

SCIENCE AND ENVIRONMENT FORTNIGHTLY

Down To Earth

KASHMIR

PEACECRAFT

KASHMIRI MILITANTS

tensions.

The tension between India and Pakistan is a bilateral matter that must be resolved by direct dialogue between the parties. We certainly believe that war is inevitable in the long term. The problem is not India and Pakistan but a satisfactory resolution.

O'Brien said that India and Pakistan must find a way to resolve their differences.

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Peace isn't elusive

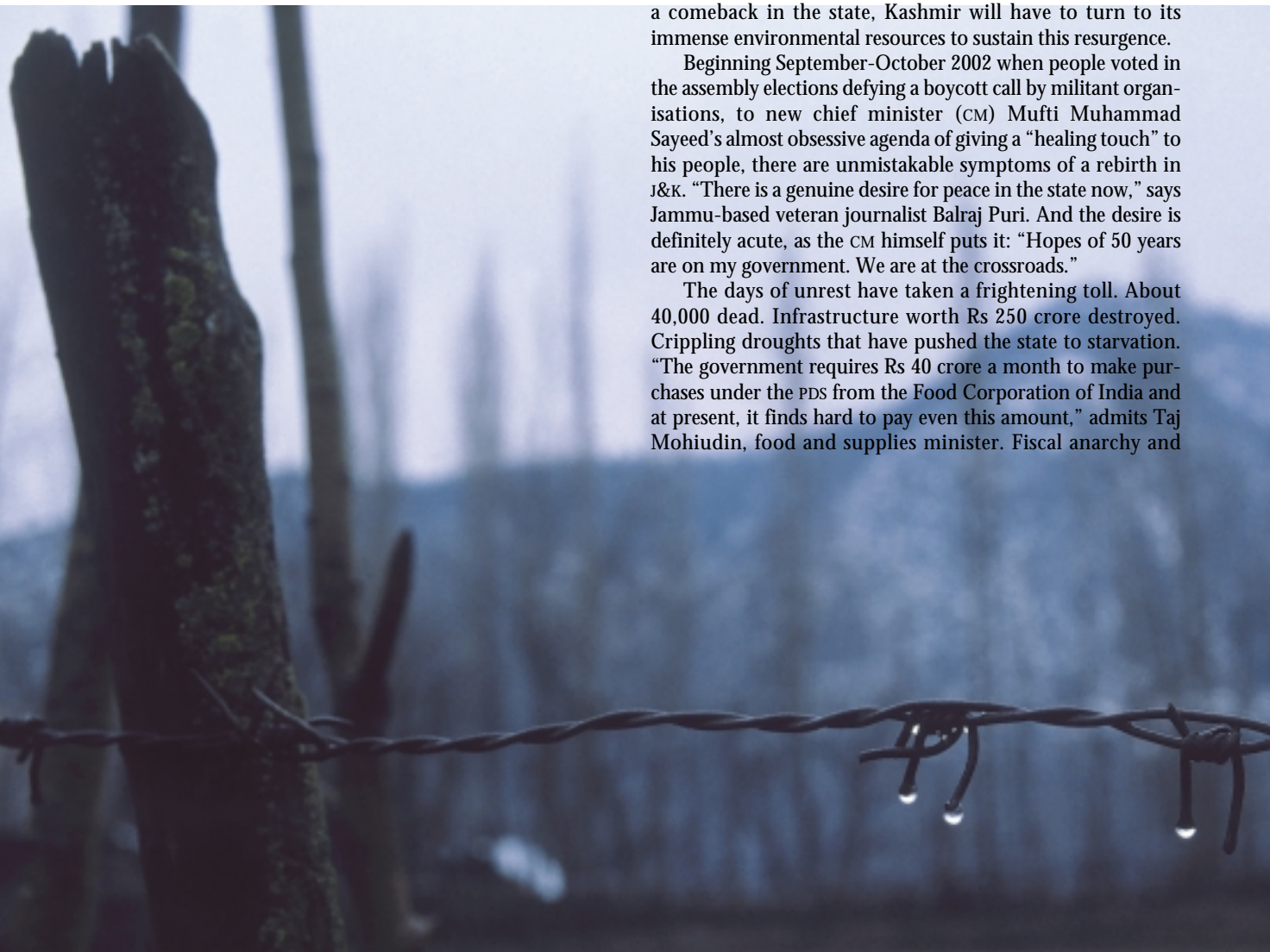
In Kashmir, peace demands sound environmental planning,
says RICHARD MAHAPATRA

PHOTOGRAPHS: SURYA SEN / CSE

Tourism. Handicrafts. Agriculture. Forests. Lakes... these have formed Jammu & Kashmir's (J&K) basis of survival. Always. They still constitute 98 per cent of the state's economy and sustain 90 per cent of its population. Kashmir's economy is nothing but a sensitive and organised use of its ecology. After 15 years of living under the shadow of the gun, when hope is finally making a comeback in the state, Kashmir will have to turn to its immense environmental resources to sustain this resurgence.

