

C.P.R. ENVIRONMENTAL EDUCATION CENTRE**ECO-HERITAGE.COM****ENVIS Newsletter****Thematic Area: Conservation of Ecological Heritage and Sacred Sites of India****October 2010 - March 2011, Vol. IX, No. 2***From the ENVIS Desk...*

The International Year of Forests 2011, has initiated several activities in creating awareness about the importance of forests, climate and livelihoods of forests dependent people in India. Conservation of small sacred patches of forests is considered important and we have such conservation traditions from various parts of India. The orans or the devbani (sacred forests) found in Rajasthan have been protected for long, are a good example of such a tradition.

The Government of Rajasthan has recognized the oran / devbani tradition in its "RAJASTHAN STATE FOREST POLICY 2010" and in acknowledging traditional wisdom in the conservation of forest resources.

The ENVIS Centre on the Conservation of Ecological Heritage and Sacred Sites of India at C.P.R. Environmental Education Centre has expanded the existing database on various aspects of Indian ecological heritage based on primary and secondary sources. The current database includes information on:

- 6925 Sacred Groves & Gardens
- 50 Sacred Water bodies
- 300 Sacred Tanks
- 90 Sacred Plants
- 50 Sacred Animals
- 45 Sacred Mountains & Hills

We are in the process of constantly adding material and updating primary and secondary data. The website is inter-active and dynamic. It is visited by environmentalists and environmental historians from all over the world and is extensively used.

The area of eco-heritage is vast and an *akshaya patra* of information. I would like to see more university departments encouraging students to take up research in local ecological traditions. Participation of students in documentation is one of the pathways of recording our rapidly disappearing natural wealth and traditional knowledge, beliefs and practices. There are also a few committed journalists who document every ecological tradition they encounter – religious sites, festivals and traditions, whose contribution is equally significant.

We are currently trying to document the ecological traditions of Madhya Pradesh and West Bengal and I cordially invite scholars and interested persons to share their knowledge and information with us.

Dr. Nanditha Krishna
ENVIS Co-Ordinator

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Orans- Sacred Groves of Rajasthan

By Aman Singh*

What is Oran?

Rajasthan is the largest state in India, located in north-west India, bordered by Punjab in the north, Haryana, Uttar Pradesh and Madhya Pradesh in the east, Gujarat in the south and the Sindh region of Pakistan in the west. The Aravalli mountain chain, the world's oldest range, running north-east to south-west divide the state into two distinct ecological zones. The climate of western Rajasthan is shaped by predominant aridity, broken by moderate and irregular monsoon rainfall, while the eastern half of the state is more fertile and enjoys a dependable (though brief) monsoon season.

The orans (in Sanskrit 'aranya' of Rajasthan) are the patches of forests and pasture land preserved in the name of local deities and/or saints, and are locally known as Devbani (literally, 'god's forest'). They constitute an ancient form of adaptive resource management handled by the village institution and divine authorities. They follow Strict and locally-specific rules are followed to deal with destructive extraction, encroachment and other violations. Like other parts of Indian



View of a Oran at Kundala Village

subcontinent, orans (sacred groves) continue to play a considerable role in the economic and socio-cultural systems of rural peoples in Rajasthan. There are about 25,000 orans covering an area of about 600,000 hectares. About 1100 major orans covers 100,000 hectares. About 5,370 km² is covered by orans in the Thar Desert alone.

Importance of Orans

Orans played an important role in the rural livelihoods of Rajasthan. They are found in various size and shape with specific species composition adapted to the distinct climatic zones. From the straggly patches of khejari (Indian Mesquite / *Prosopis cineraria*) and babool (*Prosopis juliflora*) that constitute the dense orans at Khejerli, Jodhpur District, multi-species orans of 'Gopal Das', Alwar District, the sacred groves of Rajasthan are perhaps the most diverse in India. There are some common characteristics features found in all orans. They help conserve valuable water source in the form of reservoir, step well (bawdi) and stream or spring. Despite accounting for over 10% of India's total area, Rajasthan has access to barely 1% of the country's water resources. In addition, all orans feature some manner of focal point for religious activity, which may take the form of a shrine, temple or sacred stone.

