

Biodiversity Conservation and Rural Livelihood Improvement Project

Social & Environmental Assessment of Little Rann of Katchchh Landscape

Draft Final Report



**Ashoka Trust for Research in Ecology and
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Abbreviations

| | |
|--------|--|
| ANANDI | Area Networking And Development Initiatives |
| BSA | Biologically Significant Areas |
| CEE | Centre for Environment and Education |
| CPRs | Common Property Resources |
| DCW | Dhrangadhra Chemical Works |
| DPC | District Planning Committee |
| FD | Forest Department |
| FDA | Forest Development Agency |
| GEER | Gujarat Ecological Education and Research Foundation |
| GOs | Government Organizations |
| JFM | Joint Forest Management |
| JFMC | Joint Forest Management Committee |
| KNNA | Kachchh Nav Nirman Abhiyaan |
| LRK | Little Rann of Kachchh |
| LS | Landscape |
| MFP | Minor Forest Produce |
| NGO | Non Governmental Organization |
| NR | Natural Resources |
| NTFP | Non-Timber Forest Products |
| OP | Operational Policies |
| PA | Protected Area |
| PHC | Primary Health Centre |
| PRI | Panchayati Raj Institutions |
| SETU | Centre for Social Knowledge and Action |
| SEWA | Self Employed Women's Association |
| SHG | Self Help Group |
| SRSC | SETU Resource and Support Centre |
| WAS | Wild Ass Sanctuary |
| WLPA | Wild Life Protection Act |

Executive Summary

The total area of the LRK landscape is about 7000 sq. km, spread over 5 districts and 10 talukas. The Wild Ass Sanctuary (WAS) lies in the centre of the landscape, and most habitations are spread all around the sanctuary. Except for Nanda Bet there are no habitations within the sanctuary. The landscape offers limited livelihood opportunities but ones upon which communities are largely dependent.

The current problems that Katchchh faces are as a result of breaking down of the interdependence among the communities that inhabit the landscape, with serious socio-economic and ecological consequences. Interactions in the landscape revealed that traditional systems of managing CPRs have broken down, within which migration was merely a coping strategy that communities engaged with and that had been a part of their way of life for ages.

Agriculture is marginal and rain fed but increasingly going "mainstream" with the introduction of water-intensive, input-driven crops like cumin and cotton. As a result of this development, traditional crop varieties that are suited to the ecology of the region are bound to be lost in the course of time. Salt making is another occupation that most people engage in. It is dependent on the unique plains of the landscape. There are also instances of people moving out of salt farming primarily as a result of increased production costs. The activity is become illegal with the sanctuary notifications being enforced to some degree.

Charcoal making and seasonal fishing also remain sources of livelihood for a host of other people in the landscape. What is clear from the consultations and the team's visit to the landscape is that for a majority of the people, livelihoods are at a subsistence level and any efforts at biodiversity conservation have to necessarily rest upon enhancing rather than curtailing options available to communities in terms of subsistence.

1. Methodology

The landscape is vast. To be able to traverse the length and breadth of it in 10 days required consultations to be rapid and structured along certain parameters. Broadly, the consultations aimed to juxtapose the social aspects in terms of communities residing in the landscape with the aspects of biologically significant areas that have been identified as part of the indicative plan of the landscape. The selection of villages visited for the consultations was based on multiple criteria. The first step was to understand the spread of the landscape before the team could arrive at the parameters that would help in the selection of villages to be consulted.

Generally, the following communities are present in the landscape - Koli, Patel, Darbar, Maldhari (Bharwad, Rabari), Dalit, and Miyana. Occupationally, people are engaged in agriculture, salt farming, fishing, charcoal making, labour, and pastoral farming.

The team took into account the geographical spread of the landscape and attempted to reach all the fringes. The team visited villages with all or any of the above communities for consultations on the fringes of the landscape.

Villages were also selected based on their proximity to the Bets and "Biologically Significant Areas" that were outlined in the indicative plan. The team thus visited Jogad, Chikhli, and Nimak Nagar along the southern fringe, which also has the maximum number of villages. The southern fringe also contains the most number of Biologically Significant Areas (BSA). Other places visited were Cherabarigam, a hamlet of Surajbari along the south west of the landscape; Kharaghoda, Jhinjhuwada along the eastern fringe; and Adesar, Taga, and Nanda Bet on the western and northwestern edge respectively. As a result, we interacted with salt workers, charcoal makers, agriculturists, and fisher folk across the landscape. Nanda Bet was chosen because it was the only Bet inside the Sanctuary that was inhabited, making it important for both social and environment assessment.

For the environmental assessment we visited Bajana Creek, Mardak and Nanda Bet, besides a wetland near Chikhli and the marshes along the Surajbari creek. We travelled across the Rann from the eastern fringe to the western fringe. Consultations were held often in the compound of households, at common meeting

places, or wherever the people preferred to have them. In most villages we met up with the village Sarpanch, informing him/her of the purpose of the visit. Gender participation in these meetings was stressed upon and where required, we met with women separately to elicit their responses to the Project. Consultations largely entailed semi-structured interviews, with an indicative list of questions for guidance. Some individual life histories were also constructed to better understand the socio-economic profiles of selected workers like a charcoal maker, a pastoralist, a fisherman and a salt farmer. Besides the communities, consultations were undertaken with department officials, individuals, and NGOs working in and around the landscape.

2. Regulatory Legal and Policy Issues

2.1. Core Issues

2.1.1. Settlement of Rights

While the Sanctuary was notified in 1973, it appears that the process of determination of rights has still not been completed and the final notification as a result not yet issued. If the project is to operate smoothly, it is imperative that this process be renewed and concluded immediately. Having noted this, however, it has to be pointed out that such a process of determination of rights will have to be begun afresh, and take into consideration the rights recognized by the state under the Forests Rights Act. It appears that recently the process of settlement of boundaries of sanctuary was initiated by appointment of an Additional Collector. This has led the local people to fear that many would lose their livelihood opportunities as a result. While it is important that these fears are allayed, it needs also to be pointed out that as per the provisions of the Forests Rights Act, it is first necessary for the newly recognized rights to be mapped out and vested, before any process under the Wildlife Protection Act can be initiated or continued. To initiate a process under the Wildlife Act of the determination of rights would be premature given that the rights would not have as yet been recognized. Also, the Forest Rights Act clearly recognizes the role of the Gram Sabha in the recognition of rights¹ and it is therefore not possible for a Collector appointed under the Wildlife Act² to determine or inquire into rights until the Gram Sabha concludes its role of determining the nature and extent of individual and community forests rights.

It appears that owing to the failure to survey this particular landscape and owing to the incomplete process of the notification of the sanctuary, the land within the landscape is still administered by the Revenue Department. As such, the leases for salt production are issued by the Revenue Department and the PA manager has no role in the same.

Securing Rights of Marginal Communities

¹ Section 6(1)

² Section 18B and Section 19.

With a view to protecting the livelihoods of the communities both within the sanctuary and on its fringes who depend on access to this area for livelihood, we suggest the following actions, which follow from a reading of the Forests Rights Act and the provisions of the Constitution that mandate village-level development plans. Given that the area is already operating as forest land, both by virtue of the broad definition that the Supreme Court has provided of the same as well as of the Forest Rights Act (which includes protected areas as forest land), a mapping of the traditional uses of the local inhabitants should be carried out.

In this process we propose that the communities engaged in salt or prawn farming indicate the areas that they frequent and the same be recognized as areas in which to exercise their customary right. Once these communities are identified as having a right in these lands, for a specified form of farming that falls within sustainable practices, they would be in a better process to improve their livelihoods. Similarly, we propose that the rights of the traditional fishing communities of the areas be recognized. This community fishes within the protected area and for this reason is in conflict with the conservation authorities. Once again we would propose invoking the definition of forest land that mentions the inclusion of sanctuaries and refer to Section 3(1) (d), which lists one of the forest rights as being the right to “uses and entitlements such as fish and other products of water bodies...” This clearly provides a legal space for the fisher folk of the landscape to continue traditional fishing even within the boundaries of the sanctuary. We also have to keep in mind that the Forest Rights Act is perhaps the first Act that recognizes the rights of transhumant communities such as pastoralists, and in light of this, communities such as fishing communities could also be said to benefit from this recognition.

The rights of these communities, however, are restricted to traditional methods of fishing and salt farming if we bear in mind the Act’s clear position of *status quo* with regard to the extraction of forest resources. These rights to exploitation within the sanctuary would also not apply to industrial enterprises currently operating or intending to operate within the Protected Area.

Providing these rights to these communities would ensure that the threats that have been emerging to the landscape as a result of industrial fishing, prawn farming and salt extraction would reduce, ideally resulting in greater value to the resources

extracted by the traditional communities, thus meeting one of the objectives of the project.

2.1.2. Right to Minor Forest Produce (MFP) and JFM

Another issue is that of access to MFP and the JFM scheme. It is reported that the practice of Joint Forest Management (JFM) is rather low key in the landscape. Only Surendranagar and Katchchh East divisions had initiated forest-related development interventions through formations of FDAs in and around LRK Landscape. Other Divisions are yet to initiate the JFM activities in and around the LRK landscape. Discussions with forest field staff and many NGOs suggested that the progress is quite slow on account of many ambiguities in both the process as well as the benefit sharing mechanism.

In this context it should be noted that the Indian Forest Act, 1927 has been modified in the State of Gujarat in a number of ways, one of which has been to expand the definition of forest produce. With the coming into effect of the Forest Rights Act, the forest produce so indicated will also fall into the list of forest produce that the forest dwellers have access to. The system of benefit sharing will also have to be reevaluated, given that the Forest Department will be unable to claim benefits to products it no longer owns.

It should be noted that under the present scheme in operation that there is no formal place for the Forest Department in the executive committee of the JFMC. However, having said this, it appears that there is no necessary link between the JFMC and the Gram Sabha of the Panchayat. All that is required is that 60% of the families in the village are interested in the formation of a village committee. With the vesting of forest rights and the recognition of traditional rights of groups over forests, this pattern will have to change. There will be a requirement for possible recognizing of the traditional bodies as committees and working with them to evolve sustainable and equitable patterns of resource extraction. This should be very much within the scope of the project.

2.1.3. Pilgrimages and Bets

An issue that has yet not posed an issue for conservation but which will possibly do so in the future is the growth of the temples that currently exist on the Bets or those Bets, which are owned by single individuals or families. Take the example of

the Jhilandhar Bet, which supports a temple. The temple has recently been renovated and pilgrimages to the site are on the increase. It does not appear that such institutions would be entitled to rights under the Forest Rights Act. It would be necessary to institute a rights regime, which would regulate access to the temple so as to ensure that in future a surge in patronage to this and other similar temples do not result in unsustainable pressures on the Bets and the landscape.

Where such temples have traditional connections to villages, these villages should be involved in determining the rights regime when the rights are determined and settled under the provisions of the WLPA, which would govern cases such as this within the Protected Area.

2.1.4 Institutional Framework for the Articulation of Rights

The general proposed institutional framework for the project is one that hinges on the provisions of the 73rd and 74th Amendments to the Constitution, which make provisions and stress the importance of local self-government. As has been indicated earlier, this process begins with the articulation of the village-level plan and culminates with the District Planning Committee. Unfortunately the State of Gujarat has not yet constituted a District Planning Committee. However, we have reason to believe that the same will soon be constituted given the Central Government's insistence that the same be constituted, as well as the fact that the DPC is a necessary body for certain grants.

