

Feature

Environment

# Regenerating the Sal Forests Through Conservation

**T**HE psychology behind the witty Bengali proverb — **BEL PAKILEY KAKER** (If wood apple ripens, how does it matter with the crow) probably hit hard at the subtle roots of forest conservation especially in the Sal forest tract of the country. This proverbial analogy elucidates public sentiment that runs high in the forest neighbourhood regarding their perception of forest conservation. Vociferous amongst the forest neighbours courageously give out their feelings when they bluntly say: there may be a very rich stand of forest with unique scenic beauty near their situations but why and how should that be a matter of complacency for them since they have no opportunity to reap any benefit from such forests? And so they owe no obligation as well to forest conservation.

In British colonial days, these Sal forests had been the private property of the zamindars (landlords) and the forest neighbours had no legal right on such land or produce standing crops thereon, although they and their domestic livestock and field crops had been the frequent victims of forest animals. Even in extreme cases, right of way or water courses through the forest estates were denied. They suffered persecution in the hands of the zamindars for petty forest liftings of domestic requirements. As long as the zamindars ruled with iron hands, forests remained more or less intact. But such bourgeois domination had been counter-productive and resulted in breeding hostilities between the forest owners and forest neighbours subdued only by repressive measures.

When landlordism was abolished by the East Bengal Land Acquisition and Tenancy Act, 1950 (EBSATA, 1950) and forests were declared non-rentable property by any private owners, these forests came under the administrative grip of the national government. But though the ownership got a change from private individuals to the state, the legacy of custodial management attitude and alien treatment to the forest neighbours by the public servants continued as before. On the negative side of the story, in the place of stiff colonial rule and bourgeois control, a much lenient application of penal provisions of

the forest act was imposed by the native government's administration. As a result, substantive control over forest estates got slack. An enigmatic situation is still prevailing in the Sal tract regarding the legal status of a vast proportion of the so-called forest land. During the enactment period of the EBSATA, 1950 and immediately afterwards, plenty of irregular tenancy distribution of forest lands, in defiance of the provisions of the said Act, were surreptitiously done by the zamindars and their employees. Consequent upon the whole sale acquisition of the zamindars' private forest estates, the then existing legal status of these lands were required to be determined by a quick land title settlement operations and the forests ought to have been declared as Reserved Forests (RF) so that

by **Ali Akbar Bhuiyan** Forest Department. Though technically sound and registered initial success, most of these development efforts proved unsustainable simply because they pursued traditional custodial management approach by the government department exclusive of the people's participation in the forest development and conservation programmes. Human interference in the densely populated Sal tract had been primarily responsible for unsustainability of the past forest development efforts. Globally, most developing countries, especially those with high population density, poor industrial base and undeveloped agricultural technologies are beset with the menacing problem of forest clearance for spatial expansion of low output agriculture and

the forests, while the state organs should be the technical guide and regulatory authorities to ensure that the trust is honoured and agreed management norms are complied with. Admittedly the Sal forests have been degraded by the local people for satisfying the growing demands of forest products in the country. There was virtually no export of timber or other produce beyond the frontier of the country and as such the growing scarcity of these commodities coupled with acute unemployment in the countryside drawn hungry people to forests for subsistence gathering. What was lacking in these exploitation acts was the death of tenderness for, and a sense of belonging with the forests and regard for its sustainability in the mind of the exploiters. If, however, a sense of belonging

programme was first launched in early 1980s in a place called Arabari and by now some 152,000 hectares of degraded Sal forests have been fully rehabilitated: an outstanding achievement made possible through attitudinal change of the professional foresters in associating the local people in the forest protection programme. A group of energetic and devoted professionals won the confidence of the local people and motivated the 'one time destroyer of the forests' to be the savior of the present generation forests. Neighbouring Nepal also created similar example by making public forest truly public by handing over a big chunk of state forest to the local Panchayets who undertook full responsibility for protection and rehabilitation of the degraded forests.

It is pertinent to reiterate here that in the macro-economic management philosophy of state affairs, creation of a resource is more important for the state. Therefore, organising local community in forestry development and its protection, and sharing forestry benefit with them through what is called 'social forestry' or participatory arrangement, should be considered as the most pragmatic management decision for the state.