Beyond these physical features, one finds similarities in the importance of orans in local livelihoods, as well as water, fuel wood and fodder, groves provide fruits, nuts, seeds and plants of medicinal value. Grasses are often gathered for basket-weaving, and clay used for making pottery. Several honey-bee nests found in orans, which can be collected and sold in markets, while trees such as khajjur (*Phoenix sp.*) trees provide carbohydrate in the form of dry fruits. Leaves are collected by the local people for broom - making. Cavity-nesting birds, such as owls, parakeets and

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woodpeckers make their homes in khajjur and other large trees found in the orans; they assist farmers by eliminating insects and other agricultural pests. In the arid west of Rajasthan, where summer temperatures regularly goes up to 50°C, orans also afford much needed shade to humans and livestock. In this region more than any other, the groves' helps to recharge groundwater, thereby ensuring increased understory vegetation.

All orans display a more-or-less set of unwritten rules concerning the time, spacing and character of resource use. These include a total prohibition of tree-cutting for any purpose other than funerals, repair of sacred structures or religious feasts. In general, the collection of dry wood for domestic use is permitted, though most households use cow dung, gas or wood from Forest Department lands to meet their fuel requirements. One of the primary livelihood functions of orans is grazing. Here rules deviated a little, for example in some orans seasonal grazing is tolerated, in others grazing is only permitted en route to other pastures. Laws regarding lopping of leaves for fodder are similarly variable; while typically forbidden, allowance may be made for poorer households or during periods of severe drought. Other forest produce, such as fruits, seeds and honey, may be collected for domestic or small-scale economic purposes, but large-scale extraction of any resource is strictly outlawed. It is apparent, therefore, the survival of orans is dependent on a complex range of conditions, including ecological, political and historical. Orans serve as a strong, shared and naturalised icon of village life. As a communal and sanctified space, they are frequently employed for local affairs. Matters pertaining to village politics, crops and livestock and the Oran itself may be discussed here, and punishments for offences relating to the grove (like encroachment, destructive extraction) are often enacted around the temple or shrine. While committees such as these are a regular feature of Oran management, the ultimate authority remains with the deity; divine retribution is perceived locally to be decisive in motivating compliance to rules, and cautionary tales of supernatural punishment by blinding or paralysis are common. Reverence for the deity also has a more active component. Puja (prayer) is



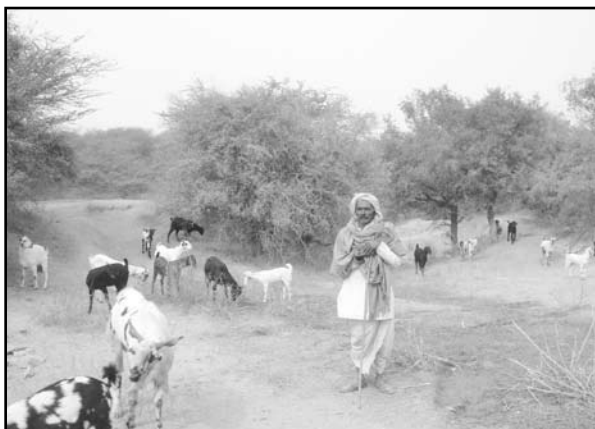
View of Bherunath Oran in which all the water source the forest and the deity are seen at Bakhtpura village

regularly performed within the Oran, with special ceremonies held during times of hardship, such as drought.

In addition, many orans host an annual mela (festival), at which communities reaffirm their commitment to the forest and the deity. A final noteworthy aspect of the Oran is the presence of a mahatma, or priest as a socio-cultural phenomenon. Somewhere between a sentry and saddhu, the mahatma resides in an Oran and, in exchange for basic provisions from the community, keeps watch over the forest and its other inhabitants. Though by no means a universal feature of orans – numbers are higher in the east of the state, where forests are denser and thus more conducive to habitation – mahatmas are thought to be instrumental in fostering a reverence for nature, deterring violators and thereby conserving groves.

