Rooted in the wild

Atree shows the way to conserving the environment and promoting sustainable development in a bid to protect life for future generations

Yasmin deshe tu yo jaatah tasmin tajjoshadham hitam — says the *Charaka Samhita*, one of India's oldest treatises on Ayurveda. In other words, nature is so organised that it has provided every micro-environment with the natural resources necessary for the typical health needs of the people living in that environment.

How entwined are humans with nature? For the Soliga community of Karnataka living in the Male Mahadeswara forest, the bamboo plant represents not just a way of life, but life itself. More than any other plant or tree in the forests that they consider home, the bamboo is super-critical to their environment — more than half of their income comes directly from bamboo products. In recent years, the all-pervasive spread of forest encroachments and degradation has meant that the very survival of tribes and communities such as the Soligas, who traditionally depend on minor forest produce, subsistence agriculture and woodcraft for their livelihood, is at stake.

The Soligas needed help and were lucky to find it at the Bangalore-based Ashoka Trust for Research in Ecology and the Environment (Atree). With bamboo fast disappearing from its native forests, Atree researchers tried to find a substitute that the Soligas could work with. They soon zeroed in on the Lantana camara (an invasive shrub that poses a threat to native biological diversity throughout India) as a possible replacement. The choice worked very well indeed. The Soligas now manufacture and sell Lantana crafts ranging from tiny pen stands to large cots and dining tables.

Atree organises lantana basket-weaving lessons for the Soligas

It is the profusion of creative solutions such as this one that has made Atree a favoured partner in the planning and execution of projects in conservation and sustainable development by local, state and national authorities. Atree, established in 1996, states its mission as 'to conserve the environment and promote sustainable development by generating interdisciplinary knowledge, improving policy and governance, developing human capital, and engaging civil society'.

The organisation's current focus is biodiversity; it is concentrating on two biodiversity hotspots that are home to rare and endangered species: the western ghats (preferred residence of the lion-tailed macaque, Nilgiri tahr and the lady slipper orchid) and the eastern Himalayas (neighbourhood of the red panda, golden langur and the insectivorous pitcher plant).

Research is one of Atree's strongest weapons. Its Geographic Information Systems and Remote Sensing (GIS/RS) lab offers services covering assessment of threats to biodiversity, examination of the degree of protection enjoyed by ecosystems, identification of new areas of high conservation value that are not protected and development of indicators for the loss of biodiversity. "The way we look at research is unlike the way a university does. It is very linked to problems either at the policy level or at the ground level. Therefore, it is very interdisciplinary," says Atree director Gladwin Joseph.

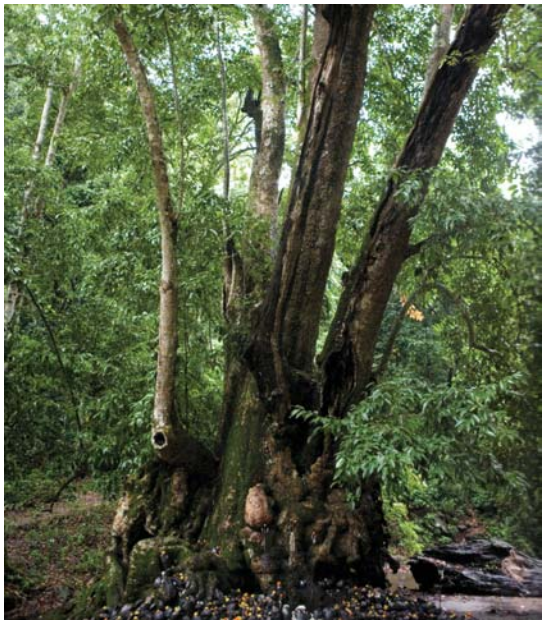
The organisation has set up three centres to carry out in-depth research in the field of natural and social sciences. The Centre for Conservation Science is currently working with the Wildlife Institute of India to strengthen biodiversity conservation at Unesco's world heritage biodiversity sites. The Eco-informatics Centre is creating a cyber-ecology platform — a web-enabled, publicly accessible resource for conservation and natural resource management. The Centre for Conservation, Governance and Policy aims to develop decentralised, participatory approaches to the co-management of natural resources and to enhance civil society involvement in conservation.

Atree also organises academic activities — doctoral and certificate programmes as well as experiential, learning activities that are "hands-on". The doctoral

degree in natural or social sciences is awarded by the Manipal Academy of Higher Education. Students are also offered internship opportunities that are highly popular. Says Mr Joseph, "We have an internship arrangement with the Oregon University System. MTech students from IIT Kanpur have come here to work on GIS/RS. The University of Kansas has approached us for a more regularised internship programme."

Conservation education is another key area of Atree's activities, with an emphasis on training initiatives, dissemination of information and partnerships with stakeholders such as researchers and academic, government and non-government organisations. The National Knowledge Commission has requested Atree to lead the India Biodiversity Portal (a collaborative effort between five partner institutions). The portal is conceived as a map-based interactive website focusing on the Indian subcontinent. Atree also publishes books, professional articles, reports and monographs, and newsletters. It also hosts the Khoshoo Memorial Award in the field of conservation and sustainable development, in memory of founding trustee Triloki Nath Khoshoo, one of the architects of India's environmental policy.

Atree is supported by several organisations, one of which is the Sir Dorabji Tata Trust (SDTT). A large part of the Rs47.6 million grant from SDTT has been deployed for the Soliga programme. "We have been working very hard with the local Soliga community to help them negotiate with the government on the Recognition of Forest Rights Act. The process includes helping the Soliga to map their traditional settlements. Now, new kinds of maps of the Biligiri Rangaswamy Temple Wildlife Sanctuary are emerging. We are also interested in a framework where they have user rights to a certain part of the forest, to co-manage it with the forest department," says Mr Joseph.



Atree works to preserve biodiversity in the western ghats and the eastern Himalayas

The organisation has spent 10 years working with the Soligas. Now the organisation is also trying to boost awareness in the state administration and the public about the problems faced by native tribes, by getting them to see a landscape through the eyes of the people who have been living there for centuries. The Soliga example shows clearly the importance of conservation of nature in order to safeguard our way of life for our future and the generations yet to come. ●

Shalini Menon

Catch them young

Atree works hand-in-hand with rural and urban schools and colleges to convey the message of conservation. One innovative teaching example is the creation of 'live fences' in schools. These fences, made of growing plants, are like living laboratories that give students a chance to observe plants, seed germination, seed production, pollination, interactions between predators and prey, the life cycle of butterflies, moths, birds and so on. The fence is a live, continuous, changing biology lesson that fosters appreciation and a sense of caring for nature in the children.

Atree also sets up butterfly and medicinal plant gardens on school grounds. To have fun as one learns is the motto behind nature camps set up by Atree, where children interact with nature in rugged mountain environments with thick forests, deep valleys and swift rivers. The camps are located at Aravalli, Churdhar, the Great Himalayan National Park and BR Hills, and are a part of the Outdoor Environment Learning Initiative, a collaboration between Atree and the National Museum of Natural History, New Delhi, that designs structured outdoor environment learning modules for schools.