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JULY 1988

HIMAL

FOR DEVELOPMENT AND ENVIRONMENT



MIGRATION Highlanders on the Move

HIMALAYAN OZONE HOLE?
CUNNING CONSULTANTS
PORTER PICTURES
HILLARY INTERVIEW

ARUNACHAL PRADESH
FUEL-EFFICIENT CREMATION
WILDLIFE WATCH
AND MORE

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Cover picture by Kevin Bubriski shows a mother and her son in Nepal's Mugu District. Husband is a migrant worker in India.

HIMAL

Vol. 1 No. 1

JULY 1988

अस्त्युत्तरस्यां दिशि देवतात्मा

हिमालयो नाम नगाधिराजः

पूर्वापरो तोयनिधो ब्रगाह्य

रिपतः पृथिव्या इव मानदण्डः

The Abode of Gods, King of mountains, Himalaya
You bound the oceans from the east to west
A northern yardstick
To measure the Earth
- Kalidasa (*Kumar Sambhava*)

Edited and Published by
Kanak Mani Dixit
for Himal Associates

Contributors to this issue:

Rosha Bajracharya
Binod Bhattarai
Anil Chitrakar
Rupa Joshi
Prakash Khanal
Sudhirendar Sharma

Advisory Panel

M. Abdullah International Centre for Integrated Mountain Development, Kathmandu
Adlai Amor, Magsasay Foundation, Manila
Anita Anand, Inter Press Service, Rome
Kinley Dorje, Kuensel, Thimpu
Harka Bahadur Gurung, Kathmandu
Corneille Jest, Centre National de la Recherche Scientifique, Paris
Bharat D. Koirala, Nepal Press Institute, Kathmandu
Ram Chandra Malhotra, International Fund for Agricultural Development, Rome
Hemanta Mishra, King Mahendra Trust for Nature Conservation, Kathmandu
Kumar Khadga Bickram Shah, Centre for Nepal and Asian Studies, Kathmandu
Donald Shanor, Columbia University School of Journalism, New York
David Sassoon, Unicef Action for Children, New York
Jon Tinker, The Panos Institute, London
B.G. Verghese, Center for Policy Research, New Delhi
Brian Welsh, Development Forum, New York

Address

P.O. Box 42
Lalitpur 44702 Nepal
Tel: 523 845



MAIL

PROTOTYPE HIMAL

HIMAL fills an important need but it is going to be difficult to get the kind of wide circulation which is essential. In order to get real recognition, the range of subject and authors will have to be considerably enlarged and the quality of the input kept high.

Sunil K. Roy
National Committee for Environmental
Planning
New Delhi

What superb reporting on things that matter! We wish you continued productivity and good health.

Grace and Paul Terrell, Jr.
PO Box 40
Kathmandu

Having experienced both the majesty and tragedy of today's Himalaya and her people, I found it enriching to see the emergence of a new journal focusing on these issues. You say in your editorial page that the magazine "is not into advocacy journalism" but it seems to me that the Himalaya's environmental problems warrant a fairly serious and stubborn approach to watchdogging of inappropriate development. And so HIMAL, what to do? Will you provide an aloof and objective perspective, or will you aggressively help define that elusive blend of "environment and development" as your cover proclaims?

Mac McCoy
Fund for Renewable Energy
Washington, D.C.

You say that environment and development are HIMAL's twin concerns, but HIMAL's prototype seems to highlight their contradiction instead of their convergence. Page two, for instance, has a full-blown advertisement by the National Industrial Development Corporation, while the facing page laments the pollution hazards of the

Chobar industrial plant. Also, your statement of "furthering communications between one Himalayan valley and the next" appears as ambiguous as ICIMOD's soul. I sincerely hope that Vol.0 No.0 will not be the last we see of you.

