



Foundation for Ecological Security

Annual Report 2004-2005



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Our Mission

Convinced that Ecological Security is the foundation of equitable and sustainable economic development

- We work 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.
- We undertake any such work either directly, or with and through a range of democratic village institutions, their federal bodies, and Civil Society Organisations as are in our opinion, set up through initiatives that are ecologically enlightened and sustainable as well as socially and economically equitable;
- We strive to ensure the ecological integrity of all such efforts by working, as far as possible, with entire landscapes, and with all the interrelated communities within it, through a range of arrangements on their land and aquatic resources including Commons, Public or Private;
- We work for and promote stability of the ecosystems through the protection and restoration of biological diversity, including the diversity of species, age diversity, genetic variability as well as that of structural composition;
- We collaborate with Panchayat Raj and other democratic village institutions, as well as appropriate Civil Society Organisations, in their effort to contribute towards our objectives, and provide technical and financial assistance to them.

Our Organisation

Registered under the Societies Registration Act XXI, 1860, the Foundation for Ecological Security (FES) was set up in 2001 to reinforce the massive and critical task of ecological restoration in the country, through the concerted and collective efforts of the rural communities, by restoring the biomass productive capacity of the rural landscapes. To achieve this purpose in an environment as complex and diverse as that prevailing in our country, FES endeavours to be an organisation that is imaginative, versatile, innovative and that accelerates the process of people’s participation in ecological restoration of the country. The Foundation looks beyond the human dimension and encompasses the much broader ecological concerns required to ensure the security of the natural processes that human, plant and animal communities, including myriad micro organisms, depend on.

Board of Governors

CHAIRMAN
Amrita Patel

MEMBERS
Duleep Matthai
Samar Singh
AN Yellappa Reddy
JC Daniel
Deepak Tikku
Mahendra Vyas

National Dairy Development Board (NDDB)
National Bank for Agriculture and Rural Development (NABARD)

Jagdeesh Rao
(Ex-officio Member Secretary)

Our Role



offsetting the pressure of an increasing population.

In such a context, we strive for a future that is founded on a holistic understanding of the principles that govern the interrelationships of various life forms and natural systems. The central character of our efforts lies in intertwining principles of nature conservation and local self-governance in order to accelerate efforts on ecological restoration as well as improve the living conditions of the rural poor.

We aim to

highlight the critical role that forests play in sustaining agriculture, animal husbandry and rural livelihoods, so as to surface its true value in the day-to-day lives of rural people. We assist village communities and their conglomerates in designing judicious land use plans by juxtaposing their visions of progress on a sound synthesis of ecological, social and economic considerations. By working on systemic issues we would like to nurture initiatives that would bridge sectoral disciplines, limit linear progressions and trigger a multiplier effect.

We contribute to the enrichment of regional policies and plans of the government by bringing together the freshness, energies and experiences of village communities and the analytical rigour of academicians. We work towards influencing policies to bring home the criticality of Ecological Security as the foundation of socio economic progress.

All life on earth rests on biological foundations. Virtually everything that sustains the daily existence, not only of human beings but also of all forms of life on earth, stems from the existence and interaction of the myriad life forms. We humans are but a fragile strand in what constitutes the most intricate, complex but wondrous web of life.

The problems manifested by the degradation of ecosystems decreasing levels of water tables, shrinking forest cover and increasing area under land degradation are directly and significantly faced by the rural poor who depend on the natural surroundings for their very subsistence. The depletion of water tables across vast stretches of land and in many parts of the country, both urban and rural, is an ecological mishap, for the poor and rich alike, and highlights the need for concerted action at a regional or landscape level diffusing ownership patterns and necessitating critical appraisal of land use choices.

The gradual erosion of collective action that helped nurture and maintain village forests and water bodies and for that matter helped shape civic responsibility on several spheres of rural life, has increased the responsibility of the state both in filling the gaps as well as in taking remedial measures to arrest degradation of natural surroundings and strengthen local self governance. However, decentralisation of governance is still in a nascent stage and the basic institutional infrastructure required in envisioning and determining the future of an area and enabling civic responsibility is insufficient. Fortunately, the ecological footprint of an average Indian farmer is well within permissible limits of dependence on natural surroundings and in a way



cause serious negative impacts on other components of landscape rendering the entire system untenable, we also find the need for overarching regional land use plans and the subsequent reassembling of policies, programmes and machineries to implement such plans.

Institutions in Local Self-governance

Dominant paradigms of development increasingly discount the value of indigenous arrangements that are not merchandisable, and worse still, they tend to promote a trend of individualistic behaviour putting in jeopardy both common properties such as forests and water that are indivisible by their very nature and the village fabric which is probably the most tangible manifestation of governance. On the other hand the larger movement towards decentralised governance offers opportunities to strengthen collective behaviour and fortify village institutions, which would ward off the privatisation of

natural resources as well as promote democratisation of an unequal rural society.

In fostering collective action for the safeguard of natural surroundings, common lands and water in particular, we begin by building on existing practices and reviving institutions of collective action at the habitation level. Norms that are accepted in village life pave the entry for appraising perspectives on future course of action and help evolve codes of collective behaviour and pursuit. Issues concerning conservation of natural resources form the backdrop for discussions on inclusion of all residents particularly the poor and women (as equal partners), their rights and responsibilities, mechanisms for consensus

Among our primary tasks are efforts to understand and strengthen existing local institutions built around the common lands and water bodies. For not only local codes spell traditions of interaction and regulation but also symbolise the onus of governance the bedrock on which lie their perspectives and visions for future.

Ecological Restoration

While Nature functions as a fairly independent system and could perhaps rejuvenate and reach an equally good state in the long run, the direct and immediate impact of the degradation of natural systems would decimate several species and severely effect the poor who depend on natural surroundings for their survival. Moreover the scale and extent of degradation of the natural surroundings and the inadequate attention that such fundamental concerns receive in development planning brings us face-to-face with a situation where concerted action is necessary to halt and reverse such trends.

In the varied ecological settings that we are engaged with, we work along a river basin or a range of hills where there is a preponderance of common lands and where the ecosystems are in a state of disrepair. To begin with, we assist village communities in protecting their forests and grazing lands to enable natural regeneration of the existing rootstock. Blessed with a tropical climate, enrichment with compatible local species hastens the process of succession and the establishment of forest cover. We build information on the lay of the land, the geo-hydrology, biomass, biodiversity and land use patterns and

weave in measures which proximate natural processes so as to lend a helping hand for the natural recovery of the area.

As we go about building a constituency of village communities that is concerned about the area, we plan our actions at a regional level by taking a bird's-eye view of the area, the boundaries of which are defined by ecological considerations and that often span landscapes. We assess the stock and flow of biomass, biodiversity and water across natural and production systems so as to place the relevance of the efforts on regeneration and bring to the table an informed discussion around the permissible levels of extraction so as to draw strategies for conservation action.

On the positive side we notice that the efforts on regeneration are yielding immediate results in the improvement of the moisture regimes, biodiversity and biomass. Where the geo-hydrology supports recharge, the benefits are visible in terms of improved agriculture and animal husbandry. However, we also realise that in most cases the rate of extraction of biomass and water far exceeds the rate of regeneration calling for simultaneous action on improved efficiency in consumption as well as more effective regulatory measures. We also observe that ecological degradation is mostly caused by social and economic factors necessitating an interdisciplinary action in safeguarding Nature. As sectoral programmes seem to





social fabric to eke out a living. In the current political scenario where land redistribution is unimaginable, we work on common lands as that would provide the landless poor both physical and political space as equal members of the village and its future. Besides serving as sinks of water and repositories of biodiversity, commons offer the physical setting to revive the institutional designs that could check individual greed as well as add resilience to village life.

While on the one hand the degradation of natural resources causes impoverishment, tragically on the other the degradation of natural resources is also caused by the poverty of the poor. In the absence of income earning opportunities and with the crop harvests meeting food requirements for up to six months a year, the poor resort to the sale of firewood from the forests or seasonally migrate to the nearby towns. In such situations the wage opportunities associated with improving the condition of forests, farmlands and water ward them off at least temporarily from resorting to felling of forests. While the

improved natural surroundings would eventually yield results in improving food and fodder availability we also work towards reducing their expenditure by promoting traditional medicine, seed banks and composting. In our search for more enduring solutions to safeguard the forests and other natural resources by alleviating poverty conditions, we also find the need to critically examine innovations in improving farmland productivity as well as the issues involved in improving the local wage opportunities.

We see many positive expressions of the inherent potential of the village institutions besides the improvement in the health of natural surroundings. By extending their domain from their initial experience in governing the common lands to other dimensions of village life such as improved agriculture, or improved access to education, they reaffirm our belief that the endurance of the rural economy strongly depends on secure ecological surroundings entwined with effective local governance institutions.

building, and rules for appropriation and provision. As we work with habitations that are contiguous, we see them choose to conglomerate into natural affiliates and in turn evolve into larger institutional associations cutting across habitations and in the process begin negotiating on issues as complex as determining who gains and who loses.

Depending upon the legal status of the land and the institutional options available and with the concerns of the poor always remaining central to our association, we work with Village Forest Committees, Grazing land Committees. Tree Growers' Cooperatives, *Gramya Jungle* Committees, *Van panchayats* and Panchayats. The constitutional recognition that Panchayats are enshrined with, coupled with their custodial rights over natural resources overshadow other institutional options on fundamental concerns such

as universal franchise and legal rights over natural resources. In order to make the decentralisation of governance of natural resources more effective we feel that firstly, it is necessary that the hamlet level *gram sabhas* also get constitutional recognition alongside the Panchayats. Secondly, the constitution of sub committees for safeguarding natural resources should be made mandatory and natural resource management plans should be integrated in panchayat plans. Thirdly, the

various forms of village institutions that have been promoted under different programmes of the Government should be nested within the umbrella of Panchayats.

As more and more villages are coming face to face with critical issues such as conservation by some and exploitation by others, it is imperative that the Government, academia, research bodies and civil society organisations jointly work together in developing long term programmes so that the people see a future for themselves in the plans for the area. A future where people determine conservation action which is both socially just and economically rewarding.

Rural Livelihoods

The erosion of local institutional arrangements and the ineffectiveness of the regulatory mechanisms have exacerbated the process of degradation of natural resources. They have also weakened the basic hub of governance in rural areas rendering the people, particularly the poor, more vulnerable to the uncertainties faced by recurring droughts or crop failures.

The importance of natural resources in the rural economy can hardly be overemphasised in our country where a bulk of the populace continues to depend on forestry, agriculture and animal husbandry for their livelihood. Our concerns are largely centred on the poorer section of the rural society that depends on natural resources and a



While the commons are not only the ground where the contestations of the poor may come into play, the incremental gains from a better commons is sometimes all that the landless get and this is mostly irreplaceable and therefore invaluable.

Our Progress



Nearly two decades have passed since we began, as a pilot project that was aimed at evolving institutional templates to meet basic energy needs of the poor. We have grown into a body that has a sound understanding and experience on supporting and energising processes of collective action in rural communities; strengthening and craft-

ing appropriate institutional designs for the conservation of common lands and other natural resources; appreciating the inter-linkages between different components of an ecosystem; and locating conservation oriented community action in the larger social, economic and ecological trajectories.

In each location about 100 villages are already involved in crafting institutions to govern common lands. Contiguous to one another and falling within the geo-hydrological context of a watershed and the larger river basin the village communities draw all kinds of common and public owned lands into improved conservation regimes. We have been instrumental in influencing State Governments in arranging for long-term lease of revenue wastelands, from 15 years in Orissa and Gujarat, 20 years in Karnataka, 25 years in Rajasthan, 50 years in Andhra Pradesh and 99 years in Madhya Pradesh. Such an arrangement ensures secure tenure over the common lands and produce at a nominal lease fee to the communities. In order to hasten the process of revegetation, the powers to lease vast stretches of revenue wastelands has been delegated to the District Collectors. Till March 2005, 11,060 ha of revenue wastelands, 5,749 ha of grazing lands, 8,383 ha of *Van Panchayat* lands in Uttaranchal and 1,329 ha of *Gramya* Jungle lands in Orissa have been brought under secure tenurial arrangements and management of the village communities.

So far, we have been provided permission to work on 5,936 ha of forestlands in Andhra Pradesh, Rajasthan, Karnataka and Gujarat. In addition forestlands have also been earmarked in Karnataka (90 habitations), Andhra Pradesh (40 habitations) and Rajasthan (70 habitations) under Joint Forest Management arrangements. We work in close coordination with the State Governments. Apart from executing Memorandum of Understanding with the State Governments, State Level Coordination Committees comprising the Secretaries of relevant departments like Forest, Revenue, Rural Development, Cooperation, Agriculture, etc. facilitate the implementation of various initiatives and help scaling up the positive experiences.

A Project Update

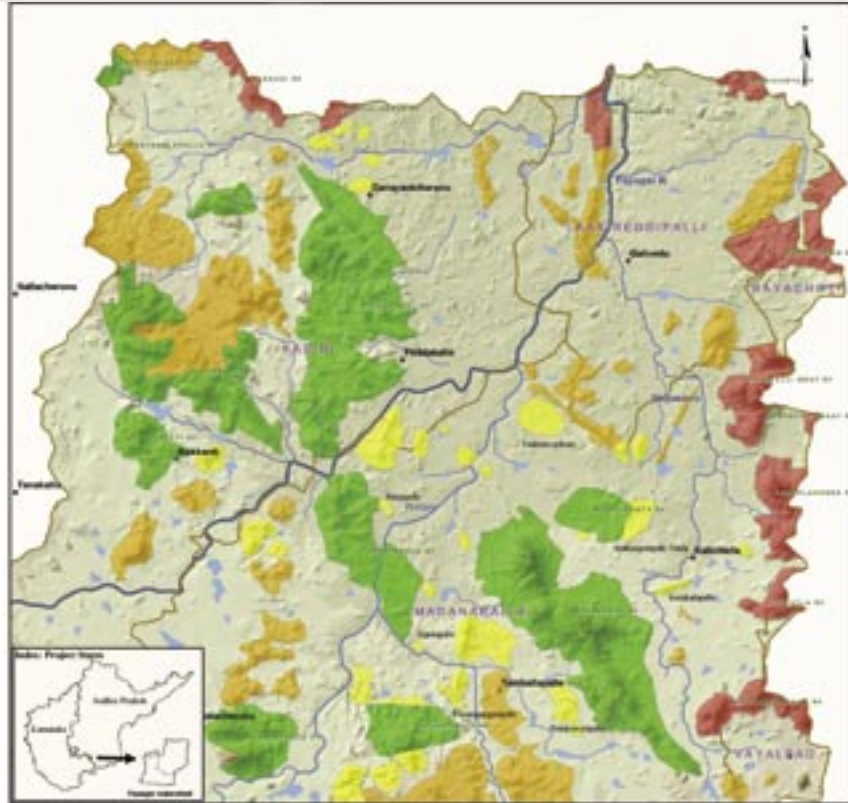
In every location that we are involved in, we continue to work towards improving the local stewardship of natural



resources. We would continue to expand to the adjacent villages and work towards improving the robustness of the village institutions in safeguarding natural resources. Building upon the years of efforts and depending upon the trajectory that each location is progressing on ecological, economic and social dimensions, the areas of strategic action are crafted to suit the niche specificity. Currently, we are specifically oriented towards:

- Restoration of forest cover, common lands and private lands in an inter-related manner in ecologically degraded and economically deprived areas.
- Improvement of grazing lands to offset the pressure on forests in livestock dominated production systems in dryland areas.
- Integration of the management and governance of forests and other natural resources under the *Panchayats* to foster decentralisation of governance over natural resources.
- Improving the economic condition of the poorer people within the communities to ward off the threat that their poverty poses to the viability of the local institutional arrangements to protect forests.
- Capturing critical information on the bio-diversity, water and agriculture systems to highlight their critical value.