In the absence of the same, we believe that the project could initiate a partnership of the various village-level Panchayats with the other line departments, mimicking the DPC body, until the District Planning Committee is constituted. This formulation of the Village Plans assume special importance when one observes the ecological degradation that has taken place within the landscape as a result of haphazard developmental initiatives. The building of roads, railways and the like has resulted in the blocking of natural drainage patterns. This in turn has resulted in such consequences as the increase in salinity of the traditional drinking water sources. The protection of the environment crucially depends on the recognition of the rights of access to and protection of these traditional water sources. Mapping out usage rights and then making developmental plans are tasks that have to factor these in and explicitly deal with them in order to ideally resolve this crisis.

While this entire planning process as envisaged by the Constitution begins at the village-level Panchayat, we would recommend a minor modification of the process. In the landscape it has been observed that in the majority of the villages, the residential settlement comprises of hamlets of different caste groups ranging from two to five, with the Dalit cluster located separately in most villages. However, in light of the domination of subaltern groups by the dominant castes or groups in the village, we recommend that the mapping of resource use and customary rights be done separately for every hamlet. This recommendation acquires added significance in light of the recent state-supported violence against Muslim communities, as well as earlier violence against tribal communities in the state. This mapping process should culminate with its approval by a general body of the entire cluster, before it moves on to be consolidated at the village level, after which this will move upwards toward the Gram Sabha of the village-level Panchayat.

This process of the vesting of rights, already provided for under the Bombay Land Revenue Code³, which invokes, where appropriate, the case of the Scheduled Tribes and other marginal castes dependent on forest land (as defined by the Forest Rights Act), will have a substantial impact on the legal regime as defined by the provisions of the Bombay Land Revenue Code, which determines the governance of revenue land in the landscape. For example, the right to all trees reserved under this Act, to all trees, brushwood jungle or other natural products growing on land set apart for forest reserves, and to all trees, brushwood jungle or other natural products wherever growing, vests with the state government. With the coming into operation of the Forest Rights Act, the right to those trees where a right or customary usage can be proved would vest in the forest-dependent communities.

Salt working has endured in the region for over a century. Interactions with salt workers in the landscape clearly point to one fact—that they are all farming salt illegally since none of the land on which salt is currently farmed has any lease orders. There may be some cases of leases that are yet to expire. Also there has not been any renewal of lease since 1985. And now leases cannot be renewed as the Apex Court has ruled in the Godavarman WP that forests should not be converted for non-forestry purposes. However, it could be the case that illegal salt farming could

³ Section 135 B and C of the Bombay Land Revenue Code, 1879 cited in Peace Report, p. 117.

pertain to farms that fall outside lease areas. Most lease orders have expired or have not been renewed. But since no settlement/demarcation processes were undertaken this activity continues. A settlement process is under way. It is to end on 31st March, 2007. Also, the Revenue Dept has told the Apex Court that leases cannot be renewed within a PA. Despite no tenure over the land on which most salt workers farm, they continue their activity for lack of any other options. The workers, more importantly, are a politically backed group who quite well know that they cannot be easily stopped from undertaking the activity. Salt farming also ensures six months of food and water when they are engaged in the activity in the Rann, which to them is a great support given a general dearth of livelihood options available. The settlement process is ongoing and one has to wait and watch what alternative is suggested for this seasonal activity, upon which a substantial chunk of the population depends.

In places like Nimak Nagar people had been involved in salt working as workers in the DCW (Dhrangadhra Chemical Works) industry and were quite agitated since their livelihoods along with benefits of working in the industry were gone ever since the industry stopped operations once its lease expired about 8-10 years ago. The respondents in Nimak Nagar were agitated about getting a good deal out of the ongoing settlement process. They also claimed that 2500 ha of their village land had gone for the sanctuary, for which they should rightly be compensated or given back their lands.

In Chikhli, most people have given up salt farming because of the rising production costs as well as not being allowed to move on further into the Rann for salt farming. There were some in the Rann who went on to say that some areas may be "zoned out" for salt farming as part of the settlement process. This is an option that the Forest Department has been mooting for some time. The scientific basis of such zoning is still suspect as it is based primarily on a suggestion in the GEER Foundation report. There were no reported cases of the Department harassing the salt workers working in the Rann except in Nimak Nagar. Most respondents said that this activity did not disturb the wild ass and therefore they should be allowed to continue with their work.

2.2. Recommendations

In light of the discussion above we recommend that:

2.2.1 The settlement of rights should be given priority in the course of this project.

- However, this process must follow on the completion of the vesting of the Forest Rights Act.
- The local communities should be assured that the appointment of the Additional Collector to complete the process of demarcation of the boundaries will not impinge on their livelihoods, and that their rights under the Forest Rights Act will be respected.

2.2.2. There is a need to secure the rights of a number of marginal communities within the landscape.

- The prawn and salt farmers are one such group, who must be required to identify areas they frequent, in the course of the mapping of rights under the Forests Rights Act. Once identified, the use of these lands for this farming must be recognized as a part of their rights under the Forest Rights Act. This tenurial security would allow them to improve their livelihood options.
- Similarly the rights of the fishing communities should be recognized in the areas of the sanctuary that they currently fish in.
- Both these communities would require identifying practices that are sustainable and work out management regimes with the conservation authorities.
- The securing of the rights of the religious and tribal minorities assumes significance in light of the state-sponsored violence that has recently occurred in this State. The process of the mapping of rights that has been recommended must be especially monitored to ensure that these communities are not marginalized.

2.2.3. In the context of the Forest Rights, the JFM policy will need to be reviewed.

- A clear process will have to be restated.
- The system of benefit sharing will also have to be reevaluated, given that the Forest Department will be unable to claim benefits to products it no longer owns, the rights of ownership of NTFP being vested now in forest dwelling communities.
- The Forest Management committees must necessarily be made a part of the village PRIs as sub-committees and the Forest Department must attempt to evolve sustainable and equitable patterns of resource extraction.
- Where traditional bodies of commons management exist, these should ideally be left in place but incorporated into the sub-committee of the Panchayat to enable a formal space for dialogue and democratic resource sharing.

2.2.4.

The State of Gujarat has not yet put in place District Planning Committees. In such a case the scheme suggested by this study lacks a crucial institution. This, however, need not be seen as a stumbling block. The DPCs are expected to be constituted.

- Until these are constituted, it is suggested the Forest Department work with the constituent villages and begin the process of mapping of rights and the subsequent process of evolution of village plans.
- These village plans could then be consolidated across the landscape, providing a coherent landscape-level plan that twines conservation and livelihood issues.
- In the process of the formulation of these plans, the rights of the Dalits, religious minorities and tribal communities should be secured. For this reason, we recommend that in this landscape the mapping of rights for these groups should be done independently and prior to the consolidation of the village level plan.

3. Status - Baseline, Stakeholder Analysis, Participation Framework

3.1. Stakeholder Analysis

3.1.1. Communities

The landscape is spread over 5 districts of Gujarat state. These fall under the two distinctly different cultural areas of Saurashtra and Kachchh. There are sub-groups within each of the communities mentioned at the beginning of this chapter. The Patels are the landed group and most powerful in political and economic terms. They constitute a small but powerful section. The Kolis are numerically the largest group but economically marginalized, with small land holdings. They engage in salt farming and some have also mastered charcoal making. The Rabari and the Bharwad are the pastoralists in the landscape and are together referred to as Maldharis. They primarily depend on livestock and marginal agriculture for livelihoods. For six months of the year they migrate in search of pastures for their livestock, but in recent times, with traditional grazing lands being lost, livestock holdings have reduced. Increasingly many of them are settling down to a sedentary life of agriculture. Muslims are a small section of the population, mostly restricted to the southern fringe of the landscape. They primarily engage in saltpan labour and in seasonal fishing activity in the Rann. Some also depend on small to medium sized agriculture.

3.1.2. Vulnerability among Communities

Communities largely inhabit a landscape vulnerable to the vagaries of nature. The region experiences natural disasters with an incredible regularity and communities have adapted well to it despite the large scale of such disasters. Interdependence along with systems of managing the commons have sustained the communities in the landscape, but this reality has fast changed in recent times because of several factors, including the policies of the state, the delivery of services, etc. Natural vulnerability apart, communities experience other forms of vulnerability.

For one the Agariyas are one of the most vulnerable social groups in the landscape. With the declaration of the sanctuary, saltpan labour and any work undertaken in the sanctuary are illegal under the WLPA. In an unfinished settlement process, salt continues to be farmed and remains one of the primary livelihood activities in the landscape. The Agariyas realize that the work is illegal but despite that they continue for want of any other sources of income. Industries like DCW stalled

operations after their lease expired but continue to outsource salt from the small framers, who risk a lot in farming for salt just because it provides subsistence at least through half the year. Further, the market shifts in terms of price for salt also directly affects the Agariyas. Marine salt work that is largely mechanized is affecting the livelihoods of these inland salt farmers. Coupled with this is the recent thinking within the Forest Department circles about zoning salt pans within the sanctuary. There is little scientific basis for this zonation. It is largely based on where the salt panning is happening currently, and there is no understanding on how many years it would take for the brine to deplete and replenish again. Thus this source of livelihood is a precarious one and there is a need to understand the issue in depth in order to suggest alternatives. The Maldhaaris, on the other hand, though vulnerable with lesser land to graze their livestock on, have adapted themselves to newer alternatives, moving out of their nomadic way of life to sedentary life. The traditional grazing grounds which are now within sanctuary limits are no more accessible, and in the consultations, the Maldhaaris, especially the Rabaris, said that they were asked to reduce their livestock holding by the sanctuary managers when the sanctuary was first declared in 1973.

3.1.3. Non-Governmental Organisations (NGOs)

Non-Governmental Organizations (NGOs) have always played a major role in addressing some of the developmental needs of the people. The same holds true in the case of this landscape. In post-earthquake Katchchh, some governance initiatives are already showing good results. One such initiative is the SETU initiative of the Katchchh Nav Nirman Abhiyaan (KNNA). This particular initiative is primarily working in Katchchh district, it has tremendous potential to be replicated in the Little Rann of Katchchh (LRK) landscape. Through the initiatives of GANTAR, SEWA, ANANDI, and CEE and their wide social base, much can be achieved in terms of reconciling conservation and livelihoods. Each of these NGOs has a specific mandate and if they are synergized, a lot might be achieved in terms of addressing the differential needs of the community and conservation. The consultations clearly indicated that people would rather collaborate with NGOs since there is no corruption there and services are better delivered. An active network of NGOs in the landscape can achieve some of the objectives that this project aims at.

3.1.4. The Gujarat Forest Department

The state Forest Department is the implementing agency for this project. Within the landscape and elsewhere the department holds an enormous amount of land under its control. The LRK landscape is the second largest landscape within this project, and one with a unique ecosystem and unique complexities. Given the vast area that the department has to manage, enforcement is lacking. Within department circles, the requirement of strengthening enforcement and regulation is often cited as a conservation priority.

There is palpable tension between the people and the department. The refrain that the department cares for the wild ass at the cost of people and their livelihoods was often heard. At the same time people also conceded that though there are not many cases of harassment, the department is responsible for the wild ass and the communities have really little to do about its conservation. This project with its focus on livelihood improvement might be the bridge between people and the department. The general rhetoric of exclusion is still widespread within the department. But in a landscape that is largely shaped by human-nature interactions, excluding communities will never be the best of alternatives to explore or aim at.