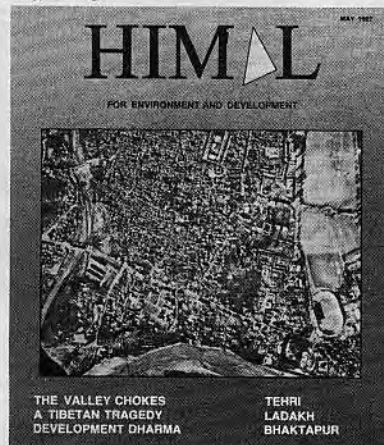
Sudhindra Sharma
Agricultural Projects Services Centre
Kathmandu

HIMAL will fill a badly felt gap, and I wish you every good luck. The issues which the magazine concerns itself with are very relevant to the Natural Resources College here in Lilongwe and would go a long way in broadening the horizons of our 650 students. We would like to receive HIMAL.

Tessa M. Shaw
Principal, Natural Resources College
Lilongwe, Malawi

A journal such as HIMAL, as any other, is highly welcome at a time when the Himalayan environment is passing from bad to worse. An ideal environment is the mother of good health, mind and thought. Mankind needs such an environment. Your magazine has a great role to play.

G.S. Yonzon
Himalayan Science Association
Darjeeling



HIMAL Prototype.

The first issue of HIMAL is indicative of the objectives that the journal is going to achieve through a wide-ranging journalistic effort for projecting the problems of the Himalayan mountain region and its inter-relationship with the plains in a scientific, constructive and comprehensive manner. We in SHERPA have been doing similar work since 1985 and would like to contribute our ideas to HIMAL, as well as to utilize some of your material.

T.N.Dhar
Society for Himalayan Environmental
Rehabilitation and Peoples' Action
Lucknow

I found HIMAL interesting and informative. It is hoped that future editions will be an improvement over the inaugural issue.

R.K.Gupta
Dehra Dun

Congratulations on the prototype issue. The focus, content and style are all that were promised. Because of the excellent way everything fits together, and the attractive appearance, you should have no problem meeting your subscription targets, especially in the "communication drought in the Himalaya" which you mention. Your contribution in educating administrators and opinion makers on environmental issues would be exceptional.

Ellis J. Shenk
Coordination in Development
New York

HIMAL should help raise awareness about the nature and extent of environmental degradation in the Himalayan region. Considerable governmental and community efforts are underway to improve the long-term and short-term needs of the people. It is important for a journal aimed at "professionals" to analyse these efforts and draw lessons and help stimulate greater work. It can also help establish close co-operation of a

practical nature in managing upland-lowland interactions and managing mountain ecosystems.

Uttam Dabholkar
UNEP
Nairobi

Himal is highly informative and readable and should be useful in meeting the needs of scholars, research organisations and government departments in the countries of the region. We look forward to future issues.

R.K.Pachauri
Tata Energy Research Institute
New Delhi

The writing was provocative and the standard of a number of articles very high, particularly the cover article on pollution in Kathmandu. You have done a fine job and I am personally delighted to see a magazine of this type under production.

Nigel Roberts
The World Bank
Washington DC

HIMAL can become a useful medium for communication in the hill areas. If you can maintain the overall range,

depth and quality of this journal, it will become an important vehicle for sustainable development issues of all kinds.

Ashok Khosla
Development Alternatives
New Delhi

KATHMANDU POLLUTION

Reading your cover story on pollution in Kathmandu Valley and threats to other Himalayan towns brings to mind a recent news report about Mexico City, whose geographic and climatic situation is similar to that of Kathmandu. Mexico City is in a valley cupped by high mountains. It houses 18 million and its air pollution is recognized as worst of all the world's capitals. The source of the smog is largely auto exhaust and factory smoke. The National University attributes at least 50,000 deaths a year to air pollution, though activists think the figure is as high as 100,000. Mexican environmentalists, faced with ecological disaster, have formed the Mexican Ecologists' Alliance, which is patterned after Germany's successful Green Party.

Rajiv Regmi
Illinois
United States

DEVELOPMENT DHARMA

Reading Dipak Gyawali's article "Development Dharma" was like listening to the sermon of a modern Vedic bard. But unlike his forebears, who "saw" the doom of the world in the hands of fanciful gods, the modern brahmin relies on his extensive knowledge to forecast the eventual destruction of humans through a global ecological holocaust. The learned advocate of development dharma, while excellently versed in matters of philosophy and theology, does not have his history pat.

