as the rotation of bulls between villages for stud. We have also developed extensive local treatment systems (ethno-veterinary knowledge) with which to care for wounded or ill animals, and much of this traditional knowledge is held by both the men and women of our community. We share our ethno-veterinary knowledge freely with other communities that own livestock and are perhaps the only veterinary care for livestock in remote areas of rural Rajasthan. Women also take care of the newborn animals, make decisions about the sale or transfer of our livestock and sell milk. Our animal products are totally organic, attributes that are highly desired in some parts of India. The wool of our animals is used for making carpets, rope and blankets and they also provide draught.



**Spiritual understanding of our breeds:** Our breeds are more than just a livelihood. They form an integral part of our social fabric and are interwoven with spiritual meaning. A number of important holy days involve rituals that involve our animals and underscore the sacred ties between our livestock, the environment and our traditional knowledge.



## WE CONSERVE AND SUSTAINABLE USE RAJASTHAN'S BIODIVERSITY

We are integral to Rajasthan's forests, *gauchar* and *oran*. Our animals have contributed to the ecology of the region to such an extent that they cannot be separated from the "natural" state of the forests, *gauchar* and *oran*.

As our animals graze, they provide manure to otherwise infertile ground. At the same time, the seeds in the manure have a higher chance of germination, provide gestation and increase the natural propagation of local trees. Because our animals consume the foliage on the ground, it helps to keep termite numbers low. The feeding on ground fall and tall grass has also lowered the incidence of forest fires.

For generations we, the Raika, have acted as custodians of the forest. We have always fought forest fires, dealt with invasive species poisonous for animals (such as Angrezi Babul i.e. *Prosopis juliflora* and the Rukadi i.e. *Lantana camara*) and reported illegal logging and poaching. Our customary laws ban practices that degrade the environment, including the lopping of sacred trees, and heavy punishments are meted to community members who break the rules.

Our grazing patterns are based on our traditional ecological knowledge and establish a strict rotation based on the seasons over a five year period. At the same we stimulate tree growth by our practice of lopping of selected trees, as well as by our camels that eat the twigs and leaves of the upper branches. Studies on our grazing patterns have shown stronger tree growth in areas where our livestock have traditionally grazed.

Our livestock has become integral to the animal diversity in forest areas. Predators such as leopards and wolves have traditionally preyed on our livestock and we consider the resulting loss of livestock as a natural part of our integral relationship with the ecosystem. Studies in the Kumbhalgarh Sanctuary have shown how the leopard population in the region has been sustained by our livestock and the negative impacts caused by the exclusion of livestock from the Sanctuary which include increased encroachment by leopards into villages leading to dangerous conflicts.

We also provide services to the villages near our grazing lands and migratory routes. We provide manure to farmers, either by keeping our animals on their land on a temporary basis, or by selling it to them directly. People from surrounding villages use the forest for a variety of needs, including collecting

dry wood, fodder, agricultural nutrient inputs, medicines, thatch and famine foods. Villagers consider us to be their guardians in the forest, offering guidance and protection to them in an otherwise dangerous area. Members of our community use the forest for the collection of medicinal plants that are used to provide free health assistance to our community and to people in other neighbouring villages.

Just as our breeds are unique because of the areas we graze them in, so the forests, *gauchar* and *oran* have evolved into particular kinds of pastoral based ecosystems because of our long-term interaction with them. We are integral to the forests, *gauchar* and *oran*: we cannot survive without them and they will suffer without us.

We want to continue to graze our animals in forests, *gauchar* and *oran*, in a way that sustains the natural plant and animal ecology of these areas, maintains our diverse breeds, sustains our rich traditional knowledge.



## **PRIOR INFORMED CONSENT & BENEFIT SHARING**

Our animal genetic resources and our associated traditional knowledge about breeding and ethno-veterinary practices are collectively owned by the Raika.

We have customary laws that regulate decisions making in our communities. For issues that relate to all community members, we form a *samaj* (community) *panchayat* that is constituted by our elders who stretch from one to twenty four villages depending on the gravity and applicability of the decision. Our elders who constitute the community *panchayat* follow our customary laws and norms of decision making that have been followed for generations.

Our community *panchayat* should be engaged any time outside interests take decisions that may affect our livelihoods or relate to our breeds and associated traditional knowledge. For example, before any of our access rights to customary grazing areas are altered we must be consulted. Also, where researchers or commercial interests want to access our animal genetic resources and / or associated traditional knowledge, we must be given all relevant information with which to take a decision and given time to discuss the issues within the community *panchayat* as our breed diversity and traditional knowledge are collectively held and their ownership does not vest in any single individual. In cases where we decide to



grant access to our animal genetic resources or associated traditional knowledge, we have the right to negotiate a benefit sharing agreement that includes mutually agreed terms.

