

# The Grass is greener here

Known to be the largest natural grassland in the Indian subcontinent and one of the finest in Asia, the Banni landscape in Kutch is both socio-culturally unique and ecologically valuable. With a history of migratory pastoralism going back at least 500 years, and a stunning range of biodiversity, this unique region offers fascinating insights into man-environment dynamics and grassland conservation studies.

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The Banni ecosystem is an amazing mosaic of arid lands, wetlands and grasslands.

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June and August. The landscape becomes dotted with several natural wetlands, locally called *chachh*, *thathh* or *dhandh*, depending on their size. Within a few days, the scenery turns a lush green. By January, the beginning of the dry season, the landscape appears brown, leaving behind vast lakebeds with endlessly stretching mud cracks. During such times Banni might seem inhospitable, but it is amazing how well the people, their livestock, and the wildlife are adapted to this seasonal change.

Banni is extremely rich when it comes to wildlife. It is home to about 150 species of birds. The Chhari-Dhandh Conservation Reserve in western Banni is a hotspot for migratory birds, some of which visit the place in thousands. This includes the Greater and Lesser Flamingos, Dalmatian Pelican and Macqueen's Bustard which visit during the winters. The Vulnerable White-naped Tit, along with some common birds such as the Grey Francolin, Chestnut-bellied Sandgrouse and Crested Lark are present all year round. The Critically Endangered Great Indian Bustard and White-rumped Vultures have now become a rare find in Banni. Apart from the avifauna, Banni also harbours a variety of small mammals and reptiles such as the Spiny-tailed lizard, the Desert gerbil, and the graceful Desert cat. The biggest predator of these grasslands is the elusive Indian wolf. Even the highly saline Rann is home to the Desert fox, and a variety of insects such as beetles and ants.

**B**anni is a land of several faces: it feels like a furnace under the blazing summer sun, converts into an inaccessible floodplain during the monsoon and offers freezing temperatures through the winters. But what makes it an enjoyable place to work in is the constant warmth with which the people here welcome you. Banni forms a vast stretch of arid grassland on the southern edge of the Rann of Kutch in Gujarat. Spanning 3,847 sq km, it is actually one of Asia's largest natural grasslands. The name 'Banni' probably comes from the Kutchi word '*bannai*', translating to '*banai hu*' in Hindi and meaning 'made up'. It is believed to be formed by the detritus deposited by the rivers from the mainland. An alternate etymology comes from the Sindhi word 'banni' which means fertile land or farmland, indicating the fertile past of this region.

## VIBRANT BANNI

Banni is exceptional for its spectacular flat terrain and endless views of the landscape. The composition of vegetation here changes drastically within short distances. One of the most spectacular plants is Suaeda, a saline tolerant shrub. There are regions where only this shrub grows, indicating the high salinity of the region, an area locally called the Rann. Regions with a mix of Suaeda and Dhamur (*Cyperus haspan*) can be spotted from far away because of the huge flocks of Common and Demoiselle Cranes seen pecking at the tubers on the ground. As you get closer, the flocks fly away into the obscurity of the limitless landscape – a fabulous visual treat if seen against the backdrop of a rising sun. In other areas the vegetation is replaced by Kal (*Cyperus rotundus*) and Khariya (*Aleuopus lagopoides*) patches, dotted with Khari jar (*Salvadora persica*) trees. If you travel further, you might get to see Capparis, Acacia and various other native plants. What causes such tremendous changes in the distribution and composition of plant communities here is a mystery.

Banni's dynamic nature is also reflected in the extreme seasonality of the place. Most of the rain is received from the southwest monsoon, between

## PASTORAL PARADISE

In addition to the magnificent biodiversity, Banni is a unique pastoral ecosystem which has been supporting humans and livestock for several centuries. The grassland has been sustained by pastoralist communities, such as the Maldharis, that manage livestock breeds like Banni buffalo, Kankrej cattle, Sindhi horse, Kharai and Kutchi camels along with other smaller livestock. Good milk yields and the ability to survive the arid conditions makes the Banni buffalo very special, and it has been recently registered as a distinct breed. These free-ranging buffalos can easily travel distances of 6–8 km a day.



Some Greater Flamingos breeding at Kutch make a short trip to Banni to spend the winters.

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The Desert fox, a subspecies of the Red fox, is completely at home in the arid grasslands of Banni.

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## LIVING LANDSCAPES

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The seasonal wetlands get flooded during the short monsoon season, but start drying as soon as the winters start.

