

## Good Practice Note

# Innovations in Common Land Development



**REGION : South Asia**

**COUNTRY : India**

**STATE : Rajasthan**

**DISTRICT : Ajmer, Bhilwara, Bundi, Udaipur**

**SOUTH ASIA**

**Pro Poor Livestock Policy Programme**

A joint initiative of NDB and FAO

## **GOOD PRACTICE OWNER and GOOD PRACTICE CHAMPIONS**

A **Good Practice (GP)** Owner is a person/group of individuals and/or institution that plays a crucial role in the GP. Thus, a GP owner understands all the ins and outs of the GP and is often the initiator of GP.

Others involved in the Practice (not considered GP Owners) may be invited to assist in the filtering and writing process. Such persons, who have insights into what makes the GP pro-poor, are better-positioned to help influence policies. Thus, with their thorough understanding of the GP, they (as an individual or as a team) can function as **GP Champions**.

# **Innovations in Common Land Development**

**Strengthening Institutional and Physical Spaces for Poor Livestock Keepers**

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# I. Basic Information on the Good Practice<sup>1</sup>

## Context

The location is broadly classified as semi arid areas with average rainfall between 400-650 mm which is spread over four months from June to September. With high inter-year variation and erratic spread of rainy days drought is a common feature. Located in the confluence of Aravali and Vindhyan mountain ranges the topography varies from uplands to undulating landscape. Commons, including forest lands, constitute 30-80% of a village geographical area. Wide-ranging contributions from the commons to village economy can be seen in this context – from food, fodder and timber to benefit flows to agriculture and animal husbandry, to ecological services of resource conservation, recharge of ground water and sustainability of agro-ecological systems.

Livelihoods of communities inhabiting these areas primarily depend on agriculture and livestock keeping. Broadly the production system can be classified as a mixed farming system with agriculture and livestock playing a complementary and synergistic role. Landless, marginal and small farmers constitute more than 80% of the rural households. Households below poverty line constitute 20-44% of the total households. These households keep a significant share of total livestock, which is mainly dependent on crop residue and fodder derived from village commons. They also keep around 20-30% of their farm land as beeds which is used for grazing and meeting fodder requirement of their livestock. With increasing land fragmentation there has also been a conversion of the *beed* lands for cropping which has further increased the reliance on commons.

Degradation and decline of common property resources has major consequences for the livelihoods of many communities. One of the resultant effects is the vicious cycle of resource degradation with increased livestock density on the land, a decrease of pasture and water available per animal, an inevitable decline in the condition of the livestock, and degradation of commons. Degradation and decline of common property resources also accentuates soil erosion, soil nutrient depletion, moisture stress, deforestation, bio-diversity loss, reduced grazing space, forage scarcity, etc. and negatively effects agriculture and animal husbandry.

## Communities Reached

The communities are mainly agro-pastoralists who belong to tribal and non-tribal groups. Tribal communities are mainly located in the southern district of Udaipur with a more heterogeneous caste community inhabiting the other districts. Gujjar, Balai, Meena, Bhil, Jat, Rajput are some of the major caste categories found in these locations.

All communities residing in a village or the defined boundary of an institution are included in the village institutions formed for common property resource management. With majority of the households having very small landholdings the work primarily focuses on the needs and priorities of these groups, with specific attention to very poor households (BPL families, disadvantaged sections, landless).

More than 90% of the households keep livestock, which is composed of cattle, buffalo, goat and sheep holding. Landless, marginal and small farmers keep around 80% of the total bovine and around 85% of the total ovine population, signifying the importance and equity

<sup>1</sup> Year it started: in 1986 by Foundation for Ecological Security (FES) and in 1991 by BAIF.

component of livestock ownership. On an average a marginal farmer keeps around 4 large ruminants and 7-8 goats or sheep. Women are primarily engaged in livestock keeping with their work spread from taking the animals out for grazing, to meeting their water requirements to regular maintenance and upkeep. With depletion of common property resources they face increasing hardships to graze their livestock and meet the energy needs of their household. In addressing common land development their inclusion and providing them with a platform for decision-making is an important objective of the practice.

## **Estimated Number of households**

FES is associated with 439 villages spread across 5 districts in Rajasthan benefiting around 40000 families. BAIF has worked on common lands in 76 villages benefiting around 7000 families.

## **Qualitative Indicators**

Qualitative impact of common land development on livelihoods of poor households and livestock keepers can be seen in:

- a. Improvement in access and assurance to products and services derived from commons with emergence of a strong collective foundation and improvement in ecological foundation.
- b. Reduced resource conflict, previously visible in scarcity period where the socially and economically powerful gained, with improvement in the resources base.
- c. Reduced risks and vulnerability to fodder scarcity helping poor livestock keepers to invest resources for livestock development with very low input costs.
- d. Strengthened local governance of common property resources helps check undesirable individualistic decision-making (encroachment, illegal mining, cutting down of trees, etc.), which is detrimental to the livelihoods of rural poor.
- e. Strengthened institutional spaces for poor households enable them to actively participate in decision making processes with its impact on social-economic-political factors.
- f. Improved environmental services from community managed commons in terms of reduced soil erosion, increased water availability through prolonged surface flows and increased recharge, nutrient flows etc., strengthening the different livelihood components.
- g. Improved capabilities to adapt to changing circumstances, scale developmental efforts and initiate actions which are pro-poor.

## **Quantitative Indicators**

- a. **Increased fodder availability:** There is an increase in availability of grass, tree and shrub leaves from protected commons in comparison to a non-governed common. Grass biomass availability increases from a low of 0.26 ton/ha to a high of 8.5 ton/ha based on the condition and location of commons. Grass cover increased from 50% to 80% with a shift in composition towards more palatable species (from 35% to 70%). Trees per ha increases from a low of 29 trees/ha to a high of 289 tree per/ha. Simultaneously the protection of commons helped in regeneration of more trees per ha providing more tree leaves each year.

**Table 1: Trees and shrubs per ha Across Study Villages**

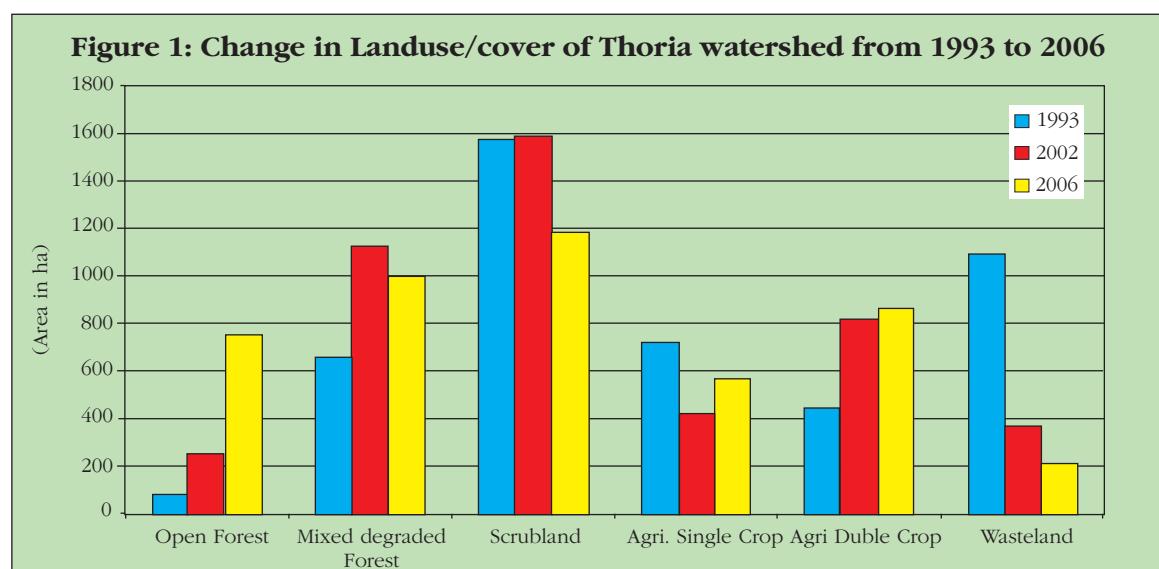
Village	District	Trees with diameter more than 10 cm	Trees with diameter less than 10 cm	Shrub
Control	Ajmer	29	286	571
Protected plots				
<b>FES supported villages</b>				
Thoria	Ajmer	256	275	950
Bharanda	Bhilwara	114	5,600	0
Amaritya	Bhilwara	175	2,400	50
Sanjadi ka Badiya	Bhilwara	154	831	1,046
Saredi kheda	Bhilwara	289	533	311
Dheemri	U daipur	150	2,050	1,350
Cheetrawas	U daipur	205	1,720	1,640
<b>BAIF supported villages</b>				
Jodha ka kheda	Bhilwara	100	360	400
Gudha Gokalpura	Bundi	170	320	440