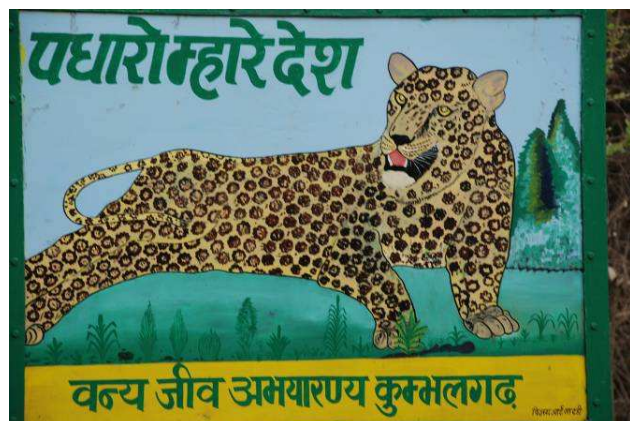


## **WE ARE BEING EXCLUDED FROM CUSTOMARY GRAZING AREAS WITHOUT OUR PRIOR INFORMED CONSENT - AND BIODIVERSITY IS BEING LOST**

Despite this incredible genetic diversity and associated traditional knowledge that we have developed, we remain mainly landless people and are highly dependent on our customary grazing rights over forest and communal lands. Traditionally we have grazed our animals in Rajasthan's forests and in the *gauchar* and *oran* over the monsoon (July-September). Our exclusion from the forests, and shrinkage of *gauchar* and *oran* severely threatens our entire existence and the co-evolved ecological system of these biodiversity rich areas that have been developed through generations of complex interplay between livestock, livestock keepers and the local ecosystem.

### **A. Forests**

We have customarily grazed our livestock on a seasonal basis in Rajasthan's forests for centuries. The Kumbhalgarh Wildlife Sanctuary is a case in point. The Kumbhalgarh Wildlife Sanctuary is a 562 square kilometre range of reserved forest under the management of the Rajasthan State Forest Department. We have been historically provided with grazing permits which have over the last few years been revoked and all grazing in the forest has been banned without due process by the Forest Department. We were neither consulted about the decision, nor compensated in any way.





We respect the need to conserve the Kumbhalgarh Sanctuary's biodiversity. Better than anyone, we understand the importance of the ecosystem because it is has sustained our livestock and our communities just as we have contributed to its conservation. Our exclusion from the forest has deeply affected our livestock numbers and is having a negative effect on the forest ecosystem.



#### **B. Gauchar and oran**

We have experienced the same fate regarding the shrinkage of *gauchar* (village communal grazing lands) and *oran* (sacred groves attached to temples). These areas have become increasingly diverted for other economic development projects. It is ironic that we - the very people who for centuries have been the custodians of biodiversity and whose traditional lifestyles have developed and sustained the biodiversity of the region - are now being denied access to it based on a limited understanding of the complex relationship between us, our livestock and the local ecosystem.

#### **C. The combined effect on our animal genetic resources and on the region's biological diversity**

We are deeply concerned about the impacts that our exclusion from previously accessible communal areas for grazing our livestock is having on areas' biodiversity, our animal genetic resources and our future.

**Biodiversity:** Our exclusion from forested areas is changing the ecosystem and leading to a degraded ecology. The reduction in grazing is resulting in an excess of grass and foliage on the ground that is leading to an increase in the prevalence and severity of forest fires. The pits that are dug to inhibit the spread of forest fires are proving to be ineffective in combating this serious issue due to the dry grass that has begun to grow in these pits. The excess ground fall is leading to disequilibrium in termite numbers that can affect the health of the trees.

At the same time, we are unable to act as custodians of the forest, so illegal logging, poaching and crimes are being committed in areas that we once managed according to our customary laws. The continual work we undertook to eradicate harmful or invasive species has ceased, and with it precipitous increases in plants that are either harmful to animals or risk destabilizing the local ecology.

The reduction in available prey for wild predators has led to their encroaching on villages, causing conflict between communities and the wildlife. At the same time, we are unable to assist members of other communities who need to access the forest, which is reducing the ability of communities to benefit from the forests.

**Animal genetic resources:** due to the significantly decreased amount of grazing lands available to us, we have been forced to sell significant numbers of our livestock over the last 5 years. We are literally being forced to sell our livelihoods to feed ourselves. Our camel stocks have been hardest hit, suffering a 50% decrease in the last 10 years, and this drop represents a significant threat to the survival of the breed.

With the sale of our livestock goes our traditional knowledge. As our herds diminish, so does the transmission of breeding techniques, medicinal practices and ecological understanding of the areas we used to graze on. The potential loss of the important animal genetic resources that we have developed, in co-evolution with the Rajasthani ecology is significant for a world that is suffering from climate change and food shortages.