Beginning September-October 2002 when people voted in the assembly elections defying a boycott call by militant organisations, to new chief minister (CM) Mufti Muhammad Sayeed's almost obsessive agenda of giving a "healing touch" to his people, there are unmistakable symptoms of a rebirth in J&K. "There is a genuine desire for peace in the state now," says Jammu-based veteran journalist Balraj Puri. And the desire is definitely acute, as the CM himself puts it: "Hopes of 50 years are on my government. We are at the crossroads."

The days of unrest have taken a frightening toll. About 40,000 dead. Infrastructure worth Rs 250 crore destroyed. Crippling droughts that have pushed the state to starvation. "The government requires Rs 40 crore a month to make purchases under the PDS from the Food Corporation of India and at present, it finds hard to pay even this amount," admits Taj Mohiudin, food and supplies minister. Fiscal anarchy and





rampant corruption has seen the state move from a situation of a surplus of Rs 24 crore in 1994-95 to a deficit of Rs 2,166 crore in 2000-01, according to finance minister Muzafer Hussain Beig's budget speech. Militancy has restricted the government's reach so drastically that the arrears of revenue collection amount to Rs 1,000 crore (2001-2002). "Without the arrears, the government has also cut down on funding to less priority departments such as forests and wildlife," says a finance department official.

Caught in the cleft of this economic turmoil, J&K's human development index has reached its nadir. According to the *State of Human Development Report* (2002) of the Planning Commission, J&K's human development rank has gone down from 19 in 1981 to 25 in 1991.

Shoddy environmental management has aided the economic quicksand that the state currently finds itself in. Even though J&K's forests were kept out of bounds for its people, they sustained 50 per cent of the state's population living in and around them. The state's famed woodcraft trade, employing close to one lakh people and the source of the cricket bat industry, draws its sustenance from forests. In 2003, the World Cup fever ensured sales of about two million willow bats.

But forest cover has come down by 20 per cent in the last two decades, and agricultural productivity has decreased by 50 per cent, particularly in the last five years. The lack of access has served to speed up the depletion. There is intense pressure for timber and other resources on a few patches, and these are

being stripped bare. Grazing, for instance, has taken a heavy toll. The state has a huge livestock population. Of the 20,18,200 ha under forests, not more than 50 per cent is available for grazing. Assuming 30 lakh cattle graze in the forest areas, the grazing intensity is more than three cattle per ha. For proper grazing, cattle require two ha per head.

Thus, the grazing intensity is at least six times the permissible intensity.

Says A R Wani, a retired principal chief conservator of forest (PCCF), "Political instability has facilitated the process of environmental degradation." Tourism, the mainstay of the state's economy, has taken a severe beating. The J&K government estimates that the economic loss from tourism alone is to the tune of Rs 500 crore every year.

The only way ahead, therefore, lies in sustainable management and utilisation of the state's natural resources. According to 'Jammu and Kashmir: Vision 2020' (a seminar jointly organised by the Federation of Indian Chambers of Commerce and Industry and the J&K government), the state's natural resources can generate close to

Rs 10,000 crore in a few years given the right policy focus and political will. This is what the CM's healing touch has to act on — and immediately. Violence has bred economic stagnation, which has nurtured unemployment in its turn. The state has 1,60,000 registered unemployed; 50 per cent of its labour force is underemployed. "They are potential agents of both peace and death," says a senior official.

"Employment is a crucial factor in bringing in peace," admits the CM. But at the same time, the government does not have the resources or the ability to absorb such a large segment of the work-force. While the state government — the biggest employer — has 50,000 vacancies, according to Muzafer Hussain Beig, "We can't fill them up due to resource constraints."

What, however, is of essence in this proposed use of ecology is people's participation; the state will have to loosen its iron grip and let the people take over. For instance, community-based forestry can ensure sustainable harvesting of the willow tree, which caters to the multi-million rupees cricket bat market. Agriculture, which depends on rain for irrigation, could get a boost if the traditional canals are revived and managed by the community.

It is a course of action that needs the highest degree of political will and structural changes in policy and governance. Without this, the CM's healing touch may not heal. "The doctrine of the healing touch is to bring back normalcy," says J S Jamwal, a former member of the state legislature. In a recent opinion poll by a leading daily, 91 per cent of the people surveyed cited economic development as the best way to bring in peace. Mufti Muhammad Sayeed carries an immense responsibility on his shoulders: that of being the state's chief environmental officer, as well as its CM.