3.2. *Participation Framework*

The landscape offers a complex set of issues and enlisting participation of the communities is one of the toughest challenges. In most consultations there was resistance towards working in any way with the department, but when consultations clearly hinged on the importance of communities to take initiatives in conserving the wild ass, there was positive response in terms of cooperation aimed at its protection. But at the same time communities wanted to ensure that livelihood options are not curtailed as a result. People really did not harm the animals and rather preferred that both the animals and people lived harmoniously. Most people talked about instances of wild ass and wild boar depredation of the crops. This raised considerable concern among the people, and they would want something to be done about it. When queried on any collaboration with the department for the protection of the wild ass, some responded that there are no benefits for them and so why should they collaborate? There were also others who were more forthcoming in terms of cooperating as long as benefits flowed to them. When asked about solutions on how the wild ass can be kept at a distance, people suggested fencing around the sanctuary so that the ass would not stray into agriculture fields and destroy their crops. Most people in the landscape suggested fencing either the

agriculture fields or the sanctuary. Our queries on what other alternative livelihoods the people engage in bore no answers. They also responded that like a lot of other people who have migrated they too would envisage migrating in search of any alternatives. People in Nimak Nagar were visibly agitated and stated vociferously that they were never consulted before the sanctuary was declared. The people also claimed that about 2500 hectares of their village area was declared to be inside the sanctuary all of a sudden without any process of consultation. One old man retorted back saying, "It is probably the first time in the history of the country that the wild ass is given importance and precedence over people. The government provides money to ensure the good health of asses as opposed to people." Against such a backdrop the department has to do much groundwork to gain the confidence of the people and enlist the participation of the communities in this project.

Table 3.1: Stakeholder analysis

| Village | Salt farming | Agriculture | Fishing | Wildlife | Other |
|---------------|---|--|---|---|--|
| Jogad | Number of people engaged in salt farming has reduced over the years. But still remains a source of engagement primarily because it ensures at least 6 months of food and water. | People engage mostly in dry land agriculture. Increasingly moving towards crops like cumin, cotton, etc., which are water intensive. | Seasonal activity restricted to 4 months of monsoons. Mostly Miyanas are engaged in this activity. | Increased population of wild ass, nilgai, wild boar. Large-scale depredation of crops by these animals. | |
| Cherabari gam | Recent phenomenon in the region. Growing cases of salt farming affecting the salinity of the creeks. | Have not engaged in agriculture. | Primarily a fishing community. Decreased fish catch in recent years attributed to increased salinity and less water ingress into the creek due to the newly constructed bridge. | Seldom see the wild ass. Have a good idea of birds but in recent years lesser number of birds seen. | Increased migration because of low fish turn over due to increased salinity. |
| Chikhli | Most people have moved out of salt farming Low brine content. No more a lucrative option | Marginal agriculture. Mostly dependent on rains. No change. | Seasonal fishing practiced. According to them no change in the amount of catch. | Wild ass depredation on the rise. Nearby wetland is home to birds in the winter, no change in populations | Migration to nearby town Morbi in search of livelihood options. People also increasingly engaged in charcoal making as a source of income. |

| | | | | | |
|-------------|---|---|-------------------------------|--|---|
| Nimak Nagar | Most people were employed with DCW. After DCW's operations stopped most work as labour in salt transportation. Very few actually farm salt. | | Seasonal activity. | Did not refer to any problems but extremely anti-wild ass because their livelihoods, i.e. salt making and fishing, are at stake. | Stark issues of settlement came up. |
| Nanda | No instances of salt farming reported | Primarily engaged in agriculture. Agriculture is largely rain fed, millets and pulses being cultivated. | No people engaged in fishing. | Increase in population of wild ass, wild boar. People reported increased cases of depredation. | People complained of lack of access to transportation. |
| Taga | Some people are engaged in salt farming. But people are also moving out of salt farming, mostly to charcoal making. Wherever labour options are available, engaged in labour. | Marginal agriculture. Mainly rain fed. | No fishing | Increased populations of wild ass raiding their crops. | Good population of Rabbaris, who are migrating pastoralists, but slowly settling down with some agriculture and educated family members taking other occupations and supporting the family. |

Table 3.2: Community perceptions of change and existing issues

| Village | Salt farming | Agriculture | Fishing | Wildlife | Other |
|---------------|---|--|---|---|--|
| Jogad | Number of people engaged in salt farming has reduced over the years. But still remains a source of engagement primarily because it ensures at least 6 months of food and water. | People engage mostly in dry land agriculture. Increasingly moving towards crops like cumin, cotton, etc., which are water intensive. | Seasonal activity restricted to 4 months of monsoons. Mostly Miyanas are engaged in this activity. | Increased population of wild ass, nilgai, wild boar. Large-scale depredation of crops by these animals. | |
| Cherabari gam | Recent phenomenon in the region. Growing cases of salt farming affecting the salinity of the creeks. | Have not engaged in agriculture. | Primarily a fishing community. Decreased fish catch in recent years attributed to increased salinity and less water ingress into the creek due to the newly constructed bridge. | Seldom see the wild ass. Have a good idea of birds but in recent years lesser number of birds seen. | Increased migration because of low fish turn over due to increased salinity. |
| Chikhli | Most people have moved out of salt farming Low brine content. No more a lucrative option | Marginal agriculture. Mostly dependent on rains. No change. | Seasonal fishing practiced. According to them no change in the amount of catch. | Wild ass depredation on the rise. Nearby wetland is home to birds in the winter, no change in populations | Migration to nearby town Morbi in search of livelihood options. People also increasingly engaged in charcoal making as a source of income. |

| | | | | | |
|-------------|---|---|-------------------------------|--|---|
| Nimak Nagar | Most people were employed with DCW. After DCW's operations stopped most work as labour in salt transportation. Very few actually farm salt. | | Seasonal activity. | Did not refer to any problems but extremely anti-wild ass because their livelihoods, i.e. salt making and fishing, are at stake. | Stark issues of settlement came up. |
| Nanda | No instances of salt farming reported | Primarily engaged in agriculture. Agriculture is largely rain fed, millets and pulses being cultivated. | No people engaged in fishing. | Increase in population of wild ass, wild boar. People reported increased cases of depredation. | People complained of lack of access to transportation. |
| Taga | Some people are engaged in salt farming. But people are also moving out of salt farming, mostly to charcoal making. Wherever labour options are available, engaged in labour. | Marginal agriculture. Mainly rain fed. | No fishing | Increased populations of wild ass raiding their crops. | Good population of Rabbaris, who are migrating pastoralists, but slowly settling down with some agriculture and educated family members taking other occupations and supporting the family. |

4. Key Site-Related Social and Environmental Issues

The key site-related issues are necessarily related to livelihood opportunities, access to government sponsored services, and so on. People largely depend on the landscape to make a living, be it agriculture, salt farming, charcoal making or fishery. The dependence on the landscape primarily hinges upon subsistence. The landscape, with its unique ecosystem and changing seasons, caters to wide ranging livelihood sources that are but seasonal in nature, and the communities have mastered skills to harness the same over the years that they have been part of the landscape.

4.1. Salt Farming

Salt farming is one of the key economic activities in the Rann. It is a seasonal activity that spans about six months of the year supporting close to a lakh people in the region. It is also pertinent to point out here that this salt meets about 30% of India's needs. Most people engaged in salt farming belong to the Koli community.

Citing an example:

About 50% of the Kolis and 10-12 households each from the Dalit, Bharwad and Darbar communities are engaged in salt farming from Nava Enjar. Basically the poor who have no access to any other sources of livelihood are engaged in salt farming. According to Kuka bhai, anybody can really come and make salt. There are adivasis who come from as far as Chhota Udaipur, Dahod and Panchmahals to work as labour during the salt transportation time.

There are several adversities that a salt farmer has to deal with, ranging from arranging for basic amenities to keeping track of the weather so that the farmed salt is transported well in time before the salt loses colour and quality. For food and drinking water, the merchant makes arrangements and deducts that amount from the farmers' earnings at the end. Salt farmers engage in their occupation between October and November and between April and May, after which they mostly engage as agriculture labour and/or cultivate crops in their lands.

When enquiries were made about the area being declared as a sanctuary, most people were aware of the fact. This understanding largely stemmed from the fact that no leases have been renewed or new leases given for some years now. This is one of the primary reasons that makes the salt farmers most vulnerable. Thus to guarantee a secured livelihood base for the Agariyas, issues related to either legalising the activity or providing for sustainable alternatives need to be explored.

A lot of the respondents also said that since this activity was mostly illegal they did not get a good price for what they farmed. When there were leases to the land they got a price of Rs 140 per tonne. Now they are left to the whims of the merchants, who do not pay any competitive prices. The farmers continue to engage in this activity for lack of any other occupation. This also ensures their food needs for at least half the year.

Chikhli village was quite a contrast to the previous salt farming villages the team visited. People have almost been forced out of salt farming primarily because of poor brine quality. Most people who were engaged in salt farming have either become labourers in the salt transportation elsewhere or engage as agriculture labour. Some have also moved to making charcoal from Prosopis.

4.2. Agriculture

Agriculture is primarily marginal and rain fed. In some villages with access to Narmada water, people have been growing cotton, cumin and other crops that require irrigation. Traditionally most people who have some land primarily grow Jowar, Bajra, sesame, etc. Crop depredation was a refrain heard often across the landscape. Wild ass, wild boar and Nilgai were mostly known to be destroying crops and there was visible antipathy against the Forest Department, who are not paying enough attention to the issue. People referred to the fact that there has been a manifold increase in the number of the wild ass, besides increased wild boar and Nilgai populations.

Wild Ass Depredation

"The wild ass rolls and mauls over the agriculture field thus destroying crops while also eating some of it". Kukabhai Surela also went on to say that if it was any other domestic animal he could have held the owner responsible but in the case of the wild ass there isn't anybody whom he can hold accountable. When asked if he ever tried approaching the Forest Department, he said that he did try telling the beat guards who come for occasional round-up, but they say they can do nothing and the people should go to the office in Dhrangadhra to register a case of depredation.

People demanded speedy redressal of compensation issues. In some cases people complained of the department office being too far away. Most often than not people suggested corrective measures in the form of fencing either of the sanctuary or of their crop fields.

There are about 30 Darbar families in Kidi village who are primarily engaged in agriculture. Kishore Singh alone, for instance, owns about 50 bighas of land, on which he cultivates mainly dry land crops like jowar, bajra and cotton, the last

requiring some irrigation. He also makes charcoal from *Prosopis juliflora*, which grows on his farm bunds and on other village common lands for about 6 months of the year. He gets about 4500-5000 rupees a month from charcoal making. According to him, after the notification of the sanctuary the population of herbivores especially Nilgai, wild boar and wild ass has increased significantly. These animals are destroying crops and causing much hardship to farmers. *Prosopis* has been a veritable fence where animals have found refuge. He also claimed that the *Prosopis* has kept the Rann at bay and arrested desertification. The *Prosopis*' nitrogen fixing properties lends fertility to the soil and so a lot of farmers also grow this tree on the farm bunds, which is later cut to make charcoal.

4.3. Charcoal Making

Charcoal making is yet another occupation a lot of people in the landscape depend upon. With *Prosopis* abundantly available all over in the wastelands and the ban on its harvesting being lifted, this is an occupation anybody can take up and make a living from. In some interactions people said that though the labour required in salt farming and charcoal making is almost the same, the latter is still preferred because the working conditions are not as adverse as roughing it out in the Rann. In one of the interactions the team met with Guga Bajani of Kidi village, who makes a living out of charcoal making. The entire family was engaged in dousing the fires to harvest the charcoal at the time of the interactions. Interactions with this family revealed that Guga Bajani also engages as labour for four months in transportation of salt from the pans. Charcoal making is the primary occupation, besides working as agriculture labour and salt labour.

From sale of charcoal to local merchants his monthly earning ranges between Rs 2000 and Rs 3000. The producers have no direct access to the market and have to depend on middlemen. What the merchant buys from them at Rs 100/kg is sold to industries at Rs 400/kg. Queried about their aspirations for their children, the family said that labour work had become a way of life and they expected that their children would also join this occupation. They do not have the means to provide for higher education; thus the children would have no opportunities other than charcoal making.