**Our future:** the continuing exclusion from areas for grazing raises serious doubts about the viability of our way of life. With it will disappear our livestock, our culture and the virtuous relationship between our herds and the Rajasthani landscapes we have sustained. We require grazing rights and a corresponding increase in the market for our products to continue to sustain our livelihoods and keep our unique breeds, including the camel.

Our children no longer want to carry on our traditional way of life because of the hardships associated with the lack of grazing but at the same time are returning frustrated from low paying jobs in cities where they went as unskilled labourers. We are caught in a no man's land of being unable to carry on their traditional occupations and unwilling to suffer the indignities of life as unskilled labourers.

## **OUR RIGHTS UNDER INDIAN LAWS & POLICIES**

### **A. The Biological Diversity Act of 2002 and the Biological Diversity Rules of 2004**

The Biological Diversity Act of 2002 in its efforts to fulfil India's commitments under the Convention on Biological Diversity provides for the conservation of biological diversity, sustainable use of its components and the fair and equitable sharing of benefits arising from the use of such biological diversity and associated traditional knowledge (TK). The Biological Diversity Act sets up the National Biodiversity Authority (NBA) and the Biological Diversity Rules of 2004 lists the functions of the NBA as including regulating access to biological resources and associated TK for commercial and research purposes. The NBA is also empowered to advise the Central Government on any matter relating to the conservation and sustainable use of biodiversity and associated TK and the fair and equitable sharing of benefits arising from the utilization of biological resources and associated TK. ***The Biological Diversity Act among other things requires the Central Government under Section 36 to promote the conservation and sustainable use of biological diversity through in situ conservation and minimize the adverse effects on biological diversity of any project undertaken through environmental impact***

***assessments that includes public participation.*** The Central Government is tasked with ensuring respect and protection of associated TK of local communities in accordance with the recommendations of the NBA including registration of TK and other sui generis methods for its protection. ***Under Sec 38 the Central Government is also required to preserve and protect those species that are on the verge of extinction.***

In order to ensure the effective fulfilment of the role of the NBA at a local level, local bodies such as the Panchayats or Municipalities are required under Sec 41 to set up Biodiversity Management Committees (BMCs) to promote conservation and sustainable use and documentation of biological diversity and associated TK. The NBA and the State Biodiversity Boards would consult with the BMCs while taking any decision relating to the use of biological resources and associated TK within the territorial jurisdiction of the BMC. Under Rule 22 (6) of the Biological Diversity Rules of 2004 the main function of the BMC is to prepare a Peoples Biodiversity Register in consultation with the local people which shall contain comprehensive information on availability and knowledge of local biological resources and their associated TK. The Biological Diversity Act under Sec 21 envisages that the NBA will base its approval regarding any application for access to biological resources or associated TK on the whether a mutually agreed terms and fair and equitable benefit sharing has been negotiated with the local community that provides such resource or associated TK (benefit claimers according to Sec 2 (a) of the Biological Diversity Act). The local community or benefit claimers in question will be identified according to the Peoples Biodiversity Register under the territorial jurisdiction of the local BMC.

The Biological Diversity Act and Rules therefore provides certain rights to the Raika community:

- The right to consultation and public participation prior to any project that may affect the livelihoods of Raika, their animal breeds and associated TK;
- The right to conservation and sustainable use of our animal breeds;
- The right to give prior informed consent and negotiate mutually agreed terms when any Raika animal genetic resources or associated TK is accessed and share fairly and equitable in any benefits arising from the utilization of their animal genetic resources and associated TK;
- The right to a Peoples Biodiversity Register that will document Raika biological diversity and associated TK;
- The right to a BMC to advise the NBA on how the Raika biological resources and associated TK can be conserved and sustainably used; and
- The right to carry on the Raika traditional lifestyles which involves continued access to grazing lands in order to conserve the biological diversity of our breeds and associated TK.

#### **B. The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006**

The preamble of the Forest Rights Act in accordance with Art 8j of the Convention on Biological Diversity recognizes that the forest dwelling scheduled tribes and other traditional forest dwellers are integral to the survival of the forest ecosystem. The Forest Act seeks to address the long term insecurity of land tenure and of these communities and therefore recognizes the rights of forest dwelling tribes and other traditional forest dwellers, which include nomadic or settled pastoralists, on all forest lands.