In line with the experimental results of participatory forestry management inside the country (NGO experience), and in drawing results from the success stories of the neighbouring countries (West Bengal and Nepal), participatory protection and management of the plain land Sal forests of the country should be undertaken without hesitation and loss of further time. When done in right earnest with a set of dedicated social forester, this will certainly turn out to be one of the most cost effective forest rehabilitation programme for the country. It is genuinely hoped that implementation of such a pragmatic forest protection and management programme with people's direct involvement will usher a new era in the history of sustainable forest rehabilitation in an atmosphere of hostility and chaos.

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the provisions of the Forest Act were fully applicable to deal with forest offences. The government of that time rightly conceived the need for such land dispute settlement operation and appointed the Deputy Commissioners (DCs) of the respective districts as the Forest Settlement Officers (FSO) in mid 1950s to deal with the matter.

But the lapse in duty on the part of the FSOs resulted in undesirable hostilities and had blood between the irregular settlement holders and the Forest Department (FD), each party claiming the land as theirs and virtually fighting both in the field as well as in the courts of law. The ultimate sufferer was the forests in that the pseudo owners thought, if the forest is cleared of the trees, cultivated and dwell upon the evidences will weigh heavy in their favour. And so they did clear the forests and made those areas cultivable. The land dispute grew more intricate each day and needs to be resolved on an emergency basis through a crash programme settlement operations.

The pre and post liberation periods of the country witnessed many forest development programmes in the Sal tract, initiated by the state

dwelling, and also as a means of earning cash to buy food. It is to be appreciated by all concerned that the state's interests in forest management lay in production of goods and services, maintenance of ecological balance and preservation of biodiversity, all for the benefit of its citizens.

Political decision to actively involve the local people in the forest protection, its management and development, and the state's readiness to share forest benefits with the neighbouring community in exchange of their willing service for sustainable forest conservation should be clearly spell out as the government's policy commitment. Indeed, the noble outcome of such a philosophy was a policy shift from the custodial forest management approach to participatory management concept, which ultimately paved the path for evolution of the highly acclaimed 'Social Forestry' concept which seeks to develop forestry for the overall benefit of the people and in conjunction with the people so that forest neighbours no longer consider forests as alien property. To the contrary, they should be enshrined with the feeling that forests belong to them and for them. The local people would, in fact, be the real custodian of

and sustainability concept could be impregnated in the local community, the same set of people who destroyed the forests could be inducted to saving the forests.

One of the national level NGOs, by remaining behind the scene unauthorisedly organised protection of some pockets of govt coppice forests in Gazipur and Tangail districts motivating and organising their target groups for such protection. The outcome of such effort was spectacular in that the whole protected blocks were fully stocked by Sal coppice regrowth and the sapling density was as thick as a jute field. There has been no sign of any irregular felling except by the group members according to agreed norms of operation. Through done stealthily and in a small scale, these private efforts of NGOs brought to light the enormous prospect of regenerating the whole belt of degraded Sal forests by formalising such protection programme through government organised beneficiary groups on the principles for participatory social forestry programme.

In fact, in identical situations in our neighbouring West Bengal province of India, government sponsored 'Forest Protection Committee' pro-

fragmentation of landholdings, decline in productivity, and lack of income generating opportunities have no doubt forced farming communities to depend heavily on neighbouring forest resources.

The new project aims not only to help them protect and manage forest resources but also engage in income activities to benefit small and marginal farmers, landless peasants, women (specially household heads) and ethnic groups living inside the forest, like the Tamangs and Chepangs.

In many villages, landless peasants are labourers. It would be difficult for them to devote their entire time to develop the degraded forest land without starving.

The concept of leasehold forestry was initially approved by King Birendra in 1978 when it was only confined to industrial purposes. Recently, it has received renewed emphasis as a strategy to promote community participation in the regeneration and management of forests.

A workshop was organised last February to familiarise decision-makers in Kathmandu and the districts with details concerning objectives and strategies of the project. The target for 1992-93 was to form five groups each in Kavre and Makawanpur and 15 groups each in all four districts this year. But making manuals and lease agreement documents was time-consuming.

Nepal also faces a long list of problems while implementing the project. Suitable degraded land has to be available, consent of the local community and user groups has to be obtained, family members need to be trained in areas, such as bee-keeping, they have never worked in.