Commons Protected by Communities: AP Project



■ Reserve forest protected by communities
 ■ Revenue wasteland protected by communities
■ Reserve forest unprotected
 ■ Revenue wasteland unprotected

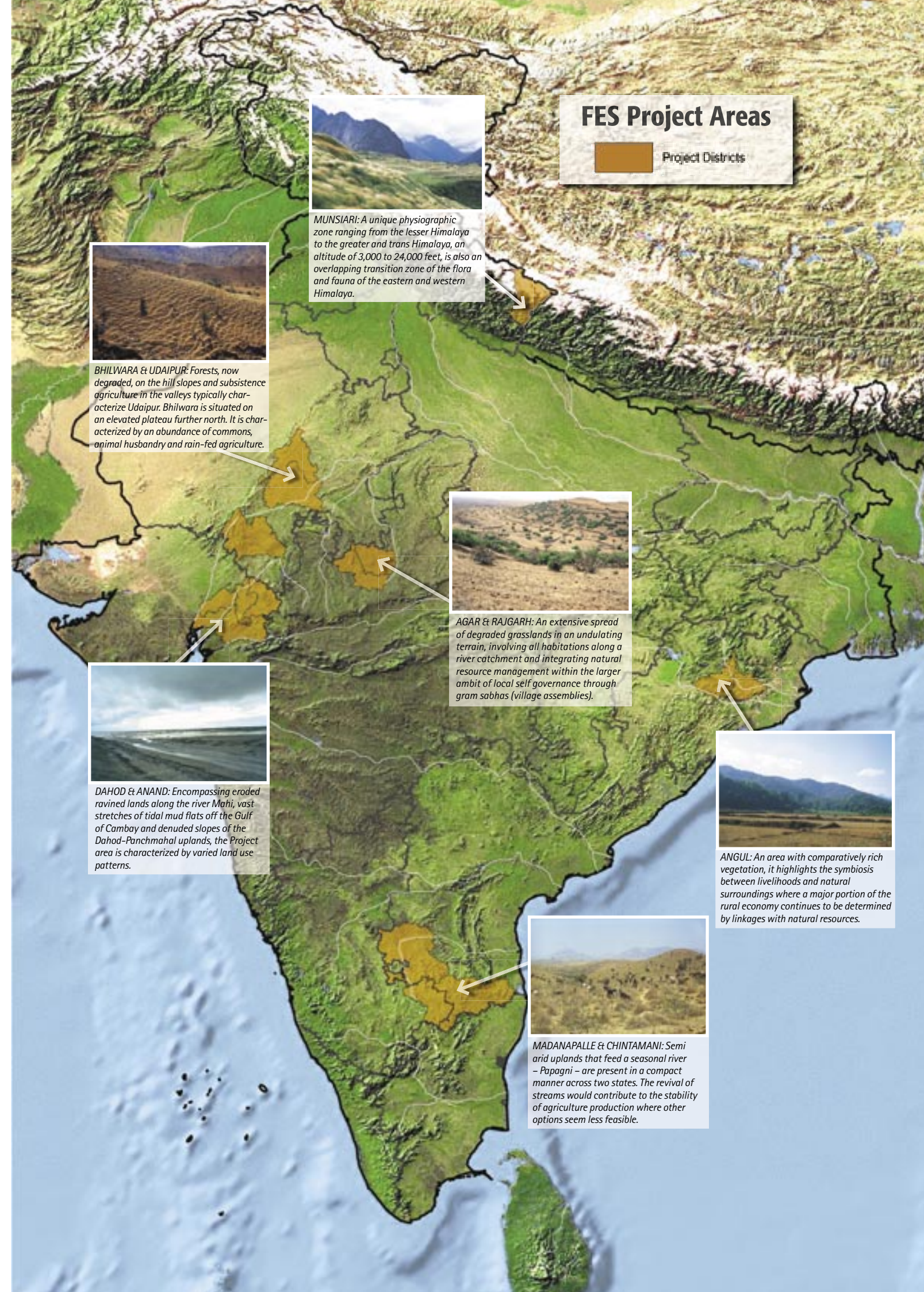
We realise that working on contiguous patches of land across adjacent villages provides both an opportunity to work comprehensively at a scale that conservation action demands, as well as adds complexity in building a common vision amongst its constituencies. While on the one hand it is possible to conceive issues of recharging ground water or reviving forest cover only at such scale, it also brings in dimensions of some people conserving while others are exploiting. In such a situation we are working towards firstly improving the livelihood conditions of the poor so as to improve the robustness of the village institutions to safeguard the natural surroundings. Secondly, we are building information on the patterns of extraction and availability of natural resources by inviting local academia, research bodies and government departments to collate data and draw plans of action. In parallel, we are preparing the ground for future discussion on the more contentious issues by presently

supporting conglomerates of village institutions on issues that bind them together. It remains to be seen whether the conglomerates would evolve into conscientious forums that determine conservation action and carry the conviction to its implementation.

- Accelerating measures to conserve the use of firewood and water through energy and water conservation measures.

Progress in Brief

- **Project locations:** Seven states namely Uttarakhand, Madhya Pradesh, Rajasthan, Andhra Pradesh, Karnataka, Gujarat and Orissa, Nine Teams spread across 21 districts
- **Memorandum of Understanding signed** and State and District Level Coordination Committees (interdepartmental committees) constituted to facilitate smooth implementation of FES Projects in all project states
- **Agreements signed with State Governments** for lease of revenue wastelands to community institutions associated with FES ranging from 15 to 99 years at nominal fees
- **Number of households worked with:** 98,677 comprising an adult population of around 320,000 people
- **Number of village institutions associated with:** 973
- **Nature of institutions:** 540 Tree Growers' Cooperatives, 64 *Van Panchayats*, 40 Village Committees on *Gramya* Jungle lands, 41 Grazing Land Development Committees, 167 Village Forest Committees, 49 *Panchayat Raj* Institutions and 72 Village Committees
- **Area under community governance:** 82,995 hectares
- **Area under secure tenure:** 32,457 hectares
- **Area upon which Soil and Moisture Conservation and Revegetation measures have been undertaken:** 32,227 hectares
- **Number of person days of employment generated:** 4.48 million days



FES Project Areas

■ Project Districts



MUNSIARI: A unique physiographic zone ranging from the lesser Himalaya to the greater and trans Himalaya, an altitude of 3,000 to 24,000 feet, is also an overlapping transition zone of the flora and fauna of the eastern and western Himalaya.



BHILWARA & UDAIPUR: Forests, now degraded, on the hill slopes and subsistence agriculture in the valleys typically characterize Udaipur. Bhilwara is situated on an elevated plateau further north. It is characterized by an abundance of commons, animal husbandry and rain-fed agriculture.



AGAR & RAJGARH: An extensive spread of degraded grasslands in an undulating terrain, involving all habitations along a river catchment and integrating natural resource management within the larger ambit of local self governance through gram sabhas (village assemblies).



DAHOD & ANAND: Encompassing eroded ravined lands along the river Mahi, vast stretches of tidal mud flats off the Gulf of Cambay and denuded slopes of the Dahod-Panchmahal uplands, the Project area is characterized by varied land use patterns.

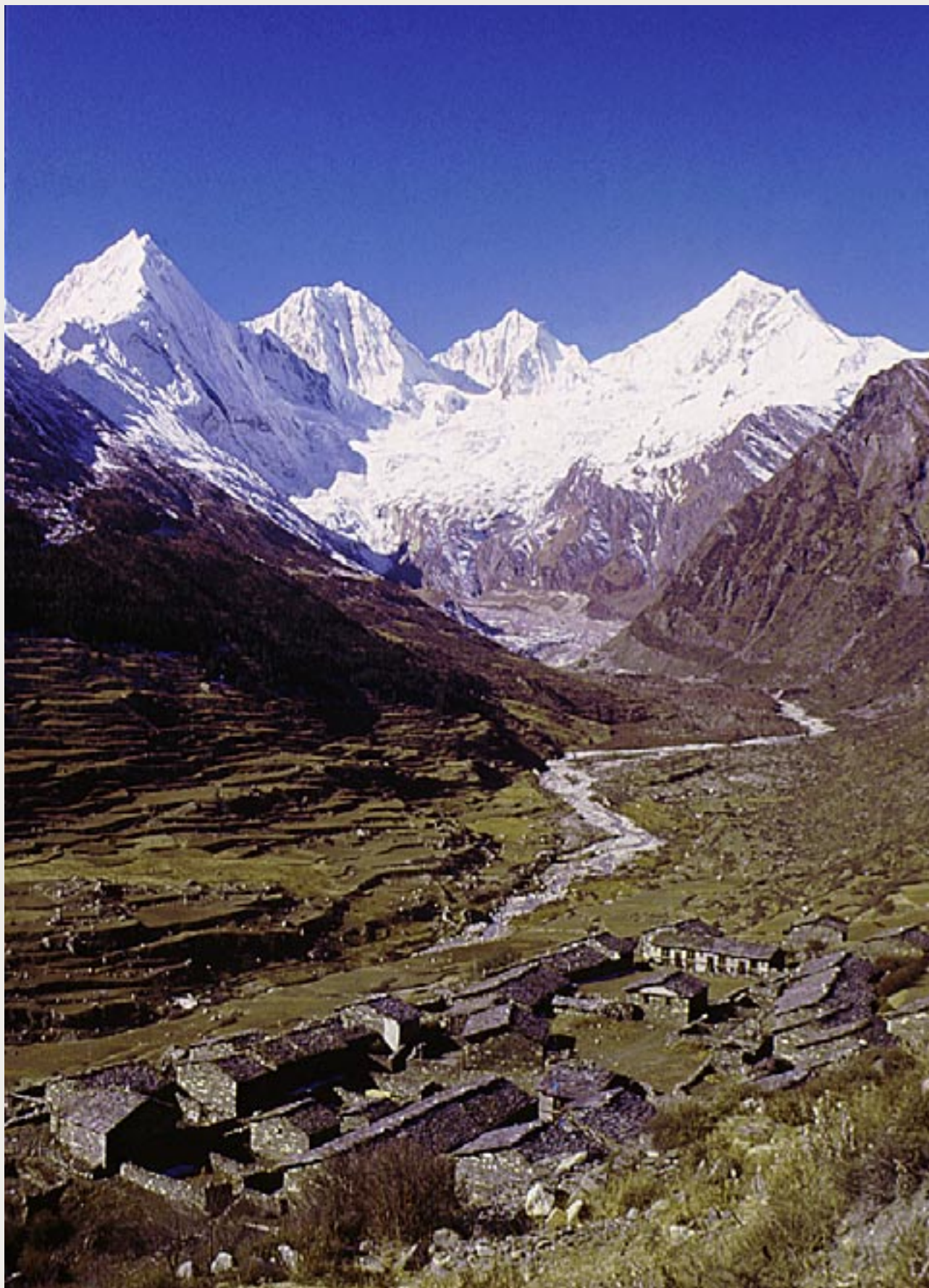


ANGUL: An area with comparatively rich vegetation, it highlights the symbiosis between livelihoods and natural surroundings where a major portion of the rural economy continues to be determined by linkages with natural resources.



MADANAPALLE & CHINTAMANI: Semi arid uplands that feed a seasonal river – Papagni – are present in a compact manner across two states. The revival of streams would contribute to the stability of agriculture production where other options seem less feasible.

Mountain Ecosystems – The Himalaya Region



The entire arc of the Himalaya is huge, and spans four nations, India, Nepal, Bhutan and Pakistan. It encompasses 10 whole states of India, and portions of two other states. It constitutes the borders with Tibet and Myanmar. In India alone, the area that falls in the Himalaya is 23,87,590 square kilometers. The biodiversity, which is astounding on the one hand, is extremely fragile on the other. In recognition of the critical importance of the Himalaya as a region where the four main rivers that feed the sub-continent originate, we focus on the Himalayan mountain systems for greater efforts and involvement.

There are presently two components to our work in the Himalaya Region. The first is the Gori Basin Project that was initiated in 1992 and works in one of the most ecologically critical yet threatened landscapes of the Himalaya. The second is the Himalaya Region Office that was set up in 2001 and which works with the Gori Project on certain conservation and livelihoods linkages as well as coordinates efforts and resources at a regional or wider scale, and undertakes to collect, analyze, and communicate data and information on certain critical elements and trajectories of landuse and ecological integrity in mountain areas.

In order to deepen the understanding, the collection of locational data on a few aspects of the 'ecological integrity' of certain sensitive areas in the region has been initiated. Several studies and surveys have been undertaken, among these have been surveys to record the presence-absence of diversity and extent of poaching of Galliformes in a few select areas, inventorying fauna and the monitoring of two trails frequented by wild animals. A study on the aquatic habitat and species diversity of the Gori and fifteen of its tributaries has been undertaken to assess the diversity of fish species in the river system. A study on land-use intensities and degradation was undertaken and successive data on buffalo graziers in sub-alpine forest areas in Munsiri has been collected.

The Himalaya Region initiative has for some years been exploring with communities, and seeking also to revive and demonstrate a few livelihoods options that could strengthen food security, encourage sustainable use, and take some pressure off commercial extraction of wild resources. Efforts are being made over the last two years to provide good quality indigenous vegetable seed suitable to the varying altitude and climates of the area. Seeds are procured from Ladakh and other high altitude mountain agriculture research stations and made available to farmers. To date 150 kilograms of vegetable seed of 19 species and 858 kilograms of foodgrain seeds of six species have

been supplied.