The Forest Rights Act therefore provides certain rights to the Raika community:

- The right of ownership, access to collect, use, and dispose of minor forest produce which has been traditionally collected within or outside village boundaries (Section 3c)



- Community right of use or entitlements including grazing (both settled or transhumant) and traditional seasonal resource access, of nomadic or pastoralist communities (Section 3d)
- The rights in or over disputed lands under any nomenclature in any State where claims are disputed (Section 3f)
- The right to protect regenerate or conserve or manage any forestry resource which we have been traditionally protecting and conserving for sustainable use (Section 3i)
- The right of access to biodiversity and community right to intellectual property and TK related to biodiversity and traditional knowledge related to biodiversity and cultural diversity (Section 3k)
- The right to traditional rights customarily enjoyed by the Raika (Section 3l)

We acknowledge the limitation of these rights under Section 4 of the Act in cases where forests are designated as National Parks or Sanctuaries, but point out that the processes set out under Section 4(2) – such as ascertaining whether other reasonable options such as co-existence are not available - remain to be complied with.

### **C. NATIONAL POLICY FOR FARMERS**

The National Policy for Farmers (NPF – 2007) is an attempt to reorient agricultural policy to take a more holistic vision of agricultural production to include a focus on socio-economic wellbeing. Animal genetic resources and pastoralists are among the areas it focuses on to achieve *in situ* conservation according to the NBA.

The NPF acknowledges livestock keepers' inherent rights to continue to use and develop their own breeding stock and breeding practices and calls on the government to recognize these rights, acknowledge livestock keepers' contribution to the national economy, and adapt its policies and legal frameworks accordingly. As part of this effort, it underscores the need to document the indigenous knowledge of pastoral communities about animal conservation, maintenance and breeding.

To achieve these aims, the NPF calls for:

- Restoration of traditional grazing rights and camping rights in respect of forest areas and in those areas earmarked for grazing purpose in village common lands;
- Formalizing entitlements (including issue of permanent grazing cards) for traditional pastoralists/herders maintaining native animal breeds to enable free access to notified or demarcated grazing sites and migration routes;
- Conservation and expansion on grazing land and drinking water sources for livestock;
- Documentation of indigenous livestock breeds to recognize and protect the intellectual property rights of the local communities / individuals conserving these livestock breeds; and
- Involvement of pastoralists in all local natural resource management programs, including village forest committees and joint forest management.

### **WE CALL ON THE NATIONAL BIODIVERSITY AUTHORITY**

We call on the National Biodiversity Authority to:

- Recognize our local breeds and associated traditional knowledge as set out in the Raika Biodiversity Register and to include it in the Peoples Biodiversity Register (under Rule 22(6) of the Biological Diversity Rules);

- Facilitate the setting up of Biodiversity Management Committees under the local bodies (Panchayats or Municipalities) where we live and to support these Committees in ensuring the conservation and sustainable use of our breed diversity and traditional knowledge (as per section 41 of the National Biodiversity Act);
- Strengthen *in situ* conservation of breeds of the Raika and include them in the BMC being initiated by the government (under sections 36 and 41 of the National Biodiversity Act).
- Advise the Central Government and coordinate the activities of the State Biodiversity Boards to protect the customary grazing rights of the Raika so as to safeguard our traditional lifestyles that ensure the conservation and sustainable use of the our breed diversity, associated traditional knowledge and the local ecosystem (under section 36 of the National Biodiversity Act).
- Ensure that our prior informed consent (according to customary law) is obtained before any decision are taken that affect our traditional way of life or access is granted to our breed diversity and associated traditional knowledge for research or for commercial purposes, and further ensure that we receive a fair and equitable share of the benefits arising from the utilization of our breeds and traditional knowledge according to mutually agreed terms (under section 21 of the national biodiversity Act);

## **WE COMMIT TO PROTECTING THE BIOLOGICAL DIVERSITY AND ASSOCIATED TRADITIONAL KNOWLEDGE**

We commit to protecting the biological diversity of the region, our animal genetic resources and associated traditional knowledge, by:

- Upholding our traditional roles as custodians of the forests and as sustainers of the co-evolved forest ecosystem of the region;
- Protecting the forest against fires by regulating the grass growth by grazing and by fighting forest fires when they break out;
- Sustaining the predator population in the forest through the customary offering of some of our livestock as prey;
- Continuing to increase forest growth through the customary manuring of the forest from the dung of our livestock;
- Ensuring strong tree growth by the customary pruning of the upper branches and twigs of trees by our camels;
- Grazing the fallen leaves on the forest floor thereby keeping the termite population in check;
- Combating illegal logging and poaching in the forest;
- Continuing our traditional rotational or seasonal grazing that facilitates forest growth;
- Eliminating invasive species in the forest;
- Promoting and sustaining the breed diversity of our livestock; and
- Preserving and practicing our traditional breeding and ethno-vetinary knowledge and innovations, and sustainable management of forest resources relevant to the protection of the co-evolved forest ecosystem of the region.