Then there is the all too familiar problem of coordination. The capability of the Department of Forest, which is implementing the project, has also been questioned.

The activities and programmes under the project are also likely to strain the Forest Department as well as other personnel at the central and the field level which need to attend to the successful implementation of the project.

How the actions will be orchestrated to create a harmony instead of a cacophony of problems is the real challenge,' says SS Mahdi, the Nepal representative of the UN Food and Agriculture Organisation (FAO) and a key architect of the project. 'Basically, this is a question of will.'

# Extinctions are Forever

Earth's last repositories of life forms could be obliterated as Asia transforms itself into the world's engine of economic growth. **Kunda Dixit** of Inter Press Service reports

**I**NDONESIA has more types of plants than the entire African continent. Tiny Nepal has nearly as many bird species as North America. And more than half the world's marine life is found in the seas surrounding South-east Asia.

Stretching from the wind-blown steppes of Central Asia, across the Himalayan mountains and the Tibetan Plateau to the rainforests and corals of the Pacific rim, Asia's topography has given it the world's most exuberant biodiversity.

But this wealth is now threatened like at no time in the planet's history by the explosive growth of poverty and prosperity.

species would vanish in that time.

Biologists are particularly worried about fragile island habitats in South-East Asian archipelagos where many endemic plants and animals live. The tiny island of Siberut in Indonesia, for instance, has 10 times more endemic primate species per 1,000 sq km than the whole of Madagascar.

Estimates of the rate of extinction range widely. But at least 60 birds and mammals became extinct worldwide in the first 50 years of this century. The 'background extinction' rate (the average natural rate) is one extinction every 1,000 years.

biological resources, but the ownership of intellectual property rights remains in limbo," says FAO's Khan.

For instance, a patented product trademarked 'Margosan-O' developed from the Asian neem tree is now the monopoly of a US-based transnational company even though villagers in South Asia have known and used its medicinal properties for centuries.

Khan calls this 'bio-piracy' and says it is an outrageous example of the biotech industry patenting not only natural life forms but also past and present knowledge of indigenous peoples.



Asian countries, especially in vibrant East Asia, have now become the engines of growth for the world economy. But if they follow the same path to growth as Europe and North America, biologists fear the planet's last repositories of life forms could soon be wiped out.

In the poorer parts of Asia, on the other hand, impoverished people desperate for food are destroying natural habitats, causing irreversible biodiversity harm. South and South-east Asia have lost 70 percent of their original forests. One-third of Asia's coral reefs are gone, and only half its mangroves remain.

'Extinction is forever,' says A Z M Obaidullah Khan, regional representative in Asia for the United Nations Food and Agriculture Organisation (FAO). 'And what we have before us is the prospect of irreversible mass extinction of species.'

Unlike Europe's temperate forests, much of which disappeared during the industrial revolution, tropical rainforests are incredibly richer in life forms. One hectare of rainforest has up to 200 tree species and thousands of insects and plant types.

The regions of the world where tropical moist forests are most likely to be destroyed in the next 30 years harbour half the world's plant species. After the Amazon, Asia has the second-largest tracts of rainforests.

FAO estimates that at present rates of deforestation, up to 35 percent of the world's tropical forests species will be extinct by the year 2040. But if forest loss is slowed down by half, only 10 percent of

Scientists are not even sure how many plant and animal species there are on the planet, estimates vary between five million and 40 million. But only 1,742,000 of them have been identified — three-fourths of them insects. In fact, scientists now reckon there may be 30 million insects in tropical forests alone.

Given the uncertainty, most scientists find it a waste of time to debate the rate of extinction of species. They say more energy should be spent on charting effective conservation strategies.

'A loss of 25 percent of the world's species over one human lifetime would be staggering by any measure,' says Walter Reid of the World Resources Institute (WRI). 'It is indisputably the most serious issue that the field of ecology faces, and arguably the most serious issue faced by humankind today.'

At the Earth Summit in Rio de Janeiro two years ago, world leaders for the first time acknowledged the problem of mass extinction of species and signed a treaty to protect biological diversity. The Biodiversity Convention came into force in December 1993 providing an international legal framework for nature conservation.

But because the treaty was a North-South compromise, critics say it gives away control of biodiversity to transnational corporations and does not attach any value to indigenous knowledge of naturally occurring food and medicinal species.