Drawing an analogy between the Rana rulers of nineteenth century Nepal and the feudal lords of pre-capitalist Europe, he deplores that there was no entrepreneurial class during that crucial period of Nepali history. But the middle class in Europe was an effect and not the cause of the Industrial Revolution. This lay reader of HIMAL would have liked the erudite pundit to have been more argumentative and less authoritative in his discourse.

Sudhir Bhattarai
Kathmandu

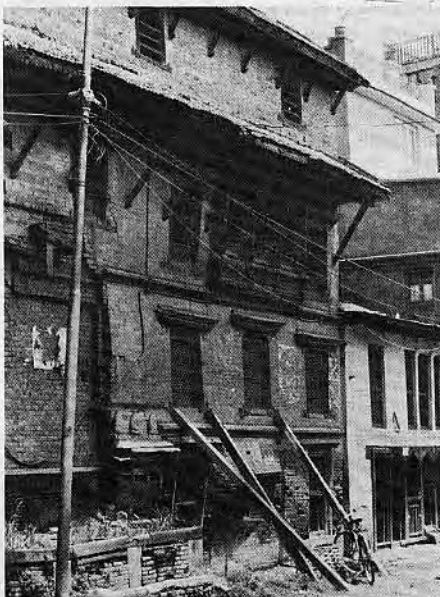
BHAKTAPUR DEVELOPMENTS

Todd Lewis' article on the German-sponsored Bhaktapur Development Project (BDP) is not in the least a useful contribution to learn from past mistakes and calls for some remarks and corrections. One only has to look at other areas of Kathmandu Valley to see how Bhaktapur might have developed without BDP.

The integrated approach taken by the Project was nothing less than revolutionary. Despite its weaknesses, that approach still serves as an example today when many projects tackle problems in an isolated manner. It is not that everything was done right in Bhaktapur: technical infrastructure was given priority over institutional and socio-economic issues, and in the early phases people's participation was virtually non-existent. Here Lewis is right. Lessons were learnt and the later phases of the project were redesigned on the basis of the experience gained.

Because of the outstanding historical heritage of Bhaktapur, the BDP's dual objectives were to preserve the town for future generations and to improve living conditions for the inhabitants. It was

never intended that Bhaktapurians were to live in a museum. Regulations elaborated by BDP did not aim at preventing new houses being built but only at a design appropriate to the town's very special situation. It is a pity, of course, that all efforts to meet the housing needs of the poorer people have failed until now, but this is due to



the manifold difficulties in planning town extension schemes in Nepal.

In and around an agricultural town like Bhaktapur, the competition for water is natural. I am convinced that the BDP's decision for a combined sewerage system was the right one. Nor always does "appropriate technology" mean the avoidance of "conservative western-style systems". Kathmandu city would have suffered much less from the monsoon rains if the World Bank had followed the Bhaktapur example.

In conclusion, it is certainly painful to visit Bhaktapur today and see what has happened to many of the BDP initiatives. There is need for continued efforts. The burden of preserving a monument like Bhaktapur should not rest solely on its inhabitants, but must be shared by all those who know how to appreciate this unique cultural heritage.

Hans Reiner Böhm
Integrated Development Consultants
Heidelberg, West Germany

(Dr. Böhm was involved with BDP from 1978 to 1982.)

(We ask readers to use this page to comment, criticize or add to information appearing in this magazine. Letters should be concise and to the point. All letters are subject to editing.)

Highlanders on the Move

A Quest for Survival

By Kanak Mani Dixit

At the age of 16, Diwan Singh Bohra was forced to leave his village of Karan Karayat in Pithoragarh District of Uttar Pradesh. His father, Badri Singh, had only 10 *bigah* of degraded hilly land, which did not produce enough to support a family of six children. So, Diwan Singh went to seek his -- and his family's -- fortune in the bustling city of Lucknow.