## **OUR RIGHTS UNDER INTERNATIONAL LAW**

We the Raika in our biocultural community protocol identify the following principles and rights based on international law, (that are further elaborated in Appendix II, namely:

### **A. Principles**

- We are creators of breeds and custodians of their animal genetic resources for food and agriculture;
- The Raika and the sustainable use of traditional breeds are highly dependent on the conservation of our ecosystem; and
- Our traditional breeds represent collective property, products of indigenous knowledge and our cultural expression.

## **B. Rights**

We have the right to:

- Make breeding decisions and breed the breeds they maintain.
- Participate in policy formulation and implementation processes on animal genetic resources for food and agriculture.
- Receive appropriate training and capacity building and equal access to relevant services enabling and supporting us to raise livestock and to better process and market our products.
- Participate in the identification of research needs and research design with respect to our genetic resources, as is mandated by the principle of Prior Informed Consent.
- Effectively access information on issues related to our local breeds and livestock diversity.

We call on the Secretariat of the UN Convention on Biological Diversity, specifically under Article 8(j) of the Convention, to recognize our contribution to the conservation and sustainable use of biological diversity in the Rajasthan's forest ecosystem. We also call on the UN Food and Agriculture Organization to acknowledge the importance of our animal genetic resources and to recognize livestock keepers' rights.

### **OUR CONTACT DETAILS**

**The Raika Samaj Panchayat**

**c/o Lokhit Pashu-Palak Sansthan, Butibagh, Rajpura, Via Sadri 306702, Distt. Pali, India**



## APPENDIX I: RAIKA BIODIVERSITY REGISTER

We steward the following breeds of livestock. Some of them have been exclusively developed by us, while others have been jointly developed with other communities.

### 1. Nari cattle

The Nari cattle breed is bred by the Raika of Sirohi district and the southwestern tip of Bali tehsil in Pali district (villages Bhatund and Kothar), as well as a few villages in Jalore district. It has not been recognized by scientists. We keep this breed not primarily to produce milk but to breed and to sell offspring to farmers who need a good milking cow or a pair of bullocks.

According to our folklore, the Nari cattle was first domesticated by the Bhil, but then passed on to the Gujjars. We took it over from the Gujjars when we arrived in the area from Jaisalmer.

The Nari cattle is of whitish-gray colour, medium size, and has very long forward pointing horns. The shape of the horns is unique and like that of wild cattle. It has a dished nose with prominent protruding eyes and a (“goli”), making the cow very beautiful. Its tail is long and supposed to reach well below the hocks, and with a black tip.



The Nari cattle is very sure-footed in hilly terrain and also able to defend itself and its calves from predators, including leopards. The cows jointly pursue aggressors. A Nari cow is extremely alert and it defends its owner against any attackers. The breed is also very disease resistant, the only problem being occasional outbreaks of Foot-and-Mouth Disease.

We keep the Nari cattle in large herds of 100-150 animals and take them on migration, usually to Gujarat. Over night the animals stay in thorn enclosures. The bull runs with the herd and is exchanged (“satta”) every four years to prevent inbreeding which is a sin. We believe in guna or pure-breeding and to not dilute the traits and good quality of the breed, we select the breeding bull with great care based on its lineage and performance of female relatives.

The Nari breed combines good milk yields with good draughtability of the male animals. Pairs of Nari bullocks are a frequent sight in Sirohi district and in the Godwar area of Pali district.

Because of the absence of dairy cooperatives, the bulk of the milk is processed into *mava*, the basis for the local sweets. The mava is sold every two days by a middleman who handles this business for several families. Most of the mava is sold in Udaipur and in Mt. Abu.

Sometimes we also sell fresh milk to the dairy societies when on migration in Gujarat. The male

calves we sell to farmers as work animals, but never to Muslims or anybody who may slaughter them. The Banjaras also traditionally acted as middlemen and drive animals to Mewar to sell them.

The female calves are kept in the herd; if in excess, we sell them to other Raikas at a nominal rate or to people who are sure to provide a good home. In case a herd owner has suffered large losses due to a disease outbreak, then others will give him replacement animals.

## **2. Kankrej Cattle**

The Kankrej cattle bred is bred by Rebari in the northern part of Gujarat.