4.4. Seasonal Fishing

Fishing is a seasonal activity that most people in the landscape depend on. We visited one of the hamlets of Surajbari called Cherabarigam, a hamlet of about 50 households belonging to the Lodhi community. This was a settlement that came

across quite literally as one "living on the edge". The hamlet has no access to even basic amenities such as electricity and water. Migration is common and when we visited the place there were very few people around primarily because they had gone to Morbee and other places in search of work. Slowly most people are moving out of fishing because it is no more lucrative. They work as labour in the saltpans that have sprung up in the region. Literacy rates are dismal as a result of which employment opportunities are further curtailed. There is no proper school though the building exists. But people complained that the teacher comes only once in a week. None of the households avail of any development schemes.

They have small boats in which they fish only in the creek. Here the activity was all year round until recently. Fifteen years ago there was no salt farming and they had a good catch each season but now with salt works all over the place, fish catch has gone down. While prawn is found all through the year now its availability is restricted to the 2 monsoon months when they have a good catch. While earlier it was normal for a household to catch about 20-25 tins of prawns in a season, now they just manage to get as little as 5-10 tins. They attribute these changes to the increased salinity levels in the water.

Some are sea faring but very few have the means to go fishing in the sea. The Fisheries Department has issued identity cards to all the fishermen. But they complained of not having any license to sell, so they end up selling fish to middlemen who pay very little for the catch. In terms of development initiatives, the women were vocal about wanting somebody to facilitate the forming of collectives that could take up selling and thereby ensure better profits than earned through the middlemen. The women were aware of such initiatives in nearby Maliya, Timbo and other villages.

Some of the other observations that the group made include:

- Reduced fish, especially prawn stock, was attributed to increasing salinity levels of the water and also less inflow of seawater especially after the construction of the bridge.
- The people had no idea of the wild ass and that they were part of the Little Rann of Katchchh landscape.
- They did say that birds flock to this region in monsoons and recognized quite a few birds that included the flamingoes, painted storks, herons, terns, lapwings, etc.

- They had no access to any of government's development schemes including anganwadis, electricity, ration cards, and roads.

The Miyana community in Chikhli village also engages in seasonal fishing, which is restricted to the four monsoon months. One of its residents, Akbar Kader, earns anything between Rs 50, 000 and Rs 2 lakhs in a season. The rate differs with the type and quality of catch, quantity and prevailing market prices. Most responded that there has not been much change in the amount of catch but the quality of the catch has declined over the years. Except for the four months of fishing there is no other source of regular income. These families also occasionally find employment in charcoal making for about four months. This activity fetches them about Rs 2500 a month. It was important to know that before the fishing session started each fisherman required a minimum cash amount ranging between Rs 14,000 and Rs 20,000 towards repair of the boat, nets etc. If credit was made available then they would not be exploited by the merchant and fishing would be profitable.

4.5. *Women in the Landscape*

The women in households are far more hardworking than the males because besides looking after the household chores, they also take up other production roles like scraping salt once the crystallization process sets in, segregating and processing fish, engaging as agriculture labour, etc.

According to Bhavna G. Adesara, a mother of four children, she comes to the Rann accompanying her husband to look after the household and help her husband in the salt making process. When asked about her engagements she responded that she primarily looked after the family, collected fuel wood from the nearby forest patches, and travelled a distance of about 3 km once a week for this purpose. The Forest Department deters them from such collections and if caught, their instruments are seized and they are warned against future collection of fuel wood. Despite all these odds, they continue to collect fuel wood.

Asked about her aspirations for her children she said that she really had no other choice. She saw salt making as the only choice that her children could pursue. In the event of this activity being stopped as a result of more stringent restrictions, they would explore other options of labour work, besides also engaging in charcoal-making activity.

The project team had a focused group discussion with women in Nanda Bet geared towards knowing their problems and their understanding of the various issues that affected them. The women said that they got to know about the village being inside the sanctuary just about a year ago, when they had a meeting with government officials. As a result they have problems of not being allowed to go inside the sanctuary to collect fuelwood, collect sand for house construction, and graze their cattle in the forest. The department has appointed a forest guard to ensure that no trespassing from the village into the sanctuary take place.

When there was no sanctuary, the problem of wild ass did not exist. But now they have to guard their farms day and night as there is more depredation-related loss now. Wild ass can now be allowed to live in a place exclusive to it and not enter farms. Instead of fencing the farms, which are numerous, it makes better sense to fence the sanctuary to prevent wild ass intrusion. While women are usually secluded from public discussion, one woman, Vinoba ben, because of her education was able to access public spaces and as a result was a source of strength and confidence for other women to participate in public discussions, attend Panchayat meetings, etc. Although a women's SHG was formed three years ago it has not been too active. The women suggested further expansion of SHG activities, for which they sought NGO facilitation. They suggested such activities as safeguarding the village from wild ass intrusion, the establishment of a milk co-operative, and ensuring compulsory saving from income of women.

The women demanded access to education and complained that at present there was no school beyond the primary section, because of which most girls miss out on higher education. They also said that they preferred to work with an organization to protect farms from wild ass and not with the government because sanctuary boundaries were vast and the government could not engage holistically with the local communities.

For future mobilization and consultation during the project the women suggested that the convenient timings for meetings should be after 2.00 pm. If informed earlier, women of all communities would assemble at the Anganwadi. Women mentioned that for wild ass conservation and farming to co-exist peacefully, fencing would certainly be required. They were open to the idea of the village formulating some kind of management rules to govern their fuelwood and sand collection needs.

Towards this they said that the village would be open to discussions with the department to evolve some rules and norms to access fuelwood from the sanctuary.

4.6. *Communication Infrastructure, Health and Education*

The landscape has all-weather roads connecting it to the rest of the state. But on account of movement of heavy vehicles for salt collection, some of the interior roads are in bad shape. In terms of railway lines, this region has one of the oldest established rail networks primarily geared for salt transportation to other parts of the country. This rail network exists and is one of the main sources of communication and transportation.

The health conditions of the people working in the saltpans draw attention primarily because of the harsh circumstances within which they operate while farming for salt. Health problems primarily include skin-related conditions due to working long hours in the brine and cases of malnourishment due to limited food variety that people consume while in the pans. Most infants and children showed symptoms of malnutrition. Recently mobile medical units have been formed to reach people in the saltpans. But the scale of such activities is miniscule compared to the expanse of the landscape and they need to be scaled up to have any real impact. Interactions at one of the primary health centre revealed that epidemics such as malaria, diarrhoea and pneumonia are common in the monsoon months. Most child deliveries are at home, with help of trained midwives to whom the PHC gives training.

Illiteracy is highly prevalent, especially among the Agariyas. Most of this is attributed to the migrant nature of the people in the landscape. Along with the Maldhaaris, who are on the move half the year, the Agariyas too are in far flung salt pans for half the year, taking their children along with them, As a result children remain out of school. Recently initiatives by NGOs like GANTAR, SEWA, ANANDI have been able to reach out to children of the salt farmers through the mobile school facility. But such services, besides having to be scaled up, also need to reach out to the communities to build awareness on the importance of education and provide education that is sensitive to the community needs.

5. Impact Evaluation and Implications for Project Design

Most people seemed to be aware of the existence of the sanctuary and some even knew of the proposed project. There were mixed reactions to the proposed project. At one level most people viewed it with skepticism notwithstanding the good intentions that surround the project. The ongoing settlement process in the landscape was also a reason why most people seemed to be aware of the sanctuary notification.

Salt farming and fishing are two economic activities that are dependent on the Rann. But technically, with the wildlife sanctuary notified, these activities are illegal. As a result of weak enforcement as well as strong political patronage, such activities continue. Communities agree to be involved in protecting the wild ass if they are allowed to farm for salt. There are other issues such as depleting brine content but people do not seem to be worried about such circumstances. They are still willing to engage in this activity simply because there are no possible alternatives that they can engage with. To cite an example, in one interaction, one resident, Kuka bhai, when asked about strict enforcement, said that he would be able to do nothing in such a situation except that he expected that the government would still allow them to farm for salt. Asked about the possibility of the quality of brine decreasing in a few years' time and rising production costs, the resident said that the brine content had dropped only by 2 points, and that it was a natural process over which nobody had any control. Asked about alternatives, he said that the government could construct a canal to get the seawater into the Rann so that they had access to it without having to spend money on drilling for underground salt water.

With regard to the sanctuary, they realised that their salt pans were located inside the sanctuary and in fact mentioned that they had heard that they would be relocated a further 3 km inside. When asked the reasons for such relocation, they seemed clueless. They also said that the Forest Department people occasionally visited them and enquired about the wild ass. They did not miss telling the project team how in recent years the menace of the wild ass was on the rise and has been damaging crops in the fringe villages.

People's aspirations ranged from better basic facilities during the salt farming months to mobile education services such as the recently launched mobile health services, whereby their children could access education during the months when they move with their parents to the Rann for salt farming.

Consultations in Nimak Nagar bore witness to agitated emotions. Residents hoped that by sharing their plight it might be heard somewhere and redressal found. Most of the people consulted belonged to the Miyana community, who have been traditionally fishing in the monsoon months in this part of the Rann and also worked as labour with the DCW (Dhrangadhra Chemical Works). It has been almost 10 years since the DCW stalled operations and is outsourcing salt from farmers. With the ongoing settlement process, the people seemed to be politically motivated to get the best deal and make the most of the opportunity. They came across as a powerful group who knew more than most others with whom we had interacted in the landscape about laws and policies. The key person in these interactions was also the ex-Sarpanch of the village, Hasan Bhai Dora, who had considerable knowledge about rules and procedures.

People have been working closely with Deepak Trust, a NGO that is working on livelihood issues in the region. For the last 2-3 years the Trust has taken up the marketing of salt and the profits are given back to the farmers. Most people mentioned that the Forest Department harasses them if they are found farming salt, harvesting timber, and fishing in the Rann during monsoons, despite being issued with licenses from the Fisheries Department, which are to be renewed every 5 years.

On the settlement issue, people said that the District Collector had sent an order about 3 years ago banning anybody from selling their land since it was notified as the Wild Ass Sanctuary. After this the Panchayat passed a resolution saying that they would not give any land to the WAS. The Panchayat seemed to be wielding some power at least by letting the bureaucracy know of its opinion. When asked if they would take any initiative through the Panchayat, people responded in the negative. One resident Hasan Bhai said that the Panchayat regulations were of "no use", and that "there has to be a government appointed official to regulate Panchayats functioning only then it will be functional and make sense".

6. Analysis of Mitigation of Adverse Impacts and Enhancement of Positive Impacts

In the LRK landscape, there are very few interventions or non interventions as officially proposed that have potential positive impacts that can be enhanced. Such circumstances can be evidenced from consultations with the forest Department. For instance the Conservator mentioned during consultations that “Prosopis requires management not eradication. It is essential for livelihood and breeding.” He also said that restriction of grazing in Bets and fringes is a “long term process and one project cannot achieve it”. The Conservator was also of the view that many departments such as the industries, welfare and fishing departments are involved and that only the FD has a conservation mandate; so sectoral coordination is needed. What is positive here is the official cognizance of livelihood issues such as grazing and Prosopis collection, especially the treatment of such issues as going beyond the scope of a single project. The other positive aspect is the fact that the FD takes cognizance of the mandate of other departments, which by extension also implies that the FD is sensitive to the respective welfare mandates of such line sectors.

Prosopis juliflora, although an invasive species, has had a profound impact on the livelihoods and ecology of the landscape. Wild ass and several other ungulates including livestock have been reported to feed on the pods, and people make use of Prosopis for charcoal and fuelwood. While the rank and file of the government departments think that Prosopis is a godsend, many conservationists view it as a problem as it has the potential to alter the vegetation composition of native communities. To this end the department is aware of the problems of Prosopis invasion into Bets.