The biodiversity convention recognises the nation state's sovereign rights over

'If you look at the (biodiversity) convention closely, you see a serious risk that indigenous peoples will be seen as a resource for biological diversity rather than as people who hold legal and cultural rights in relation to it,' says Donna Craig, an environmental law expert.

FAO estimates that the annual market value of medicinal material derived from the knowledge of indigenous people is US\$43 billion. But they hardly get any of the proceeds. In recent years, conservationists have come up with the concept of integrated protected areas systems (IPAS) as a model to link nature preservation with the economic needs of people living near reserves.

Experts at a regional conference on biodiversity at the Manila-based Asian Development Bank (AsDB) in June felt that as long as governments are not willing to make the trade-off between development and environmental protection in a particular region, then all IPAS experiments will fail.

'If ways cannot be found to reconcile population and economic pressures with biodiversity conservation, these protected areas seem doomed to certain destruction,' says Charles Barbers of the WRI at the Manila conference.

AsDB president Mitsuo Sato felt some Asian governments lacked institutional support and money to assure the long-term survival of nature areas and pledged the bank's help in slowing species extinction in Asia. AsDB is now considering working with the World Bank as a partner in its Global Environmental Facility (GEF).

# Landless Families Reforest Nepal

by **Jan Sharma**

**H**IMA Lal Kalle looks at the patch of denuded hills in Opi village on which he and his family depend so much for survival.

Hima, 51, is the father of five children. He has no land of his own. He works hard, together with his wife and his daughter who is married but abandoned by her husband because she was too poor.

'I have no property, nothing,' says Hima, laughing at his own poverty. This is the fate I was born with. What else can you do? I want to survive.'

Under a new programme launched by the government, Hima's dream of owning a land

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and having a better life may come true.

In a politically risky but prudent move, poor farmers with small or no land will be given a piece of degraded forest land on lease with the right to grow trees and a package of monetary and technical aid to earn cash.

It is politically risky because the success of the project would mean economic independence of the poor. It means that tradi-

tional political power and the authority of the village elite would be undermined. But if the project turns into a success, it may evolve into a model for other countries.

Under the scheme, families will be given one hectare of degraded forest land on lease for 25 years with exclusive right over the produce of the land. The lease is renewable.

The Hill Leasehold Forestry and Forage Development project

will be implemented over eight years with an initial three year 'exploratory phase' to cover about 1,000 hectares of degraded land in each of four districts: Sindhupalchowk, Kavre, Ramechhap and Makawanpur. It would be possibly expanded later to six more districts.

At present, blocks of degraded forest land to be leased are being identified and modes of lease arrangements being worked out. Potential beneficiaries are consulted on leasehold forestry management plans.

Once poor families, too, are identified, they form into groups under the Small Farmers Development Programme to qualify for the package of economic and technical aid. The groups will be given loans to develop the forest area by planting trees at the same time raising cattle and goats. They will be encouraged in income-generating activities like bee-keeping.

The poor families are being offered a complete package deal for their own economic upliftment,' says Madhav Acharya, the project manager. This of course includes assistance to plant multi-purpose trees in order to have sufficient fuelwood and fodder supply.

The International Fund for Agricultural Development (IFAD) is providing a loan amounting to US\$12.80 million. The Netherlands is providing US\$2.53 million in technical assistance for the five years for the US\$20.41 million projects. IFAD has thus far provided US\$62.4 million for different poverty alleviation programmes in Nepal since 1978.

'We are testing a bold rather unconventional approach in attacking rural poverty while simultaneously trying to help regenerate denuded hillsides and restore environmental balance,' explains Arjen Sterk, and agricultural economist who has wide experience in forestry in Nepal and Thailand and is the project's chief technical advisor.

In essence, this is a modest response to the traditional conflict of land use: whether to preserve forest or reclaim land for agricultural use.

Majority of the eight million hill farmers out of Nepal's population of 20 million own less than half a hectare of land while many more live below the poverty line.

The limited access to land,



'One Earth, One family': the theme of the 1994 World Environment Day captures and expresses a profound and fundamental truth. God created the world as a delicately balanced whole and entrusted it to the one human family, charged not only with its conservation but also with the transformation of this Earth for the benefit of all. This year's celebration of the International Year of the Family reminds us that the family, society's basic unit, is the place where coming generations best learn how to live in love and respect for one another. As the family is strong and healthy, so will the one human family be increasingly aware of its responsibility to see that the Earth is protected, and to ensure that everyone enjoys its fruits.