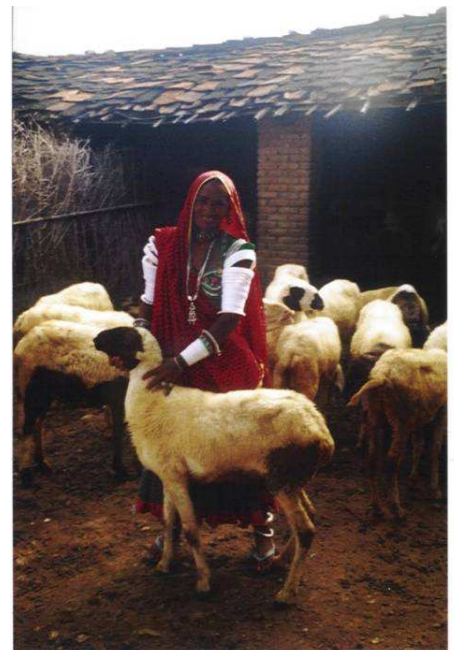
## **3. Boti Sheep**

The Boti sheep is characterised by a black head, short ears and short tail. We also call it Jachi or Vannermi. It is specific to the Godwar area and it is officially known as Marwari breed. This breed is extremely drought resistant and has fine wool, but it grows very slowly. For this reason, we have been cross-breeding it with the Bhagli sheep.

## **4. Bhagli sheep**



The Bhagli sheep has a red head, long ears and long tail. We have obtained it from Mewar and Malva while on migration and it is known officially as Sonadi breed. The Bhagli sheep is less drought resistant, but it has more milk and the offspring grows very fast, so it has advantages over the Boti sheep for meat production. Over the past years, we have been crossing Boti and Bhagli sheep so as to make a living. We keep a mix of both breeds because in case of drought, the Boti sheep has a better chance of survival. We have names for the various types of hybrids, such as Kajli, Gungli boti, Lapri and Kabri.





#### 5. Sirohi goat

The Sirohi goat was developed by the Raika. It is multi-coloured and has very good milk yield.

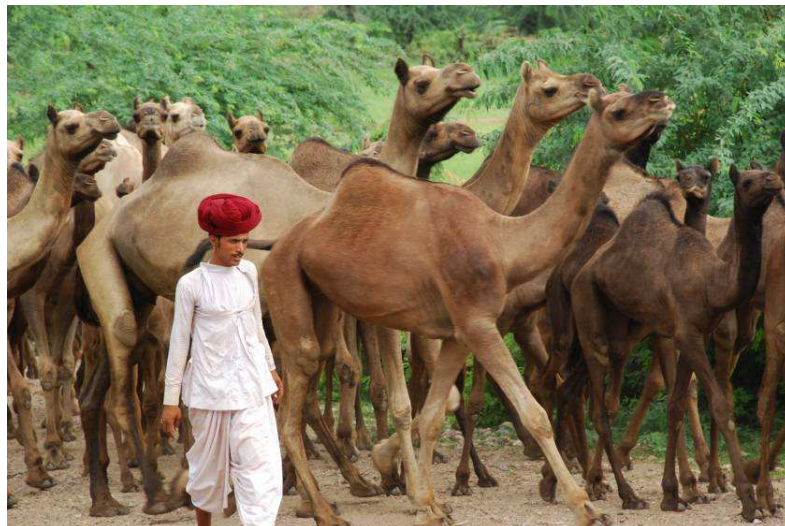
#### 6. Marwari goat

The Marwari goat is also known as black goat. It is more drought resistant, but gives less milk than the Sirohi goat.



#### 7. Camels

We breed dromedary camels. Earlier we took care of the camel breeding herds of the Maharajahs, but after Independence we took over the tolas. Different breeds developed in different parts of Rajasthan and even in Madhya Pradesh. Their scientific names are Bikaneri, Jaisalmeri, Marwari, Mewari and Malvi. We ourselves do not distinguish these breeds, but we know the villages and areas from which the best camels come. For instance, the Sanchore camel is very famous.





## APPENDIX II: OUR RIGHTS UNDER INTERNATIONAL LAW

We the Raika in this Raika Biocultural Community Protocol identify the following principles and rights based on international law:

### **Principle 1:**

***The Raika are creators of breeds and custodians of their animal genetic resources for food and agriculture.***

Over the course of history, the Raika have managed and bred livestock, selected and used them, thus shaping them so they are well-adapted to our environment and its extremes. Keeping these breeds is a vital part of our culture and livelihoods. Yet these breeds and our livelihoods are under risk through loss of access to our traditional grazing lands. This has endangered our food security and our way of life. As recognised in the Global Plan of Action for Animal Genetic Resources and the Interlaken Declaration on Animal Genetic Resources, livestock keeping communities are thus the creators and custodians of the breeds that they maintain. We have therefore earned certain custodianship rights over these breeds, including the right to decide how others use the genetic resources embodied in our breeds.

Principle 1 is supported by:

Point 9 of the Interlaken Declaration on Animal Genetic Resources recognizes “that the *genetic resources of animal species most critical to food security, sustainable livelihoods and human well-being are the result of both natural selection, and directed selection by smallholders, farmers, pastoralists and breeders, throughout the world, over generations*”.

Point 12 of the Interlaken Declaration on Animal Genetic Resources recognizes “*the enormous contribution that the local and indigenous communities and farmers, pastoralists and animal breeders of all regions of the world have made, and will continue to make for the sustainable use, development and conservation of animal genetic resources for food and agriculture*”.