FORESTS

Losing its soul Losing its forests

STATUS: Five per cent of the state's forests are degrading every year

POTENTIAL: Regeneration of the degraded forests can create 120 million handdays of employment

STRATEGY: Open up the forests to people and involve them in regeneration and management with benefits

A 150-year-old deodar tree — worth about Rs 1,50,000 — buys three AK-56 assault rifles. The result: most militant organisations have resorted to felling trees to finance their killing machines. Intelligence reports of this source of funds has led to protectors turning into marauders: members of security forces and state forest officials, in collusion with timber smugglers, have taken the cover of militancy to clear-fell large tracts of forests. Between 1993 and 1996, about 20 truckloads of timber were seized while being smuggled out by security officials. In the last five years, the Army headquarters has received at least a dozen smuggling charges against its personnel in the state.

Way back in 1989, an extraordinary cabinet meeting of the state government had declared that the forests of the state had shrunk from 21,000 sq km to 13,000 sq km in about 50 years. According to official estimates, the current total forest area in J&K is 20,700 sq km, which is 9.31 per cent of the state's total land area. And it is degrading at the rate of 5 per cent annually, according to A B Patnaik, PCCF, J&K.

J&K's first forest policy, which appeared in 1990, has been

a victim of the state's sole preoccupation — militancy. While the state has looked away, its majestic mountains and forests have been systematically denuded. The cumulative loss to the state exchequer, estimate forest department officials, stands at a whopping Rs 8,000 crore.

Patnaik points at militancy as the principle ravager. The beautiful Dachigam Sanctuary has been devastated and its wildlife poached to extinction. The number of red deer has dwindled to 90 from 900 within a decade. Forty forest department personnel have fallen to the timber mafia, often armed and backed by militants.

The plunder has reached novel dimensions, courtesy the forest department itself. In 1992, department employees struck work demanding better pay; they were reportedly backed by militant groups. During the 70-days strike, the state lost control over its forests. "Large tracts of forests were cleared," says Abdul Hamid Khan, a former chief conservator of forests, in Srinagar. In 1998, when the state government ordered a survey of the state's forests to estimate the rate of illegal felling, local forest guards reported much higher figures

In the last two decades, the state's forest cover has dipped by 20 per cent



of forest felling. Later, they cut the overrated forest patches and smuggled out the wood.

Timber smugglers, on their part, have denuded more than five lakh hectares of forest land, half of which has been converted into agricultural fields. During 1995-1998, a drive against illegal sawmills resulted in the dismantling of more than 800 mills. Smugglers were booked under the stringent Public Safety Act, but the drive petered out.

The malady lies deeper. "Forests were never managed, but always used," says Peerzada Shah, former minister of forests and environment. While the state has been treating its forests as a major revenue source, people's dependence on them has never been integral to the government's working plans. Forest department records (1970-1990) show total timber extracted at 90 lakh cubic metre (cu m) — 4.54 lakh cu m per year. But a wood balance study conducted by the department shows actual consumption of timber as 8 lakh cu m per year — nearly double the amount extracted by the state; unofficial sources accounted for the rest. Over the last 30 years, the state has felled 35 lakh trees (1.16 lakh trees per year). If illegal felling is considered as well, the total stands at 2.50 lakh trees per year.

The government has absolute control over J&K's forests. The Jammu and Kashmir State Forest Corporation (SFC) established in July 1979, is the sole agent for harvesting forests. But the corporation's work is not guided by reason or science — something that was pointed out by the Comptroller and Auditor General (CAG) in its 2002 report: "...extraction of timber in the forests by the SFC was undertaken without any conditions/procedures relating to the period of working of

coupes, timely payment of royalty dues, interest/surcharge on outstanding dues and compensation for the damages to the forests during extraction."

Recently, when the newly elected government began scouting for internal sources of revenue to pay its huge debt, several unpleasant truths tumbled out. One was the absence of an effective forest policy. The issue of deforestation due to smuggling also emerged. "For the first time, the chief minister and his cabinet realised the significance of people's participation in forest protection," says a forest official. "I understand that smuggling gets a fillip due to our bad policy. I will make sure that the new policy takes care of this," said Mufti Mohammad Sayeed while discussing his government's vision of a new forest policy.

The proposed new forest policy aims at making forests more accessible to people by adopting the JFM programme to involve communities in conservation. The policy will focus on regeneration of degraded forests and according to sources, may take up large-scale cultivation of medicinal plants. The state's record in regeneration, however, is dismal: forests harvested have never been regenerated and are now listed as degraded forests. Thirty per cent of forests in J&K fall in this category. The state's afforestation programmes, implemented since early 1980s, have gobbled up Rs 750 crore, without any satisfactory results. In 1982, a Rs 500 crore World Bank-funded social forestry programme sought to involve the people in forest protection. A first of its kind in the country, the programme entered into an agreement with panchayats for implementation. However, following the dissolution of panchayats in 1984, the programme was handed over to the forest department. In 1992, forest protection committees (FPCs) were formed to implement it. About 1,600 FPCs still exist — largely on paper — to look after 10,000 ha of forest land.