Ecotourism is being considered as an intervention that would bring revenues to communities. However, on account of the remoteness of the landscape and the existing tourism ventures, the potential for tourism is low. Moreover, in light of the effect of vehicles in the landscape on the flatness of the terrain, there is a danger that more tourism could only mean greater impacts.

A management intervention that is planned is that of zoning the area of salt production. The sanctuary management plans to restrict salt activities to certain areas of the sanctuary. This, while seeming an easy solution, is not as clean a

solution as envisaged. The current scenario results in spreading the impact of salt farming largely from the transport of salt. If concentrated in certain sections of the Rann, the density of vehicles could result in larger effects than at present. Moreover the brine content in the water that is obtained might reduce drastically, driving salt workers to other areas and leading to greater conflicts between the department and Agariyas. Zonation will need to be evolved in consultation with the salt workers.

As reported earlier, the conflict between people and wildlife, especially the wild ass, is high. During our visit to the landscape a majority of the sightings of wild ass was in the farmland. Wildlife data and local information suggest a definite increase in the numbers of wild ass over the last couple of decades. This has been accompanied by a greater incidence of crop depredation not just by wild ass but also wild boar. This has meant that while the conservation efforts have indeed borne fruit, there has been increased conflict between wildlife and people, which the Wildlife Department has not addressed adequately enough.

Table 6.1: Safeguards framework

| Intervention | Intended 'positive' | Unintended adverse | Mitigation measures |
|--|--|---|---|
| Marking out salt zones in the Rann | Less human disturbance in the Rann. Inviolable spaces for the Wild Ass. | Agariyas could become more vulnerable as a result of being limited within these zones, which are not necessarily marked out on the basis of any scientific baselines. | Undertake scientific studies to determine zonation. Provide sustainable alternatives to the Agariyas. |
| Alternative incomes | Less dependence on natural resources and existence of more secure livelihoods from a basket of alternatives. | Wide disparities in abilities to access and use alternatives. | Decentralized intervention all across the landscape addressing and optimizing local specificities. |
| Participatory planning and management of landscape | Increased community participation in conservation. Awareness on issues of conservation and livelihood in the landscape, thus greater participation in its governance. Positive attitude towards wildlife of the landscape. | | |
| Strict enforcement of the law | Create inviolable spaces for wildlife and better protection to wildlife. | Restricts the mobility of the NR-dependent communities in the landscape. Restriction of salt panning activities. Restriction on access to traditional | Develop community management systems that can assess and manage this effort. Allow for ranging of livestock, based on a sound assessment of grazing needs of the wild ass as against other domesticated livestock. |

| | | | |
|--|--|---|--|
| | | grazing pastures, which lie within the sanctuary limits. | Increased coordination with Animal Husbandry Department for vaccination of livestock so as to reduce the possibility of disease spread from domestic to wild and vice versa. |
| Ecotourism | Alternative income generation, diversified local economy. | Increased vehicular traffic and off-roading have large impacts on vegetation. | Restrict traffic to roads; regulate number of tourists; |
| Introduction of High Yield Variety and associated risks (OP) | Alternative income generation, improved nutrition, for barter. | Increased used of fertilizer. Increased irrigation decreases flows to meadows, with implications for livestock, wildlife, and flora. | Conservation of native species. Appropriate irrigation systems. |

7. Institutional Managements for Effective Implementation of Social Issues

During the consultations one did not come across any existing traditional institutions in the landscape. But as a baseline, a study on traditional practices of governance could be taken up to better understand such issues and recommend strengthening of such practices as part of this project. For one, natural adversities have long been part of the landscape and the existence of communities that include salt farmers, fisher folk, and pastoralists who have lived harmoniously for centuries points to the fact that some kind of systems and practices was in place to facilitate this. Interaction with Mr. Yogesh Jadeja of the Katchchh Nav Nirman Abhiyaan (KNNA) also revealed that the interdependence of communities in the landscape had sustained them in the past and the breakdown of systems for managing Common Property Resources (CPRs) has led to current conditions of resource degradation. This aspect needs deeper enquiry and the project as part of its baseline could be engaged in understanding this unique socio-ecological system.

Panchayati Raj institutions are in place, but largely politically motivated. Capacity development of these institutions in terms of governance issues, especially pertaining to natural resources, could be an important milestone to achieve. Further, with the efforts of the KNNA and other such networks towards strengthening of governance structures, the landscape stands a better chance in implementing biodiversity conservation through PRIs, which are constitutionally mandated and thus can be put to effective use.

Women SHGs have been formed in almost all villages, either supported by NGOs or government sponsored. But in some villages women wanted to be formed into groups and take up some enterprise-based work. In Nanda Bet, consultations with women revealed that they wanted to do more than

From field notes...

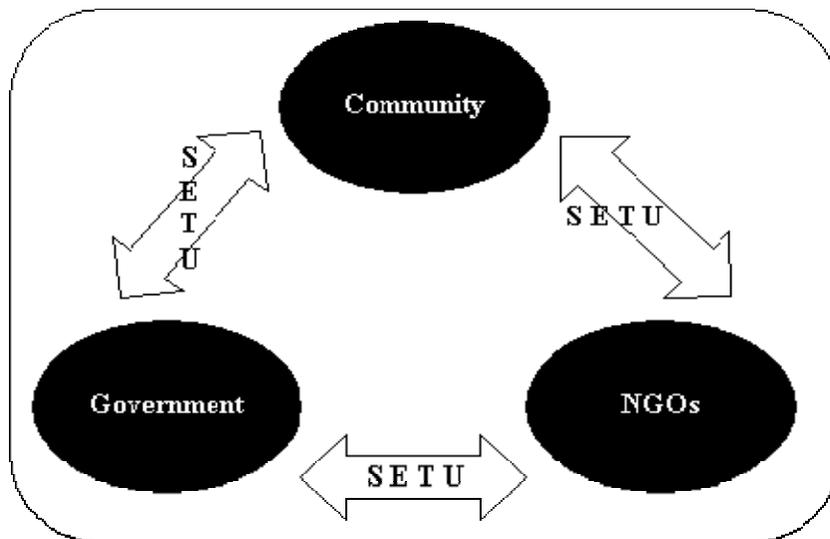
In terms of development initiatives, the women (in Cherabari, Surajbari) were vocal about wanting somebody to facilitate forming some collective that could take up selling and thereby reaping better profits than earned by selling off to the middlemen. The women knew of such initiatives in nearby Maliya, Timbo, where SHGs were doing such work.

just forming micro credit-based self-help groups. They wanted to be engaged in some enterprise and to be able to earn an income that would bring in economic empowerment. There is scope for working with women's groups, developing their capacities and enlisting their cooperation in taking forth the conservation agenda in the landscape.

Youth groups are not organized systematically in the landscape. But there is much scope and for this and as mentioned below, within the institutional arrangement of the SETU, youth can be mobilized and their capacities built to improve governance structures in the landscape.

7.1 SETU: a Case Study of a Civil Society Endeavour for Participatory Governance

SETU, as the word suggests, literally evolved as a bridge between communities on the one hand and NGOs/GOs and donor agencies on the other. SETU came into being during the post-earthquake period in Katchchh, when the Katchchh Nav Nirman Abhiyan (KNNA) took up the task of coordinating activities for relief and rehabilitation. Abhiyan instituted a cluster level "sub-center" for every fifteen to twenty villages all across the district. This center became SETU. With its unique institutional structure, SETU focused on coordination between villages and government or aid agencies and information management to bring the most needed support to the communities during the relief and rehabilitation process. In those times SETU became the nodal center to provide information on community needs and deliver relief and reconstruction materials to the communities from NGO/GO departments.



The SETU structure is unique in the way that it facilitates a two-way communication process that guides village development (see accompanying figure). As a body it is not only adept at community mobilization but also open to collaboration with NGOs/GOs to channelise information in a way that is beneficial to all stakeholders. As an

arrangement it has evolved from an agency delivering relief and rehabilitation related information and aid to one that, in the years following the earthquake, has successfully implemented other development programmes through the 18 SETUs that have been in operation across 320 villages of Kutch. Also, as a matter of principle, SETU is geared towards facilitating communities to recognize their needs and plan accordingly. They do not provide support unless the community asks for it. In the long run SETU is more committed to facilitating people-led processes of development that can be sustained beyond the presence of SETU. It aims to make governance more transparent and accountable by making information available to stakeholders.

In recent times the SETU Resource and Support Centre (SRSC), which coordinates the overall activities of the SETU, has been involved in training village youth in basic skills pertaining to engineering, water management, health, education, etc. By doing this SETU hopes to create a cadre of youth who have basic knowledge and can go on to facilitate village-level development processes with an understanding of varied aspects and issues.

With this premise in mind, SETU comes across as an institutional arrangement that could become a norm for a people-led development process to take root and deliver. Given the varied complexities that the entire landscape throws up, the SETU model could be explored as an institutional arrangement that could be instrumental not only in informed analysis of ground realities but also in mobilisation of communities to plan and collaborate with the department/s in sustaining the landscape. SETU, with its existing expertise and understanding, would be better able to address the needs of the communities in the landscape and also engage in developing strategies that effectively reconcile livelihoods with conservation priorities.

Besides, the expertise that SETU already has can be effectively used in building capacities of varied stakeholders in the landscape with a view to facilitating people-led processes, where the people are well informed and able to steer a just development process. The SETU structure could be nested within or side-by-side with the Panchayati Raj institution, which is constitutionally mandated but is often either too burdened or does not have capacities to deliver competently. A SETU set-up would enable effective functioning of the Panchayat along with building capacities of the Panchayat and the people in the long run.

8. Current Social Practices and Strategies Suggested for Better Social Mobilization and Livelihood Capacity Building at Selected Landscapes

Certain social trends observed in the landscape during consultations pertaining to social capital, political and legal awareness, and gender roles hold potential for better mobilization. One is a receding system of interdependence and the other is gender roles. In a landscape prone to natural adversities such as drought and flood, a system of reciprocity and exchange, i.e. social capital, had emerged among communities. There is no history of intense or prolonged hostilities among salt farmers, fisher folk, settled farmers and pastoralists. A system of interdependence had emerged in a hostile landscape that alternated between a hot and dry season and a season of inundation. Interdependence was thus not just a cultural trait but a materially expedient strategy. Such social capital also had management implications for the commons.

In a situation where common property management systems have broken down because of spatial reorganization and restriction, among other reasons, and interdependence has waned, certain communities have emerged who are politically aware. For instance, some sections of the Miyana fishermen, who are also salt workers, exhibited a strong sense of community and solidarity. For a constituency that had only an elemental awareness about sanctuary notification and its livelihood implications, the Miyana stood out in terms of their awareness of wildlife and forest law and policy. They exhibited awareness of the settlement process and were keen on negotiating a good deal from the process. Within what seemed a politically aware community, emerged fairly articulate village elders.

Women, besides taking charge of domestic and child rearing commitments, also participated in production activities such as charcoal making, agricultural labour, salt scraping, and fish processing. They thus possess considerable knowledge about varied production processes and the constraints and vulnerabilities that emerge in the wake of spatial restrictions on resource access. Women from a Bet village also possessed considerable knowledge about sanctuary management. For instance, they point to the inability of the Wild Life Department because of its limited manpower vis-à-vis the large landscape. Women were also willing to be consulted past noon about sanctuary issues and they mentioned that prior intimation would ensure good gender participation.

For future and better mobilization for consultations or micro planning in the LRK landscape, the project can harness the social, gender and political capital that was evidenced in the landscape in the form of reciprocity and solidarity, existing policy and legal awareness, and gender sensitivities. Such harnessing can ensure both physical mobilization and potential for good participation.