Part I Point 10 of the Global Plan of Action for Animal Genetic Resources: “*all animal genetic resources for food and agriculture are the result of human intervention: they have been consciously selected and improved by pastoralists and farmers since the origins of agriculture, and have co-evolved with economies, cultures, knowledge systems and societies. Unlike most wild biodiversity, domestic animal resources require continuous active human management, sensitive to their unique nature*”.

### **Principle 2:**

***The Raika and the sustainable use of traditional breeds are dependent on the conservation of our ecosystem.***

Our traditional breeds are developed through the interaction between our livestock, the Raika pastoralists and our natural environment. This natural environment is conserved, inter alia, through traditional practices of the Raika, and traditional breeds lose their specific characteristics once removed from this ecosystem. The Raika therefore have a right to access our natural environment, so as to ensure the sustainable use and conservation of our breeds and the environment.

Principle 2 is supported by:

Article 8 of the Convention on Biological Diversity: *“genetic resources should be conserved in the surroundings in which they have developed their distinct properties”*.

Article 10 (d) of the Convention on Biological Diversity demands that *“local populations are supported to develop and implement remedial action in degraded areas where biological diversity has been reduce”*.

Chapter 15 (5) (g) of Agenda 21: requires States to *“Take action where necessary for the conservation of biological diversity through the in situ conservation of ecosystems and natural habitats,...and the maintenance and recovery of viable populations of species in their natural surroundings*.

Principle 22 of the Rio Declaration: *“Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development”*.

**Principle 3:**

***Our traditional breeds represent collective property, products of indigenous knowledge and cultural expression of the Raika.***

While the Raika have collective custodianship rights over our breeds and the genetic traits of these breeds, it is crucial that these rights are supported and promoted by the government. Our government must therefore respect, preserve and maintain the knowledge, innovations and practices of the Raika embodying lifestyles relevant for sustainable use and conservation of livestock diversity.

Principle 3 is supported by:

Article 8 (j) of the Convention on Biological Diversity: *“Contracting parties shall...subject to national legislation, respect, preserve and maintain knowledge innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity...”*

Article 10 (c) of the Convention on Biological Diversity: *“customary use of biological resources is protected and encouraged in accordance with traditional cultural practices that are compatible with conservation and sustainable use requirements”..*

Chapter 15 (4) (g) of Agenda 21 calls on governments at the appropriate level *“to recognize and foster the traditional methods and knowledge of indigenous people and their communities ...relevant to the conservation of biological diversity and the sustainable use of biological resources”*.

Chapter 15 (5) (e) of Agenda 21: Governments should *“subject to national legislation, take action to respect, record, protect and promote the wider application of the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles for the conservation of biological diversity and the sustainable use of biological resources ...”*

Based on these principles articulated and implicit in existing legal instruments and international agreements, the Raika who belong to a traditional livestock keeping community and adhere to ecological principles of animal production affirm the following rights:

**1. The Raika have the right to make breeding decisions and breed the breeds they maintain.**

This right is supported by:

Article 10 (c) of the Convention on Biological Diversity: obliges Parties to *“protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation and sustainable use requirements”*.

**2. The Raika shall have the right to participate in policy formulation and implementation processes on animal genetic resources for food and agriculture.**

This right is supported by:

Article 8 (j) of the Convention on Biological Diversity: obliges Parties to *“promote the wider application of the knowledge, innovations and practices of indigenous and local communities with their approval and involvement”*.

Article 14(1) (a) of the Convention on Biological Diversity: obliges Parties to *“introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and where appropriate allow for public participation in such procedures”*.

Article 3 (a) of the United Nations Convention on Desertification: compels Parties to *“ensure that decisions on the design and implementation of programmes to combat desertification and/or mitigate the effects of drought are taken with the participation of populations and local communities and that an enabling environment is created at higher levels to facilitate action at national and local levels”*.

Article 10(2) (f) of the United Nations Convention on Desertification: obliges the *“effective participation at the local, national and regional levels of non- governmental organizations and local populations, both women and men, particularly resource users, including farmers and pastoralists and their representative organizations, in policy planning, decision-making, and implementation and review of national action programmes”*.

**3. The Raika shall have the right to appropriate training and capacity building and equal access to relevant services enabling and supporting us to raise livestock and to better process and market our products.**

This right is supported by:

Article 12 (a) of the Convention on Biological Diversity obliges Parties to *‘establish and maintain programmes for scientific and technical education and training in measures for the identification, conservation and sustainable use of biological diversity and its components’*

Article 11 of the Convention on Biological Diversity obliges Parties to *‘adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity’*



Article 19 (1) (e) of the United Nations Convention on Desertification obliges parties to promote capacity building *“by adapting, where necessary, relevant environmentally sound technology and traditional methods of agriculture and pastoralism to modern socio-economic conditions”*.