Today, eight years later, Diwan Singh is 24 but looks 40. Every day, he works from break-of-dawn to dusk and earns IRs400 per month doing two jobs as a domestic servant. He sends half the money to the joint family back in Karan Karayat, including his wife, whom he can visit only once a year at Holi or Diwali and even that only if both his employers agree.

"I would never have come to this city if I had opportunities in my village," he says. However, the situation in Karan

Karayat has further deteriorated since he left. "As Kshatriyas, the villagers used to join the military, but today we are mostly cooks and house-servants working far away for meagre salaries, at the mercy of our employers."

For hundreds of thousands of men and women like Diwan Singh, migrating from the Himalayan highlands to the plains to find work has become a lifelong, wrenching exercise. The numbers are not precise, but the best estimates indicate that close to half a million Nepalis are absent from the country for six months or more each year.

In the Uttar Pradesh Hills, 46 out of every 100 men are away on a semi-permanent basis from their wives and families. Sixteen families from Kanduli, a village in Pauri Garhwal, have left for the plains and most of the remaining 60 families have their menfolk away for part of the year, leaving only 26 young

men in the village. In Jajoli, Pithoragarh District, one quarter of its 360 people are migrants, most of them in Bombay, Delhi or in the Indian Army.

One tragic dimension of the migration issue is the increasing burden on women, says Mahesh Banskota of the International Centre for Integrated Mountain Development (ICIMOD). According to him, even as life in the mountains has become harsher, with the men away, the women are heading households of the elderly and the young and managing the terraces with fewer resources.

In Almora and Pauri Garhwal, up to 40 per cent of households were headed by women, according to R.S. Bora, a demographer at the Institute of Economic Growth in Delhi University. "High illiteracy and existing traditions restrict the migration of females," he says.

The Human Dimension

This problem of migration is peculiar to the Nepali hills and the Indian districts immediately to the west because they, more than others, are marked by poverty, lack of development, overpopulation, decreasing soil fertility and eroded, unproductive hillsides. "Most mountain regions in the world are poor, but our mountains are at the bottom-most rung," says a Nepali economist who has long studied the economic and political aspects of migration. "And when you are the poorest, you migrate and work as menial labour, no questions asked."

Nepali migrants do not only travel to the plains. Such is the destitution in Nepal's far west that the inhabitants go to work as labourers across the border in the Garhwal. Any traveler to Naini Tal or Mussorie will be besieged by Nepali coolies in torn, work-blackened clothing and they are the lucky ones, earning IRs15 or more a day as porters. Others earn much less: IRs6.50 a day working on the roads; IRs6 as loggers; or IRs7.50 for pulling rickshaws.



Down and out.

Photo: G. McBean/Unicef

While the phenomenon of migration might not extend throughout the Himalayan crescent, the human dimension is still vast. Emigrants leave sedate hill societies and loved ones for fast-paced, commercial centres like Gorakhpur, Lucknow, Delhi, Bombay and Calcutta. While some of their village kinship structures survive even in these alien environments, Nepalis, Kumaonis and Garhwalis in the plains face enormous psychological and social pressures.

No Respect

Dilli Dahal and Chaitanya Mishra, of the Centre for Nepal and Asian Studies (CNAS), recently talked to 306 Nepal-born families living in North India. The migrants said they suffered most from job insecurity, "lack of respect", and a sense of separateness from the local community. They did not have proper housing, worried over family members left behind, and, most poignantly, "they did not see how ventilating their problems to outsiders could ease the sharpness of such problems."

In addition to living generally insecure lives economically, Nepali migrants live in a political no-man's land. They are free to migrate to India, but do not have citizenship rights, or the rights accorded to *bona fide* international workers. The fuzziness between Nepali-born migrants and the millions of Indians of Nepali origin adds to the confusion.

"The undeclared Nepali state policy has been to tolerate cross-border migration and to regard it as a safety valve," says a political scientist from Tribhuvan University. Now, that safety valve has been used up. The expulsion from Meghalaya of people of Nepali origin has brought a problem that has long festered away from the public eye into sharp focus. "The problem can no longer be wished away. Both countries must tackle this very complex politico-economic question head on. There are no simple answers," says the scholar.