With increased grass production and tree coverage, palatable fodder availability in terms of grasses and lopped tree leaves from protected commons increased manifold. Increased fodder availability from different sources helped livestock keepers meet the feed and fodder requirement of their livestock across different time periods.

**Table 2: Palatable fodder from protected commons**

Villages	Tree leaves# (ton/ ha)	Shrub leaves (ton/ ha)	Grass/ Herb (ton/ha)	Total Palatable biomass (ton/ha)	Total palatable biomass from non-governed commons (ton/ha)	%increase in availability of palatable biomass per ha
<b>FES supported villages</b>						
Thoria*	0.59	0.23	0.92	1.74	0.62	180.45
Dhuwariya*	0.45	0.27	0.85	1.57	0.62	153.05
Bharanda*	0.56	1.03	0.22	1.81	1.274	41.84
Amaritya*	0.63	0.44	0.58	1.65	0.814	102.83
Sanjadi Ka* Badia	0.68	0.14	1.32	2.14	1.026	108.87
Saredi Kheda *	0.97	0.14	0.98	2.09	0.54	287.04
Dhimri	0.54	0.11	5.95	6.60	0.223	2859.64
Cheetrawas	9.88	0.03	3.94	13.85	4.222	228.07
<b>BAIF supported villages</b>						
Jodhakhetda*	0.67	0.10	0.57	1.34	0.191	599.78
Gudha Gokulpura*	0.28	0.03	0.42	0.73	0.433	68.59
#Tree leaves have been calculated at 5% of total standing biomass.						
* Villages where the grass biomass estimation coincided with the grazing period have resulted in the underestimation of grass biomass.						

- b. **Increased value of resources on commons:** Value of standing biomass on protected commons ranged between Rs 32000 per ha to Rs 365000 per ha. On an average the incremental value comes to around Rs. 47,000 per hectare in comparison to a non-governed area which had a value of Rs 5100 per ha. In monetary terms this translates into a value of Rs 3.13 lakhs per household in these villages. Of this Rs. 2.79 lakhs come from trees whereas a smaller contribution come from shrubs (Rs. 0.3 lakh) and grass (Rs.0.04 lakh). It may be noted that while the households could use a small proportion of the biomass from trees and shrubs for direct consumption, much of the grass and leaf biomass is available for direct use. The value of grass biomass per household varies from Rs. 1000/- Rs. 9,000/- per annum. In most of the villages taking into consideration that grass values are underestimated, as the survey period coincided with the grazing period these make significant contributions to poor livestock keepers.
- c. **Positive changes in land use and land cover:** Protection and regeneration of commons with work to check runoff of water significantly changes the land use and cover in the villages. This is more visible if the work is concentrated in a contiguous patch, for example a watershed. Analysis of Thoria watershed over different time periods gives strong evidence that if biophysical interventions and institutional development is promoted on commons in a contiguous patch there are dynamic changes in the biophysical environment.



This trend was also seen in other villages where work on common property resources of land and water not only improved the overall biomass growth on common land areas, but also influenced the agricultural area, through increased water availability.

- d. **Trends in livestock at village level:** Livestock trends observed over two time periods show a mixed trend of livestock growth. This has been summarised in Table 3. Some common trends which can be observed at village level are:
1. Reduction in cattle population with preference towards buffalo keeping.
  2. Preference towards quality cattle breeds reflected in increased population of cattle in villages with good indigenous breeds (Gir) and trends towards cross-bred cattle.
  3. Increased goat population across most of the villages.
  4. Increased sheep population in villages where communities like Gujjar are the dominant category.

<b>Table 3: Trends in livestock across Study Villages in Rajasthan</b>			
Livestock category	Increase	Decrease	Remarks
1. Cattle	<ul style="list-style-type: none"> <li>• Increase in 2 villages</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease in 8 villages</li> </ul>	Villages such as Thoria and Dhuwadia where efforts of grazing lands development have been complimented with improved water availability through watershed development works; and where there were good indigenous breed and support of dairy cooperative has seen trends towards increase in cattle population. Across other villages there has been a decrease in cattle population with trends towards reduction in non-descript and unproductive livestock and shift towards other livestock.
2. Cross bred Cattle	<ul style="list-style-type: none"> <li>• Increase in 4 villages</li> </ul>		Villages supported by BAIF have witnessed a rapid increase in population of cross-bred cattle with a sharp reduction in population of non-descript cattle. Village which are close to market centers have also shown introduction of cross-bred cattle.
3. Buffalo	<ul style="list-style-type: none"> <li>• Increase in 5 villages</li> <li>• Stable population in 3 village</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease in 2 villages</li> </ul>	Buffalo population has increased replacing cattle with per annum growth rate between 5-8% is observed in where buffalo population has increased.
4. Goat	<ul style="list-style-type: none"> <li>• Increase in 8</li> <li>• Stable population in 1 villages</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease in 1 villages</li> </ul>	With increased palatable tree and shrub biomass goat population has uniformly increased across all villages with per annum growth between 1.3-12.3% per annum.
5. Sheep	<ul style="list-style-type: none"> <li>• Increased in 5 villages</li> </ul>	<ul style="list-style-type: none"> <li>• Decreased in 5 villages</li> </ul>	villages Growth in sheep population in 5 villages has ranged between 6-12% per annum. Increased sheep population is observed in villages where traditional sheep rearers like Gujjar who still are maintaining the semi pastoralist life style are the dominant population. However simultaneously with increasing migration and preference towards other livestock there has been a decreasing preference for sheep keeping.

e. **Livestock growth across different groups:** In comparison to the State average the study villages show on an average higher livestock population across different landholding categories. This trend reflects the importance of availability of commons and enhanced fodder and feed availability from CPR in supporting more livestock in these villages.