9. Cost Implications including Suggestions for Cost Sharing

Cost implications can be anticipated, albeit qualitatively, by comparing interventions, both officially proposed and popularly elicited to the four-part project cost components. To recall, these components are 1.Strengthening Biodiversity Conservation Management in Protected Areas and Other Eco-sensitive Areas 2.Mainstreaming Biodiversity Conservation practices in Production Areas 3.Improving learning and replication of Participatory Conservation Approaches and 4. Improving National and State level capacity for coordination and promotion of landscape conservation approaches. The first focuses on PA management, the second on sectoral capacity building, threat identification and participatory conservation across the wider production landscape, the third component entails learning and scaling up of lessons learned from the previous components on PA management and landscape level conservation, and the fourth on building the ministry's capacities to monitor and implement such landscape level conservation approaches.

Accordingly social and ecological realities especially landscape size, sanctuary presence, dense fringe village presence, and weak official conservation monitoring and implementation capacities primarily lend themselves towards the first and second interventions. The LRK landscape does not lend itself easily to ecological definition as a forest given the seasonal changes that alternate between arid land and wetland. Cultural adaptations to such a landscape are also noteworthy. Thus the management of such a unique landscape that contains both biological and cultural diversities requires adequate learning and capacity building.

The diversity of flora and fauna in what is perceived culturally as an arid region that gets periodically flooded, makes it imperative that community capacities are built to appreciate and conserve participative the biological diversity, even as cultural knowledge and practice are officially taken cognizance of.

10. Training and Capacity Building on Social Issues

Involvement of communities in biodiversity conservation is the key to this project's success. At the same time it is imperative to realize and understand that capacities have to be developed at various levels to implement the project in its true spirit. Much of the allocation in this project ought to be spent in capacity development. Micro planning in the landscape requires facilitating such processes with capacities of the communities developed to be able to assess their needs and plan accordingly. At the same time, communities have to be trained to be able to monitor and manage the resource landscapes in a sustainable manner. Participatory resource management and monitoring techniques have to be imparted to communities. Local institutions have to be strengthened in terms of management skills and provision of information on various laws and Acts so that they are not only better informed but also better able to assert their rights and responsibilities.

Communication strategies have to be carefully designed for capacity development, respecting local culture and tradition. At the same time capacities have to be built on existing knowledge systems of communities in terms of the erstwhile or existing management practices. The key is capacity development rather than capacity building and much energy is to be invested in this for sustainable practices.

NGOs and other institutions have to be roped in to participate in this project and impart skills to communities and strengthen their participation in the project towards addressing conservation priorities. Capacities of the frontline staff of the Forest Department have to be developed for better skills at community mobilization, facilitation of community micro planning initiatives, conflict resolution and mediation.

Annexure I: Field Notes from consultations in the Little Rann of Katchchh Landscape

Interaction with Yogesh Jadeja of KNNA

- He gave us a generic overview of Katchchh. He primarily focused on the interdependence of communities in the landscape. The current problems that Katchchh faces are as a result of breaking down of this interdependence, thus wreaking havoc on the social-economic-ecological fabric of the landscape.
- As a result, traditional systems of managing CPRs have broken down. Also, he pointed out that migration is a mere combat strategy communities engage with. It has been a part of their way of life for ages. Settling nomadic/pastoral communities is not the answer.
- Increasingly agriculture too is bearing the brunt of going “mainstream”. Water intensive and input intensive crops that are being introduced in the region spell impending trouble.
- Policies and programmes for the Katchchh region must necessarily rest on conserving the gene pool of hardy species, be it in agriculture or livestock.
- Throwing little light on the Little Rann of Katchchh, he referred to five zones that comprise this landscape: a) Linear Trench Zone, b) Salt and Crusted Plains, c) Residual Deltaic Plains, d) Supra tide Zones, and e) Intra tidal Zones. The greater part of LRK falls in the Salt and Crusted Plain Zone.
- Thus salt farming is one of the most important economic activities in the LRK landscape. He conservatively estimated that this activity has been going on for well over a 100 years.
- On salt farming, he said that usually Kolis and other SC communities are engaged as salt workers while Rajputs and Baniyas are the leaseholders of the lands where the salt is farmed.
- The salt farming season is between October and May. On an average a thousand tonnes of salt is farmed per acre per year.
- As per a study conducted by ACT, the brine content in the water is showing a diminishing trend over the years. Each year a family engaged in salt farming most usually shift from the previous year’s well in order to get better brine content. ACT is in the process of studying the cycle for the brine to exhaust and replenish at any particular location.

- To be able to sustainably farm salt from the landscape, he suggests rotational salt working that would take into account the brine concentration.
- On the WAS, he said that the Sanctuary Boundary exists only on paper and there was never any demarcation done. Therefore there is a lot of confusion about the boundary itself and this is being used with advantage by various interest groups.

Interaction with Salt Workers, 05th Jan, 2007.

Salt farming is one of the key economic activities in the Rann. It is a seasonal activity that spans about six months of the year, supporting close to a lakh people in the region. It is pertinent to point out here that this salt meets about 30% of India's needs. It was but obvious that we should start our consultations in the LS with the salt workers in the region.

At the saltpan we interacted with Kuka Bhai Surela, along with 3 other people belonging to the *Chuwaniyan Koli* community. This community is particularly engaged in salt farming all across the landscape. This individual belongs to Nava Enjar and he is a member of a salt cooperative that was formed way back in 1972 in which his father was a member. At that time the cooperative started with about 30 members, of which today only 10 are engaged in salt farming. Others have moved to other professions as salt became less lucrative over the years, especially since the late 90s.

Kuka bhai also owns 10 bighas of agriculture land, which is rainfed; he grows bajra, and sesame whenever there is rainfall. He has two sons and a daughter. All the children have dropped out of school for want of finance and schooling. His sons now help him on the salt farm and the daughter takes care of chores at home as his wife has been paralysed for the last 7 years or so and can do no work. The daughter is also engaged in nearby cotton fields and gets paid Rs 50 per day for the work. This year he said that they are getting a better price for the salt, which is being priced at Rs 95/tonne.

According to Kuka bhai, 50% of the Kolis and about 10-12 households each from the Dalit, Bharwad and Darbar communities are engaged in salt farming from his village, Nava Enjar. Basically the poor who have no access to any other sources of livelihood are into salt farming. According to Kuka bhai, anybody can really come and make

salt. There are Adivasis who come from as far as Chhota Udaipur, Dahod and Panchmahals to work as labour during the salt transportation time.

Probing further into the salt farming activity, one got an idea of the varied facets involved in farming for salt. There are several adversities that a salt farmer has to deal with, ranging from arranging for basic amenities to keeping track of the weather so that the farmed salt is transported well in time before the vagaries of nature can act on it. For food and drinking water the merchant makes arrangements and deducts that amount from the farmers' earnings at the end.

Salt farmers farm salt between Oct/Nov and Apr/May, after which they mostly engage as agriculture labour and/or cultivate crops in their lands.

When asked about his knowledge on the area being declared as a sanctuary, he seemed to have known of the fact primarily because no leases have been renewed or new leases given since some years now. He also said that since this activity was mostly illegal they did not get a good price for what they farmed. When there were leases to the land they got a price of Rs 140 per tonne. Now they are left to the whims of the merchants who don't pay any competitive prices, but they still continue to engage in this activity for lack of any other occupation and also it ensures their fooding needs for at least half the year. He earns about Rs 7000 a year from salt.

When asked what if the sanctuary enforcements are strictly abided by, Kuka bhai said that he would be able to do nothing in such a situation except that he would expect the government to still allow them to farm for salt. Asked if the quality of brine has gone down in years, he replied that in the 35 years that he has been into salt farming the brine content has dropped by only 2 points, that it is a natural process and that nobody has any control over it. Asked about alternatives, he said that the government could construct a canal to get the seawater into the Rann so that they had access to it without having to spend money on drilling underground salt water.

When asked about the wild ass, he said that the wild ass rolls over and mauls the agriculture field, thus destroying crops while also eating some of them. He also went on to say that if it was any other domestic animal he could have held the

owner responsible but in the case of the wild ass there isn't anybody whom he can hold accountable. When asked if he ever tried approaching the Forest Department, he said that he did try telling the beat guards who come for occasional round-up, but they say that they can do nothing and that the people should go the office in Dhrangadhra to register a case of depredation.

When asked about having had any interaction with the FD while salt farming, he only referred to the occasional visits of the beat guards for asking about the well being of the wild ass and if the people had seen any diseased wild ass, etc. According to him, the FD is doing enough for the well being of the wild ass, including providing for food and fodder during the summer months. In his opinion, there has been a manifold increase in the number of wild ass. Also, the wild ass has gotten used to humans around and the animals are no more shy of human presence, as they were earlier. They are smart animals that move in a single herd and when any vehicle comes they move away. They are sacred like the cow to the people, who would never resort to killing the animal. Asked if he has seen any dead wild ass, he said no, assuming that they have a rather long life span.

When asked what people can do to counter depredation caused by wild ass, he replied that all affected people must get together and talk about these issues and then put up their collective demands to expect any response from the government.

Going further into the Rann we met with another salt farmer Ghanshyam Bhai Adesara, a resident of Mangarh. This farmer's saltpan is located about 9 km from his village of residence. Ghanshyam Bhai belongs to the *Chuwaniyan Koli* community. He has been engaged in salt farming for the past 15 years. Interestingly this salt farmer's predecessors were agriculturists about 5-6 decades ago. They sold their landed property for want of cash and since then the family has been engaged in salt farming. In the lean season he goes out to work as labour, which accounts for about 4 months of the year on an average.

Asked about the threats to the salt crop, he pointed to nature's workings, especially wind conditions, which lead to the accumulation of dust on the salt and thus fetching a far lesser price. Besides, he also pointed to the menace of the wild ass and wild boars that often break the bunds of the saltpans, incurring loss for the salt farmer. Here, besides interacting with the head of the household, we also got a

chance to speak with a woman, Bhavna G. Adesara. A mother of four children, she comes to the Rann accompanying her husband to look after the household and also help her husband in the salt making process. When asked about her engagements, she responded:

- Primarily looking after the family.
- Collecting fuelwood from the nearby forest patches, travelling a distance of about 3 km once a week for this purpose. The Forest Department deters them from such collections and if caught seize their instruments and warn them against future collection of fuel wood. Despite all these odds they continue to collect fuelwood.

Asked about her aspirations for her children she said that they had no choices really. She saw salt making as the only choice that her children could also pursue. In the event of this activity being stopped as a result of more stringent restrictions, they would explore other options of labour work, besides also engaging in charcoal making activity.

We made an interesting observation during our interactions here. Two men who were also part of these interactions, Nilesh and Mahesh Adesara, told us that they had gone to Surat and engaged themselves in diamond cutting work. But after two years of working there they came back and now feel that salt making is far less strenuous and easygoing than diamond cutting. They would prefer this over anything else and also hope that their children would take up salt farming rather than any other job. For once it was clear that people somewhere valued the security of this work in terms of having provisions for food for at least half the year. Salt making is almost a way of life and for them to imagine something beyond this is difficult. At the same time there are some who migrate out to other places but most often return to salt farming.

Besides household chores, when the salt crystallization process begins, the women are engaged in scrapping, which is an extremely strenuous and monotonous job.

About the sanctuary, they knew that their saltpans were located inside the sanctuary and in fact they told us that they had heard that they would be relocated a further 3 km inside. When asked about the reasons for such relocation, they were rather clueless. They also said that the department people come in sometimes

asking about the wild ass. They didn't miss telling how in recent years the menace of the wild ass has been on the rise and the animal has been damaging crops in the fringe villages.