With the last herd of yaks disappearing around two decades ago from the area, the Himalaya Region initiative took up the challenge of keeping alive the knowledge of husbanding this highly valuable animal of the high altitude pastoralists. A yak breeding programme has been underway from 1996 and a nucleus herd of twenty has been built. The first home born bull brought up to range with cattle is now mating with them and has sired and produced 60 cow-yak hybrids so far. Apart from being a most versatile and valuable animal for alpine areas, for milk, pack and draught, the calves are also selling at very remunerative prices.

To reduce the pressure on wild stock of fish and with a view to curb their harvest through intensive methods, work on community owned tank fisheries was initiated last year. Training programmes on fish rearing, maintenance, and harvest have been organized and a community fish tank constructed in one village in which common carp fish have been seeded.

Community managed eco-tourism is emerging as one possible non-extractive means of livelihood in such wilderness areas, and has demonstrated that it could be an incentive to conserve, if the flow of benefits are broad-based. In an initiative launched last year, two eco-tourism planning workshops have been held with and by village communities and a presentation on the proceedings made to the Forest Department.



The Gori River Basin Project, Munsiari



FACT FILE

PROJECT DISTRICT: **Pithoragarh**

FOREST TYPES: **Broad Leaf Deciduous, Needle Leaf Forest**

RIVER BASIN: **Gori**

VILLAGE INSTITUTIONS: **89**

AREA UNDER PROTECTION: **11,682** hectares

TOTAL HOUSEHOLDS: **4,355**

The 2,240 square kilometre Gori River basin in North-eastern Kumaon has been the focus of our work in the Himalaya since 1992. The range of altitudes from 560 metres above mean sea level (msl) to 7,434 above msl along with the latitudinal geographic progression of the Himalaya from the Lower Himalaya, through the Greater Himalaya, to the Trans Himalaya present very diverse climate types. These range from the hot sub-tropical valleys to the Polar or Nival zone. The basin comprises two biodiversity hotspots the Panchachuli Basin and the Ralam Valley, widely recognized as such in scientific and conservation research. The economy is essentially agricul-

ture based, and both agriculture and animal husbandry are forest dependent.

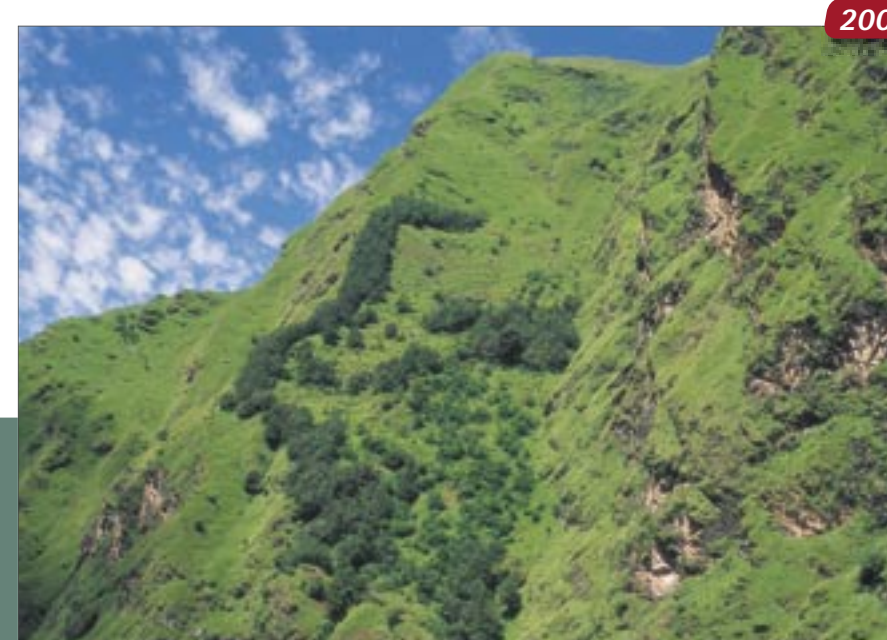
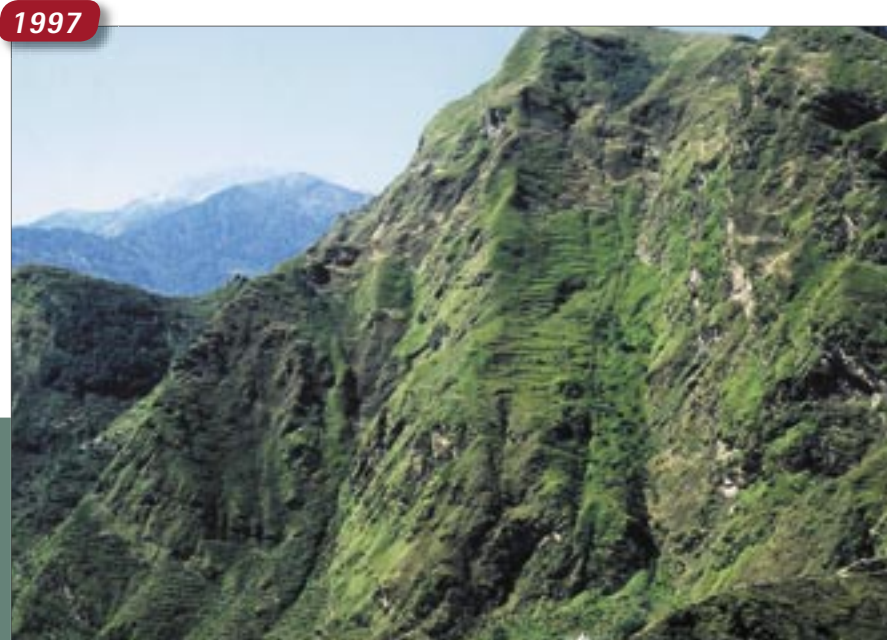
The mountain soils in the valley are poor in nutrients, and to produce crops require to be constantly supplemented with humus and manure. This is possible only through heavy nutrient cycling from surrounding forests and grasslands, by conversion through animal husbandry. The majority of the land-

holdings are small and marginal, and highly fragmented. Agriculture is able to meet only a part of a household's food requirements, and local communities have little choice other than to depend heavily on the surrounding forests and alpine grasslands, for animal husbandry and for extractive use. The largely subsistence economy is propped up by money-order remittances by those who manage to land jobs elsewhere, notably in the armed forces.

Of the 173 revenue villages in the Gori Valley, we are working with 74 revenue villages comprising 89 village institutions, a majority of which are *Van Panchayats* or Village Forest Councils. The working of these councils are guided by *Van Panchayat* rules originally put together in the early 1900's by a committee formed by our erstwhile British rulers, which granted secure tenure to communities over village forests. Over the years we have been involved in revegetation activities that involves soil and moisture conservation, planting, seeding and natural regeneration that makes up a bulk of our work. Reviving and strengthening other natural resources based commons that include community owned watermills, springs and seepages have also been undertaken. The efforts being made on protection and regeneration of forest resources have gradually progressed to exploring innovative projects and activities to strengthen livelihoods founded on natural resources.

- Plantation and seeding of 44 species were supported in 52 *Van Panchayats*. About 131,000 saplings were planted; these were drawn from 110 small village nurseries. About 386 kg of seed were sown; these were collected from surrounding forests.
- Damage to forests from fire has been a major threat to the well being of the forest commons. During the current year a group of traditional folk musicians were mobilized to carry the message about the harmful effects of forest fires and the preventive measures to be undertaken.
- The Government introduced in 2001, a new set of rules to govern the functioning of the *Van Panchayats*, which among others require all *Van Panchayats* to make and submit to the forest department five year microplans for undertaking any activity in the *Van Panchayat* lands. During the year we were involved in assisting many *Van Panchayats* in the process of making such microplans.
- We also supported many *Van Panchayats* in the formalization of many commonly understood but undocumented rules, and detailed planning and budgeting. An attempt was made to include all members of the institution, elected representatives of the relevant *Panchayati Raj* Institutions and members of the Forest Department in the exercise.
- We have been supporting communities to improve existing watermills or build new watermills using improved traditional designs and constructed from locally available better quality material. With an abundance of perennial streams, in the region, the potential for very small multi purpose hydro energy units is tremendous. Building on the experience of work on watermills, work on constructing a multi-purpose watermill was initiated. A total of 4 villages would directly benefit from this small multipurpose hydro project.

Taking advantage of the policy of the State Government to encourage the creation of new Van Panchayats and transfer of the Civil Soyam Land to these new Van Panchayats, members of the Waiga Cooperative, convinced of the better tenurial security offered by Van Panchayats, took a decision in 1998 to change the form of institution converting their leased land into a Van Panchayat.



Waiga, a project village which had no *Van Panchayat* land and was dependent on neighbouring villages for fodder was provided support to form and develop their own *Van Panchayat* resulting in each household getting around 2.8 tons of fodder per year. Adequate availability of fodder and an increase in the number

Forests and Dryland Agriculture



A significant proportion of the geographical area of India comprises arid and semi-arid tracts, which are home to a significant proportion of the human and livestock population of the country. We work with communities inhabiting the semi-arid regions of western Madhya Pradesh and

south-eastern Rajasthan and the dry rain-shadow area of the southern Deccan plateau in Madanapalle, Andhra Pradesh and Chintamani, Karnataka. With an average annual rainfall of 600 to 800 mm most of the local communities earn their livelihood through rainfed agricul-

ture and mixed rainfed livestock production systems. In these locations as much as 40 to 50 per cent of landfalls under revenue, grazing and forestland categories, which are characterised by dry deciduous and thorn and scrub forests. With scanty rainfall and high evaporation rates the deciduous forests and the scrub jungles of the drylands are appropriate systems to convert nutrients into biomass and reduce the run off of water and soil, the critical components of rainfed production systems.

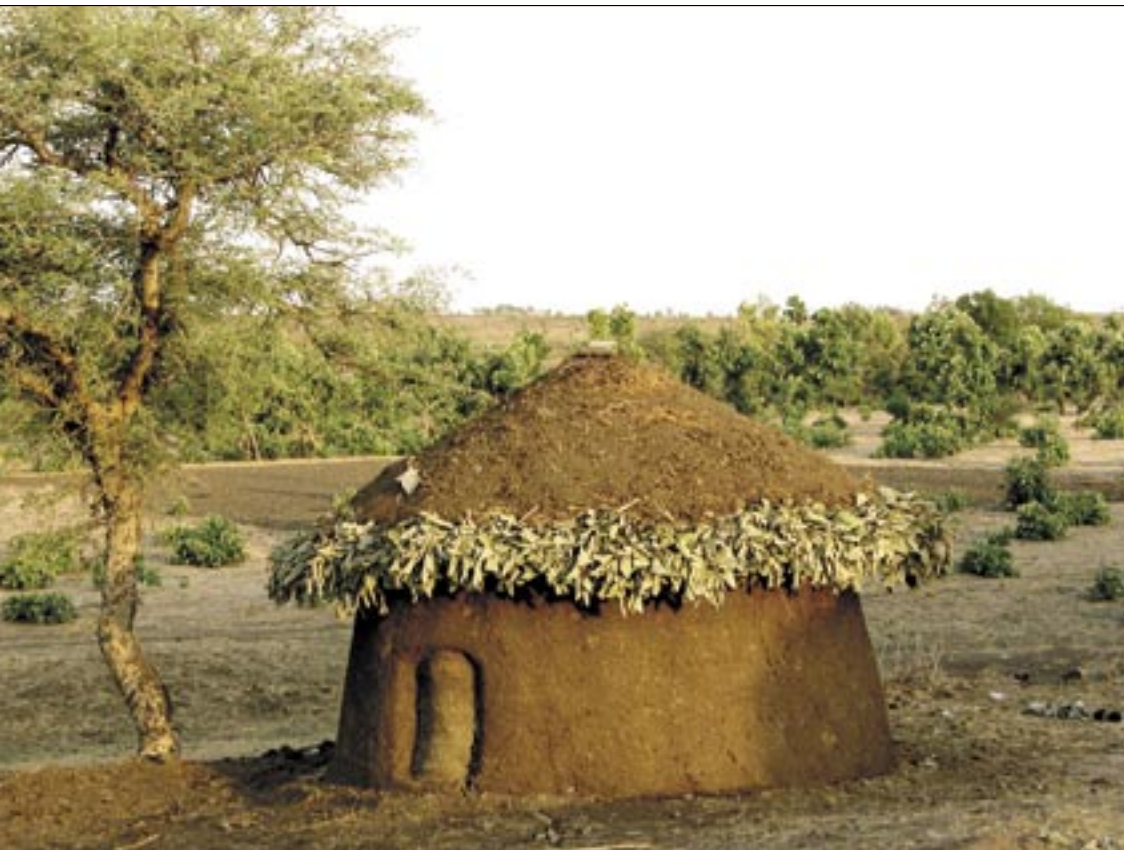
In recent decades drylands have been subject to extensive degradation, the loss of vegetative cover has resulted in the erosion of the fertile topsoil. The changing land use and unsustainable cropping patterns further compounded by poor water management practices have led to further loss of soil fertility and the depletion and decline of both ground and surface water sources. The gradual erosion in the institutional arrangements that once determined the norms for collective regulation of the common lands has led to these lands being largely perceived as an open access resource and resulted in widespread encroachment and degradation of these lands. The decreased availability of fodder, water and loss of farm productivity has resulted in significant changes in the composition of livestock, reduced farm yields as well as a decline in household incomes. The presence of several castes and varied economic opportunities adds further complexity to issues of governance of common property resources.

Our work in these settings is centred on the revival of the productivity of the common lands in a contiguous manner coupled by the rejuvenation and strengthening of the local governing institutions. Measures that assist local communities in improving the regenerative capacities of the common lands through natural regeneration and soil and moisture conservation go hand in hand with arranging for a better tenure over common lands to the village institutions and creating spaces for the disadvantaged sections. Over the years contiguous village institutions have come together under the umbrella of larger federations that have not only brought a large area of commons under protection and management of local communities but have also provided a platform to discuss issues of concern and mutual benefit. These forums play a key role in resolving conflicts across administrative boundaries and in negotiating with the local administration on the larger development issues of the region.

Studies indicate a significant increase in biomass and water availability, which in turn have led to improvements in farm productivity, livestock health and milk production. Information on rates of regeneration and removal of biomass and on the availability and current patterns of water use are being shared with the local communities. This has resulted in an increased dialogue and debate within village institutions and their representative federations on issues such as the type of crops sown, the extraction of groundwater, and the sale of fuelwood and fodder from the common lands.