<b>Table 4: Additional Livestock Possibilities: Difference in livestock holding between Study villages and Rajasthan average figures (NSSOdata)</b>					
	<b>Landless</b>	<b>Marginal</b>	<b>Small</b>	<b>Medium</b>	<b>Large</b>
Cattle	4.3	1.6	2.2	1.6	0.3
Buffalo	0.5	0.0	0.3	0.0	1.4
Total Bovine	4.8	1.6	2.5	1.6	1.7
Total ovine	6.9	4.0	7.9	5.9	2.1

**Table 5: Additional Livestock Possibilities: Study villages between 2002-2007**

	Landless	Marginal	Small	Medium	Large
Cattle	3.1	0.3	-0.3	-0.3	-1.9
Buffalo	-0.4	0.1	0.1	0.3	0.5
Total Bovine	2.6	0.5	-0.2	0.0	-1.4
Goat	1.4	0.5	1.2	0.0	1.3
Sheep	0.1	1.2	0.8	-2.9	-2.2
Total ovine	1.5	1.7	2.0	-2.9	-1.0

**Table 6: Changes in distribution of livestock holdings (2002-2007) (figures represent the difference in % distribution over two time periods)**

	Landless	Marginal	Small	Medium	Large
Cattle	2.10	13.57	6.64	-8.89	-13.41
Buffalo	-0.01	9.29	10.28	-6.24	-13.33
Total bovine	1.46	12.17	7.76	-8.06	-13.32
Goat	1.19	7.10	11.21	-11.00	-8.50
Sheep	0.04	23.11	15.49	-26.80	-11.84
Total ovine	0.81	13.01	12.84	-16.97	-9.69

*In the process they also gain by improved distribution in their favour, which helps them as a group to use the resources in more equitable terms.*

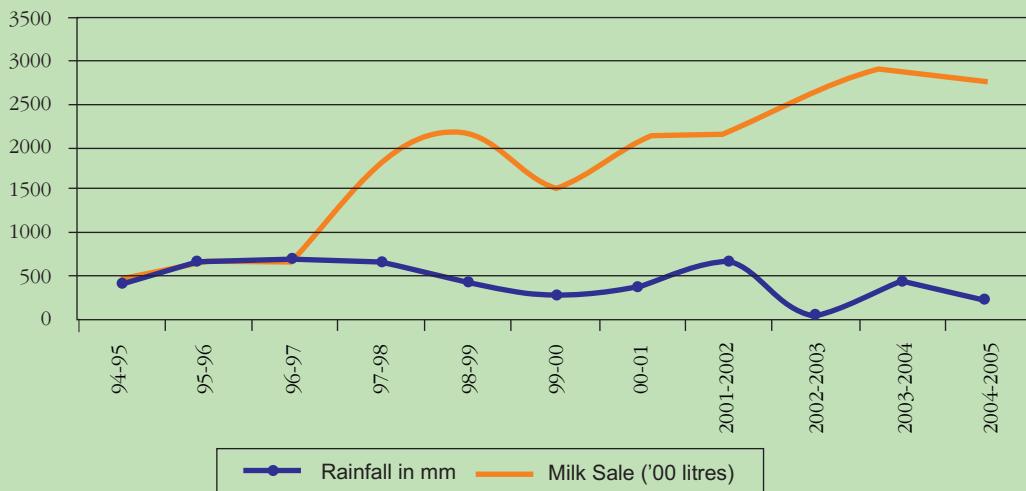
f. **Impact on milk production:** The proportion of households reporting increase in milk production was 50 per cent of the sample household in the villages. The surveyed households (100% of households) attributed the increase in milk production to increased fodder availability. Discussions with different groups also highlighted the role of dairy cooperative societies in providing services and market linkage, improved water availability and improvement in cattle breed as other important factors in influencing growth in milk production, clearly reflected in Thoria village where the milk sale figures of the DCS and private dairies indicate a consistent growth rate despite low rainfall years. Figure 2 also shows that with improved fodder availability and institutional support of dairy, the vulnerability in livestock sector especially for the poor livestock keeper can be reduced and even in extreme low rainfall years their livestock system remains strong-footed.

Secondly, a comparison of livestock trends in these villages over two time periods (2002, 2007-8) shows some interesting results. In comparison to a more uniform trend of additional livestock keeping with improvement in CPRs (Table 5) the following table shows a mixed trend across landholding categories and also preferences towards livestock keeping.

With landless, marginal and small farmers increasing their holdings, the medium and large farmers show a trend of decrease in livestock holding, even though it still remains higher in comparison to poor livestock keepers. This pattern also changes significantly the distribution of livestock holdings across the households. While as a group of landless, marginal and small farmers gain, there is substantial reduction in holdings of medium and large farmers.

*As a whole the trend reflects that improvement in CPRs enables landless and marginal farmers to increase their livestock holdings.*

**Figure 2: Trends in milk sale in Thoria**



Another interesting finding was the improved trust of villagers on the service providers for Artificial Insemination, with marginal and small farmers investing in improving their non-descript breeds. This, which has been broadly argued as an important factor to improve productivity, has also improved income earnings of poor livestock keepers who with reducing vulnerability and risks invest resources for asset improvement. This trend was visible in Jodha ka Kheda and Gudha Gokalpura villages where landless and marginal families kept more than 50% of crossbreed animals.

## II. The Innovation in the Good Practice

In a situation where land and water is scarce and households are increasingly facing more hardships in continuing to keep livestock, this practice helps in reviving institutional mechanisms that energise collective action towards sustainable management of community held village commons, thereby improving feed and fodder availability. This is in contrast to options, which mainly focus on privately held resources, especially farm lands, and neglect the natural resource base and the village commons further accentuating the difference between resource rich and the resource poor farmers.

The practice, recognising the multiple functions village commons play, takes a more holistic perspective of the platform the commons can provide in terms of poverty and inequality reduction through strengthening of the collective and ecological foundation.

### **Aspect 1: Technology**

*Ecologically sound regeneration:* The practice while addressing the village commons, which are often degraded, aims to approximate the natural process of regeneration. This is translated into maintaining the natural diversity of the ecosystem which has so far sustained the diverse needs of livestock and farming systems and promoting seeding and plantation of native species keeping in mind the various relevant variables – people's need, level of degradation, biotic pressure, institutional strength etc. – in a given situation. The focus not only helps in collective search for appropriate solutions, with community knowledge of their surroundings playing an important role, but also makes the practice cost effective and relevant for the different groups of livestock keepers in a community.

The focus is to develop a protected patch with suitable mix of grass and tree species which provides different products to livestock keepers from grass, leaves and pods meeting the feed and fodder needs of both large and small ruminants.

*Regulated and rotational grazing:* One of the important factors in resources degradation on commons has been of unregulated grazing by livestock keepers. The practice taking into consideration the whole village commons aims to regulate grazing pressures on different portions of commons. With some of the patches being kept open in certain periods, the other portions are protected to regenerate grasses and trees. These plots are later opened for grazing with village deciding not only the time of opening but also the period for which it will be open for grazing based on the availability of fodder. The mechanism over a period helps in regenerating a patch of commons. With success in regenerating a patch the institutional arrangement for protection of commons is scaled on other patches. With increased growth of shrubs and trees some of the plots have been reserved only for small animals.

### **Aspect 2: Delivery Mechanism**

Understanding that the breakdown of local village institutions in face of changing fabric of village society, unclear tenure and that the lack of enabling policy framework has contributed significantly to the deterioration of commons, the work focuses on these key dimensions to bring in changes.

*Secure tenure to communities:* Village commons are constituted by lands of different categories (pasture, revenue wasteland and forest lands), with differing rights of community

to use and manage it. Providing a sound legal foothold to users' organizations is often a prerequisite for building and reviving village institutions. The work of achieving tenurial security involves active and continuous discussion with state governments and different departments who are the legal custodians of these resources.