Status of Orans

The main livelihood strategies in Rajasthan are agro-pastoralism, long-fallow dry land farming and herding. All the region's rural inhabitants – be they caste elites, marginal producers or pastoralists – are in some way reliant on community forests and pastures, and household economies are heavily dependent on the biotic resources afforded by such lands. It comes as no surprise, therefore, that the government's progressive policy of classifying these areas as reserved forest or wasteland has met with resistance. Under the tenure of the Forest and Revenue Departments, community lands



*Gujjar pastoralist with goats, Gujjarwas oran,
Alwar district*

can be enclosed for reforestation or allotted for industrial development without warning. In both cases, the continued use of such lands by villagers becomes a criminal offence, punishable by fine or imprisonment.

From the larger perspective, it is evident that, the orans are operating today in something of an institutional vacuum and indeed it is not clear in the present which agency enjoys jurisdiction over the orans. As stated earlier, the upkeep of the orans was the responsibility of traditional village institutions (e.g. Thain). Today, the traditional institutions have disintegrated. Modern institutions supplanted them and the official village Panchayat have displayed little interest on the management of orans. Unlike the Thain which represented community concerns pertaining to the use of orans the Panchayat is not in any way oriented to these ends. At the level of the village community, there is often tension between those who wish to preserve the orans and those who would rather plough it down. Increasingly it will be found that local populations have been excluded from the management of their resources. At will, the Forest Department can enclose it for plantation, or declare it as a protected area. The village Bakhtpura in our study area illustrates that the community involvement can make an orans. The orans of this village had been divided into two parts, one part is managed by the community and another part protected by forest reserve. As a result, the reserved forest has been stripped bare – presumably by the local community – whereas the community controlled forests retains fairly thick stands of trees.

Another reason of alienation could be the relationship between the loss of people's faith in the spiritual relevance of the orans and the way the commercial world works ... role of State in promoting growth of industry without looking at the concerns of local communities and related lack of economic employment in the rural set up, leading people to migrate and hence a loosening of related socio- cultural and spiritual ties that bind them.

Encroachment on orans is a recurrent problem that every orans has to contend with. Cultivators living on the margins of the groves surreptitiously expand their cultivated lands into the orans. Alienation can also take other forms. Substantial tracts of lands often comprising orans lands have been distributed for cultivation, most recently for jatropha. This benefits few people by and large, mostly entrepreneurs from outside the local community. This contributes considerably to the heightening of local tensions. In such instances local communities are formally deprived from accessing the orans, although often enough grazing continues surreptitiously. From stewards they overnight become trespassers. These aspects cumulatively contribute to the larger alienation of the harmonious relationship between communities and orans.

Orans historically served as pasturage for cattle. The species composition of these orans had consequently evolved in response to the grazing requirements of cattle. Goats and sheep also graze these orans in large numbers, in contrast to the past when the orans were not their main grazing ground. What people need today is pasturage for small ruminants and seasonal reserves for buffaloes. The present species composition of the orans, however, is not optimally suited for buffaloes, or indeed for goats or sheep. There is consequently a mis-match between the needs of animals that are important today and what the orans have to offer by way of pasturage. At a more specific level the diversity of the vegetation in the forest canopy as well as the under-storey is deteriorating. As a result, the perceived value of the orans is poor, and the community is reluctant to invest resources and energy into its upkeep.

Decline of flora and fauna

There have had clear cut consequences on the status and biotic composition of orans. The most apparent change has been in the decline of large plant species. The orans of Alwar were renowned for their bamboo. Today their numbers have fallen sharply. A Bamboo Cooperative Society formed as early as 1952 is now defunct, largely due to low availability of bamboo. Another large plant species known locally as Kala Khair (*Acacia catechu*) has visibly decreased in presence. The Gugal (*Commiphora wightii*) and Phalsa (*Grewia damine*) shrubs were widespread earlier in all the orans across Aravalli hills; today these have virtually disappeared and considered one of the rare and endangered plants of Rajasthan. An important species of orans in terms of its grazing utility was Dhok. There are very few young specimens of this tree currently available.