Why They Leave

Geographer Bal Kumar K.C. says that Nepali migrants cite lack of food, inequality, poverty, and miniscule land holdings as the cause for pulling up stakes (*basain sarnay*) in their mountain villages. In the Nepali hills, six persons must share a hectare of cultivable land. An analysis of the latest Nepali census (1981) data by the National Planning Commission showed that "the scarcity of cultivable land is one of the major reasons for exodus of the (hill) people".

The Tarai proves attractive because of

the Government's resettlement programme, better pasture land, availability of off-farm employment, and access to fuelwood. Within Nepal, the greatest exodus is to the eastern Tarai, where the land is more fertile than the central and western Tarai.

According to geographer Harka Gurung, a major factor inducing highlanders to migrate is the regional disparity in development. "The five-year-plans of the last three decades have emphasized road-building and agriculture, with the lowlands having a locational advantage," says Gurung. According to his figures, the last three decades have seen a 16-fold increase of population in the Tarai.

Poverty to More Poverty

Migrants go from poverty in the hills to do menial work in the plains. The hills run on the well-known "money order economy", with remittances sent home by the husband or father or son. About 40 per cent of all Nepali emigrants work as guards or nightwatchmen in Indian towns and cities. All over India, Nepalis are also found working as restaurant boys, junior technicians, wage labourers and truck drivers and helpers. A tea-picker in Sri Lanka was the southern-most Nepali labour-migrant located.

In their study of Nepali migrants in India, Dahal and Mishra of CNAS found "not a single medical doctor, engineer or administrator". Thus, the stream of migrants represents not a "brain drain" but a "muscle drain". Yet that brawn brings awfully little remuneration, according to recent statistics by the International Labour Organization. In 1985, remittances from Pakistani migrants amounted to \$2.5 billion, while the figure for Bangladesh was \$395 million and for Sri Lanka, \$249 million.

Nepali migrants, for all their numbers, were able to send back only \$36 million. The reason for the disparity in the ability to earn, of course, is that while the others travel to the Gulf States to earn dollars, Nepalis go to work as *chaukidars* in Gorakhpur for IRs20 or less a day.

Nepalis in the Delhi area today fulfil the demand for lowest paying jobs, slipping into a slot left by the upscale migrants from Kumaon and Garhwal, says Ashish Bose, President of the Indian Population Studies Association. He adds, "The Kumaonis and Garhwalis have moved up the economic ladder and no longer work as domestic servants because they have other choices. For example, they can join the Border

Security Force. When they do descend to the plains, they now work in the organized Government sector, which has perks and benefits."

"Some aspects of migration, particularly for the Nepalis, are quite dehumanizing. They fill the lowest posts and can return home for only a month or so every two years. The migrants from the Indian hills can visit more often because of the roads," says Bose. "On the other hand, you have to remember that even this poor situation, for the Nepalis, is an improvement over the alternative. After all, migration is a human endeavour to improve the quality of life."

However, most Nepali migrants have not "made it". They may be reconciled to their situation, but migration, while it might have allowed them to survive, has not in any sense improved their quality of life. Visit a *jhuggi* in a Nepali settlement across the Jamuna from Old Delhi and one will find a dry and dusty semi-ghetto. There is a certain sense of security, because the inhabitants all come from the same district in west Nepal, but these Nepalis have no land or property. The occasional *chaukidar* owning a rickety bicycle is considered lucky. There is no electricity. The fact that the children go to school is regarded as the major -- perhaps only -- improvement.

Classical economic theory holds that migrants leave their place of origin in order to search for better opportunities. But what of a situation where, because of extreme poverty, the question of opportunity does not even arise? "Most out-migrants from the Nepal highlands are 'survival migrants', they leave for the sheer necessity of survival," says geographer Gurung.