Agar and Rajgarh, Madhya Pradesh



In Madhya Pradesh we initiated our efforts in the Lakhundar river basin in Shajapur district in 1997 and in the Gadganga basin in Rajgarh district in 2001. The region is a part of the Malwa Plateau and characterized by a topography that is largely undulating with scattered hills that form a backdrop. Agriculture and animal husbandry are the dominant livelihoods. The proportion of common lands has been steadily decreasing, with most of the common lands belonging to the revenue wasteland category being turned into private holdings, legally in some cases and mostly encroached upon for the purposes of grazing and agriculture.

ture content of the farms in the downstream of the common lands and water harvesting structures. Besides, the recharge has also led to the revival of many wells significantly increasing the productivity and area under single and double cropping.

With the strengthening of the institutional mechanisms for governing the common lands, the village level institutions and their conglomerates particularly in Agar tehsil has been instrumental in building discussion and peer pressure on freeing 397 hectares of common land encroached by big farmers in as many as 22 villages. Such conglomerates with the help of the district officials have also been successfully negotiating mutually acceptable routes with migratory herders from Rajasthan thereby reducing conflicts and confrontations over unregulated grazing by the camels and sheep of the herders.

The fourth tier *gram sabha* with its mandatory sub committees for the governance of natural resources served as an effective habitation level institution both for the operational management of natural resources as well as developing a link between the larger *Panchayat* and the habitation level assemblies. However, due to the recent withdrawal of the mandatory sub-committee for the management of natural resources and the post of the treasurer (*koshadhyaksh*) at the *gram sabha* level, we face the added responsibility of convincing the *Panchayats* of the need for constituting sub committees. At an operational level we would involve ourselves in mobilising all the constituent hamlets of the *Panchayat* to constitute such a sub committee, and at a policy level we would seek for measures that would offer more permanence to such sub committees to insulate them from dissolution should the larger Panchayat find it convenient to do so.

FACT FILE

PROJECT DISTRICTS: **Shajapur and Rajgarh**

FOREST TYPES: **Dry Deciduous, Tropical Thorn Forest, Scrub Forest**

RIVER BASIN: **Lakunder and Gadganga**

VILLAGE INSTITUTIONS: **45**

AREA UNDER PROTECTION: **6,895** hectares

TOTAL HOUSEHOLDS: **3,233**

The acute scarcity of fodder and drinking water for livestock has led to our focussing on the regeneration of the commons and aiding the recharge and retention of water. The soil and moisture conservation activities undertaken on common lands have resulted in an increased availability of drinking water for livestock and human beings, increase in fodder and improved the mois-

2002



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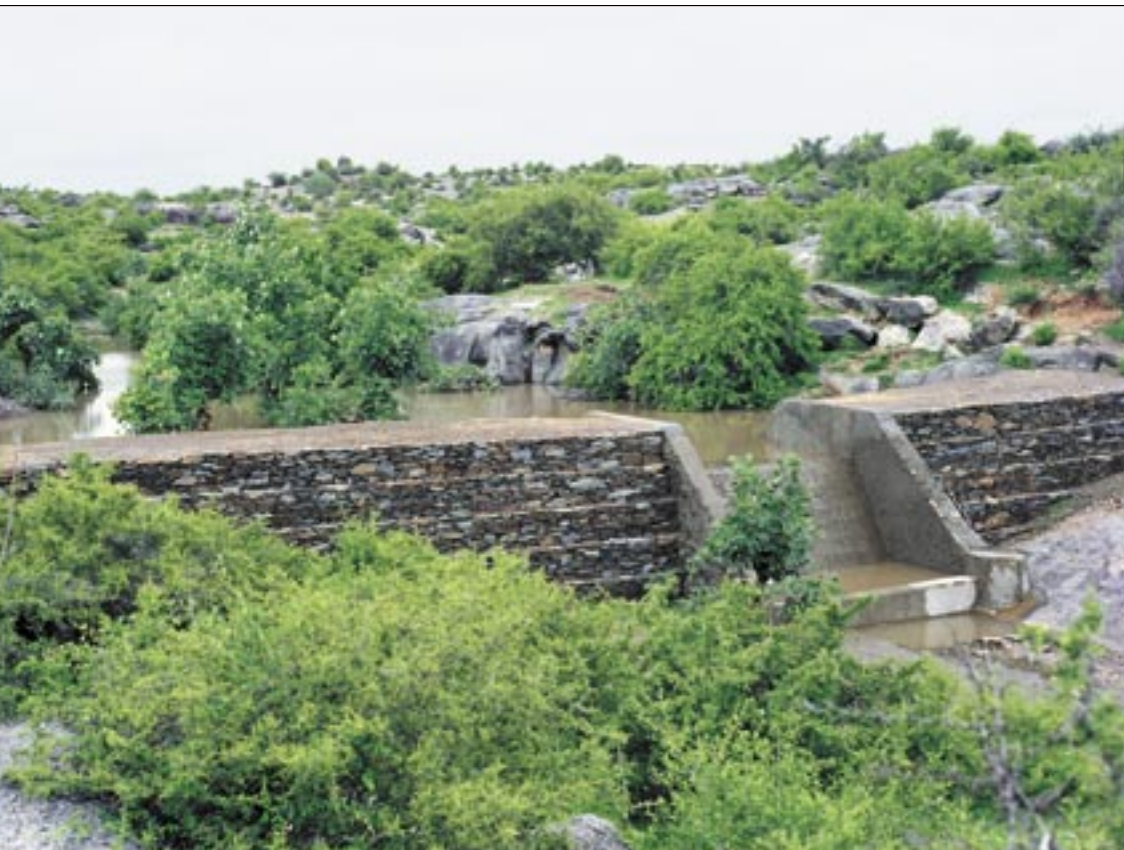
2005



- Soil and moisture conservation activities were undertaken on 260 hectares of common land with over seeds of 26 species being planted on these lands to aid regeneration. Special emphasis was given for live fencing of the common lands. 17 new water-harvesting structures were constructed.
- Conglomerates of village institutions spread across 5 to 8 villages interact frequently. In a larger forum that spreads across 40 institutions and that discuss measures to ensure protection and regeneration of common lands, the members also interacted with the district administration and the forest officials for negotiation with the herders from Rajasthan on the grazing routes.
- Complementing the funds that we source, the village institutions accessed over Rs. 1.3 million from the public health, horticulture and forest departments for activities relating to regeneration and moisture conservation, in a way channeling public expenditure to areas where help is needed.
- Energy conservation devices are picking up in the villages in Agar area considering that most of the households depend on animal husbandry as a secondary occupation. 33 biogas plants were constructed in 12 villages, which are being used for cooking, lighting and running engines besides using the slurry as manure.
- To avoid incidences of overlap in undertaking watershed development activities, discussions were held with officials on the need to share information on each other's plan and work towards joint implementation wherein we took the responsibility on aspects concerning strengthening institutions and the funding and technical aspects were to be carried out by the government. Similarly, in an attempt to better integrate our activities with larger government programmes several senior government officials visited the villages and appraised the activities.

The increased availability of water and fodder from the common lands in Salari village led to an improvement in cattle health and productivity. In addition some of the households purchased better quality animals all of which together led to an increase in their income by Rs. 3.29 lakh per annum from dairying. Custard apples and Carissa caranda worth Rs. 78,000 were also harvested from the common lands.

Bhilwara, Rajasthan



Bhilwara is located on a raised plateau in the south-eastern part of Rajasthan. Work was initiated in the region in 1995 and is spread over parts of six blocks, Mandalgarh, Mandal, Asind and Raipur blocks of Bhilwara district and Pisangan and Masuda blocks of Ajmer district.

During the past decade, in a region characterised by scrubland and dry deciduous forests, mixed rainfed farming and periodic droughts, over 25,000 hectares of land have been brought under protection by 231 village institutions. The intrinsic linkages, the vast tracts of common lands that are available in the region have with animal husbandry and subsistence agriculture in

moisture regimes and increased availability of water. This in turn has led to a marked increase in agricultural productivity, including vegetable cultivation and increased milk production.

As agricultural and land-use practices change and farmers resort to further exploitation of the nearly depleted groundwater sources of the region for their irrigation needs, village institutions have provided a forum for villagers to dialogue and take action on issues such as banning the sinking of new borewells. The informal assembly of village institutions have increasingly grown into a role where they have evolved into a platform for constituent members to collectively dialogue with government officials as well as with the political leadership making way for better integration and implementation of schemes and programmes for their region.

Several development agencies working in the area namely BAIF, CARE, CUTS, Bhilwara-Chittorgarh Milk Union and FES, with representatives from NDDDB and NABARD set up the *Sanjha Prayas*, a collaborative effort to work on the development issues of the region. In order to surface issues of conservation of natural resources and their collective regulation for sustainable use, a collective of 40 villages with support from local government and other development agencies organized a *Chetna Padyatra* – a six-day long campaign on foot that covered 45 villages in the Mandalgarh area.

We are undertaking various actions ranging from mapping of soil fertility and analysis of soil sedimentation to comprehending the design principles that give robustness to village institutions so as to provide appropriate information that aid village conglomerates in articulating their concerns of conservation. Further building upon the work of the past decade, we are expanding our work, with collaboration of various agencies, to newer areas as well as in working towards strengthening the inter-linkages of commons, agriculture and animal husbandry production systems.

FACT FILE

PROJECT DISTRICTS: **Ajmer, Jaipur and Bhilwara**

FOREST TYPES: **Dry Deciduous, Tropical Thorn Forest, Scrub Forest**

RIVER BASIN: **Mej, Menali and Lirri**

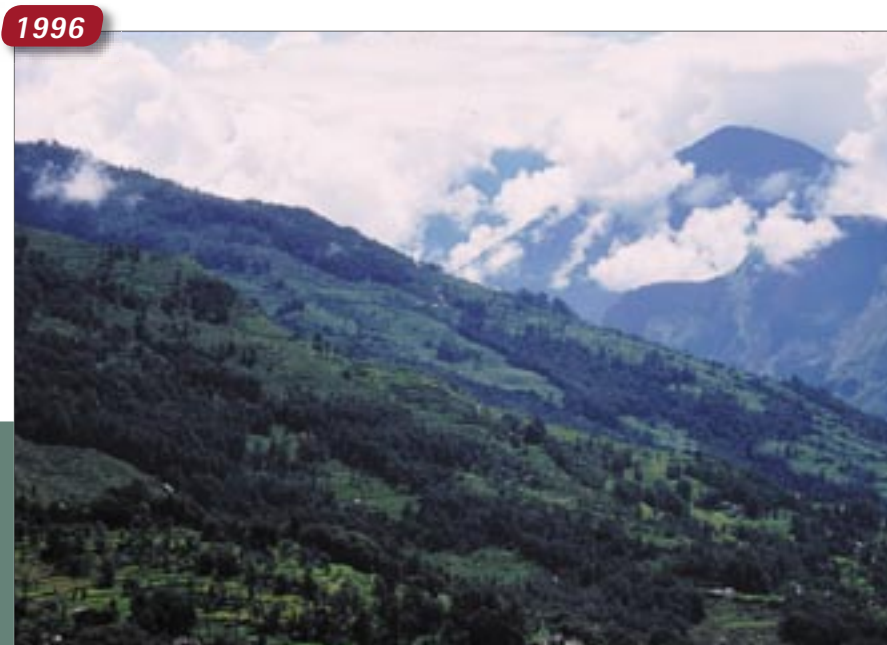
VILLAGE INSTITUTIONS: **231**

AREA UNDER PROTECTION: **25,369** hectares

TOTAL HOUSEHOLDS: **30,410**

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maintaining water and nutrient flows of the local production systems, are being strengthened by numerous measures aimed at improving the vegetation on commons and farmlands. The restoration of revenue wastelands, grazing lands and degraded forestlands which constitute 60 per cent of the area has yielded various benefits such as increased fodder availability, improved soil



1996



2005

- During the year, soil and moisture conservation activities were undertaken on over 1,200 hectares of common lands, around 48,000 saplings were planted on these and 31 water harvesting structures were constructed. The successful regeneration over time of native grass species has encouraged us to review the regeneration strategy and step up the collection of seeds and seeding of the local species. A diverse mix of grass species was propagated, including grasses that are more conducive to arid zones.
- To enable democratic and representative decision-making several training and capacity building programmes were undertaken. *Kala Jathas* or traditional folk theatre programmes were used to initiate dialogues on complex issues of caste, class, gender, and resource-use.
- Attempts are underway to develop a pool of trainers from within the communities. These trainers will eventually support village institutions across the project area in drawing up their resource protection, development and governance plans.
- Village institutions have been discussing the specific shape that their conglomerates should take in order to be more effective – with smaller groups of village institutions dealing with local level issues and the larger assemblage continuing to play a networking and liaisoning role.
- Regular meetings with district officials and organizing their visits to project villages were continued. District officials conferred upon one of the village institutions – *Kangsa ka Badia*, a certificate of appreciation for their efforts in regeneration and water harvesting.
- The joint initiative with other NGOs and Bhilwara Dairy resulted in Bhilwara Dairy opening a new milk route to include three project villages. Similarly, CUTS, with support from NABARD, is looking to initiate community based self help groups through village institutions formed in existing project villages.

The increased availability of water and fodder in Thoria village has led to the milk procurement going up from 1.74 lakh litres in 1995 to 6.46 lakh litres in 2005, adding Rs. 13,000 to the gross annual household income. 675 households started to grow vegetables as a third crop adding a further Rs. 2,500 to their income.

Madanapalle, Andhra Pradesh



Initiated about 18 years ago we gradually progressed to working with about 175 villages in the north western blocks of Chittoor and south eastern blocks of Anantapur Districts with communities that inhabit the catchments of the river *Papagni* and two of its feeder streams. The semi-arid region is characterised by hills, many of them barren and most of which are forestlands, with grazing and revenue wastelands on the lower slopes. In the absence of adequate vegetative cover the average annual precipitation of 600-800 mm, is mostly lost as runoff, increasing dependence on groundwater to meet irrigation needs and frequently resulting in scarcity of drinking water for livestock during summers.

regimes, the repair and construction of small ponds around seepage flows helped cater to the drinking water requirements of cattle even during six years of consecutive drought. With increased availability of fodder and water, most of the farmers have taken to dairying as an income earning opportunity that can help offset the uncertainties associated with rainfed agriculture. On the other hand, frequent interaction within village communities have resulted in generating discussion that are not necessarily limited to the governance of natural resources but also extend to other aspects of village life.

Studies undertaken to inform strategic direction indicate that while there has been significant improvement in the biomass availability, the patterns of current level of extraction are untenable, warranting corrective measures aimed at both increasing energy conservation measures and augmenting the supply of firewood from lands other than commons. Moreover, the collective choice arrangements arrived at by the local communities, in refraining from harvesting firewood from the regenerating forests, has necessitated a search for alternate livelihood options for the poor who resort to sale of firewood to nearby towns during periods of scarcity. With most of the hills already under protection by improved vegetative cover and soils and moisture conservation measures, we are progressing towards improving the phyto-mass and soil moisture on the mid slopes that lie below the hills and that are typically owned by the poor.