The picture is similar for grasses and shrubs. For instance there is a species locally known as Sawan. The shortening of the rainy season has directly affected its growth, and there is today a severe decline in its availability. In contrast a grass that has spread recently is Laumpla. This grass grows under dry conditions, and indicates the spread of aridity. Similarly it was reported that some twenty odd species of bulbous plants of medicinal value were formerly available in these orans. Most orans have water sources in the form of tanks known locally as Johads, Talav and Bawri. Natural Springs are found in some orans.

Rajasthan state forest policy 2010; acknowledges orans/ devbani

Rajasthan State Forest Policy 2010, the first ever Forest Policy for Rajasthan, acknowledges the ground realities for the effective management of forest cover in the State. More specifically, the policy also acknowledges the importance of orans/ devbani and grasslands, for which KRPAVIS has been advocating for so long!

One of the objectives in the policy document reads "Conservation of rare and endangered species of flora and fauna of the state by

undertaking mainly in-situ and ex-situ conservation, apart from conserving and managing biodiversity-rich ecosystems such as grasslands, orans, wetlands etc".

One whole Section in the draft discusses about Orans / Dev Van, and a Sub- Section discusses the importance and effort to be made, "Orans / Dev vans are islands of good forests and repositories of rich biodiversity. These orans / dev van are excellent examples of people's religious faith linked with conservation. Efforts will be made to provide necessary financial and legal support in consonance with local religious ethos of the local community". A proper monitoring system with engagement of stakeholders is a prerequisite for its effective implementation. It would also be crucial to ensure that any funds that come from the state government are not tied up with conditions that make the community subservient to officials. There should be some system of facilitation to help communities and to ensure conservation of biodiversity or wildlife.

Another sub-section indicates, "district wise inventory and database should be prepared for all such areas with the support of local NGOs and religious trusts. These areas declared as deemed forest as per the provision of Forest Conservation Act (1980). However, demarcation of such orans / dev vans on the ground as well as on cadastral maps is an urgent necessity". After declaring them as deemed forests, communities may lose the sense of ownership and the traditional conservation mechanism. Another section of the state policy speaks about the management of orans / dev vans, and suggests a committee consisting of the local people and trustees of the temple be constituted to protect these areas, which include the local people and trustees of the temple". But it is not clear for the Orans which are already existed in the Protected Area itself. On the whole, the Rajasthan state forest policy 2010 looks like an excellent policy document in spirit; if people's participation is taken in its true spirit then it may even turn out to be a model forestry policy in the country. This policy recognition has instilled a lot of confidence in the community and inspired organisations like 'KRPAVIS' to continue working on orans.

28 Sacred Groves to be protected

Kochi : In an effort at protecting and preserving them, 28 'Kavus' (sacred Groves) in Kerala would be brought under a Centrally Sponsored scheme.

Rapid urbanisation and a steadily growing population have placed these 'kavus', which are oasis of biodiversity, under tremendous pressure. Apart from bio diversity, the 'kavus' provide habitat to animals and birds, including snakes.

Kerala Forest Minister, Binoy Vishwam, will inaugurate the state level launch of the scheme-- Intensification of Forest Management-Protection and Conservation of Sacred Groves on Apr 23 at Iringole Kavu at Perumbavoor in Ernakulam, Assistant Conservator of Forests, Sujit R, told reporters here.

During the first year, the 28 'kavus' belonging to Devaswoms and Trusts would be protected. Another set of 'kavus' would be selected for protection in the coming two years, he said.

The scheme supports protection and conservation efforts.

Inventory of sacred groves, Documentation of Flora and fauna of each sacred grove, Preparation of Management plan, labelling of important species and signages, Cultural operations including weeding, Improvement of Footpaths, Laying of Eco trails are among the works supported by the central government, he said.