Their aspirations ranged from better basic facilities during the salt farming months to mobile education services such as the recently launched mobile health services, whereby their children can access education during the months when they move with their parents to the Rann for salt farming. Ghanshyam bhai also said that he did not want his daughters to come and help him on the saltpans because it's extremely strenuous and they have to work in adverse conditions. They expect that the department would devise ways to improve the condition of these people in terms of secured basic amenities. They were unable to come up with any suggestions on improved working conditions while on the saltpans. Some do wear boots but only during the early mornings when the water is very cold. And women work absolutely barefoot.

Asked about institutions, they knew of the Sarpanch as somebody they reached out to in order to get their problems sorted out. They have never attended any Gram Sabha meetings.

Interactions at Nava Jogad

This village has a history of about 300 years, when some *Cuwaniyan Kolis* came and settled here from nearby village Kidi. They are now settled at a new place after the earthquake and call it Nava Jogad. This is a village of about 477 households, of which the Agariyas form the dominant group consisting of 375 households. Water came across as the single most pertinent problem that they wanted to be resolved. From drinking water to water for domestic purpose, there are limited resources with which they manage. There is also no electricity.

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| Village profile Total Village area: 1700 Ac Communities: <i>Agariya</i> : 375 <i>Darbar</i> : 60 <i>Darbari Patel</i> : 40 <i>Bharwad</i> : 2 |
|--|

They have about 150 bheega of residential area and 70 bheegas of farming land (1 acre = 2.5 bheegas). This includes both old and new Jogad. They have about 25 goats and cows all together. Some people used the land for developing sites; others used their area for farming. Earlier (post earthquake) there was house building labor job available. Houses were built and left unfinished (plenty of such houses).

Since most of the households are salt farmers, part of the family stays back in the village and the rest go to the Rann. Usually the old and aged are left along with young children. The salt pans are all located between 5 and 15 kilometres from the village. Most stay at the site while in case of some, one member may come back to the village for rations, drinking water, etc. once in a while. Despite all these problems they continue to farm salt primarily because there is no other option.

The locals felt that while on the one hand the govt. prevents them from cultivating on forest areas, it should also stop wild ass coming into the farms. When asked why they don't kill the ass, they replied that they would be arrested. Chinkara (black buck) is protected by Forest Department and there is an earmarked area for them in the midst of Azimgad, Mayapur, Junagadh, etc. On being questioned as to whether the villagers prefer an earmarked area for wild ass, they replied that they don't need it. They had decided not to kill the animal even though it destroys their crops.

When queried on any collaboration with the department for the protection of the wild ass, they replied that if there are no benefits for them, why should they collaborate? They said that the animals were benefited, and could graze and roam unharmed. They went on to add that the wild ass did not exist here earlier. They were brought here 40-50 years ago. The locals also talked about a species of wild cow which existed earlier but which had now become extinct. There were a couple of reasons for this extinction

- a. Calves could not feed due to the over-sized udders.
- b. Refusal to be tamed/protected by humans (used to go wild in the presence of humans).

The locals also explained that earlier the wild ass lived in isolated areas away from civilization. They used to get food and water and did not need to come to the village for the same. Over a period of time as the pastoral community began to take their livestock to these isolated areas for grazing, the wild ass began to move toward "kantha". When they did not get food there as well, they began to invade farms. In the Rann, the following rights needed to be clarified:

- a. the rights of villagers
- b. the boundary for wild ass

They got to know of the sanctuary only 3 years ago, when the settlement process started. After the sanctuary had been made, daily livelihood had got affected. People had to make do with what they could get from the village, which most often is minimal. They explained that the government could fence their farms with 8 x 5 dimension barbed wires. When asked whether they were ready to work with the government in protection and development work, they replied that this has to be discussed. Only when the Gram Sabha passes a resolution, this can be done.

When asked if they would like to earn their livelihood from other sources apart from salt panning and agriculture, and receive training for a new vocation, they replied that farming has been their traditional occupation. It is profitable. Opportunities were available for the workers to work on agricultural lands. Wild ass did not exist here earlier. "We used to grow jowar/bajra 20 years ago. Now we plant good quality seeds and expect good harvest, but the wild ass eats it."

When asked why 8-10 farmers can't get together and build a fence around the farms, they said that a minimum 8 ft. fence would be required as wild animals can easily jump over fences up to 7 feet. When asked if they were aware of a system by which the villagers pay 5-10% of the fencing cost and the remaining is paid by Gram Sabha & government, they replied that it would be better if the government fenced the sanctuary/jungles instead. The govt. says the farmers should pay upfront 25%, then they will contribute 75% of the wire fencing for farms. Some villagers have paid, others have not; there is lot of corruption with middlemen taking bribes. When asked why they cannot question the Gram Panchayat on corruption, they replied that they knew very well that Gram Sabha gets money from the government.

When asked if they had explored alternate income options, they replied that they did have a meeting. They had thought of growing sesame crop hoping to get oil from it and use the crushed leftovers as fodder for their livestock. They had also asked the govt. for an oil-crusher machine. But the crop failed. They have to protect their farm first.

Interactions in Surajbari, 06th Jan, 07

A fishing village that was settled about 200 years ago. Primarily people settled here for fishing. 15 years ago there was no salt farming and they had a good catch each season but now with salt works all over the place, fish catch has gone down.

Whereas prawns were found all through the year, now they are restricted to the 2 months of monsoons when they have a good catch. Earlier it was normal for a household to catch about 20-25 tins of prawns in a season, now they just manage to get as little as 5-10 tins. And they attribute these changes to the increased salinity levels in the water. We visited one of the hamlets of Surajbari called Cherabarigam, a hamlet of about 50 households belonging to the Lodhi community. This was a settlement that came across as quite literally "living on the edge". No basic amenities, not even electricity and water. Migration is rampant and when we visited the place there were very few people around primarily because people had gone to Morbee and other places in search of work. Slowly most people are moving out of fishing because it is no more lucrative, working as labour in the saltpans that have sprung up in the region. Literacy rates are dismal due to which employment opportunities are further curtailed. No proper school though the building exists, but the teacher's coming just once a week is what the people complained about. None of the households avail of any development schemes.

They have small boats in which they fish and that too only in the creek. Some are sea faring but very few have the means to go fishing in the sea. The Fisheries Department has issued identity cards to all the fishermen. But they complained of not having any license to sell, so they end up selling the catch to middlemen, who pay very little. In terms of development initiatives, the women were vocal at wanting somebody to facilitate forming some collective that could take up selling, thereby reaping better profits than by selling off to the middlemen. The women knew of such initiatives in nearby Maliya, Timbo and other villages.

Some of the other observations that the group made included:

- The observation about lessened fish especially prawn stock. This was attributed to increasing salinity levels of the water and also to less inflow of seawater, especially after the construction of the bridge.
- They had no access to any of government's development schemes. No anganwadi, no electricity, no ration cards, no roads, and so on.
- The people had no idea of the wild ass and that they were part of the Little Rann of Katchchh landscape.
- They did say that birds flock to this region in monsoons and recognized quite a few birds including the flamingoes, painted storks, herons, terns, lapwings, etc.

Interactions in Chikhli

Chikhli is another fringe village in the landscape located on the southern edge. This village is about 27 kms from Mardak Bet in the Rann.

This village was quite a contrast to the previous salt farming villages we went to. People here have been almost forced out of salt farming primarily because of poor brine quality. Most who were engaged in salt farming have either become labourers in the salt transportation else where, or engage as agriculture labour. Some have also moved to making charcoal from *prosopis*. Lodhis are mostly the fisher folk in the village. We interacted

Chikhli Village

Total Households: 112
Lodhis: 56
Bharwards: 11
Kolis: 45

with one of them, Akbar Kader. Fishing activity is restricted to only the four months of monsoons. He earns anything between Rs 50000 and Rs 2 lakhs in a season. The rate differs with the amount of catch and the prices in the market and also the fish and its quality. He said that he is engaged in fishing since the last 12 years and in his opinion there hasn't been much change in the amount of the catch, though the quality differs from time to time. Except for the four months of fishing he has no other regular source of income. Engages in charcoal making for about four months. Earns about Rs 2500 in a month out of it. Rest of the time spent idle. It was important to know that before the fishing session started, each fisherman required minimum cash of Rs14000-Rs20000 towards repair of the boat, nets, etc. He went on to say that if credit was made available then they would not be exploited by the merchant, and fishing too would be profitable. The women of the household are far more hardworking, because besides looking after the household chores, they are also engaged in other production roles like segregating and processing fishes, working as agriculture labour, etc.

Our queries on what other alternative livelihoods the people could engage in elicited no answers. They couldn't think of anything other than labour. They also said that like a lot of other people who have migrated, they too would envisage migrating in search of any alternatives. Asked if they are open to working with NGOs or the Forest Department, they said that irrespective of the agency, as long as benefits flowed to them they would cooperate with either.

A Rajkot based NGO, ANANDI, has been working in this village for 6 years, focusing on empowering women. This sure has brought a marked change in the perception of gender roles, as was evident in our interactions with them.

Interaction with Charcoal Makers, 07th Jan, 07

We interacted with charcoal makers wherever we came across them. At the first instance, just a little off Jogad, we came across a youth who was making preparations for charcoal making. We interacted with him to understand the process of charcoal making, why he is in the occupation, and other aspects. He belongs to Navapura village. This is the first year that he is engaged in charcoal making. Before this he was involved as a labourer in the saltpans. Asked why he has moved out of working as labour in the saltpans, he responded that it was very strenuous and he did not like going to Rann. Charcoal making is less strenuous, he can do it as and when he wants and can stay closer home. On further enquiry we found that he has an old mother to look after and in charcoal making she too can come and help in overlooking the baking process at least. He manages to bake about 250 kg of charcoal in a month. He sells the charcoal to people in his village and earns about Rs 1250 from the sale in a month. During the monsoons he cannot engage in this activity and would do some labour work depending on what is available.

Further on we interacted with yet another family engaged in charcoal making, a family from Kidi village. The entire family was engaged in dousing the fires to harvest the charcoal. Interactions with this family revealed that Guga Bajani also engages as labour in transportation of salt from the pans. He is involved only for 4 months for such work. Charcoal making is the primary occupation, besides agriculture labour and salt labour.

From charcoal making his monthly earning is Rs.2000-Rs.3000. This is through sale of the charcoal to local merchants. The producers have no direct access to the market and have to depend on middlemen. While the merchant buys from them at Rs 100/kg, it is sold to industries at Rs 400/kg.

Queried on their aspirations for their children, the answer was that working as labour had become a way of life and they expected that their children would also end up in this occupation. They do not have the means to provide for higher education, thus the children would have no opportunities other than charcoal making.

We also came across a *Darbar* farmer - Kishore Singh Jhala of Kidi village. There are about 30 *Darbar* families in the village who are primarily engaged in agriculture. Kishore Singh alone owns about 50 bighas of land, on which he cultivates mainly dry land crops like jowar, bajra and some cotton, which requires some irrigation. For about 6 months of the year, he also makes charcoal from *Prosopis* that grows on his farm bunds and on other village common lands. He gets Rs 4500-5000 rupees a month from charcoal making. Kishore Singh took us to his farms to show crop damaged by wild boar. According to him, after the declaration of the sanctuary the population of herbivores, especially Nilgai and wild boar, has increased significantly. Also the population of wild ass. These animals are destroying crops and causing much damage to farmers. The *Prosopis* has been a veritable fence where animals have found refuge. He also claimed that due to the *Prosopis* the *Rann* has been kept at bay. The species has arrested desertification. *Prosopis* being nitrogen fixing, it lends fertility to the soil so a lot of farmers also grow this tree on the farm bunds, which are later cut to make charcoal. Thus it is a useful tree species.