Undoubtedly, afforestation and regeneration programmes are the absolute imperatives. Forests hold immense potential for generating employment. The social forestry project, in its first five years, generated 15 million humandays of employment through regeneration of just 17,000 ha. The programme proposed to regenerate 1.40 lakh ha of barren forest land, which at conservative estimates can churn out around 120 million humandays of employment. It means 1,60,000 unemployed in the state can get 100 days of employment a year (according to estimates by the PCCF's office).

Regenerated forests can also offer relief to a population starved of fodder and fuelwood, without affecting the standing forests. According to the wood balance study of the forest department, J&K's demand for fuelwood in 2000 was 33.697 million cu ft; existing accessible forests can meet only 19.207 million cu ft of this demand. The balance has to be met by either allowing access to new forests or by regenerating degraded forests.

Before initiating any community-based forestry programme, however, lessons from history need to be taken cognisance of. The significant failure in the past has been the absence of a strong institutional mechanism to manage such programmes. What gives one hopes is the current favourable environment, with panchayats in place and the government's promises to devolve power to them. Village forest committees, created by the state, could also be given more teeth through legal support.

Lighting up the fires of a regenerated future?





WATER

Fading glories Kashmir's dying lakes are throttling their dependents

STATUS: Most of the major lakes are dying

POTENTIAL: Just three lakes provide economic sustenance for close to 500 villages

STRATEGY: Revive these water bodies to generate livelihood

Over a mile above sea level, around the Wular Lake, a few of India's once richest villages are fighting a losing battle against poverty. It is a poverty that is induced as much by a callous state government as by degradation of the Wular.

What the Nile is to Egypt, Wular is to J&K. It supplies around 40 per cent of the Valley's fish. About 80,000 people depend on it for survival. The turnover of the lotus stem trade from this lake is worth about Rs 25 lakh a year and involves close to 20,000 people. Abdul Ahmed Dar, a resident of Kema village, collects about 100 kg of lotus stems from the lake during September-March every day. But he gets a measly Rs 3 per kg of the produce. The government leases the produce to private contractors, who sell it at Rs 15 per kg. For fishing, locals get a license by paying Rs 220 per year. But the condition of the lake has deteriorated and it is impossible to get any fish in it.

India's 'largest' freshwater lake — as the Wular is known as — has probably already lost its superlative: siltation and expanding human settlements have reduced this 202 sq km lake to just 74 sq km in three decades. It is also under siege — probably India's only water body to be under night curfew since 1992. "The curfew has almost halved our access to our only source of livelihood. Whatever is left is also threatened as the lake is shrinking," says Dar, who now works in crop fields four months a year.

If the Wular is dying, J&K's most famous icon — the Dal Lake — is already being prepared for its funeral. The Lake and

Waterways Development Authority, created to save the lake with a budgetary support of Rs 500 crore, is busy preparing software that will decide when the Dal Lake would die!

Death of the Dal means a life sentence for the 40,000 people who reside in and eke out their livelihoods from it. According to London-based Kashmir Environment Watch Association, the Dal has shrunk in size: compared to 1907 records, the lake has decreased by 50 per cent in volume from 22 to 11 sq km. The lake is also getting polluted with an estimated 30,000-45,000 litres of urine and 30 tonnes of human waste dumped into it every month. Add to it the runoff of chemical fertilisers from the vast drainage basin around it, and you have a lake whose internal life processes are under severe stress. Since 1978, when the state government first initiated a study on the ecology of the lake, 24 reports have been prepared on the Dal at an expense of Rs 267 crore, with nothing to show for all the effort.

Tourism has been a major casualty. Militancy has left around 1,400 *shikaras* (houseboats) bereft of business. "In the last seven years, I have earned just Rs 1,000 from my *shikara*," says *shikara* owner Noor Muhammed. With the loss of revenue from tourism, more and more people are depending on vegetable gardening — on floating gardens. The lake is already clogged with such gardens, which over a period of time develop into residential hamlets. Also, "vegetable gardens are becoming smaller in size and the output has reduced," says

Gulam Mohammed Dar, the president of Shikara Association.

The state's other lakes, some 1,400 in number, suffer a similar fate. Besides sustaining huge populations, these lakes are also the sources for the state's web of irrigation canals, which feed about 25 per cent of J&K's crop fields.

Of late, the state has been gearing up for another conflict: rights over water. On March 2, the J&K assembly passed a resolution asking the Central government to review the Indus Water Treaty with Pakistan (see box: *Ire over the Indus*). Said the CM, "Though we understand that the treaty cannot be rescinded, but the state must be compensated for its loss." The treaty has hampered, among other things, power generation. For example, absence of a storage reservoir (a stipulation of the treaty) has meant the Lower Jhelum Hydel Project can generate only 35 MW in spite of an installed capacity of 400 MW. The August 1998 *Report of the Committee on Economic Reforms in J&K* noted that "on the recently commissioned Uri and Salal Hydroelectric Projects, the energy loss is to the order of 44 per cent and 50 per cent respectively".