The pastoral community has carefully preserved the bloodlines of these animals. Hence the Maldhari tribe from Banni is a breeder and a trader, thus forming an integral part of the dairy industry. The Maldharis migrate annually: some move to nearby places for short durations, while others move across districts and live in temporary settlements for most of the year.

Apart from the buffalo, the other major livestock here is the Kankrej cattle, again known for their ability to travel long distances. The bullock-trade connects the agriculturalists from surrounding areas with the pastoralists of Banni. Along with the buffalo and the Kankrej, the Sindhi horse – known for its special gait called *rewaal*, also grazes in the vast open grassland. These animals are many a times seen foraging without any supervision. The Maldharis know their pastures well; they can recognise over 30 wild fodder species by their names. To support livestock rearing, they have also developed a system of water management based on shallow wells called *virda*. The pastoralist's way of life has co-evolved with the ecosystem and it is still an ongoing process.

The people's closeness to their surroundings is evident from the many amusing stories they share about their wild neighbours. For example, the fox (locally called *lonkdī*) is known for its cunning and pride. It is said that the fox can deceive anybody who chases it just with a flick of its tail, and the male fox walks only on three legs in the winter as it is afraid that the earth won't be able to support his weight. Another tale talks about a pack of wolves, which has a dog as one of its main pack-members. Such a pack is called *saat bhagad*, meaning 'seven wolves'. The *saat bhagad* is considered to be very bold and smart. Many such stories display the inter-relationship people have with their surroundings, even in times when the biodiversity is fast declining.

### ENDANGERED GRASSLAND

Currently the future of this resilient ecosystem is uncertain. The main culprit behind this is the large-scale invasion by *Prosopis juliflora*, an exotic tree

species that was introduced to the region in the 1960s. This invasion will surely affect the structure, functioning, services and processes (such as the vegetation composition, ground water dynamics and soil nutrient cycles) of the ecosystem. However, in-depth studies probing the causes and effects of these changes are lacking.

The other major threat to this fascinating ecosystem is that it is often erroneously considered to be a saline wasteland, as it is not 'forested' or fit for agriculture. This perception makes developmental changes like industrialisation and damming of rivers flowing towards the grassland acceptable and easier to get permissions for – and this is already happening in Banni. Such changes are altering the hydrological cycle and causing shifts in livelihood strategies. The recent trend of privatisation has also give rise to fragmentation of land in the form of enclosures created for agriculture, harvest of *Prosopis* to make charcoal, and for individual land holdings. However, the pastoral community of Banni has asked for rights over the land through the Forest Rights Act, 2006. Now there is a push for the removal of enclosures, which has in a way become the livelihood strategy for many of Banni's inhabitants. Fragmentation due to enclosures is not new to this landscape as fenced enclosures were created to manage the grassland by the government, and some of these are still in use. The Forest Department's latest plans for grassland conservation are also based on creating enclosures, which motivated the local communities to seek



Wetlands birds such pelicans, storks and egrets may seem out of place in an arid land, but they make good of the short bountiful season.

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Above: The pastoralists of Kutch depend heavily on their domestic animals and have, over hundreds of years, bred unique breeds that have adapted amazingly to the harsh environment. Sindhi horse, Kankrej cattle and Banni buffalo are some of them. Below: A shallow *virda* well used by the Maldharis in Kutch.



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community rights over the area.

'Development' is catching up rapidly with Banni. Industrial expansion mainly due to salt and bromine companies, the growing dairy industry and tourism with a leading actor as its mascot, have helped bring better roads and water connections to the area. But at the same time, livelihood practices are getting increasingly dependent on privatisation and commercialisation. The changes this landscape has undergone in the recent times, especially ones like *Prosopis* invasion which are difficult to reverse, have made the future of Banni uncertain. The contradictory ideals, treating the area as a commons versus growth in industrialisation and privatisation, have brought the future of this landscape at a crossroad of ideas and management plans.

One of our largest grasslands, with its magnificent biodiversity and interesting people-environment dynamics, awaits further exploration. It is important that some of the conventional views about grassland management be discarded for novel strategies. Instead of an approach which takes the side of wildlife or of people, a collaborative effort that brings together expertise from different groups interested in the landscape is essential. The first step towards such an effort has been taken by RAMBLE (Research And Monitoring in the Banni Landscape), which is a collaboration among research institutes from across India, and Sahjeevan, a NGO working on socio-ecological aspects of Banni for over a decade and based in Kutch. It is up to the rest of us now, to do our part to protect the future of this unique, endemic ecosystem. ○

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