With increasing realization of the need to conserve natural resources and the need to involve community actively in the processes of conservation, various state governments and departments through their orders and policies have provided a fair degree of tenurial security to the community through leasing of Revenue wastelands to TGCS and agreement on forest land (VFPMCs) through JFM resolution. The 73rd amendment entrusting the Panchayat Raj Institutions with local governance has also been a major instrument in further strengthening self governing institutions at local level. Gauchars and charagahs (Grazing lands) constitute a significant common property resource in many locations with its ownership and management rights vested with Gram Panchayats. These grazing lands have a fair degree of tenurial security and are being worked with after taking permissions from the Gram Panchayats.

*Focus on village institutions:* Strengthening traditional mechanisms, where they are surviving, and crafting new institutional arrangements, where none exist, is an essential component of the work on common property resources. It includes assisting village communities to set in place rules and regulations that are not only based on their micro-reality, but also take into consideration larger principles that govern successful common property governance. The process of each village taking the initiative, to apply itself and create a formal body of terms and conditions to govern itself by, with regard to a common property resource, is the basis for the sustainability of local institutions and is a critical step towards the act of self-governance.

Though the different actors within the village institution are primarily responsible for evolution of rules and regulations the facilitating agency also explains its work philosophy, its belief and its objective, which helps in reaching a term of reference between the agency and the village institution. These also help in clarifying the underlying rules, which would guide the village institution in developing more elaborate rules and regulations.

### **Aspect 3: Suitability**

Common property land resources constitute on average 30% of total geographical area in Rajasthan. 84-100% of poor households depend on fodder, fuelwood and food items for these resources with around 14-23% of income derived from these resources. Various studies and trends of land use data has showed a consequent decline in CPRs due to various factors like land encroachment, land distribution, land reallocation mostly associated with the policy directives and also a lack of institutional arrangements / decay of traditional arrangements at micro level. Apart from their decline there has also been a consequent degradation of CPR areas due to increased pressure and lack of any institutional arrangements to enforce judicious use of resources. The depletion in CPR resources has also intensified the resource conflict among the different sections in which invariably the poor families lose out either in terms of denial of access to these resources or allocation of it for alternative use.

Livestock keeping in these locations is a viable option for poor households if only a significant portion of the fodder and feed resources are derived from commons. The practice, strengthening collective action and improving productivity of commons, aims to strengthen the resources base used by poor households for livestock keeping. With majority of the households belonging to marginal and small categories, a strong collective action with active participation of these households helps in making the initiative pro-poor.

### III. The Practice of the 'Good Practice'

#### Actors

Village, User groups, Farmers, Livestock keepers, Village leaders, CBOs (TGCS, CVS, VFPMC), Gram Panchayat, Neighboring village, Federations, Government (State government, Forest Department, Cooperative Department), NGOs (FES, BAIF)

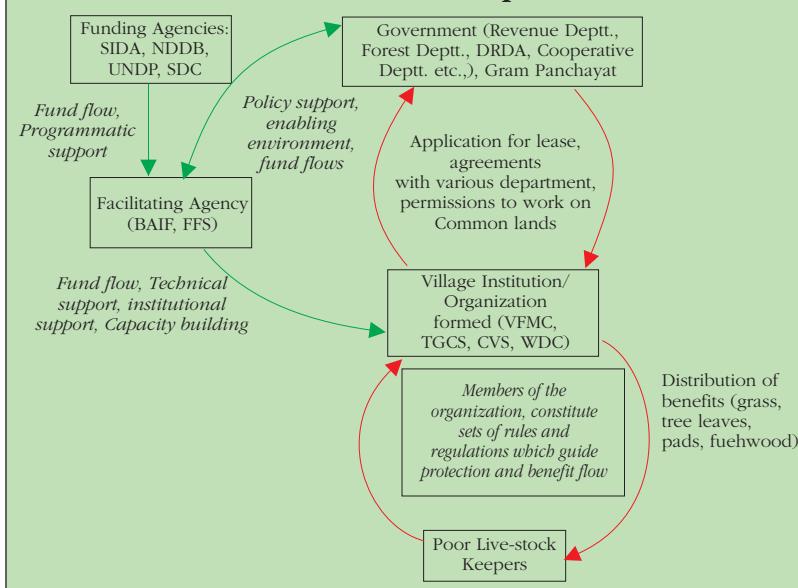
#### Relationship between actors

Commons are resources of the whole village. In a village there are differentiated actors carrying out multiple activities and are tied to each other in a set of complex relationships guided by caste, class, gender etc. These relationships have evolved over a period of time and are also guided by the set of values and norms, which distinguishes a particular group from the other. In understanding the relationships within it is important to understand that these are also guided by the broader set of norms, rules and regulations at village or habitation level or even the broader socio-cultural boundary.

Common land development starts with the village and the facilitating agency understanding the tenure and policy arrangements over the common lands in the village. Actors like the government, its various departments and Gram Panchayat become important, as they are an essential institutional structure in influencing access to different categories over commons.

Understanding the various legal and policy provisions and based on the nature of common land category the village and the facilitation agency forms village institution/organisation. These can be a Village Forest Protection Committee which can gain rights over forest, Charaghah Vikas Samiti (Pasture Land Development Committee) which can work with Gram Panchayats on pasture land in the village, Tree Growers Cooperative Society which can apply for lease of Revenue wastelands for 25 years, and also Watershed Development Committees which can under the policy and program directives address the village landscape comprehensively.

**Figure 3: Common land development for Poor Livestock Keepers**



However, even though there are policies and directives, which help to provide these institutions/organisations rights to manage and gain benefits, the process of gaining rights might take a lot of time and energy depending on how the different actors within the government work. The role of facilitating agency gains importance as its works with these different actors within the government to provide rights to the village institution. This involves negotiation and meetings at different levels of the government and its department making them aware of the policy provisions and measures, which can help communities gain rights to CPR resources and provide them incentive to invest their energy in it.

With institutions gaining right to manage common property resources the facilitating agency provides the institutions with funds to regenerate and restore their common property resources. The role of the facilitating agency is to help in collective search for appropriate solutions, which will lead to sense of ownership among the village actors of the process. Simultaneously keeping in mind the different interests in a village it should have an adequate technical understanding of the contexts, without which some actions might not be meaningful and sometimes detrimental to certain sections in the society. In planning for regeneration, the practice, as has been mentioned above, aims to approximate the natural process. An important criterion to review plans for regeneration looks at what is the objective of a certain work plan, which species are planned, what is the long term objective of it, what will be its effect on other species, whom it is going to benefit etc.- and initiate discussions around these issues within the facilitating agency and with the different actors in a village.

Another aspect of the work of the facilitating institutional development of the VI formed. Very often the members of the VI are from a poor landless household. The institutionalisation of the VI has an important bearing on how the institution functions. Understanding the differentiated actors within the VI is mainly to understand the relationship between them. It is important to include all the actors, especially poor households.

All the actors in a village constitute the members of the VI (who are all adults, male and female above 18 years). Based on the requirements of formal organisation, to coordinate the village organisation, the members sometimes referred as executive committee chooses the members of the management committee. These include farmers, livestock keepers, women, different caste groups etc. depending upon their location, specific understanding of the needs within and also as processes facilitated by facilitating agency.