The result: the state's power purchase bill has assumed gargantuan proportions. Almost the entire tax revenue of the state is consumed in purchasing power, with revenue realisation not exceeding 35 per cent. By March 2003, the state had purchased power worth Rs 1,135 crore against an expected revenue realisation of just Rs 400 crore. The arrears, if realised fully, can finance at least one five-year plan, says a senior official of the finance department.

Part of the problem is poor marshalling of resources. Hardly 10 per cent of the state's hydro potential of over 15,000 MW has been harnessed till date. The Ranbir Canal, built in 1870, was intended to carry 1,000 cusecs per second of water to feed the areas of Miran Sahib, Vijaypur and Madhopur.

Saffron farmers are left with parched fields



"They want to keep the water only and to

Poor maintenance has ensured that it can now carry just 300 cu ft per second. The Ravi Uplift Canal, meant to service southern Jammu, has gone dry — because Punjab is unwilling to provide any water and there is no electricity to pump it up. As of March 31, 2001, there were 111 incomplete projects in which official investment worth Rs 296 crore was tied up.

The financial results of six irrigation projects with a capital outlay of Rs 88.66 crore at the end of March 2001 showed that revenue realised during 2000-01 (Rs 12.44 lakh) from these projects was only 0.14 per cent of their capital outlay and was not sufficient even to cover the direct working expenses (Rs 1.04 crore). After meeting the working expenses (direct and indirect) of Rs 1.28 crore and interest on capital outlay (Rs 9.05 lakh), these schemes suffered a loss of Rs 1.25 crore.

In March, the state government decided to opt for a power policy with the focus on micro projects. "The policy will make arrangements for each and every potent area to have its own power project according to its requirement," says Mufti Mohammad Sayeed. To expedite action on this, the government has opened its power sector for investment from non-government bodies.

The treaty's implications are not limited to power; farmers in the state are also pushing the government to take a rigid stand against it. J&K is facing severe water scarcity as a result of a six-year dry spell. The spread of agriculture has created a demand for water that J&K's canals simply cannot meet in years of poor rainfall. In 1998, rainfall in the state was deficit by just 1 per cent; in 2001, the deficit shot up to 42 per cent. In the last six years, the annual yield in rice has come down from 152 lakh quintals to 109 lakh quintals. Finance minister Beig points out that this may deteriorate the economy further, as the state would be diverting its already low purchasing power to buy rice from external sources.

The problem has been compounded by reducing forest cover, leading to top-soil erosion: every year, about 5 per cent of agricultural land is losing fertility. Diseases and pests have also been the bane of almost 70 per cent of cultivated fields. The state's changing climate has nurtured the blast disease in paddy fields, and apple scars and fungal infection in apple orchards. According to the state agriculture department, about 40 per cent less apples would be harvested in the coming five years if the diseases were not taken care of.

The cultivation of saffron, one of the mainstays of the sector, has been badly hit. Farmers in the state have traditionally returned to their saffron fields with the onset of *sont*, or spring. But the season has vanished, climatologically as well as metaphorically. "This season is no more, and snow and rain are erratic," says Imtiaz Ahmed, a 25-year-old saffron farmer in Pampore, India's largest producer of saffron. Some 226 villages comprising seven lakh people are solely dependent on saffron for livelihood, according to the J&K Saffron Growers Association. In Pampore, the saffron fields are parched and farmers are gradually abandoning this cash crop. Kashmiri saffron, the state's most profitable cash crop, is losing its market to low grade saffron from Iran, which is cheaper.

keep us aside. In that case, they have to provide us alternative livelihood sources”

Abdul Ahmed Dar, a lake-side resident and vegetable seller

Militancy dried up the flow of buyers for saffron. Middlemen stepped in to fill the vacuum, but with the rise in violence, they vanished as well. Then came the drought, and the yield dipped to just a few quintals a year. In the early 1990s, the yield was 2.8 to 3 kg per ha; this year, it was a mere 500 gm per ha. More agony — in the form of the corn rot disease — was in store for saffron cultivators; it has afflicted almost all fields in Pampore and is spreading.

Imtiaz, however, has not lost hope. His father had decided not to take up saffron cultivation this year, but he insisted on it. “I know that a bit of facilitation would revive the lucrative business,” he says. But for Saukat Ahmed Bhatt, a 50-year-old saffron farmer who would soon be working as a daily wage labourer, everything is lost. Saukat used to cultivate 10 *kanals* (half a hectare) for saffron. Usually 1 *kanal* fetches about 1 kg of unprocessed saffron worth Rs 40,000. Last year, Saukat could manage to sell only 200 gm.