An Expert committee of the Kerala Forest Department scrutinised the proposals and selected the sacred groves. The owners of the groves would be entering into an agreement with the forest department and prepare and submit a detailed management plan through the ACF before releasing funds for undertaking activities in the Management Plan.

The Union Government has recently released rs 13.2 lakh for the scheme.

Source : PTI - (<http://zeenews.india.com/news620925.html>)

Abstracts of Recent Publications

Vinaya Ghate and Mandar N. Datar, "Sacred Groves for Conservation of Local Biodiversity: A Case Study of Sacred Groves in Velhe Taluka of Pune District".

Seven sacred groves viz. Kind rai in Village Bhatii; Janniche ban and Somjai in Village Varoti; Jannapankari in Village Kelad and Keleshwar rai, Bahiri and Somjai in Village Bhordi from Velhe Taluka of Pune district were studied for their overall floristic diversity and their role in conservation of native flora. A total of 145 species of flowering plants and ferns were recorded from these sacred groves. Three species were found in all the seven sacred groves while 3 exclusively restricted to Khind rai; 3 to Somjai; 7 to Janniche Ban; 10 to Jannapankari; 4 to Keleshwar and 1 to bahiri, found nowhere in surrounding areas. The flora is rich and comprises of 22 endemic species, 56 species of medicinal importance, 15 wild edible plants 11 orchid species and 12 lianas. These groves are preserved in virgin

condition even today because the area is not easily accessible and so far not subjected to developmental activities. These sacred groves have played role in protection of watershed in the area as many small streams originate in these groves. Moreover, these groves being traditionally maintained by the local inhabitants are valuable in conservation of local biodiversity.

V. Irulandi, "Role of Extension Forestry in conservation and protection of sacred groves in Tamil Nadu".

Sacred groves are the repositories of rare species of biological diversity and genetic resources, protected and conserved by the local communities on the basis of religious faith. They are treasure troves of rare, threatened and endangered habitats. They are considered as mini-biosphere reserves and it is a home for innumerable living organisms. The phenomenon of conservation of sacred

groves is an ancient practice in India in general Tamilnadu in particular. The areas under sacred groves vary from place to place ranging from a few trees to hundreds of hectares. These are the last remnants of the native vegetation of a particular ecosystem. They are protected by the local communities by providing them sacred status. Sacred groves exist in several states and are locally known by different names. In Tamilnadu, sacred groves are called Koil Kaadugal, swami solaigal, Kattukoviilgal and are found almost in all the districts and usually dedicated to local deities. The taboos and belief system prevailing in the local area have contributed a lot for the conservation of the sacred groves. Due to the cultural diversity by rapid urbanisation, developmental activities, extension of agricultural activities and thus the sacred groves are gradually disappearing in many areas. This paper examines the significance of sacred groves and their relevance today, besides analysing the role played by sacred groves in conserving biodiversity. It also explores the possible ways and means of conserving sacred groves with the help of local communities. It analyses the legal and policy vacuum pertaining to sacred groves and suggests a legal status for sacred groves. It also proposes a strategy for conservation of sacred groves in Tamil Nadu. The extension Forestry programme implemented by the Forest department, Government of Tamilnadu will enrich the biodiversity and local ecology of the sacred groves.

Rajasri Ray, "Biodiversity and Sacred Grove : Present Scenario and Gap Analysis".

Sacred Groves are mostly relic forest patches harbor characteristic species composition of a region. A careful survey of available literatures shows that, contrary to the actual meaning of biodiversity, there is biased assessment towards angiosperms and avifauna. However, aspects like endemism, rare, threatened plant conservation, NTFP and medicinal importance have been covered to some extent with an aim to establish its importance for tangible goods. On the other hand, despite their pan-Indian distribution in different ecosystems, grove oriented studies are concentrated in some specific regions including two global hotspots, Western Ghats and North-East Himalayas. Apart from documentation and inventory, few studies exist on population ecology, regeneration, disturbance measurement, etc. but a wide gap exists in understanding the complex ecological functions responsible for supporting diverse life forms.