"They come here youthful and healthy, but due to hard unremitting labour they fall victim to disease and either die here or return home, there to spread the disease further," says Girish Chandra Pandey, an economist in Kumaon University. 54 per cent of the Nepali migrants he studied were ill, with fever, asthma, liver trouble or venereal disease. The migrants often have nowhere to stay and use station platforms and rock overhangs for shelter. Pandey says there is a need for providing housing and regulation to protect the interests of the migrants.

Benefits of Migration

Bikasbabu is one hill emigrant who has significantly improved his situation. Twelve years ago, he came to Bombay and drifted in and out of jobs as a tyre factory watchman and a truck-driver's

helper. His break came when a village kinsman fell ill and "loaned" him the job of a "domestic" for a Parsi businessman in the city's affluent Malabar Hill section. The friend was never able to return and the job became his. The businessman pays well and now even allows Bikasbabu to handle the household finances.

In addition, Bikasbabu has been able to "import" many of his villagers and place them with other Parsi families in Bombay as cooks and *darbans*. He charges them three months' pay as commission and with some also asks for further monthly cuts. With his income, Bikasbabu has been able to buy property back in Nepal and is today his village's biggest absentee landlord.

Migration does not come without its benefits, as Bikasbabu found out. According to the scholars from CNAS, emigration has provided the hill folks with a sense of entrepreneurship, additional skills and increased purchasing power. It has subsidized the standard of living and "has helped the mountain and the hill areas and Nepal as a whole to trudge on," they say. A sudden staunching of migration would have serious economic and political consequences at all levels of Nepali society.

In the U.P. Hills, Bora found that returning migrants who had held jobs in government were active in stimulating

community activities and good in dealing with authority. However, he says, return of military pensioners did not help bring innovation in village life because "in their jobs they only learn army rules and discipline". Others, however, say returning army personnel have brought in new ideas and used appropriate technology for the benefit of remote areas.

While noting that migration provides a safety valve for Nepal's stress-ridden hills, Dahal and Mishra warn against a "proclaimed or *de facto* strategy" of tolerating the situation, because it flies in the face of much-vaunted plans for national self-reliance. Official acquiescence to the situation will also intensify the "super-exploitation" of the migrants, they say.

Looking to the Future

The Nepal Tarai has been absorbing excess population from the hills for some time but it cannot do so forever, cautions geographer Bal Gopal K.C. At the same time, recruitment into the armed forces has peaked and opportunities in the plains are stagnant. Expulsion of Nepal-born persons from north-east India has brought the matter to a head. However, migration will continue because the hills remain undeveloped and impoverished.

As ICIMOD's Banskota puts it, "The resource base of the hill farmer is decreasing dramatically. There is little

off-farm employment, agricultural productivity is down and the forests are degraded. As long as this process continues migration will continue to increase."

There is no choice for checking "this massive human outflow from the hills but to develop the Himalaya through "secondary and tertiary sector activities", says Delhi University's Bora. Participants at a recent ICIMOD workshop said it was imperative to bring "genuine development" to the hills. The agricultural land-based system must be gradually transformed into a market-oriented economy and "a hierarchy of bazaars, market towns and service centers set up to act as links between the village and the urban centre". The key is to find "off-farm employment", as subsistence agriculture can no longer sustain the population.

Real social and economic progress of the far-flung hill communities of Uttar Pradesh and Nepal, then, is the only way out of the dilemma. In the absence of sustained, grassroots development, destitute hill people will continue to migrate in ever increasing numbers to face psycho-social trauma, political rejection and poor job situations in the plains. △

S. Sharma, Ramendra Singh and Rupa Joshi assisted in researching this article.

Others Who Migrate



Tibetan vendors in Kodaikanal
Photo: P.S. Sudhakaran

Those who flee extreme poverty of the hills for work in the plains make up the largest portion of Himalayan migrants, but by no means are these "survival migrants" the only ones.