The J&K Saffron Growers Association has demanded seed banks where farmers can buy seeds at subsidised rates or on credit. Usually, out of 10 *kanal* lands, farmers keep two-three *kanals* for preservation of seeds. Many desperate farmers have used this reserve up to earn a few hundred rupees more.

Horticulture, another cash-earning sector, is similarly afflicted. Currently, of the state's one million families depending on agriculture, five lakh (25 lakh people) are practising horticulture. The sector contributes about Rs 400 crore to the state's GDP. But low productivity, poor quality and lack of pro-



A problem of necessity: vegetable gardens choke the Dal

cessing facilities have taken their toll: growth is stagnating in almost all orchards. The state does not have a single processing unit, and is also suffering from a scarcity of wood for packaging apples.

In view of these issues, management of water in the state assumes critical importance. In the Kandi area (Jammu), for instance, water management programmes need to utilise the 500 ponds that are in ruins at the moment. Some of these ponds, spread over 10 acres, can meet almost the entire water needs of the region. Apart from feeding them with rainwater, small constructions can help divert runoff from seasonal rivulets into the ponds. Conservation tanks can be constructed along *nullahs*, from where water can be pumped into these

Ire over the Indus

The Indus River Water Treaty is fast emerging as a bone of contention between India and Pakistan. Pakistan has been clamouring for independent arbitrators to settle violations by India of the treaty. India, on the other hand, is using the treaty as an unconventional weapon.

The treaty has its origin in the pre-partition water sharing conflict between Punjab and Sindh. In 1942, a judicial commission appointed by the British recommended that both the provinces manage the water basin as a whole. The recommendations were rejected by both parties. The problem festered for nine years after India and Pakistan gained independence.

In 1960, India and Pakistan signed the treaty, brokered by the World Bank. The treaty gives Pakistan unrestricted

access to water of three rivers — Chenab, Jhelum and Indus — flowing through J&K.

While the treaty eased Punjab's water woes, J&K suffered as it could not harness its rivers to their full potential. The treaty limits J&K's right to build storage reservoirs on the Jhelum and the Chenab. This, J&K argues, has meant that it has had to sacrifice an estimated potential power generation capacity of 15,000 MW. The state contends that it should have received compensatory access to power and water generated on the Ravi, Sutlej and Beas systems. It claims that clauses in the treaty cost it about Rs 6,000 crore each year. According to Qazi Mohammed Afzal, minister for public health, engineering and irrigation, but for the treaty, the state could have increased its area under irrigation by one lakh acres, over and above the 83,000 acres which was under irrigation before 1960.

ponds for distribution through pipes for limited irrigation.

The government's two major irrigation programmes — integrated watershed development programme and the Ravi-Tawi irrigation project — still have lessons to learn on water management. A case in point is that of the proposed Rs 57 crore Kandi Development Project. The World Bank (WB) has expressed its inability to finance the lift irrigation component of the project, but NABARD has offered to bail it out. According to Paryavaran Sanstha, a Jammu-based NGO, providing limited irrigation to 5,000 acres through lift system up to a height of 300 ft would cost Rs 4 crore to install and Rs 6 lakh for annual maintenance. This works out to be Rs 20,000 per ha of irrigation potential creation, which is double the Rs 10,000 per ha irrigation potential cost for pond irrigation. Pond irrigation, thus, has obvious advantages, particularly in the short term. Some government departments — including the Ravi-Tawi command area department — are now toying with the idea of pond irrigation.

During an interaction with farmers in January, Mufti Mohammad Sayeed admitted that the state must revert back to traditional means for ensuring water security at the grassroots. The WB-funded integrated watershed development programme would be completing its second phase in 2004. Though beset with rampant corruption, the programme did convince people that a localised watershed development programme can bring respite. Some 28,500 ha of land were brought under the project in Pulwama district. The programme was successful in integrating local economic activities with water management and could be replicated for saffron growers as well.

Tourism is hostage to the culture of the gun in the state

TOURISM & HANDICRAFTS

Backs to the wall Militancy's most distressing casualties

STATUS: Almost no tourism; crafts trade only Rs 900 crore

POTENTIAL: Eco- and religious tourism can generate Rs 1,000 crore revenue, while handicrafts can turn in Rs 3,500 crore

STRATEGY: Revive confidence by reviving governance

Some 1,400 empty, rotting houseboats ringing the Dal Lake provide mute testimony to tourism and the craft industry's demise in the state. Each houseboat, sustaining five families on an average, is a story of human tragedy. Sheikh Baseer, a houseboat owner, recently got his first tourist in seven years. But the visitor stayed in his houseboat for just one day. "I had to dust off the houseboat as it had not been in use for years, and the tourist didn't like the dirt," he says. Baseer, who used to earn Rs 10,000-15,000 a month just a decade ago, is about to sell his houseboat as scrap.