Sacred grove conservation activities have been increased manifold due to current awareness and Government support. Despite having successful case studies, conservation measures are mostly grove centric and community oriented without paying much attention to the surroundings. In addition to the current activities, there is a need to understand the importance of landscape level approach for sacred grove system to secure its long term existence.

A K Ghosh, "Sacred groves and Conservation of Biodiversity".

Environmental ethics can be traced back to early Indian Civilization. The concern for and reverence towards natural resources can be evidenced in the epics of Ramayana and Mahabharata as also in the classical treatises of Chanyaka and Manu. This religious coverage of selected patches of ecosystem can also be linked with the traditional rituals and customs of myriad tribal communities of India. As such there seems to be a confluence of both Vedic and tribal beliefs in the well being of nature with that of the Human Society.

The concepts of Sacred Groves and Temple Ponds have attracted attention of the researchers as a part of conservation ethics. As a result, thousands of sites (+/- 15000) have now been recorded under different ethnic identity, apparently all being endowed with halo of divinity. In reality, such areas protected rich biodiversity especially in the tribal dominated forest areas, and forests, till date, are known to be the recorded habitat of more than 80% of the biodiversity.

It is believed that 'land use change' and 'climate change' are the major drivers in the fastest depletion of biodiversity in today's world. Protecting selected patches of ecosystem in the name of religion, offers an unique method of conservation of biodiversity. Sacred Groves are now known to protect 'critically endangered' to several 'vulnerable' species of biota. While protected area network under extant laws remain concern of the system of governance, sacred groves continue to be protected by the people and make ideal candidates for conservation as 'Biodiversity Heritage Sites', under the Biological Diversity Act 2002 and Rules 2004. Regrettably not much action has been taken so far in this regard. The paper discusses the dimension of Sacred Groves and challenges of conserving Biological Diversity.

Events

Lectures delivered / workshops attended by ENVIS staffs

- ❖ Hon. Director delivered the Keynote address on Concerns for Environmental protection in Urbanisation as part of Coimbatore Day Celebrations at Coimbatore, organized by RAAC, Siruthuli, Coimbatore, on November 24, 2010.
- ❖ Hon. Director delivered a lecture on India's Ecological Heritage organized by the Rotary Club of Madras South at Chennai on November 30, 2010.
- ❖ Participated and presented a paper titled with "Cultural Linkages of Biodiversity", in a National Seminar on the First Indian Biodiversity Congress, IBC 2010, Organised by Centre for Innovation in Science & Social action, Kerala State Biodiversity Board, University of Kerala and Navdanya, New Delhi at Thiruvananthapuram, Kerala, on December 28 – 30, 2010.
- ❖ The Hon. Director delivered a lecture on Sacred Groves during the Plenary Session on Biodiversity: Focus on fragile coastal ecosystems at the Indian Science Congress held at SRM University, Kattankulathur, Chennai, on January 7, 2011.

Other Events...

- ❖ Participated and presented a paper titled with "Environmental History and Human Impact on Sacred Groves in the East Coast of Tamil Nadu" in a National Seminar on the Conservation of Sacred Groves to protect local Biodiversity, Organised by C.P.R. Environmental Education Centre, Chennai, on February 12 – 14, 2011.
- ❖ Participated and presented a paper titled with "Folklore Protect the Sacred Groves on the East Coast of Tamil Nadu" in a National Seminar on the Role of Folklore and Ballads in the Reconstruction of the History of Tamilnadu", Organised by Dept. of Indian History, University of Madras, on March 24 – 25, 2011.
- ❖ Participated and presented a paper titled with "Biodiversity: An Introduction" in a National Seminar on the Biodiversity in Tamil Literature", Organised by Department of Environmental Science and Medical Science, Tamil University, Thanjavur, on March 30 – 31, 2011.

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Readers are welcome to contribute articles, photographs with details, news clippings, etc., pertaining to the Ecological heritage for publishing in our subsequent newsletters. Please send your views and opinions.

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