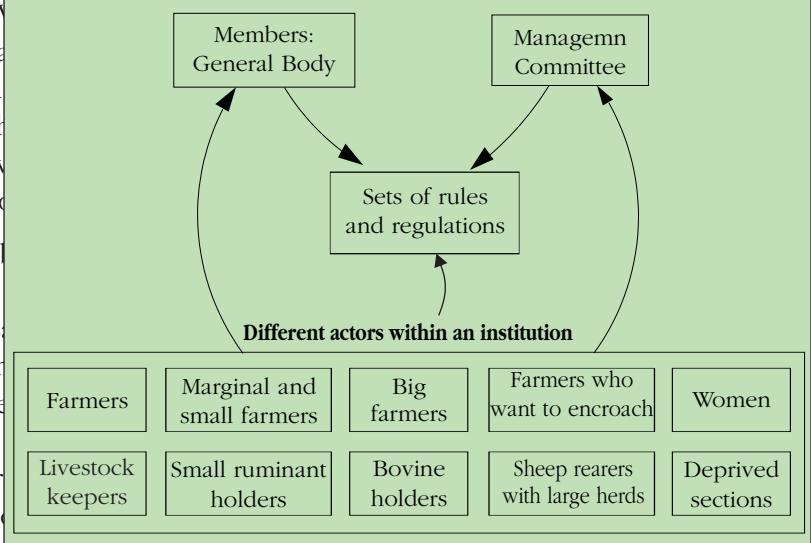
Together these groups evolve a set of rules and regulations, which guide their interaction in reference to resource created. The general body is the supreme authority in terms of finalising the rules and regulation based on the inputs from the different actors (farmers, livestock keepers, deprived and disadvantaged sections, village leaders etc.). This process of crafting rules and regulation for management of CPRs is the key element of the good practice.

Rules and regulations formation basically takes place for the following broad purposes:

- Rules for membership of the village organisation
- Rules for meetings and decision making
- Rules for protection and conservation of resources
- Rules for work (physical work supported by organisations and later on the maintenance)
- Rules for benefit sharing
- Rules for financial transactions

The robustness of the institution system is determined by the way rules and regulations operate. The system is characterised as robust “if it is long-living and the operational rules have been devised and modified over time according to a set of collective choice rules (which themselves might be modified more slowly over time within a set of constitutional-choice rules, which were modified, if at all, very infrequently)”.

**Figure 4: Relationship within a Village organisation/institution (VI)**



Rules and regulation have direct bearing on whom the institution will benefit and is a crucial process in which the facilitating agency plays major role. Though broadly the collective choice rule across villages remains the same, the operational rules/systems to put the rules in place differs across villages. The role of the facilitating agency is mainly to promote discussions against the broader set of rules and facilitate operational systems, which are mutually agreed and are sensitive to all actors. Another important aspect is to provide alternative options, examples from neighbouring villages other contexts, which provided the actors to analyse different options and choose. Table 7 summarises the different operation rules/systems across villages for membership, meeting, decision-making, work (work on commons) and protection. These rules together guide how the structural and functional aspect of the institution is shaped.

Rules for distribution of benefits have the most important consequence for the members involved. The benefit sharing arrangements depend on many factors from the broad objective of resource distribution, to the condition and objective of resource growth, to number of households and their different demands, to the monitoring and enforcement costs of sustainable resource harvesting and the different alternative options available to complement or supplement the resource distribution.

Table 8 briefly describes the different rules and regulations for resource use. Two main mechanisms can be seen in terms of fodder collection: Regulated and rotational grazing and cut and carry method. Different mechanisms for lopping of tree leaves and pods can be seen across villages. Some of the villages still have not allowed lopping of trees based on the condition of the resource and also problems associated with monitoring of such use.

In most of the villages, while crafting the rules and regulations, they take a very holistic perspective of the overall resources and the usage patterns. Understanding the overall resource base helps the village community in making choices, which may sound complex but are location specific and take a dynamic perspective of the socio-economic and ecological interrelationship.

FES in its initial work with TGCS learnt the lesson that motives like maximisation of revenue generation and income to the VI makes the distribution mechanism highly inequitable. This involves mechanisms like auction, which lets the highest bidder privatise a common property resource. Institutions, which aim to do so, can earn good amount of money, and there have been incidences where institutions have been offered between Rs 100000-200000 for an area of 50 ha. With clear membership boundary and primacy to needs of the villagers these motives are usually checked, but within the village also regular efforts need to be put in to form rules, which makes the resource available to all.

Usually in the first two to five years the plot is controlled for grazing by small ruminants. It becomes important then that ample grazing space remains open for the small ruminants so that they are not the one who lose out. Simultaneously it has also been a learning the communities would like to invest in by making different kind of plots. In some plots they would like to have intensive work done but on another plot apart from securing the rights over the commons they would like a different kind of intervention (seeding of grass with some soil and moisture conservation work with no plantation). What is important in the context is that there is high gestation period in resource growth, especially of trees, against which project interventions of 3-5 years is quite small in improving the biomass availability on

**Table 7: Practice of rule making**

Rules for	Operational systems at village level	Guiding principles
Membership	De-facto membership, Membership enrollment processes (membership register), Token money from each household (Rs 1 to Rs 5, determined also by the amount required for opening account of the VI), Scope for latecomers (revisions after a time period)	Universal membership, Traditional user group,
	<i>Place of meeting:</i> Hatahai, village temple complex, schools, panchayat bhawan, Alternative meetings in different habitations if the institution covers more than 1 habitation	Common place: accessible to all
Meeting rules	<i>Time of meeting:</i> Night meetings, Day meetings in areas where drinking is more prevalent, Scope for flexibility ( if the facilitating agency requires or in case of any other circumstance)	Timings which are suitable to all (consensus based),
	<i>Day of meeting: No-moon day:</i> when farmers don't use their equipments, Full moon day: as all households gather at a temple, Fixed day (as mutually agreed), On holi, diwali, local festivals.	Monthly, As and when called in case of any special circumstance, Before festivals
Decision making	<i>Check mechanisms:</i> Rules for violation: Fines for members not attending meetings (in some villages), Fines for members coming to meeting after drinking.	
	Representation from all households, Presence of management committee members, Presentation of credible village leaders/old persons, Representation of women, Presence of group leaders from different groups/caste (patels), Scope for revision and rectification by members, Presence of staff from facilitating agency (initial years), Scope for clarification by facilitating agency.	General body meeting (Supremacy of general body), Scope for revision (flexibility)
	Facilitating agency meetings with women/women groups, Separate women meetings before village meetings, Previous resolutions discussed and approved in women meetings, On site meetings (meetings at work places), Meetings in different hamlets with different groups	Separate women meetings, Information flow
Physical work	Management committee as guiding and executive committee, Implements decision taken by general body, Accountable for financial transactions, Record keeping, Monitors and enforces decisions, Fines for violations of decisions according to resolutions, Facilitate village meeting	Executive role of management committee
	Labour opportunities to all families ( Rotation of households as per the employment opportunities), Continuous wage opportunities for poor households (identified by village and facilitating agency)	Employment opportunities to all
	Monitoring of work by management committee, Periodic checking by facilitating agency	Work against norms, transparent systems
	Shramdan-dharmata (voluntary labour contribution) for some common purpose (village roads, village temple, plantation on some day etc.)	Collective action
Protection	Payments at common place in a village meeting, presence of all management committee members, payments by management committee members	Minimum wages to both men and women
	Ora system (each household taking responsibility to protect the common land in rotation), Chowkidar (one or two village person appointed by village to guard the commons in peak agricultural season, in some villages this extends through out year), Management committee members (or a separate protection committee is formed) which periodically monitors the commons against rule violation or damage	Functional responsibility of institution
	Payments to chowkidar/guard: each household gives a fixed amount in kind or cash, or, the guard is paid once a year when the fees is collected from households for grazing or fodder collection is received Rules for violation: Fines on cutting of tree, fines for grazing.	Self sustaining mechanisms