According to the Houseboats and *Shikara* Owners Association, the Valley is currently receiving around 2,500-3,000 tourists per year on an average. About five million visitors still flock to Jammu and Vaishno Devi every year, but very few of them divert to the Valley. The association puts the combined economic loss at about Rs 1,000 crore a year. One unwelcome fall-out of this has been a spurt in child labour: to survive, many houseboat-owning families now send their children to work as carpet weavers.



Weaving a sorry tale

A two-year-old ban on shahtoosh shawls — initiated to protect the endangered *chiru* (Tibetan antelope) from which the wool is procured — has also crippled the economy. Before the ban, more than 5,000 families were weaving at least 10 shawls each annually. With each shawl fetching about Rs 1,00,000, the economy was worth Rs 500 crore. The state used to trade 3,000 kg of processed shahtoosh wool at the average rate of Rs 1,20,000 per kg. "There were 1,00,000 people directly or indirectly related with this trade. About 40,000-50,000 weavers and manufacturers have been directly hit by the ban," says Kaleemullah Khan of the Shahtoosh Manufacturers and Traders Association.

There is a growing belief in the state that the ban was imposed without any research into whether the *chiru* is actually killed to harvest the wool. Scientists from the Sher-e-Kashmir University of Agriculture Science and Technology are conducting DNA tests of shahtoosh wool to ascertain whether it is naturally shredded or taken from antelopes that were killed for it.

Another issue raging across the state is rehabilitation of the weavers. The government is pondering over the idea of buying current stocks of shahtoosh from weavers, thus generating capital for the weavers to start afresh. But the state's track record in such matters is not very encouraging. In 1997, after banning the trade in fur, the forest department collected all existing stocks promising to pay a whopping Rs 9,42,41,355. Five years later, the collected furs rot in storehouses and the fur manufacturers are protesting non-

In the early 1980s, around five million people, with an average stay of three days per head, visited the state annually. Tourism was earning an impressive Rs 12,000 crore for the state every year — besides employing two lakh people. Beginning 1989, militancy curbed the tourist inflow drastically. By 1991, hardly 10,000 tourists were visiting the Valley per year; during 1991-95, the state received only 2,000 tourists a year. After a brief upsurge just before the Kargil conflict — the state received 69,000 visitors a year in this period — tourist inflow slackened once again due to the Indo-Pak stand-off and a spurt in terrorist activities.

"J&K is an exclusively tourist state," says Jamwal. Tourism has always been regarded as a direct market for the state's products, ranging from shahtoosh shawls and handicrafts to saffron. According to the J&K Chambers of Commerce and Industries, an association that has survived the militancy, the state's traditional market has reduced by 45 per cent due to lack of tourists. Mohammad Ashraf, the secretary of Machiekash, a handicraft society, says: "It affects close to half a million people directly."

Gulam Nabi's is a case in point. Nabi, a wood carver in Srinagar, is in a bind. His house is overflowing with unsold wooden furniture and handicrafts, and he has to look for more space to store many more of these. He has already asked 15 of his wood carvers to leave. The three employees he has currently are getting half the salary they used to get five years ago.

Gulam explains: "I have lost 80 per cent of my market and



payment of their dues.

A majority of the state's shahtoosh weavers are women. At the peak of militancy, more and more women, confined inside their houses, had joined the already overcrowded profession. The state is now asking them to take up the weaving of pashmina shawls. But the pashmina sector itself is completely saturated with about 1,00,000 people. Starved of business by loom mechanisation and decreasing numbers of the pashmina-yielding goat, its weavers are in dire straits.

Captive breeding of chirus is being suggested as a viable solution to the problem. The state did make an effort to establish a captive breeding farm in Ladakh, but the initiative lacked serious planning.

business, but I continue making furniture hoping that peace would come back." His profit has also nosedived thanks to the new economy that has thrived under the shadow of the gun. He pays bribes amounting to 20-30 per cent of his costs to forest and police officials. "Otherwise, I may be branded as a conduit for militants," he says.

Tourists also worked as market multipliers by propagating the state's specialities outside its boundaries — thus creating more markets. "The state, thus, has lost five million buyers and few more millions of potential buyers," says Basheer Ahmed, head of Kashmir University's economics department and a consultant to the state government on economic affairs. Ironically, what has compensated this loss marginally is the presence of around three lakh security personnel. Offering hard cash for the products they buy, these personnel have saved J&K's economy from complete ruin.

In its days of glory, buyers for Kashmiri handicrafts — particularly carpets — came to Srinagar to place advance orders. The trend has reversed; weavers beg for orders from buyers now and get paid in instalments, sometimes ranging over months. Gulam Rasoli Tibu, a carpet loom owner, used to earn Rs 1 lakh a decade ago. "Now, I hardly get Rs 20,000 a year and that too for the carpet I sold last year," he laments.