Since the early 1800s, the highlanders have been recruited into the British and subsequently the Indian armed forces. There are "economic migrants" from among the more entrepreneurial communities in the mountains. The Tibetan-speaking people of Mustang principality in northern Nepal, for example, spend spring and summer at home but in the cold months, many are down in the Indian plains, selling sweaters and carrying on other kinds of trade. Come spring, they return to their walled township of Lo Mantang.

Tibetans who left their homeland in the late 1950s make up another large segment of highlanders in the plains.

They live in pockets across the subcontinent, radiating out from their hub in Dharmasala, where the Dalai Lama lives.

Perhaps more politically problematic than highlanders descending to the populous plains is the move of plains people to the mountain towns, as entrepreneurs, craftsmen and skilled workers. Unlike the hill people descending to the plains, these "economic migrants" are in search of opportunities rather than subsistence. "A skilled Indian plainsman working as an electrician or bricklayer in Kathmandu takes away more capital than an unskilled hillman working in India," says a Nepali economist. "On the other hand, the skilled worker is providing a service demanded by an urban elite which the local labour market cannot provide. So how can you quarrel?" △

The Historical Process

By Harka Gurung

Migration is not a new phenomenon in the mountains of South Central Asia. The Himalaya has been both a new frontier and a vestigial haven for diverse races down through the ages. For a historical record of the process one has only to look at the wide variety of languages and dialects that exists in Nepal today: 19 Tibeto-Burman tongues, 11 Indo-Aryan, two Munda and one Dravidian.

The peopling of the Himalaya was the outcome of successive waves of migration from today's Sechuan-Yunnan in the northeast and "westerners" from the Central Asian steppe. The first migrants probably came in around 2000 B.C. through north-Burma, Assam, Bhutan, Sikkim and Nepal. A second group traveled westward around 200 B.C. along the Tsangpo valley into Tibet, some of them moving further west and south across Himalayan passes.

While the Kirat ("Mongoloid") people established themselves east of the Gandak basin, the Western Himalaya became the home of an early

"Caucasoid" group, the Khasa, and of refugees fleeing successive Mohammedan onslaughts from the 10th Century onward. Tibetan influence spread in the 7th Century when the forces of Srong-tsan-sgamp-po swept down to the Ganges plain. In the east, the Shan Ahoms descended to the Brahmaputra valley in the early 13th Century.

Between the 12th and 18th Centuries, the Khasas spread eastward, with the population movement along the hills between the mountain barrier to the north and the malarial moat of the Tarai to the south. Moving eastward along the Gandaki basin towards more humid climes, the Khasas ultimately reached Kathmandu. Their Gorkhali heirs extended their domain and briefly ruled from the Tista to the Sutlej until thwarted by the superior arsenal of the East India Company in 1815.

Westward and Eastward

In the early 1800s, the British encouraged migration of the hill people to the eastern Himalaya for timber work in Assam and newly-opened tea plantations in Darjeeling. Some Nepali

migrants reached as far east as Burma to raise livestock. Nepalis were welcomed into Sikkim starting in 1888 to counteract Tibetan incursions. The Indian census of 1951 reported that 47 per cent of the Nepal-born population in India was to be found in the eastern states of Arunachal, Assam, Meghalaya and West Bengal.

While the population movement was from west to east till the 1950s, in the last three decades, the flow has been from north to south, from mountain to plain. Malaria control and government resettlement schemes opened up the Tarai lowlands as a new frontier. Vast tracts of Tarai jungles were razed to cater to people leaving hills marked by high demographic stress and extreme poverty. Today, because of development focus and migration, the Tarai has the potential of becoming the dynamic region of Nepal. △

Harka Gurung headed a team which presented a major report on Nepal's population in 1983.