Interactions in Nimak Nagar

The interactions in this place weren't structured. People were visibly agitated. They said vociferously that they were never consulted before the sanctuary was declared. The people also claimed that about 2500 hectares of their village area was declared to be inside the sanctuary all of a sudden without any process of consultation. One old man retorted: "Possibly first time in the history of the country wild ass has been given importance and precedence over people. The government provides money to ensure the good health of assess as opposed to people."

All the people we interacted with in this village were visible agitated and kept telling us that they were sharing their plight so that it would result in some good. Most of the people we interacted with belonged to the Miyana community, who have been traditionally doing fishing in the monsoon months in this part of the Rann and also worked as labour with the DCW (Dhrangadhra Chemical Works). It's been almost 10 years since DCW stalled operations and is outsourcing salt from farmers.

With the ongoing settlement process, the people seemed to be politically motivated to get the best deal and make the most of the opportunity. They came across as a powerful group who knew more than most others we had interacted with in the landscape on laws and policies. The key person in these interactions was also the

ex-Sarpanch - Hasan Bhai Dora of the village - who knew quite a bit about rules and procedures.

They have been working closely with Deepak Trust, a NGO working on livelihood issues in the region. Since the last 2- 3 years Deepak Trust has taken up the marketing of salt and the profits are given back to the farmers.

Most people said that the Forest Department harasses them:

1. If found farming salt.
2. For the timber that they harvest.
3. For fishing in the Rann during monsoons, despite being issued with license from the Fisheries Department, which is to be renewed every 5 years.

On the settlement issue, people said that the District Collector had sent an order about 3 years ago banning anybody from selling their land to anybody else since it was notified under the Wild Ass Sanctuary. The Panchayat after this passed a resolution saying that they would not give any land for the WAS. The Panchayat seemed to be wielding some power by at least letting the bureaucracy know of their opinion. People when asked if they would take any initiative through the Panchayat responded in the negative. Hasan Bhai said that Panchayat regulations are of "no use". There has to be a government appointed official to regulate Panchayat functioning, only then it will be functional and make sense.

Interactions in Nanda Bet

Nanda bet is situated between two taluks and comes under the jurisdiction of Rafad Taluk. It is a 300 year old village. There was a Nanda Devi fort during the princely rule. However, now only a vestige of the past remains. There are 108 houses. Communities that exist here are the Darbar (45%), Aher (45%) and the remaining 10% comprise of Rabbari, Saadhoo (Dhatu), Harijan etc. There is no Patwari in the village. The locals say 2 years ago they had 1 or 2 buses coming to their village; now, however, due to bad roads even this had stopped. Another reason, the villagers added, was the lack of passengers. Water is another major cause of concern for the locals. The villagers say that Narendra Modi had declared that Narmada water has reached all villages and that people have drinking water but they have not even seen digging work. In fact, there was no survey for their request of drinking water either.

Bajra, Jowar, Moong and Til are grown in the area. The Aher and the Darbars have about 5 acres of unlevelled land, which is used for farming. They are entirely dependent on rainfall as there is no other form of irrigation. 50 to 60 villagers work as labour on salt works. Charcoal making continues to be a profitable occupation for the locals. They have so far managed to get wood but are apprehensive that in another year or two, they may not be able to get the wood. Harijans are also into wood cutting and charcoal making while doing work on the farms of the Darbar community. However, they were not allowed to enter the homes of higher castes.

The farming land is approx. 3-4 sq. km. After crops are harvested, cattle are left to graze in the farming land as well. The headcount of cattle is approximately: sheep = 200, goats = 200-300, cows = 300, bullocks = 50-60. The cattle are not allowed to graze inside the forest and have only two grasslands to graze from (approx. 40 acres). Sometimes, cattle from neighboring villages are brought here on a rental basis of Rs 100 per buffalo/cow. The cattle stay during summer/winter to graze and then go back when there is fodder in their own village during monsoon. Approximately, 50-60 heads of cattle come from other villages. The locals say that no veterinary doctor has ever visited their village.

The villagers have to guard their fields continuously throughout the night against wild ass attack. For them, wild ass has always been a problem. However, in the last 6-7 years they have also been putting up with the additional problem of wild boars, which they say could have possibly come in from the Rann. They add that there are some nomadic tribes which sell this wild boar for its meat. In fact, they claim to have a govt. license for the same. The locals admit that they cannot control wild boars. They say that at least the wild ass can be kept at bay using thorny bushes as fencing. Wild boars, on the other hand, are small, easily slipping through the fencing and are even capable of killing humans who aren't cautious.

The villagers came to know that their village was inside the sanctuary only about a year ago, when they had a meeting with government officials. They say that their problems have increased after the sanctuary was declared. They are not allowed to go inside the forest even to collect fuelwood. When there was no sanctuary, the problem of wild ass did not exist; now they have to guard their farms day and night and there is more loss now. The locals feel that the wild ass can be allowed to live in a place exclusive to it and not enter their farm; maybe it could live inside forests.

Instead of fencing the farms, which are numerous in number, it makes sense to fence the sanctuary to prevent wild ass ransacking their fields. The locals add that they would be equally happy if the government could fence their farmland where crops are harvested. The declaration of the sanctuary has meant that they cannot get fuelwood; their cattle cannot graze in the forest; and they cannot get sand for house construction from the protected forest. A chowkidar appointed by the govt. ensures that these conditions are in place. The villagers do not want to oppose the chowkidar due to 2 reasons:

- a) He belongs to their village and earns his livelihood from that position.
- b) "We have never gone together to get into the forest for any purpose."

They recognise quite a few species of birds such as pigeon, parrot, titora, crane, peacock, Hanjar, among others. Besides, wild animals such as wild ass, Neelgai, etc. While women are secluded from public discussion, apparently one lady, being a bit educated, fought her way through. Her in-laws allowed her to interact with the Anganwadi workers as well, which increased her confidence level. Most women engage in other work outside home, but in a group. An old lady complained that she was alone, and in her old age she had to do all work such as fuel-gathering, carrying water, etc., which she found difficult. When asked why she didn't take the widow pension, she replied that she belonged to the Darbar community. If she has taken money in the past, she was atoning for the same now.

Women who live alone take care of everything including working on the field, looking after cattle, house work and working as labour on farms belonging to others. Women who live in a family take care of household work, cleaning the cattle, etc. Women do more work as men stay up guarding the field at night.

It is three years since the Mandal was formed. They would like to look forward to

- every family contributing a certain amount that is given to a villager in times of need and recovered subsequently;
- working to safeguard village from wild ass attack if govt/NGO can help; and
- possibly having a milk co-operative and ensuring compulsory saving from income of women.

For their children/future generation, they envisage:

- Education: They cannot send their girls outside the village for studies, higher education being not available in the village.

- Working with an organization to protect farms from wild ass and not with the government because sanctuary areas are many and government cannot get involved/it has focus everywhere.

Interaction with Rabbaris in Taga

Total households - 215, Rabari-100, Miyana-115

Jaga Bhai Kharotra is a Rabbari with about 2- 3 gaj of land, where he grows maize and bajra and depends entirely on monsoon for water for his crops. The produce on his 2 acres of farm land is not sufficient to meet his family's needs. He has 1 cow and 2 goats as well but no cattle. His brother has 28 sheep and 1 camel. The entire family leaves the dwelling, is out for 6 months in search of fodder and sells milk products. They do not like the roaming around in hot/cold weather conditions. Monsoon is not reliable. They are here since 12 years ago. The Baroti (who records family history) visits them once a year and says the village is 400-500 years old. He lives near Kookma (Arodi). Jaga Bhai's ancestors are from Jaisalmer. They migrated ages ago (records are with Baroti) and settled here.

Earlier there were kachha houses, now there are pakka houses. Milk available from the cow and goat is sufficient for his family. Earlier there were camels, which gave better quality milk. Their ancestors would roam all over the Rann and survive well on just camel milk. The establishment of a sanctuary changed it all for them. Some of them had lands which were reclaimed. There were Muslims as well as Rabaris living here. Rabbaris are traditionally a pastoral community, now 50% of them have settled down and have a house, farmland as well. The farmlands were purchased from Darbar & Niya communities. Improper records had led to poor purchase/sale of agricultural lands.

Women folk prepare some kind of structure to keep utensils on the camel when they are on the move. They are involved in harvesting, clearing field of weeds. Men do the sowing and it is they who decide on the crop to be sown (sometimes women also contribute their opinion).

Seeds are kept in earthenware packed with sand and neem leaves to keep it free of pests and to keep it cool. The pastoral community has to have a nomadic life at least for a few months of the year since the animals get better fodder elsewhere.

Consequently, their owners earn better. Even if some of the forest land was given to cattle for grazing, they would still need to go out for fodder, maybe for four months instead of six months since fodder availability isn't enough. The number of cattle has decreased after the sanctuary was declared. There is less cattle for sale now, consequently they stay out less.

Since 40 years ago, when the road was built, they have been using it to reach other villages rather than going through the forest land, which they did earlier. For the future generations, they state that their children should study and take up farming or any alternative business, instead of pastoral activity, to earn their livelihood. Some have already settled down in their farm with their sons driving tractors, using a cycle for doing business, with their younger children studying in 10th standard.

The Forest Dept refuses to allow the grazing of domestic cattle inside the sanctuary area, stating that it is for the wild ass. On the other hand, the villagers keep forest officials at bay by refusing the hunters to allow shooting, which might scare the domestic livestock. Hunters are plenty who target chinkara, neelgai etc. The wild ass destroys fields but does not do anything to cattle. Earlier, the majority were of the pastoral community moving from one place to other. Now due to some rains, people have started farming. This attracts the wild ass to the crops. Increase in the population has led to increasing need for farming and building houses. Sheep/goat graze on short grass while the wild ass doesn't; however, competition is there for the bigger variety of grass/plants, which both the cow/buffalo and the wild ass eat.

The varieties of grass are Sakladu, dheelo, rood, habo, bheebdo, kaariyoon, karnjalo, bhakarkaiyo, gaavlo, ikkad, etc. which are eaten by cattle. When they are on the move, some hospitable villages allow the nomadic pastoral community to stay in their village for a day or two and allow their cattle to graze in that village, while others do not. Sometimes a payment has to be made either to the village or villagers to allow grazing of their cattle on the grasslands belonging to them. For example, in the village of Balsina (Paathan Zilla) the rate for 4 months of grazing is Rs 1 lakh. The locals say that they travel with their cattle within Gujarat, going to Bharuch, Mehsana, Ahmedabad, etc. In fact, about 10,000 Kutchi pastoral farmers reside in Madhya Pradesh. They stay in Nagpur, Akola and Nasik in Maharashtra as well.

The locals say that the Forest Dept. misrepresents facts to govt. Pastoral farming has to continue but wild ass has to survive as well. Govt. is more concerned about saving the wild ass. They are not bothered about cattle and the villagers who struggle to rear them. In a village of 100 households at least 50 households have been destroyed. Today there are only 5000 heads of cattle left instead of 20,000, which used to exist. First of all, govt. has to accept the fact that the given village/villagers are of pastoral community. They have to do a proper count of number of cattle in the village. Livestock is livelihood for people. Grazing land has to be made available to them, else the villagers are forced to sell livestock. During the princely rule, a count of cattle (i.e. no. of livestock in a family) used to be taken. Now, the census of livestock has been done only twice in a period of 50 years. The Animal Husbandry Department keeps some track of the number of cows and buffaloes of villagers who supply milk. Now common land of the village has also been encroached upon for agriculture. This has reduced grazing land for cattle.

The Rabbaris are willing to give up their traditional/cultural nomadic way of life and settle down with a farm/an alternate source of livelihood. Even if means an end to a cultural way of life, it is preferred to the hardships of the nomadic way of life. Earlier wild animals used to carry away livestock; now, however, their numbers have reduced. When there are no rains and farming cannot be done, they get loan/aid from the Government to do "Raahat" work.