Machine looms in Amritsar have taken away a considerable chunk of the market. Within a decade, wages of carpet weavers have come down to Rs 500-600 a month from Rs 1,500. Gulam Mahudin, a 54-year-old weaver, says: "My

Leather loss

As far as food is concerned, Kashmiris share a strong partiality to their meat and fish. But every time a Kashmiri eats one rupee worth non-vegetarian food, the state economy loses .75 rupee. Conversely, every rupee of non-vegetarian food can fetch .75 rupee to the state.

To sustain its non-vegetarians (over two-third of its total population), J&K slaughters 8.28 lakh cows, 1.21 lakh buffaloes, 12.68 lakh goats and 19.32 lakh sheep every year. Add to it the six lakh goats and sheep that die of natural causes annually. With a yearly increase of 10 per cent, the total yearly yield of hides and skins stands at 11.42 lakh hides and 33.41 lakh skins – which is 436.36 lakh sq ft of raw leather. According to a 1997 survey by the Chennai-based Central Leather Research Institute, leather processing can be the bulwark of a spectacular economic revival for the state's famous leather footwear industry. At 1997 prices, the hides would fetch Rs 46 crore and the skins, Rs 40 crore – says the survey.

But without the infrastructure to process leather in the state, 68,000 hides and 2 lakh skins are wasted every year. This amounts to losses of over Rs 2.75 crore; unprofessional flaying (almost three lakh hides are defective) causes a further loss of Rs 6 crore. Local processing and conversion into leather products, according to the survey, would lead to a value addition of over Rs 300 crore, besides offering thousands of jobs.

life is tough. I have to take care of my eight children with a wage of Rs 100 a day for close to just 60 days in a year."

The state cooperatives department, supposed to facilitate handicraft cooperatives, has siphoned off millions of rupees. Massive financial and administrative irregularities have been reported in the J&K Department of Industries and Commerce, or DIC. Although most department officials attribute the losses to the decade-long militancy, a senior official held massive corruption and administrative failures at various departmental levels responsible. Nearly 61 per cent of 1,244 handicraft cooperative societies in Kashmir division and 78 per cent of 361 societies in Jammu division set up as of March 1997, are either defunct or under liquidation. The department has not maintained consolidated records and institution-wise details of investment in cooperative societies.

In the handloom sector, out of 137 registered societies as on April 1, 1997 in Jammu division, 73 societies with a membership of 1,606 weavers were sick/dormant or non-traceable. Of these, 51 had been paid assistance worth Rs 2.48 million under the programme of modernisation of looms, out of which Rs 1.12 million was recoverable from them at the end of March 1997. Details of loans and other financial assistance paid and recoverable from remaining 22 defunct societies were not available. A large number of these societies had become 'sick' immediately after receiving various incentives.

Clearly, drastic measures are called for to rejuvenate these sectors — and peace and governance are the imperatives. Visitors to the state will return with the return of peace, and so will the booming markets of yore.

The key: empowerment

Arouse people's interest in governance

As an economy, reviving Kashmir is not a difficult proposition. The new government, instead of exploring the more difficult option of sourcing resources from outside, has to look inwards. It has to bring about a basic change in the state's policy: from that of dependence to self-dependence. While the government — to its credit — is making an effort to harness the state's resources (vis-à-vis the new power policy and forest policy), what is also imperative is a simultaneous revival of governance.

For a population without any sense of governance and economy for 15 years, this might look like an uphill task. Says Srinagar-based economist A H Madhosh, who has studied the psychological impact of militancy: "The greatest challenge is to make the people interested in the government." For that, people have to be involved in the governance process. And to attain that, the government has to address issues that affect them the most — such as the state's ecology-economy.

An institution that needs to be revived and restructured immediately is the panchayat. Balraj Puri believes "devolution of power (to panchayats) is crucial to address problems of environment". The state's geography and climate is such that its major three regions remain cut off from each other for almost five months a year. Which means, effective local governance is critical to keep the economy oiled and running.

In an effort to reach areas cut off due to militancy, the government is considering a plan to devolve power to the panchayats. Currently, the state has its own system of self-government called the *halqa* panchayat, but it does not have an adequately representative character; neither does it facilitate direct elections to its upper tiers. Inspired by the turnout in the assembly elections, the Union rural development ministry is also aiming to extend the 73rd amendment to the state.

In 1951, the Sheikh Abdullah government's *New Kashmir Manifesto* had clearly identified the economic-ecological potential of the state. It had also argued for economic devolution and for involving the panchayats in economic activities. The landmark document was, however, abandoned in favour of a policy of ad-hocism. The state needs to avoid this pitfall. The good news is that the public mood is upbeat. Will J&K's chief environmental officer live up to his people and their expectations? ■