Strategic Priority 6 of the Global Plan of Action for Animal Genetic Resources requests governments to *“Support indigenous and local livestock systems of importance to animal genetic resources, including through the removal of factors contributing to genetic erosion. Support may include the provision of veterinary and extension services, delivery of microcredit for women in rural areas, appropriate access to natural resources and to the market, resolving land tenure issues, the recognition of cultural practices and values, and adding value to their specialist products.”*



**4. The Raika shall have the right to participate in the identification of research needs and research design with respect to our genetic resources, as is mandated by the principle of Prior Informed Consent.**

This right is supported by:

Article 8 (j) of the Convention on Biological Diversity (see above) and Article 10 (d) which says Parties shall *“support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced”*.

Chapter 15(4) (g) of Agenda 21 require states to *“Recognize and foster the traditional methods and the knowledge of indigenous people and their communities ...and ensure the opportunity for the participation of those groups in the economic and commercial benefits derived from the use of such traditional methods and knowledge”*.

**5. The Raika shall have the right to effectively access information on issues related to our local breeds and livestock diversity.**

This right is supported by:

Article 13 (a) of the Convention on Biological Diversity: obliges Parties to *“Promote and encourage understanding of the importance of and the measures required for the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programmes”*.

### APPENDIX III: SUPPORTING BIBLIOGRAPHY

The Ain-i Akbari by Abu'l-Fazl Allami. Delhi: Aadiesh Book Depot.

Agrawal, A. 1993. Mobility and Cooperation among Nomadic Shepherds: The Case of the Raikas. **Human Ecology** 21(3):261-278.

Geerlings, E. 2001. **Sheep Husbandry and Ethnoveterinary Knowledge of Raika Sheep Pastoralists in Rajasthan**. Thesis, Wageningen University

Geerlings, Ellen. 2001. The black sheep of Rajasthan. **Seedling**, October 2004. pp 11-16.

Köhler-Rollefson, I. 1992. The Raika dromedary breeders of Rajasthan: A pastoral system under crisis. **Nomadic Peoples** 30:74-83.

Köhler-Rollefson, I. and H.S. Rathore. 1996. The Malvi camel: a newly discovered breed from India. **Animal Genetic Resource Information** 18:31-42.

Köhler-Rollefson, I. 1999. From royal camel tenders to dairymen: occupational changes within the Raikas. Pp. 305-315 in "**Desert, Drought and Development. Studies in Resource Management and Sustainability** (eds. R. Hooja and R. Joshi). Rawat Publications, Jaipur and New-Delhi.

Köhler-Rollefson, I. 2005. Indigenous versus official knowledge, concepts, and institutions: Raika pastoralists and the outside world. **Nomadic Peoples** 8:2

Köhler-Rollefson, I. and LIFE-Network. 2007. **Keepers of Genes. India's pastoralists and their breeds**. LIFE-Network/LPPS, India.

Köhler-Rollefson, I. and Hanwant Singh Rathore. 2008. Protected areas and Livestock Keepers' Rights. Poster presented at the 13th meeting of the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention on Biological Diversity, 18-22 Feb 2008, Rome. CBD Technical Series 34. Secretariat of the Convention on Biological Diversity.

Köhler-Rollefson, I., E. Mathias, H. S. Rathore, P. Vivekanandan and J. Wanyama . 2008. Livestock farming with nature. Pp. 84-86 in: **Mainstreaming biodiversity issues into forestry and agriculture: Abstracts of poster presentations at the 13th meeting of the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention on Biological Diversity**, 18-22 Feb 2008, Rome. CBD Technical Series 34. Secretariat of the Convention on Biological Diversity.

Köhler-Rollefson, I. and Hanwant Singh Rathore. 200. The camel in Rajasthan. Agricultural Biodiversity under threat. Pp. 238-255 in (Eds. V. Joshi and Surjit Singh) Culture, Polity, and Economy. Rawat Publications, Jaipur.

Robbins, P. and A. Changani. 2009. Protecting wolves from sheep. People and wildlife in the Rajasthan Arvalli. Pp. 211-224 in (Eds. V. Joshi and Surjit Singh) Culture, Polity, and Economy. Rawat Publications, Jaipur.

#### **APPENDIX IV: NOTE ABOUT THE PROCESS**

This Biocultural Protocol was established and recorded by the Raika community around Sadri (District Pali, Rajasthan, India) from 8-13 June 2009. It was facilitated by Natural Justice, Lokhit Pashu-Palak Sansthan, and the League for Pastoral Peoples and Endogenous Livestock Development.