**Table 8: Benefit sharing arrangement across villages**

<b>Mechanism for</b>				
Subject / Village	Grass	Tree (Leaves and pods)	Time of collection/use	Price
Thoria	Regulated and rotaional grazing (Cattle, Buffalo, Goat and Sheep)	Trees on plot are allotted to one or two household who distributes to all members, Yearly	After 1 month of monsoon; Tree lopping in Nov-Dec and Apr-may	For cattle and buffalo price per animal range from Rs 35-50 in a good year, in drought period it is Rs 10 per large animal. Small ruminant holders pay Rs5-10 per animal for grazing. For last three years they have allowed lopping of tree on 50 ha patch. The institution gives it to a livestock keeper who deposits Rs 2500 for 50 ha. He in turns collect it from small ruminant holders who want leaves and pods.
Dhuwadiya	Regulated and rotaional grazing (Cattle, Buffalo, Goat and Sheep)	Trees on plot are allotted to one or two household who distributes to all members, Yearly	After 1 month of monsoon in one plot; After 2-3 months in other plot; Tree lopping in Nov-Dec and Apr-may	For cattle and buffalo price per animal range from Rs 35-50 in a good year, in drought period it is Rs 10 per large animal. Small ruminant holders pay Rs5 per animal for grazing. For last three years they have allowed lopping of tree on 50 ha patch. The institutions gives it to a livestock keeper who deposits Rs 2500 for 50 ha. He in turns collect it from small ruminant holders who want leaves and pods.
Sanjadi ka Badiya	Regulated and rotaional grazing (Cattle, Buffalo, Goat and Sheep)	Trees on plot are allotted to one or two household who distributes to all members, Yearly	After 1 month in one plot; After Diwali in 2 other plots (After seed falls); Tree lopping in Nov-Dec and April may	Total expense incurred on chowkidar guides the price per livestock. Currently price of cattle and buffalo is Rs 6 per animal.
Saredi Kheda	Regulated and rotaional grazing (Cattle, Buffalo, Goat and Sheep)	Trees on all commons are divided into patches, each patch allotted to different households with higher sheep/goat, Yearly and also some patches for two-three years	After 1 month of monsoon in one plot; After 2-3 months in other plot (after Diwali), Very low rainfall: One plot is open for grazing, second plot is open after 15 day of last rainfall; Tree lopping in Nov-Dec and Apr-may	Rs 10 per large ruminant, Rs 5 per sheep and goat. Lopping of tree from commons fetches Rs 4120 (price per tree averages between Rs 5-20)
Jodha ka Kheda	Regulated and rotaional grazing, cut and carry (cattle, buffalo, goat)	On one plot tree are allotted to one or two individual who distributes among those who require	Grass cutting after 1 month of monsoon, Grazing after grass cutting; Tree lopping on one plot in Apr-may	Rs 5 for a goat, Rs 10 for a cow and Rs 15 for a buffalo
Amritya	Regulated grazing (cattle,buffalo,)	Thinning and pruning in 2-3 years	After Diwali and sometimes after Feb-March (after fall of leaves of Dhokra-anogessis pendula)	Rs 5 for big animals and Rs 2 for sheep and goat
Bharenda	Regulated and rotaional grazing (Cattle, Buffalo, Goat and Sheep)	Thinning and pruning in 2-3 years	After Diwali	Rs 5 for big animals and Rs 2 for sheep and goat
Gudha Gokulpaura	Cut and carry (cattle,buffalo)	No lopping of Tree (Currently)	After 3-4 months of rainfall	After the produce is cut and gathered, it is tied into bundles. Half the produce goes to the household who cuts the grass and half goes to the samiti, which in turn sales it within and outside village.
Cheetrawas	Cut and carry	No lopping of Tree (Currently)	After 3-4 months of rainfall	Rs 25-30 per household who contributes for protection, Rs 50 for household who are quite far from the plot, Rs 50 for households from outside villages (in summer period if grass is still there)
Dheemri	Cut and carry	No lopping of Tree (Currently)	After 3-4 months of rainfall	Rs 10 per household for cutting grass.

village community understands this important constraint and wants action on different patches in phases, regenerating one patch then another patch. This clearly brings out the need to have broader understanding of space and time in which common property resources management should be placed.

# IV. Origin of the Good Practice

## Relationship between actors

An important change the practice brings is that that it places a strong village institution as an important actor within the system. In the absence of this institutional platform the actors were prone to more individualistic decision-making. With a strong institutional platform and collective action the conflicting interest groups within a village align for a common purpose: regeneration of commons.

The following table highlights the broad aspects of change in the relationship the practice brings:

**Table 9: Relationship between actors – before and after work**

	<i>Before</i>	<i>After</i>
Actors	Government, Panchayat, forest Department, Village, Landless households, farmers, livestock keepers	Government, Panchayat, forest Department, Village, Landless households, farmers, livestock keepers, Village institutions (TGCS, CVS, VFPMC), FES, BAIF
Broad Relationship	Weak and conflicting	Mediated by VI and facilitating agency, relationship are relatively strong and more aligned
Between government and village	No clarity of village rights on commons, Government usually feels that village has degraded commons, community feels that it other way round: Antagonistic relationship. Relationship of giver and taker. Commons used to serve factional interests.	Community has gained rights on some common property resources; government acknowledges the strength of village institutions in management of commons and supports institution in resolving conflicts. However largely it still views commons as an un-productive resource and stills aims to fulfill different objectives on commons.
Between forest department and village	Conflicting and usually the forest department accusing villagers and livestock keepers for degradation of forests.	Recognizes the community institution strength in regenerating forests (more support at top level), however, within, still a large group which doesn't feel that community should be allowed to manage forests.
Between different actors within village	Conflicting, people want to encroach common and increased orientation to privatize commons, nobody regulates tree cutting from commons, actors within regularly try but fail to manage as interests and conflicts need mediation.	Clear understanding of land categories on commons, demarcation of boundaries and removal of encroachment (mostly those which are very prominent and new), Collective action to protect commons, Less dependence of poor households on resource rich farmers for fodder, leaves, pods and fuel wood. Increased spaces for poor and deprived sections to participate in village decision making process. Improved spaces for women in village decision making processes.
Between facilitating agency and village	Facilitating agency supports institution building processes and develop capacities to manage CPRs	Support role are minimal but the community act as resource groups and good practice examples to scale CPR governance.

## **Analysis and Cost of Start up Phase**

### **BAIF DEVELOPMENT RESEARCH FOUNDATION**

BAIF is a national level NGO, registered under Public Trust with its head office at Pune, Maharashtra. BAIF is working in Rajasthan since 1980 in the field of animal development and it includes Large and Small ruminants with the goal to increase the productivity of animals like milk, through technology of Artificial Insemination in non-descript cows / buffaloes. Beside this, BAIF is also involved in developmental activities in the rural area specially with the tribal population to enhance their livelihoods through active participation of poorest of poor (BPL) in the betterment of their natural resources like Land, Forest, Water, and most importantly the people. Under the Land based activities land treatment, improvement in cropping pattern, introduction of horticulture, agro forestry, Silvipasture, use of compost / vermicompost, Water harvesting / conservation and its optimum utilisation, SHG and IGA for women's with the help of State Government and international funding agencies. Main thrust is to improve income of the family and capacity building to manage the developed / improved resources for income generation.