Discussion within village institutions and their federations have now gone beyond issues of protection to deliberations upon patterns of extraction and the need to evolve mechanisms to ensure that rates of biomass and water extraction do not exceed rates of regeneration and recharge. Moreover, such meetings are also becoming forums to interact proactively on issues that concern the region. On the one hand the village representatives are actively discussing the need for initiating action on the marketing of milk and vegetables, and on the other, the need to increase the interaction with Government officials in shaping the effective delivery of the development programmes.

FACT FILE

PROJECT DISTRICTS: **Chittoor and Anantapur**

FOREST TYPES: **Dry Deciduous, Tropical Thorn Forest, Scrub Forest**

RIVER BASIN: **Papagni**

VILLAGE INSTITUTIONS: **174**

AREA UNDER PROTECTION: **12,425** hectares

TOTAL HOUSEHOLDS: **7,866**

Over the years nearly 12,000 hectares of revenue wastelands and forest-land in contiguous patches have been brought under protection by village institutions as a result of which ranges of hills show improved forest cover. While the implementation of revegetation and soil and moisture conservation measures resulted in improving the biomass and sub surface moisture

1990



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2005



- 10 new village institutions were formed under the Community Forest Management arrangements, soil and water conservation work was undertaken on 200 hectares of land and 49 water harvesting structures were constructed.
- Continuing with the efforts being made to reduce the consumption of firewood, 18 biogas plants were constructed. As a pilot initiative, one improved *bhatti* (wood-based stove) was installed in collaboration with Technology Informatics Design Endeavour (TIDE), Bangalore, in a residential school which is a major consumer of fuel wood for providing meals to the children.
- 19 meetings of the forums were held during the year and amongst the issues discussed were the need to evolve systems to curtail the illegal sale of fuel wood, illegal sand mining, preventing fires, and capacity building of members of the forum on the provisions of Community Forest Management arrangement and the Andhra Pradesh Mutually Aided Cooperatives Act, 1995. The campaign to prevent fires and encourage resource protection was continued and groups of local artistes from 6 project villages performed street plays and held meetings with communities in 49 villages.
- A study on the effects of fire and grazing on forests revealed the massive impact of these factors on regeneration potential of the forest. The preliminary inferences of the study are being used to strengthen the communication campaign to prevent fire. Another study to make a water audit of the area is being undertaken in collaboration with Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore. The documentation of fodder species, ethno-veterinary medicine and traditional healing practices is also being undertaken jointly with Anthra, Hyderabad.
- The Government of Andhra Pradesh agreed to the plans to expand the activities to the neighbouring blocks of Chittoor and Anantapur districts and to extend the lease period of revenue wastelands to the village institutions to 50 years from the present 20 years.

The construction of *Chalamus* (cattle ponds) with a water holding capacities of 22 million litres of water across the project area meant that water was available throughout the summer in villages such as Chennappagaripalle where villagers continued to stay on instead of migrating with their animals or leaving them at the cattle camps as was the practice earlier.

Chintamani, Karnataka



We work in the catchment areas of river Papagni that eventually flows into river Pen-nar in the adjoining districts of Andhra Pradesh. Boulder strewn hills largely devoid of vegetation and falling under forestland category, with degraded grazing lands in the lower reaches and rain-fed agriculture in the foothills and plains characterize the landscape. Dependence on common lands for fuel wood and fodder is high and is often the only source for the poorer sections of the community. The numerous tanks and cattle ponds that dot the landscape have silted up over the years affecting availability of water for irrigation and for livestock in summer.

Committees.

We are recognized as one among the few organizations in the state that work with *Panchayati Raj* Institutions on issues of development and governance of natural resources. The recent amendment in the Karnataka Panchayati Raj Act mandating that *ward sabhas* be held before convening the *gram sabha* has further facilitated our efforts of working with habitation-level subcommittees for management of natural resources, with governance aspects overseen by the larger body of *panchayat*. Though the approach of working with the habitation-level subcommittees has insulated their efforts on conservation from being affected by larger partisan politics that often plague the functioning of *panchayats*, we recognise that subcommittees have to strategically engage with *gram panchayats* so as to involve the larger body in the governance of natural resources as well as partake in other development initiatives of the *panchayat*. The Village Forest Committees that work on forestlands under the Joint Forest Management (JFM) arrangements also need to be gradually brought under the ambit of *panchayats*.

In order to mainstream the natural resource management initiatives of the subcommittees in the *gram panchayats* and strengthen their governance, initiatives are being taken to incorporate the natural resource management plans of the constituent subcommittees in the annual plans of the *gram panchayats*.

Training programmes are being developed to build the capacity of the subcommittees and *gram panchayats* in aspects of governance in general and natural resource management in particular. These efforts need to be complemented with initiatives that build a constituency of like-minded people, academic and government institutions, and people's representatives, which can efficiently articulate the concerns of the local communities as well as shape the decisions concerning the safeguarding of natural resources of the region.

FACT FILE

PROJECT DISTRICT: **Kolar**

FOREST TYPES: **Dry Deciduous, Tropical Thorn Forest, Scrub Forest**

RIVER BASIN: **Papagni**

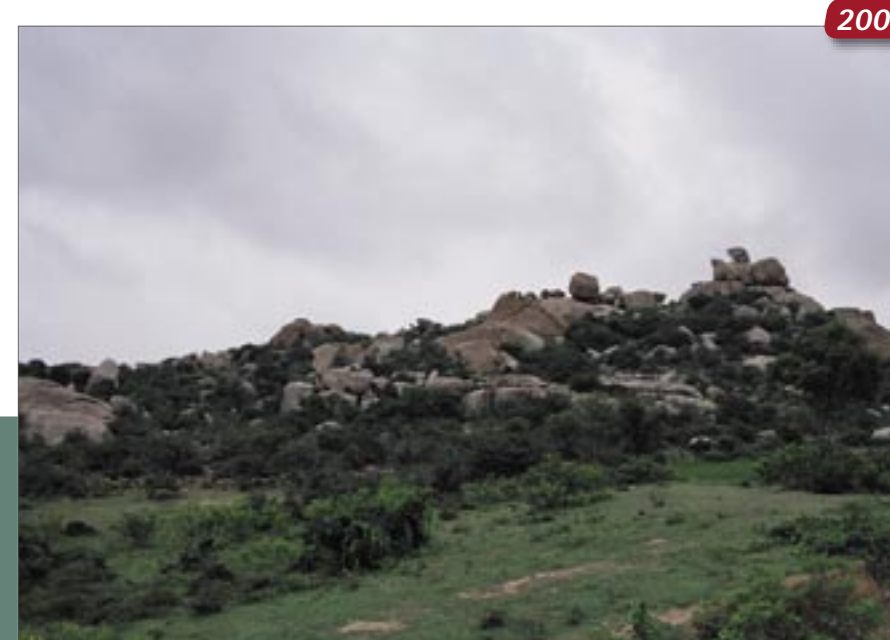
VILLAGE INSTITUTIONS: **103**

AREA UNDER PROTECTION: **4,458** hectares

TOTAL HOUSEHOLDS: **7,774**

The proportion of grazing land being nearly 50 per cent of the total land area, the most appropriate choice of institution to associate with has been the *panchayats* that have been mandated with the responsibility of managing the natural resources. Over the years, nearly 4,500 hectares of grazing lands, revenue wastelands and forestland have been brought under the collective management of 103 village institutions, including *Panchayat* Subcommittees and Village Forest

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Three project villages in the Bagepalle cluster in a show of solidarity and support shared grass worth Rs. 32,000 valued at current market rates from their protected commons to neighbouring villages who were reeling from the effects of the drought.

Anand, Gujarat



We work with villages spread across the three districts of Anand, Kheda and Vadodara, covering ravine lands of river Mahi and highly alkaline mudflats off the coast of Gulf of Cambay. The economy of the region is largely driven by cultivation of cash crops, dairying and industrial activity. Though many in the local communities view common lands as a means for generating additional incomes and not as a primary source of livelihood, the fodder and fuel wood provided by these common lands are of critical importance to the poor.

Efforts at restoration have been successful with the once barren common lands of many villages along the banks of the River Mahi

coastal region of Khambhat that are characterised by vast saline mudflats too have been successful with the plantations acting as a wind-break stopping the deposition of salt on farmlands, protecting these lands and improving productivity.

Efforts to include the poor and actual user groups have led to a significant increase in the membership of village institutions and attempts are now being made to get the new members to play an active role in the decision-making processes and management of the village institutions. In a highly stratified society, both socially and economically, the challenge is to safeguard the last footholds of the vulnerable groups as well as strategically create common spaces that can invite and support their concerns and views.

In the years to come, we plan to extend the existing work done on the revegetation and soil and moisture conservation in some villages along the banks of the River Mahi to additional villages. A survey undertaken covering a 115-kilometre stretch along the river indicated that lands on both sides of the river are severely eroded and ravines have extended inwards. All along the river, about 33 per cent of the area is common land and the high incidence of soil erosion on these ravine lands is a threat to the farms and villages that are located on the riverbank. We are drawing up plans for reclamation of ravines on both the banks of River Mahi, which would eventually cover the 107 revenue villages and the entire 115-kilometre stretch. The reclamation of the entire riverbank, beginning with the treatment of the upper catchments is probably the only way to prevent erosion of the common lands and farms and the associated economic losses to the communities.

FACT FILE

PROJECT DISTRICTS: **Anand, Kheda and Vadodara**

FOREST TYPES: **Dry Deciduous, Tropical Thorn Forest, Scrub Forest**

RIVER BASIN: **Mahi**

VILLAGE INSTITUTIONS: **72**

AREA UNDER PROTECTION: **2,054 hectares**

TOTAL HOUSEHOLDS: **19,091**

having regained much of their vegetative cover. Periodic Natural Resource Accounting System (NRAS) exercises undertaken in several project villages over the years show a substantial return on investment in terms of increased biomass productivity, soil fertility, carbon sequestration, species diversity and other parameters. The results of the work on revegetation undertaken in the

2002



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2005



- In a measure to introduce species that improve the phyto-diversity of the common lands that already support diverse tree, shrub and grass species, a total of 261 kg of seeds of 38 species were dibbled and about 8,000 saplings of seven tree species were planted in common lands of 21 village institutions.
- Several meetings at the hamlet level and 15 exposure visits with specific focus on evolving just and fair resource distribution mechanisms were carried out. We worked on the development of transparent mechanisms for the handling of funds realised by some of the village institutions from the sale of fodder and fuel wood.
- Programmes and meetings aimed at including the user groups resulted in inclusion of 300 members from vulnerable sections of the village. A number of exposure visits and training programmes focussing on the rights and roles of members were conducted for the newly included groups.
- In areas where revegetation and protection measures were carried out in the past, exercises to analyse and understand the process of regeneration, species diversity and count were carried out with new parameters being added to the ongoing study on natural resource accounting in four villages.
- Recognising the efforts of the village institutions in conserving their common lands, the Government of Gujarat has extended the lease period of one village institution, further strengthening their security over tenure. 4 more applications for renewal are under process.
- Activities were initiated for reclamation of ravines in 3 villages of Savli block. Considering the severity and extent of damage of ravines on farmland productivity and further erosion of soil on degraded common lands, fresh proposals aimed at addressing a larger area are being prepared.

Exercises conducted in Namnar village under a Natural Resources Accounting Framework to take stock of the benefits accrued over years of efforts revealed that the standing biomass is worth Rs. 30 lakh. The improvements in soil characteristics, biomass yields and the resultant carbon sequestration outweigh the investments by about eight times over a span of 15 years.

Forests and Tribal Livelihoods



The discourse on forests and tribals on one extreme tends to portray tribals as the cause of forest degradation, whereas the other extreme champions the tribals' occupying forest lands for private use – suggesting a shift in land use to agriculture. Comprising eight per cent of India's

population, tribal communities inhabit around 200,000 villages in the upland and forested regions of the country. Surveys indicate the need for increasing the forest cover and also an improvement in the living conditions of the tribal population. While the debate on conservation with or

without people rages on, we believe that there is considerable scope for work on improving the degraded forestlands in areas that have significant human presence and where conservation and local livelihoods go hand in hand without one being pitched against the other.

Engaging with the natural environment for food, fodder and medicine to expressions of music and poetry, many tribal traditions embody honour and concern for ecological well-being. The change in property regimes, decline in the traditional governing mechanisms, extraction for commercial requirement, and influx of non-tribal people into the tribal inhabited areas have contributed to widespread degradation of forests in many tribal areas. The loss of forests, declining forest biodiversity, soil erosion due to runoff and increasing frequency of droughts has led to widespread poverty within many tribal communities. The erosion of traditional institutional mechanisms and crop yields barely meeting the requirements of six months a year and the increasing need for cash incomes have resulted in widespread distress seasonal migration in both these regions.

Surveys show that 50 per cent of the tribal population live below the poverty line. The acute poverty conditions prevailing in the area are on the one hand caused by the failing ecological health, and on the other poverty further accelerates degradation of the natural surroundings. In such a scenario, seizing the opportunities that the Joint Forest Management (JFM) Programme offers in terms of providing to some extent tenurial security we have over the past few years begun to work on forest lands with tribal communities in Dahod, Gujarat and Udaipur, Rajasthan. Without limiting the regeneration efforts to the forest lands, we assist the tribal communities in improving the productive capacities of the revenue wastelands, panchayat grazing lands and their small holdings, to improve the overall biodiversity, biomass and water availability of the area. By working on the inter-linkages between the forests, water and agriculture we work towards improving the forest cover and the economic condition of the tribal population by strengthening their forest and farm based livelihoods.

Complex kinship and clan-based institutions govern most tribal communities. Within the larger ambit of their

customary norms of local governance, they have also evolved rules that recognise rights and access to forests, forest produce and other commonly held natural resources. Depending upon the usufructs, such customary rights transgress administrative boundaries. Whereas the institutions promoted under the JFM programme are crafted based on the relatively recent administrative understanding of settlements and boundaries. In such a situation we work towards overlaying the institutional templates of the JFM arrangements on the traditional community institutions and use boundaries.