From: HF: Pope John Paul II's Message for World Environment Day

# Brikhya Mela: My First Love with Trees

by **Tarannum Laila**

**J**UST about a month or so ago, the first ever 'Brikhya Mela' of Bangladesh took place. It was a fair of trees and plants. It began on June 26 and continued for 7 days till July 2. The government organised this as a step towards encouraging people to plant more trees. I had heard of it and felt slightly curious to visit the fair. I am not really crazy about trees. But I do think trees are an essential necessity for maintaining the ecological balance. It is amazing, how I enjoyed my visit there.

On June 28, at around 5:00 pm my mother rushed home from work and asked me to get ready to go to the tree fair, when I was about to go over some class notes. Rather reluctantly, I changed and hopped into the car with my mum. Our car went along the Bijoy Shari and pulled near the huge field which was then transformed into a venue for the tree fair. A rotating sign-board greeted the guests as they went in. The admission was free of cost. We followed a red, brick-path which was in front of the shops. I soon spotted a very nice stall selling various kinds of orchids. There was some orchids with a touch of purple, some were orange and some white. They were of different shapes and sizes. I wanted to buy some orchids, but unfortunately they were not for sale. I also noticed an amazon lily. I was totally astonished by the size of it. It was shaped like a soda-cap turned up side down. It was so big that anybody could even sit inside it. It also has a huge lily hanging at one side. It was the first amazon lily I ever saw.

We moved on and saw a stall of 'Modern Food Products' which was obviously selling things like chutney (pickles), tomato sauce, jam etc. Then, we saw a shop which was selling young plants of pepper, plum guava etc. Lots of people were crowding over there to buy them. I noticed that some of the products in the stall was featured in the popular agricultural series of BTV, *Mati O Manush*. We moved on and saw some people selling more plants and seeds of various kinds. They were probably from private nurseries or from govt. nurseries. Soon, we came across a snack shop. I helped myself to a plate of *chotpoti*. Mum and I then decided to go around the stalls again. I soon observed that more and more people were pouring in to see the exhibition. The majority of the people I saw coming in, with somewhat eager expression, were actually leaving with at least a plant or two and a sense of satisfaction painted on their face. The air was fresh and breezy. So, it was relaxing to stroll along the field, looking around. I saw some elderly couples sitting and chewing peanuts happily. The fair was quite soothing for people who couldn't sit alone in a park or in a grassy surrounding undisturbed. Although the fair had attracted many tree-lovers and also non-tree-lovers, the crowd wasn't as big as it usually is in other fairs where the crowd pours in unnecessarily. I was enjoying myself as I roamed around the peaceful surroundings.

Soon, I spotted the open space in the middle of the fair getting crowded with more and more plants. Until then I actually hadn't bothered to

look at the plants, that much. But soon, as roses and other pretty flower plants began arriving I felt an irresistible impulse to inquire about them. I asked the price of a *bely* plant and come to know it was Tk 20. I thought, 'I spend so much money over cassettes, books and T-shirts, I should spend at least a bit of money over plants.' So I bought the plant. I was so engrossed in buying it, that I nearly forgot about my mother. Realising that, I looked around and traced her, who was also equally engrossed in buying plants. Paying the price for my plant, I rushed to mum. She was busy collecting few plants of fruit. She wanted to buy a grape-plant, but we can't exactly grow grapes in an apartment flat. So, she had to be content with a *neem* plant, an *amra* plant, and two different guava plants.

It was quite a spectacular scene as all around people were buying plants. To be honest, the *Brikhya Mela* or the plant fair was really encouraging. After I planted the seeds in a pot and waited for it to grow, I felt as if I had helped our mother nature a bit. If people keep on planting trees and growing fruits in their village, then they can sell the products (vegetables, fruits) and make profits from them. If they do that, they will not have to rush to the cities to earn money for livelihoods. Perhaps, someday we can truly turn this country green, with trees. And, if plant exhibitions of this sort are held frequently enough, people who do not have such passion for trees may also turn into a tree-lover, which will eventually transform them into true lovers of nature.

— Depthnews Asia