Work on commons started with the long-term objectives of:

1. developing rainfed pasture on village common to create feed resources for livestock especially for BPL families.
2. demonstrating use of degraded village common to improve environment and income and nutrition of village communities.
3. developing programmes for women and landless labour through Self Help Group(SHG).
4. building local institution Village Management Committee (VMC) for sustainability of activity and strengthening of Panchayat Raj system (PRS),
5. reviving old culture for protection of village common for mutually beneficial purpose (Man/Livestock).

The short term focus under the project mode was:

1. To bring awareness about CPR i.e. village common.
2. To protect, develop and manage village common.
3. To introduce nutritious fodder grasses.
4. To produce fodder and small timber for meeting local needs for fuel on a sustainable basis.
5. To check process of environmental degradation.

BAIF selected Bhilwara district for the silvipasture project as it is working in the field of Livestock Development programme since 1986 in 11 blocks through 28 centres and covering 614 villages for breed improvement programme with financial support from IRD department. Breed improvement activity is entry point activity in the village. BAIF Centre Incharge has a good rapport with farmers. Villages were selected on the basis of availability of community pasture land and people have clarity on the concept of development, co-operative and they are ready to remove the encroachments. They were ready / willing to constitute village management committee (VMC). A survey was conducted by BAIF's centre incharge and they identified 100 villages after field visits, group meetings in the village. Weightage was given to

villages where more number of BPL families were available. Finally 76 villages were short listed in 10 blocks with the consent of Sarpanch, Ward panch and villagers. The process of silvipasture development on community land was carried out from Dec.2001 to Feb.2002.

## **FOUNDATION FOR ECOLOGICAL SECURITY**

The Foundation for Ecological Security (FES) is a not for profit organisation founded during the year 2001. This organisation has evolved from the National Tree Growers Cooperative Federation (NTGCF), which was promoted by the National Dairy Development Board (NDBD) to improve revenue waste lands based on the successful dairy cooperatives model. The organisation is currently working in 1000 village organisations formed from about 125 thousand rural families and supporting natural resource management in about 75000 hectares spread in five eco regions in the states of Andhra Pradesh, Karnataka, Rajasthan, Gujarat, Madhya Pradesh and Orissa.

Work on commons has been a learning experience. One of the crucial learnings gained in the initial period while replicating the milk cooperative model for tree and fodder cultivation was that while milk cooperatives deal with private property trees were grown on common property resources. Simultaneously promotion of commercial species with disregard to local species had negative impact on ecological services and livelihood of poor households. An internal review and stock taking that took place within the organisation resulted in diversification of range of activities in the subsequent years. There was a shift in focus from economic aspects to social and ecological issues. Areas of operation have diversified from woodlots in revenue waste lands to improving grazing lands and forest lands, and watershed development.

First village organisational model tried was Tree Growers' Cooperative during the years 1989 to 1996. These TGCS were federated at the national level to form NTGCF. Motivation for choosing this institutional form was derived from the success experienced in promoting dairy cooperatives by the NDBD, which was the chief promoter in the initial years. Though this model was successful in regeneration of wastelands and improving productivity and economic value of these lands, there were concerns expressed about equity and social exclusion of poor from accessing benefits. The main problems identified were – 1. Common lands got privatized through this initiative and poor were deprived of the benefits from these lands; 2. Membership pattern resulted in domination of resourceful members in the cooperative; 3. Power got centralised at Managing Committee and Secretary; and 4. Auctioning of produce from the protected land has excluded poor from accessing benefits.

Realization of these issues during the internal reflection in the year 1996 coupled with organization's intention for diversifying activities into development of forestlands and grass lands resulted in forming other types of village organisations to match new requirements. In 1998 the first Chargah Vikas Samithi (CVS) was formed with villagers to improve grass lands. This is an informal organisation of villagers bound by agreed rules and regulations. During the years 2002 and 2003, another organisational form called Village Forest Protection and Management Committee (VFPMC) or Village Forest Committee (VFC) was promoted to deal with forest land development. This is a registered body under the guidelines issued by the local Divisional Forest Officer (DFO). The organisation's diversification into watershed development activities has resulted in formation of Watershed Associations from 1996 onwards. The type of Village Organisation chosen depends on the type of land available for development. In some cases different village organisations are present in the same village. In such cases, villagers are allowed to possess membership in more than one organisation. In

these villages Gramsabha is promoted as the supreme authority entrusted with the decision making authority and all the Village Organisational forms come under it. There is a long-term plan to synchronise all these Village Organisations with Gram Sabha or Gram Panchayat to ensure sustainability.

**Table 10: Expenditure on Regeneration of Common Lands**

Sr. No.	Name of Village	Total Expen-diture* (Rs. )	Total Area (Ha.)	Exp/Ha. (Rs. )	Remarks
1	Bharinda	8,49,581.00	70.00	12,136.87	Highly degraded land with poor vegetative cover. The intervention cost was more as in addition to soil and water conservation, a lot had to be done in terms of tree plantation and fodder enhancement.
2	Amritya	4,81,931.00	50.00	9,638.62	Moderately degraded site, focus was on natural regeneration and soil and water conservation.
3	Sanjhadi ka Badia	15,29,526.50	175.00	8,740.15	Less work on soil and water conservation with focus on regeneration, plantation and seeding of fodder and tree species.
4	Saredi Kheda	11,49,597.00	70.00	16,422.81	Highly degraded land with poor vegetative cover. The intervention cost was more as in addition to soil and water conservation, a lot had to be done in terms of tree plantation and fodder enhancement.
5	Chitrawas	12,02,621.50	224.00	5,368.85	Less degraded site. Major emphasis on natural regeneration.
6	Dhimri	9,44,832.00	68.00	13,894.59	Highly degraded land with poor vegetative cover. The intervention cost was more as in addition to soil and water conservation, a lot had to be done in terms of tree plantation and fodder enhancement.
7	Jodha ka kheda	11,12,000	60.00	18,533.33	BAIF initiated silvi-pastoral work in this village. The average costs is higher as the initial plot was very small.
8	Gudha Gokalpura	3,25,000	45.00	7,222.22	Moderately degraded site, focus was on natural regeneration and soil and water conservation.
9	Thoria TGCS	6,56,580	73.00	8,994.25	Less work on soil and water conservation with focus on regeneration, plantation and seeding of fodder and tree species.
10	Dhuwadiya	3,35,766	40.00	8,394.15	Less work on soil and water conservation with focus on regeneration, plantation and seeding of fodder and tree species.
<b>Average cost per Ha.</b>				<b>9,814.21</b>	
	Thoria - watershed	94,89,543.40	4,561.00	2,080.58	Watershed work was carried out whereby the intensity of intervention is lesser in comparison to regenerated plot, thereby reducing costs per ha.
* Total expenditure means the total cost of physical interventions. It does not include overhead costs.					

## V. Lessons Learnt

1. Work on common property resources should address differentiation and discrimination within the village communities based on caste, class, gender, livelihood systems etc. This perspective helps in making the initiative of regeneration of common property resources pro-poor with special emphasis on the inclusion of the poor households in the institutional framework.
2. Strong and dynamic institutions which recognises traditional institutional arrangements, are location specific adhere to the broad principles of common property resource management, are more likely to survive and be sensitive to the needs of poor households and livestock keepers.