Given the lay of the land and the ecological imperatives, we believe that forests should be the dominant feature of the landscape in upland areas. Immaterial of the category of ownership of land whether public, common or private, we would influence land use decisions towards an improved forest cover for their role in maintaining the ecological health of the area and even in safeguarding the livelihoods of the tribal population. We would also work towards greater decentralisation of the governance of forests, where the village institutions play a more pivotal role in safeguarding the natural surroundings and the Government plays a more critical role as an adjudicatory body and in shaping the conservation plans at a regional level. We would highlight the role of forests in sustaining agriculture and rural livelihoods such that their true value in the day-to-day lives of the people is appreciated.



Dahod, Gujarat



Dahod and Panchmahal districts fall in the northeastern part of Gujarat bordering Madhya Pradesh and Rajasthan. Dahod district was formed in 1997 by carving out the predominantly tribal areas of Panchmahal district. A team placed in Dahod in 1998 works with communities inhabiting the catchment areas of the Khan and Kali rivers in Dahod district and the Vallai river system in Panchmahal district. The project area is spread across four blocks, Dahod, Garbada and Fatehpura in Dahod district and Santrapur in Panchmahal district.

With forests largely having disappeared from the area, the tribal community that in earlier times fulfilled most of their needs from the forests

and mixed farming now mostly grow maize on farms that have over the years climbed further up the hill slopes. Considering the barrenness of the terrain and the high rates of run-off, the agricultural output even in a good rainfall year is only enough to meet half the subsistence requirement of most of the population. Migration is widespread and the cash income earned from mostly unskilled labour in irrigated regions and semi-urban areas of Gujarat is spent

almost entirely on healthcare and purchase of foodgrain.

Forestlands form a significant component of the landscape and we work with Forest Development Cooperative Societies formed under Joint Forest Management arrangements. After initial procedural delays, micro-plans for regenerating degraded forestlands submitted by four village institutions have been approved by the forest department, paving way for a larger involvement in villages with degraded forestlands. Another significant achievement has been the recognition by the forest department of the rights of access to produce from the grass *vidis* (plots) by communities in return for protection of the *vidis*, access to which was denied to them earlier.

The entire project area has been designated as a Schedule V area in which the Panchayati Raj (Extension to Scheduled Areas) Act, 1996 is applicable and which gives *panchayats* the mandate to manage all natural resources. We see a need and scope to further strengthen our ongoing efforts in building linkages between the institutional arrangements promoted by the Joint Forest Management programme and the powers that a Scheduled Area status confers upon the local communities and their representative bodies.

Work in the Santrapur region, which has a relatively larger extent of degraded forest lands, is set to be extended to include newer areas for regeneration even as community efforts at protecting standing forests will be strengthened by initiating complementary activities on improving farm productivity and availability of water. In other areas, where revenue and grazing lands predominate, efforts are being made to work on strengthening protection measures. On lands that have been encroached for grazing and agriculture we are making attempts to retain the integrity of natural systems to the extent possible through revegetation and appropriate soil and moisture conservation measures.

FACT FILE

PROJECT DISTRICTS: **Panchmahal and Dahod**

FOREST TYPES: **Dry Deciduous, Tropical Thorn Forest, Scrub Forest**

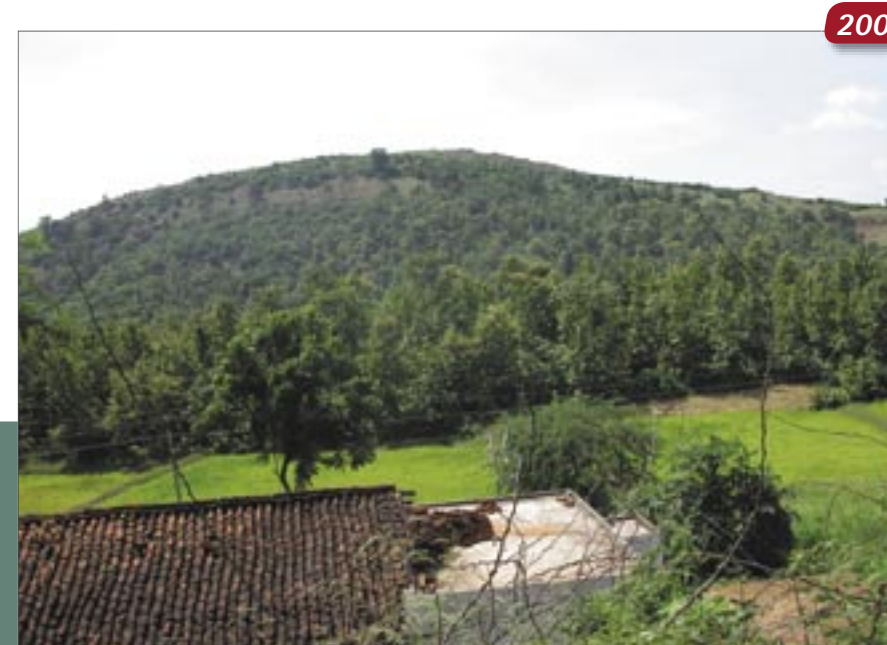
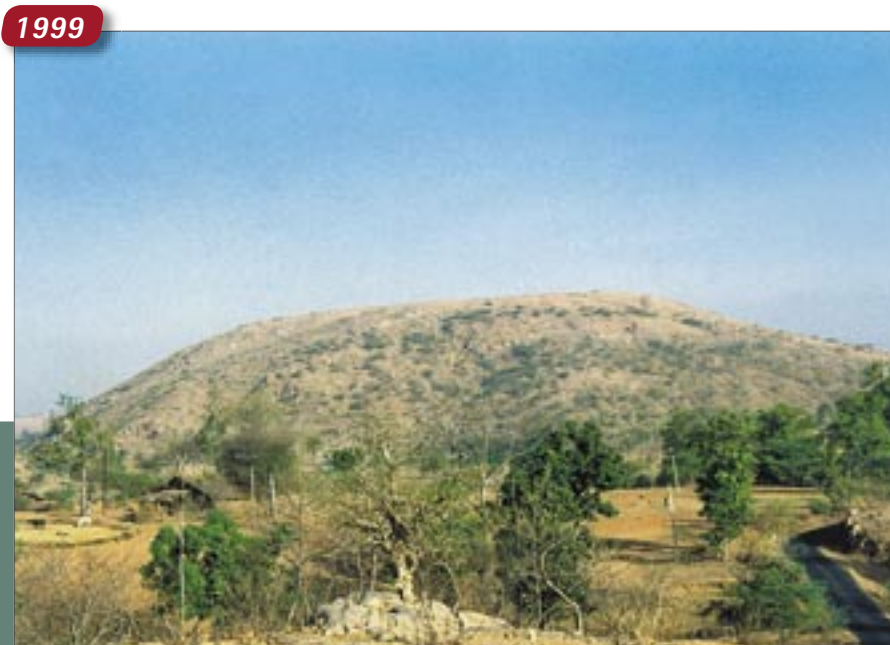
RIVER BASIN: **Valai, Kali and Khan**

VILLAGE INSTITUTIONS: **70**

AREA UNDER PROTECTION: **3,529** hectares

TOTAL HOUSEHOLDS: **11,150**

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- The team presently works with 71 village institutions covering a total of 11,150 households, on approximately 3,000 hectares of land comprising both forestlands and grazing lands made available to the village communities to be managed as common properties.
- Around 1.25 lakh saplings were planted on degraded revenue and grazing lands as well as supplied for plantation on private lands by 34 village institutions. Over 532 kg of tree seeds of thirteen native species and 155 kg of grass seeds were collected by members of the village institutions and supplied to the 6 nurseries that were set up during the year.
- Work on checking soil erosion by treating gullies was undertaken on 241 hectares of common land, and 10 water harvesting structures to provide drinking water for cattle were constructed.
- The National Bank for Agriculture and Rural Development (NABARD) sanctioned a watershed development project to be implemented in one village of Dahod district. Work on strengthening the institutional mechanisms as well as on building the capacity of the community to implement soil and moisture conservation work is presently underway and the full implementation phase of the project will be initiated in the coming year.
- Over 55 training and capacity building programmes for village institutions were undertaken ranging from the preparation of work-plans and budgets, to implementing soil and moisture conservation activities and book-keeping.
- A meeting of the District Level Coordination Committee was held at which the Project Director, Tribal Sub-Plan (TSP) responded positively to the offer made to dovetail schemes under the TSP programme along with the work being carried out by the team.

Protection of the 'grass vidi' enabled each of the 270 households from Jekot and Khodwa villages to receive 900 kg of grass each which amounted to their saving at least Rs. 900 each that otherwise would have had to be spent on purchasing fodder.

Udaipur, Rajasthan



We began working in 1999 with the tribal communities inhabiting the foothills and valleys of the Aravalli hill ranges that pass through Udaipur District, which lies in the southern part of Rajasthan. These uplands once covered with dry deciduous forests are also the catchments for the Mansi and Wakal rivers, which go on to meet with the Sabarmati River in Gujarat eventually draining into the Arabian Sea. A part of the area we work in also forms the catchment of the Sei and Som rivers.

The loss of forests, fragmentation of landholdings, soil erosion, low agricultural productivity of the farmlands and the need for cash incomes for an increasing population have meant that the tribal community

that once managed to sustain themselves by practicing rainfed agriculture and through hunting and collection of forest produce are now to a great extent dependent on government run cash or food-for-work programmes and migration for their sustenance.

The predominance of forestlands offers scope to undertake regeneration through Joint Forest Management (JFM) arrangements. At the same the tribal

communities have evolved systems of access to forests and forest produce that go well beyond revenue and forest boundaries drawn up for administrative convenience. We are working on integrating the complex scenario of multiple user regimes and overlapping boundaries with the administrative guidelines of the JFM programme. An arrangement that recognizes all the traditional "*hakdars*" (right holders) and accommodates them within the Village Forest Protection and Management Committee (VFPMC) has emerged as an appropriate form of institution.

Complementing our work on regeneration of degraded forestlands we are also implementing activities that strengthen the natural resource based livelihood options of the poor in a way reducing their dependence on sale of firewood as a source of income. As we work on contiguous areas of land, we feel an increasing need to engage with the larger panchayats and build the capacities of member habitations and villages such that they are better able to articulate and ensure that their plans for development and natural resource management in particular are adequately reflected in the planning processes and programmes of the panchayats.

FACT FILE

PROJECT DISTRICT: **Udaipur**

FOREST TYPES: **Dry Deciduous, Tropical Thorn Forest, Scrub Forest**

RIVER BASIN: **Mansi and Wakal**

VILLAGE INSTITUTIONS: **26**

AREA UNDER PROTECTION: **2,277** hectares

TOTAL HOUSEHOLDS: **3,377**

Taking advantage of the policy of the State Government to encourage the creation of new Van Panchayats and transfer of the Civil Soyam Land to these new Van Panchayats, members of the Waiga Cooperative, convinced of the better tenurial security offered by Van Panchayats, took a decision in 1998 to change the form of institution converting their leased land into a Van Panchayat.

2002



2004



- Soil and moisture conservation activities were carried out on over 500 hectares, comprising both common and private lands. Around 35,000 saplings were planted and 200 kg of seed dibbled on 191 hectares of common land and around 53,000 saplings of fruit and fodder trees were supplied for plantation on private lands. 6 water harvesting structures were also constructed.
- In order to reduce pressure on forests 7 biogas plants were constructed for demonstration purposes. The slurry is also used as farm manure and has played a role in reducing termite attacks. 22 vermicompost beds were set up in select households to help improve farm productivity and decrease the dependence on inorganic fertilizers. Over 350 smokeless *chulhas* (burners) were installed in 350 households in 8 villages.
- Bye-laws and other norms were documented for each village institution and shared in the village meetings. Federations of village institutions were formed at the cluster level, one each in the two blocks, to serve as a platform for the village institutions to come together and discuss issues of common concern.
- We have been active participants in the concerted effort being made to effect necessary changes in the guidelines of the Joint Forest Management (JFM) programme. Among the issues we have raised were the absence of clarity of period of tenure in the existing guidelines, the need to ensure fair returns for the community on the non-timber forest produce collected and the need to explore the possibilities of membership of an individual in multiple JFM institutions based on the customary norms of rights and access.
- In response to an invitation from the district administration, the team undertook a perspective planning exercise in all 147 villages of Gogunda tehsil under the National Food for Work Programme. It was a unique exercise that enabled the team to understand and capture the ideas and plans that the village communities had in their minds for their regional development.

Three years of protection of their common lands by 1,500 households across 34 habitations resulted in a two-fold increase of the grass production from these lands. The value of the grass so available would at the existing market rate of Rs. 1 per bundle weighing a kilo each add up to Rs. 1,300 worth of grass per household, a critical saving in an

Angul, Orissa



FACT FILE

PROJECT DISTRICTS: **Angul and Dhenkanal**

FOREST TYPES: **Moist Deciduous, Dry Deciduous, Scrub Forest**

RIVER BASIN: **Mahanadi and Brahmani**

VILLAGE INSTITUTIONS: **163**

AREA UNDER PROTECTION: **14,306** hectares

TOTAL HOUSEHOLDS: **11,421**

We work with communities in the two adjoining districts of Angul and Dhenkanal, which are located in central Orissa. The region is hilly and thickly forested in parts; many streams and rivulets originate in the hills and flow through the area eventually meeting the Brahmani and the Mahanadi, the two major rivers of the area. Around 50 per cent of the land in the two districts falls in the forestland, revenue wastelands and grazing land categories. The region has a rich history of local people collectively protecting and managing forests and water bodies. Nearly 1,500 of the 3,500 habitations in the two districts are situated in and around forest areas, and forests play a critical role in

sustaining the livelihoods of the people of the area – with almost all parts of their dwellings and substantial dietary requirements accessed from forests and cash income possible only from the sale of forest produce.

We began working in the area in 1987 and we assisted 163 village institutions in improving protection and governance of common lands besides

undertaking measures to revegetate the degraded patches of commons and constructing water harvesting structures to increase the availability of water. We interact with another 100 villages through campaigns for prevention of forest fires as we prepare the ground for more direct participation in their efforts. In strengthening the institutional processes we engage in the development of village specific bylaws by building further on the existing rules and regulations and working pronouncedly at creating spaces for the poor and women to enable access and ensure benefits. In Athmallik region, a thickly forested area protected by village communities through local customary rules and regulations, we are involved in the process of helping communities document their oral rules to help legitimise their role as guardians of the forests. Across villages, the governance mechanisms drawn up for the protection of the commons are spreading to other spheres of village life with communities increasingly discussing issues such as desirable cropping patterns and equitable distribution of water rights.

With most of the hill slopes being protected as forests, we are presently working towards strengthening and establishing linkages between the forests and agricultural livelihoods of the adjoining village communities so as to manifest and bring to surface the strong inter relationship that forests and agriculture have in sustaining rural economy. We would continue to document and showcase the customary norms of forest protection in Athmallik area and also work better arrangements for tenure over the forest produce. We are also initiating efforts to improve the conservation of Satkosia Gorge Wildlife Sanctuary - a habitat for tigers and elephants, by improving the livelihoods of the local communities and building a constituency that could participate in conserving the sanctuary.

1999



Taking advantage of the policy of the State Government to encourage the creation of new Van Panchayats and transfer of the Civil Soyam Land to these new Van Panchayats, members of the Waiga Cooperative, convinced of the better tenurial security offered by Van Panchayats, took a decision in 1998 to change the form of institution converting their leased land into a Van Panchayat.

2005



- 21 village institutions have undertaken soil and moisture conservation activities on over 300 hectares of land and fifteen new water harvesting structures were constructed. Over a million seedlings were planted in 165 ha with over 65 species of plants raised in the decentralized nurseries. During the year, bye-laws and perspective plans have been drawn up in 10 villages.
- 2 *Krushak Melas* were held to provide a platform for exchange of seeds, innovative practices and technologies amongst farmers of the districts. Exhibition stalls put up by village institutions, government agencies and departments and non-government organizations exhibited various aspects of agriculture and the critical link between forest and agriculture linkage.
- The regional forums continue to interact at the local level and mobilize support from the local administration for their efforts at protection and regeneration of forests. A series of workshops were organized in Athmallik region to involve the panchayats and the government on issues concerning the collection, sale and appropriate pricing of the non-timber forest produce.
- We participated in the process of developing the Forestry Sector Vision 2020 for Orissa State and facilitated community level interaction with the taskforce set up for this process. We have been nominated by the forest department to be a member of the District Environment Society as well as the Protected Area Advisory Committee of the Satkosia Gorge wildlife sanctuary.
- Four issues of *Sabujabarta*, a quarterly newsletter, and two issues of *Panchadhara*, an issue-based newsletter, were published highlighting the issues of natural resource management, community organization and policy analysis. Campaigns against forest fire undertaken over the past few years in association with the forest department have been yielding some results with the number of fires showing a decline over the last two years.

Protection of forests of the catchment area and the construction of a water harvesting structure in the downstream enabled fifty-four households of Sundhikateni village to cultivate in the rabi season earning them benefits valued at Rs. 52,000 per year.

Our Initiatives



Learning Processes

A reverence for the self-renewing character of Nature and hope in a conscientious human society shapes our character and defines our role in assisting village communities in halting the process of degradation and striving towards the prospect of improved natural surroundings. It is with a sense of appreciation of the natural processes and rural realities that we approach our work, refine our abilities and assemble our capabilities. The quality of our efforts is determined by an ability to foresee the emerging issues, add rigour of analysis and build on local processes. While maintaining the signature of our organisation in the efforts across several locations, we face the challenge of moulding ourselves to suit each location, reassembling ourselves to integrate new generation issues and replicating our efforts to more regions. And in doing so, draw lessons of global relevance.

We rely on field observations and local wisdom to guide our action on ecological and social dimensions. Internal sharing mechanisms and customised training programmes help improve our common understanding across locations. Internal training programmes offer the dual advantage of designing need specific programmes and providing opportunities for the trainers to improve on their areas of

interest. Moreover, in many locations we have begun to organise training programmes for NGOs and government departments on request. We went about organising a series of internal programmes that helped define overarching priorities of the Organisation and locate projects within the mandate. In the process we also realised the need to methodically scan the new projects and activities that we are offered for their relevance to our mandate.

Continuing our efforts to document some elements of our work we brought out seven working papers written by the staff members for discussion within the organisation and for sharing with other institutions. In order to enrich

our understanding on critical aspects we have undertaken studies on aspects concerning common property resources, protected areas, restoration ecology, etc. Continuing the process initiated during the previous year on bringing out working papers that document some of our experiences, we have brought out another 7 working papers during the year. We have also been commissioned to undertake studies on natural resources based livelihoods in Kutch, assess the feasibility of initiating forest protection measures through local communities in Thane district, document the possible impacts of hydroelectric projects on the ecology of two river ecosystems in Himachal Pradesh, and prepare a spatial data base for strategising on dairy development in several milkshed districts of the country.

Collaboration with NGOs and academic bodies form an integral component of our work to both inform our conceptual design and practice as well as in furthering our mandate. While in each location we partner with several like minded NGOs and benefit from academic bodies, at an organisational level we partner with several other agencies that promote conservation ethic, nurture and kindle passion and guide holistic action. At one level, these collaborations take the form of studies on issues of mutual

Working Paper Series

- Common Property Resource Management in Transitional Villages by Subrata Singh
- Building Knowledge and Facilitating Learning through Adaptive Community Forest Management by Prateep Kumar Nayak
- Evolving Spaces in Landscape Management: Linking Spatial Information for Effective Decision Making by R Ravindranath and Subrata Singh
- Practicing Local Governance in NRM with Gram Sabhas by Chitrlekha Choudhury
- Mediations for Adaptive Community Water Management: Resistance to Borewells and implications for Groundwater Policy Making by Atanu De
- Assessing the Value of our Forests: Quantification and Valuation of Regeneration Efforts by Dibyendu Mondal, Subrata Singh and J V Dhameliya
- Contingent Valuation of Natural Resources by Mathew McNee

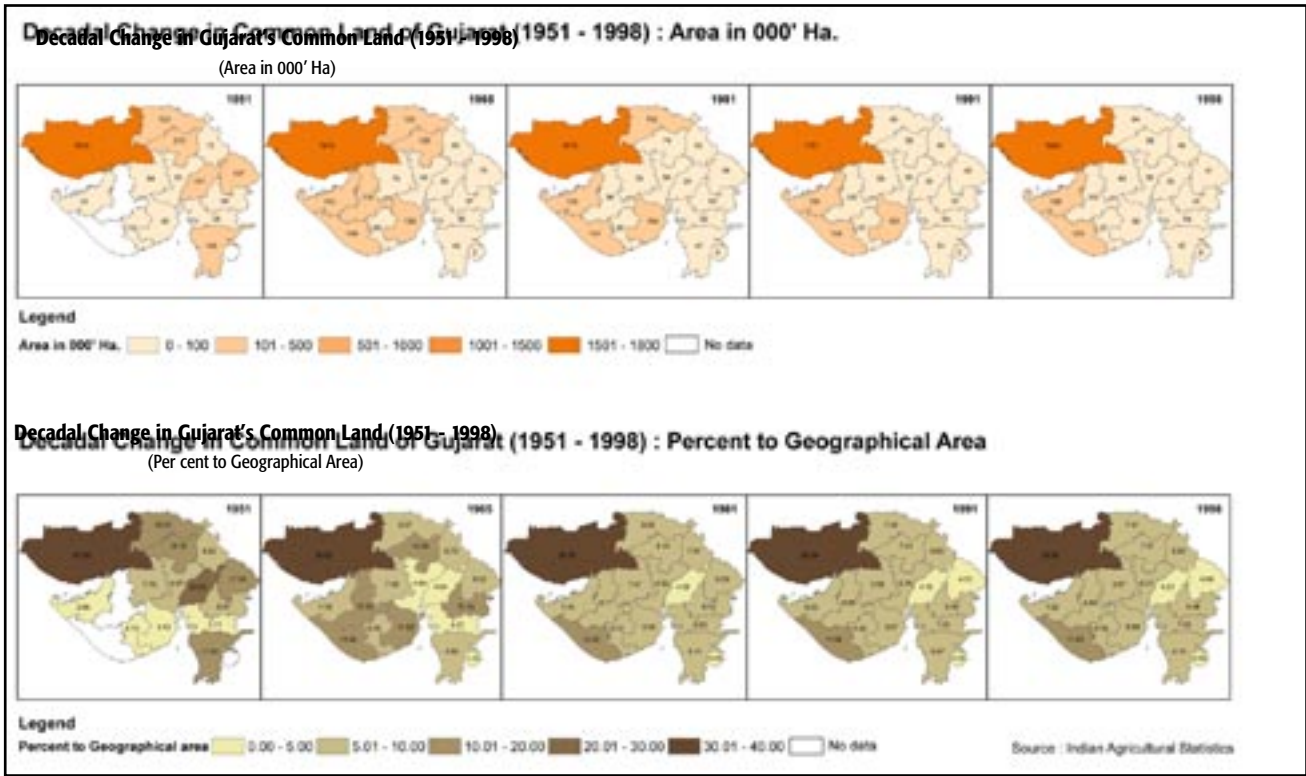
interest and resolve and on the other we also join hands in building public opinion on critical policy issues and lobbying for change. During the year, we collaborated with Ashoka Trust for Research on Ecology and the Environment (ATREE), Bangalore, Gurukul Botanical Sanctuary, Wyanaad, ANTHRA, Hyderabad, International Water Management

Institute, Anand, Information Dissemination Service Group, New Delhi, Swaraj Foundation, Bangalore and Himalayan Community Forestry Centre, Dehradun on issues of mutual interest.

Tracking Changes and Trends

Field observations indicating improvement in vegetative cover, enhancement of water availability and increase in agricultural productivity on the one hand and strengthening of the village institutions on the other are assessed periodically in order to validate the changes systematically and derive directions for taking the processes forward. Taking this a step further, some of the changes are also quantified using an unconventional accounting framework in order to estimate the monetary value of benefits of resource management.

Carrying on from the studies on biomass and biodiversity assessment, water audit, agricultural productivity, etc. undertaken previously in three project locations, an assessment of the change in vegetative cover in the Lilri watershed in Pisangan tehsil of Ajmer district in Rajasthan was undertaken. Efforts of the community at conservation of 4,561 hectares of land over the period of 1993 to 2002 has led to a 228 percent increase in open forest area and a 71 percent increase in area under mixed degraded forest. This has led to an improvement in the groundwa-





systems were assessed. The forest showed a high diversity with 68 tree species and 25 shrubs species spread across an area of 5706 hectares. The aboveground biomass of the forest area was found to be 91.48 tonnes per hectare. The requirement for biomass in terms of fuel wood, fodder etc. from the forest would be estimated in the next phase in partnership with the dependent communities.

Building on these ongoing assessments of biomass, biodiversity, agricultural productivity and water levels within watersheds, we plan to monitor the trends of the ecological processes in terms of improvement in the nutrient status and water infiltration rates. Undertaking

ter table on an average by ten feet, contributing to a 79 percent increase in double-cropped area.

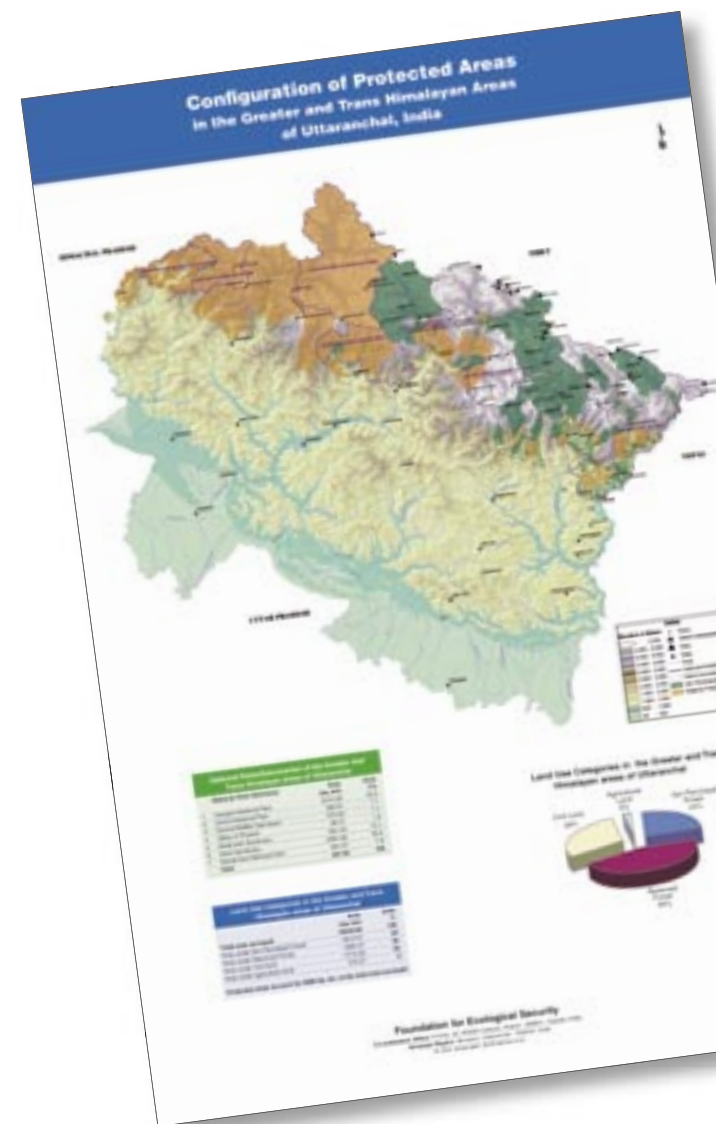
Conventional accounting methods often undervalue the benefits from the natural resources by considering only the monetary flows. A Natural Resource Accounting System (NRAS) framework has been applied in a few village institutions in an attempt to assess the value of the ecological benefits of the natural resources and the results are encouraging. For example, the cumulative investment in 25 hectares of land in Namnar Tree Growers' Cooperative Society in Lunawada Taluka, District Panchmahals, Gujarat since 1991 was Rupees 8.51 lakhs for regeneration and protection of the resource and the benefits according to the conventional accounting was Rupees 42,770 only. The accounting as per NRAS puts the value of the total benefit at Rupees 32.20 lakhs, which is about four times the investment made in the 25 hectares of common land.

In order to enable communities to compare the biomass potential of the forests with their current levels of removal and modify their use patterns where necessary, a study was initiated in Itikaldurga State Forest Block in Kolar district of Karnataka. During the year the vegetation structure and composition, regeneration and above ground biomass status of the open dry deciduous forest

these studies and comparing the results with areas under protection and those without, we plan to bring the results of changes and the emerging issues for discussion with the village communities and development planners. Eventually we will monitor the changes at the larger landscape level as the benefits of protection of forests or soils and water conservation are often observed on the lands that are downstream.

Interaction on Policy

With ecological well being and social justice being the central tenets that guide our action on influencing policy, we are currently involved on issues concerning the critical role that forests play in providing clean water so as to integrate forests in land use plans, the problems associated with land degradation in the arid and semi-arid context in the face of increasing desertification; the role of communities in conservation so as to locate a common ground for conservation and livelihoods; integration of natural resource management in the functioning of Panchayats so as to arrest degradation over larger areas through decentralised governance, and highlighting the value of commons as they are both repositories of biodiversity as well as the last remaining spaces of the poor.