Understanding, recognising and positive appreciation of traditional institutional arrangements of *ughai* (boundaries in which people collectively contribute for certain activities), *bathai* (village decision making platforms), *bani* (sacred groves managed by community) etc helps in rejuvenating community actions. With trust between the facilitating agency and the village, these institutions also reform their practices (allowing women to sit on the "*bathai*" along with men - *Sanjadi ka Badiya*) and also adopt other practices, which makes institutional actions more gender sensitive and equitable.

This has been an important learning gained, as facilitating agencies work on commons. Under a project mode, with financial support from other agencies, usually take a very short term and linear perspective of institutional and resource growth (sometimes because of blue print approach and also due to targets which quantifies objectives and outputs within a very short term period). With more control at the hand of the community, in all aspects of resource governance, these institutions take a more holistic perspective of time and space. They usually approach different patches of commons differently, (for e.g. no plantation on a particular patch, silvipasture systems on another patch, dense plantation on another, open regimes on an another patch), craft rules and regulations for these different patches and usually have a more sensible approach to time required by the nature to heal itself.

3. The resource growth on commons is not linear and homogeneous. A range of factors, which change at village level, influences it. Even within a village two different plots have shown different resource growth. Though in many situations it might be important to think in terms of bringing all commons to a optimum productivity, an important learning has been that in areas with high dependence on commons by poor livestock keepers the resources growth across all patches can't be uniform as human actions shape the resource growth, the time it will take and the shape it takes. A silvipasture plot might not impress a conservationist with the growth and diversity it has, however the plot usually plays an important role in promoting diversity on an close by plot which is saved because it absorbs the pressure.
4. Secure tenure and assurance of benefits from commons are important to mobilise community for common property resources management. Tenure rights and rights to use a common property resources helps in clarifying and demarcating boundaries of common property resources which usually in a village situation remains ambiguous or a information

of the few. These groups who know the different land categories in the village also are the ones who encroach on these lands or become influential in providing these lands to some households, becoming power center in the process.

With clarification of boundaries of commons this important source of power in the village gets eroded as the institution establishes governance on these resources. Across these locations this has resulted in cutting down encroachments on commons and brings additional spaces for livestock grazing by the community as a whole.

5. Strong focus on endemic species provides the livestock keepers a share in the growth from increased biomass availability: Livestock systems in these regions have emerged as a response to resources available on the commons. Of significant importance to small ruminants and even large ruminants are the tree leaves like *Acacia nilotica*, *Acacia leucophloea*, *Acacia Senegal*, *Azadirachta indica*, *Anogeissus pendula*, *Butea Monosperma*, *Prosopis cineraria* etc. In planning resources growth appropriate seeding of these species and protection of their root-stock makes a patch of common property resource valuable for livestock keepers.
6. Work on commons property resources of both land and water have a greater impact on the livelihoods of poor livestock keepers: Water and land are critical constraining factors in livelihood systems of households living in semi-arid areas. With institutions only concentrating on one component of CPRs, an important and interlinked aspect of resource regime is overlooked. With commons usually forming the uplands and situated on slopes, improvement in water retention capacity in these areas have indirect effect on farming system through increased ground water availability. Village institutions in certain locations have also formed rules and regulations to regulate the usage of groundwater understanding the 'common property' nature of these resources.
7. The success of common property resources management generally speaking is more possible in small villages (with total households less than 200-300). In large villages the success of institutional arrangement will depend on how poor livestock keepers can unite to form cohesive groups to whom the management of resources can be devolved by the village or the Panchayat.
8. Improved common property resources can provide opportunities for additional livestock keeping and also result in increased income opportunities.

## VI. Conclusion

The work towards conservation of commons and livelihoods are focused at:

- Protecting commons for their biodiversity, biomass and hydrological functions which are of critical value for the farming and livestock systems.
- Locating forests and natural resources within the larger ecological, social and economic landscape so that conservation is determined by the local context, where ecological restoration, social mobilization and poverty alleviation measures are multitudinal strategies aimed at conservation and improving local livelihoods.

The efforts towards protecting the commons provides immediate returns in terms of increased availability of biomass, improved soil and moisture regime, and where geo-hydrology supports recharge, an increase in the water table and an associated increase in area under cropping. With strong institutional arrangements, investments in common property resources can contribute to the improvement of the livelihoods, especially of the poor livestock keepers, with increased access over water and fodder. Besides benefiting directly from improved availability and access or palpably sensing equality in terms of low or no pricing for such produce, the restoration of commons is akin to land redistribution to the poor. This helps reduce the vulnerability of poor livestock keepers to environmental and economic uncertainties, thereby stabilizing the livestock sector. Improved commons also provide a strong collective and ecological foundation to further assist the poor livestock keepers in being the drivers of the livestock growth.

The **NDDB-FAO South Asia Pro-Poor Livestock Policy Programme** (SA-PPLPP) SA PPLPP is a unique livestock development program that aims to ‘to ensure that the interests of poor livestock keepers are reflected in national as well as international policies and programs affecting their livelihoods’. It endeavors to do so by a) creating spaces for and facilitating dialogue among the actors playing a direct and indirect role in the livestock sector of South Asia, and b) drawing from and using lessons from field experiences to influence livestock-related policies, programmatic and institutional changes towards the benefit of poor female livestock keepers in the region.

*To access SA PPLPP publications and other information resources, please visit our website at <http://www.sapplpp.org>*

**FES (Foundation for Ecological Security)** works towards the ecological restoration and conservation of land and water resources, in conserving the uplands and other eco-fragile, degraded and marginalised zones of the country and to set in place the processes of co-ordinated human effort and governance to achieve this objective. It undertakes work, either directly or with and through a range of democratic village institutions, their federal bodies, and civil society organisations, (set up) through initiatives that are ecologically sustainable, socially and economically equitable. The foundation strives for a future that is based on a holistic understanding of the principles that govern the interrelationships of various life forms and natural systems. The central character of their efforts lie in intertwining principles of nature conservation and local self governance in order to accelerate efforts on ecological restoration and improve the living conditions of the poor. Over the years FES activities have spread to 1402 village institutions in 26 districts of seven states. They are presently assisting communities in protecting 96,933 hectares of revenue ‘wastelands’, degraded forest lands, and Panchayat grazing lands, and crafting rules and regulations in managing and governing the natural resources, common land and water bodies in particular.

*For more information on FES, kindly visit their website at <http://www.fes.org.in/>*

**BAIF Development Research Foundation’s** mission is to create opportunities of gainful self-employment for rural families, especially disadvantaged sections, ensuring sustainable livelihood, enriched environment, improved quality of life and good human values. This is being achieved through development research, effective use of local resources, extension of appropriate technologies and upgradation of skills and capabilities with community participation. BAIF is a non-political, secular and professionally managed organisation. Various programmes are implemented by BAIF and its Associate Organisations in more than 47,000 villages in Maharashtra, Karnataka, Andhra Pradesh, Uttar Pradesh, Uttarakhand, Bihar, Gujarat, Rajasthan, Madhya Pradesh, West Bengal, Orissa and Jharkhand.

*For more information on BAIF, kindly visit their website at <http://www.baif.org.in/>*

## About this Good Practice

An effective NGO-Community Partnership changes the landscape of a typical dryland ecosystem in five districts in Rajasthan by increasing fodder biomass, grasses, shrubs, trees, water levels and positively impacting on overall livestock productivity. Unpacking this causality, this Good Practice reveals how management of village dynamics, building awareness, finding local solutions and building technical acumen can create ownership and equity in Common Property Resource management.

## SOUTH ASIA Pro Poor Livestock Policy Programme

A joint initiative of NDDB and FAO

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