Our involvement with about thousand village communities in different agro-ecosystems provides us a unique advantage in synthesising lessons from across locations as well as honing their relevance to niche specificities. By working on contiguous patches and across habitations we bring into discussion a fresh generation of issues concerning scale, scope and complexity both on ecological and social dimensions. We continue to partner with several agencies, which are also involved in issues concerning nature conservation and rural poverty. We support a few initiatives that further the dissemination of information on protected areas as well as policy updates on forest conservation so as to build public opinion. We jointly undertake studies that help in both guiding our activities as well as drawing leads for policy action. We continue to promote discussions on operationalising policies in the districts in which we are located and join other partners in sharing our experiences and influencing policy direction at various levels.

The nature of activities we undertake on decentralized governance of natural resources entails a high level of interaction with the Government at the state and national levels. In an attempt to highlight the role of common property resources in watershed development programmes, we

shared the body of our experiences and emerging issues with important decision makers at the Ministry of Rural Development, Government of India. In Andhra Pradesh, a Memorandum of Understanding was executed with the Government to expand the implementation of our activities. The Government agreed to increase both the period of lease of revenue wastelands to village institutions from the existing period 20 years to 50 years and the area of revenue wasteland leased from the current 100 acres to the extent available in villages. The State Level Coordination Committee (SLCC) in Rajasthan, agreed to bring in clarity on the period of tenure over forest lands under the current Joint Forest Management arrangements. The Committee also agreed to nominate us as a Project Facilitating Agency to work on grazing lands and forest lands in assisting the implementation of the watershed programmes under the *Hariyali* guidelines. In Orissa, the State Level Coordination Committee resolved the pending matters pertaining to the lease of land to village institutions and considering the inordinate delays in leasing such lands the Committee resolved to issue a comprehensive order that would outline the roles and responsibilities of the concerned departments and provide a time frame.

Auditors’ Report

We have audited the attached Balance Sheet of Foundation for Ecological Security as at 31st March, 2005 and also the Income and Expenditure Account for the year ended on that date hereto. These financial statements are the responsibility of the management of the Society. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in India. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material mis-statement. An audit includes examining on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

Further, we report that:

- (i)

We have obtained all information and explanations, which to the best of our knowledge and belief were necessary for the purposes of our audit;
- (ii)

In our opinion, proper books of account have been maintained by the Society, so far as appears from our examination of those books;
- (iii)

The Balance Sheet and the Income & Expenditure Account dealt with by this report are in agreement with the books of account;
- (iv)

The Balance Sheet and Income and Expenditure Account dealt with by this report comply with the accounting standards applicable to the Society;
- (v)

In our opinion and to the best of our information and according to the explanations given to us, the said accounts give a true and fair view in conformity with the accounting principles generally accepted in India:

(a)

in the case of Balance Sheet, of the state of affairs of the Society as at 31st March, 2005 and

(b)

in the case of the Income and Expenditure Account, of the surplus of the Society for the year ended on that date.
- As required by the Rule no. 13.7 of the Society, we further report that:
- (i)

no personal expenses of Officers and members of the Governing Board, except for those payable as per the terms of the appointment/agreement or authorised by the rules and regulations of the Society, have been charged in the books of accounts,

(ii)

the transactions of the Society are not in contravention of the constitution of the Society, its rules and regulations,

(iii)

The Board of Governors has been properly constituted in accordance with the covenants of Society’s rules and regulations.
- Camp: Anand
Date:18.08.2005

For C.C. Chokshi & Co.
Chartered Accountants
H.P. Shah
Partner
Membership No. 33331
- | | | | |
|---|---|---|--|
| FOUNDATION FOR ECOLOGICAL SECURITY | | | |
| Balance Sheet | | | |
| (As at March 31, 2005) | | | |
| | | 2005 | 2004 |
| | | Rs | Rs |
| Sch. | | | |
| SOURCES OF FUNDS | | | |
| Corpus Fund | 1 | 122,162,693 | 110,608,482 |
| Reserves and Surplus | 2 | 62,728,159 | 62,544,861 |
| Project & Other Funds | 3 | 168,637,924 | 195,100,194 |
| TOTAL | | 353,528,776 | 368,253,537 |
| APPLICATION OF FUNDS | | | |
| FIXED ASSETS | 4 | | |
| Gross Block | | 40,532,205 | 40,114,465 |
| Less: Depreciation | | 19,806,364 | 16,729,856 |
| | | 20,725,841 | 23,384,609 |
| CURRENT ASSETS, LOANS AND ADVANCES | | | |
| Inventories | 5 | 324,488 | 385,469 |
| Cash and Bank Balances | 6 | 279,849,611 | 306,123,480 |
| Other Current Assets | 7 | 47,216,185 | 36,296,601 |
| Loans and Advances | 8 | 8,542,082 | 5,376,431 |
| | | 335,932,366 | 348,181,981 |
| Less: Current Liabilities & Provisions | 9 | 3,129,431 | 3,313,053 |
| NET CURRENT ASSETS | | 332,802,935 | 344,868,928 |
| TOTAL | | 353,528,776 | 368,253,537 |
| Significant Accounting Policies | | | |
| Notes on Accounts | | 11 | 12 |
| As per our attached report of even date | | | |
| Place: Anand
Date: 18.08.2005 | | For C.C. Chokshi & Co.
Chartered Accountants
H.P. SHAH
Partner | AMRITA PATEL
Chairman

JAGDEESH RAO
Executive Director |
| Schedules and Notes on Accounts can be made available at request. | | Place: Anand
Date: 13.08.2005 | |

Income and Expenditure Account (For the Year Ended March 31, 2005)

	Sch.	2005 Rs.	2004 Rs.
INCOME			
Fund received		82,602,487	55,245,715
Interest and Other Receipts	10	947,733	990,787
Receipts on Study,Survey and Training		2,112,269	–
TOTAL		85,662,489	56,236,502
EXPENDITURE			
A. Strengthening Community Based Institutions And Natural Resources			
Planning and Survey		195,767	335,419
Formation of Community Based Institutions		370,488	225,037
Soil & Water Conservation measures		12,454,345	12,996,953
Revegetation measures		4,648,208	6,234,763
Private Land Plantation		527,539	738,194
Training & Development of members		1,257,394	1,314,026
Energy Conservation and Other Activities		1,912,237	367,632
Managerial assistance		16,081,737	15,534,432
		37,447,715	37,746,456
B. Support Services			
I. Capacity Building			
Survey, Planning and Preorganisation activities		911,930	1,142,856
Training and Development		2,152,833	2,986,015
Promotional activities and Advocacy		2,801,057	2,353,912
Documentation , Studies, Consultancy, etc.		2,288,223	2,125,186
Books & Periodicals		490,689	285,388
		8,644,732	8,893,357
II. Administration and Recurring Expenses			
Staff Salaries and Benefits		20,666,758	19,535,470
Travel and Conveyance		436,172	538,892
Professional Fees and Consultancy charges		592,834	604,571
Motor Vehicle Running and Maintenance		154,611	204,627
Rent, Rates, Taxes and Electricity charges		1,314,440	1,327,780
Communication expenses		922,410	1,004,692
Printing and Stationery		359,798	799,613
Information Technology System maint.and consumables		636,803	764,922
General Repairs and Maintenance		442,451	546,921
Insurance Premium		427,792	423,477
Statutory Audit Fees and expenses		239,744	146,248
Miscellaneous expenses		510,997	642,532
		26,704,810	26,539,745
		72,797,257	73,179,558
C. Expenses on Studies, Survey and Training			
		1,987,031	–
		74,784,288	73,179,558
Depreciation (Sch. 4 Column G)		3,387,748	6,257,258
(Less)/Add: (Profit) / Loss on sale of Assets		(22,472)	251,113
Add: Expenses on fees to Architects		–	1,753,547
		3,365,276	8,261,918
Less: Adjusted against Capital Fund (Ref. Sch.2.A)		3,365,276	8,261,918
TOTAL		74,784,288	73,179,558
Surplus / (Deficit)		10,878,201	(16,943,056)
TOTAL		85,662,489	56,236,502
Surplus / (Deficit)		10,878,201	(16,943,056)
Transferred (previous year transferred from) to Project Account (Sch. 3.B)		10,530,784	17,156,600
Surplus carried to Balance Sheet		347,417	213,544
Significant Accounting Policies	11		
Notes on Accounts	12		

As per our attached report of even date

For C.C. Chokshi & Co.
Chartered Accountants
Place: Anand
Date: 18.08.2005
Schedules and Notes on Accounts can be made available at request.

AMRITA PATEL
Chairman

JAGDEESH RAO
Executive Director

FOUNDATION FOR ECOLOGICAL SECURITY
Projectwise Income and Expenditure Account
(For the Year Ended March 31,2005)

Particulars	Opening Balance as on 1.4.2004	INCOME			EXPENDITURE				Surplus/ (Deficit) for the year	Non Recurring Expenses during the year	Transferred to Corpus Fund (Ref. Note No. 6 Sch. 12)	Rs.
		Fund received during the year	Interest and other Income	Total Income during the year	Recurring Expenses	Total Expenses during the year						
A	B	C	D	E	F	G	H	I	J	K	L	M
PROJECTS												
I Tree Growers' Co-op. Project	1,888,952	47,658,407	185,148	47,843,555	20,597,272	6,142,250	17,965,958	44,705,480	3,138,075	568,731	—	4,458,296
II Dairying and Natural Resource Management Project (NDDB)	—	25,000,000	180,090	25,180,090	8,643,429	2,099,285	7,450,798	18,193,512	6,986,578	158,867	—	6,827,711
III Natural Resource Management and Animal Husbandry Project (NDDB)	2,293,118	—	—	—	2,293,118	—	—	2,293,118	(2,293,118)	—	—	—
IV Ecological Security and Livelihoods Project (TSWT)	9,675,726	8,000,000	360,316	8,360,316	4,742,290	341,966	1,019,798	6,104,054	2,256,262	76,012	—	11,855,976
V Social Mobilisation and Natural Resources Management Project (UNDP-GOI)	—	1,944,080	—	1,944,080	1,171,606	61,231	268,256	1,501,093	442,987	—	—	442,987
VI Natural Resources and Livelihoods Project (FES)	29,904	—	—	—	—	—	—	—	—	—	29,904	—
Total	13,887,700	82,602,487	725,554	83,328,041	37,447,715	8,644,732	26,704,810	72,797,257	10,530,784	803,610	29,904	23,584,970
Previous Year	36,269,881	55,245,715	777,243	56,022,958	37,746,456	8,893,357	26,539,745	73,179,558	(17,156,600)	5,225,581	—	13,887,700

Acknowledgement

We thank the Government of India, the Department of Land Resources, Ministry of Rural Development, Department of Economic Affairs in the Ministry of Finance and the Ministry of Non-conventional Energy Sources. We acknowledge the support and extend our thanks to the State Governments of Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Orissa, Rajasthan and Uttaranchal.

The National Dairy Development Board, Anand, for nurturing and supporting our work over many years. The Canadian International Development Agency, the Tata Social Welfare Trust, Mumbai, the United Nations Development Programme, the National Bank for Agriculture and Rural Development (NABARD), Council for Advancement of People's Action and Rural Technology (CAPART) and the Swedish International Development Authority for their financial assistance enabling project implementation.

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Coordination Office and Spearhead Teams

COORDINATION OFFICE

Anand

PB No. 29, NDDB Campus, Anand – 388 001, Gujarat

Contact: Jagdeesh Rao

Tel: 02692 – 261303 (O), 261417 (R) Fax: 262087, 262196

E-mail: ed@fes.org.in

Contact: Dinesh Reddy

02692 – 262034 (O), 261788 (R) Fax: 262087, 262196

E-mail: dinesh@fes.org.in

ANDHRA PRADESH

Madanapalle

17-89-1, NVR Layout, Gandhi Road, Madanapalle – 517 325, Andhra Pradesh

Contact: D Venkat Raj

08571 – 230300 (O), 231014 (R) Request Fax : 227070

E-mail: fesmadanapalle@hotmail.com

KARNATAKA

Chintamani

Manjushree Nilaya, Near New Public School, Tank Bund Road, Anjani Extn, Chintamani – 563 125, Dist. Kolar, Karnataka

Contact: Thomas Abraham

Tel: 08154-253414 (O), 253759 (R) Request Fax: 251122

E-mail: fes.chintamani@gmail.com

GUJARAT

Anand

C/o Shri Shailendra Kumar Singh, Opp. Vaibhav Society, Near IRMA Gate, Anand – 388 001, Gujarat

Contact: R N Patel

Tel: 02692 – 2 60435 (O), 573408 (R) Fax : 262087

E-mail: fesanand@hotmail.com

Dahod

Ground Floor, Kanchan Kunj, Anand Bhavan, Near Post Basic High School, Chakalia Road, Dahod – 389 151, Gujarat

Contact: Mahadev Hansda

Tel: 02673 – 220768 (O), 221465 (R) Fax: 220768

E-mail: fes.dahod@gmail.com

ORISSA

Angul

5th Lane, Amalapada, Angul – 759 122, Orissa

Contact: Sisir Pradhan

Tel: 06764 – 230610 (O), 232915 (R) Fax: 230610

E-mail: fesangul@hotmail.com

RAJASTHAN

Bhilwara

119, Subhash Nagar Extension, Near Subhash Nagar Community Hall, Bhilwara – 311 001, Rajasthan

Contact: Sanjay Joshie

Tel: 01482-264470 (O), 264415 (R) Request Fax: 264044

E-mail: fes.bhilwara@gmail.com

Udaipur

18, New Ahinsapuri, Opp. Jyoti School, Fatehpura, Udaipur – 313001, Rajasthan

Contact: Mitul Baruah

Tel: 0294 – 2453419 (O), 2454688 (R) Request Fax: 2450760

E-mail: fes.udaipur@gmail.com

UTTARANCHAL

Himalaya Region

Munsiari 262 554, Dist. Pithoragarh, Uttaranchal

Contact: E Theophilus

Tel: 05961 – 222229 (O), 222367 (R) Cell: 98240 12515

Fax: 222639

E-mail: etheophilus@gmail.com

Munsiari

Munsiari – 262 554, Dist. Pithoragarh, Uttaranchal

Contact: K Ram Narayan

Tel: 05961-222229 (O), 222667 (R) Fax: 222639

E-mail: fes.gori@gmail.com

MADHYA PRADESH

Agar

70, Vivekanand Nagar Extn. , Agar (Malwa) – 465 441, Dist. Shajapur, Madhya Pradesh

Contact: D P Singh

Tel: 07362 – 259090 (O), 260708 (R) Request Fax: 258322

E-mail: fes.agar@gmail.com