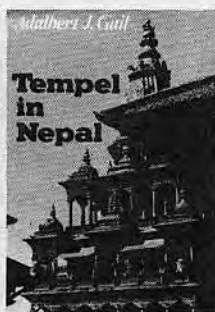
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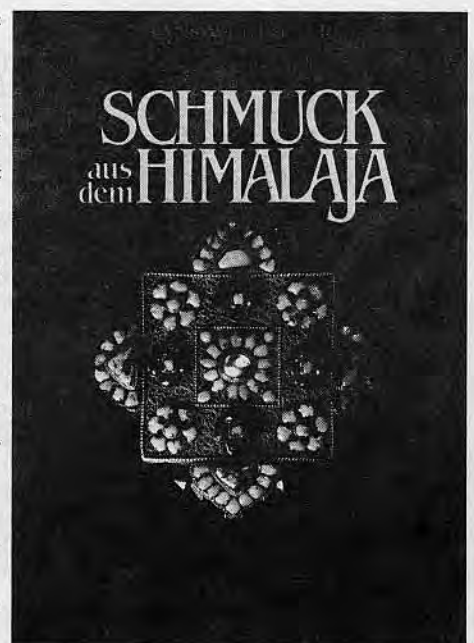


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Saving Wood at the Burning Ghats

By Sudhirendar Sharma and Rosha Bajracharya

The loss of forest cover has been blamed on villagers' need for firewood and fodder. But cremation is also a significant factor, even though some officials and environmentalists understandably shy away from this delicate subject. One important reason for the receding treeline in the hills surrounding Kathmandu Valley is the demand for wood in the burning ghats of Pashupati and Sankhamool.

In Kathmandu, one response has been to build electric crematoria, but sociological and cultural factors make this remedy doubtful, according to some. In the meantime, elsewhere in Nepal and in the Indian hills, voluntary organizations and individuals have figured out ways to save precious firewood by burning more for less. "After all, why should you not try appropriate technology in the burning ghats?" asks a Nepali forester.

In Palampur, Himachal Pradesh, appropriate cremation technology takes the form of two low brick walls three feet apart and six feet long, with vents along the sides. Steel rods at six-inch intervals are placed a foot above the ground between the two walls. A wire mesh is sometimes placed above the rods. The design was perfected by the Indo-German Dhauladhar Project.

During cremation, firewood is placed atop the rods, and the body above. Traditional funeral pyres involve piling up firewood on a rock platform, with no space underneath for a draft. The Palampur design, on the other hand, provides for sufficient aeration so that cremation is quicker and more efficient. The new design has passed muster with the people of Palampur, who bring their dead to one of two crematoria there.

According to World Food Programme figures, an average adult body requires 600kg to 650kg of wood for complete cremation. The Palampur-type units use only about 400kg. Convinced of the need to save fuel in fragile ecosystems, the WFP is spending IRs one million in Gujarat to install 250 units. At the same time, a new crematorium has been installed at Una in the Uttar Pradesh Hills by the Energy and Environment Group, a voluntary agency, and the administration has now arranged for twelve more units

to cover the entire district.

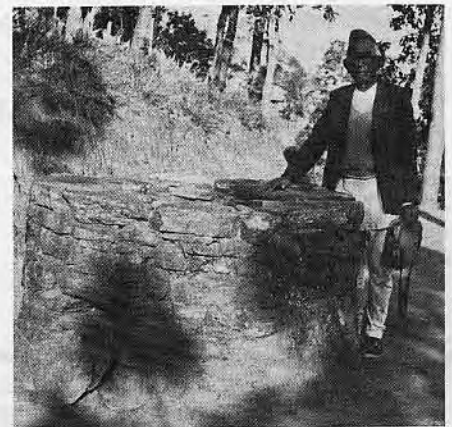
While the Palampur prototype is not in use in Nepal, the Tamang villagers of Bans Kharka in the north-eastern outskirts of Kathmandu have been using their own method for a number of years. Laxman Dong, the Pradhan Pancha, got the idea from seeing the lamas of the Sermathang Gumba in Helambu using what he calls a *sola* crematorium, which is a circular rock and masonry structure with an air shaft underneath.

Acutely aware of the deforestation around his village, particularly on Chihan Danda whose summit was used for cremation by the Tamangs, Dong had nine *solas* constructed in his village, one for each ward. The woodland's restoration followed almost immediately after the installation, according to the Pradhan Pancha, whose development philosophy is that "*dharma karma* (religion), economic progress and environmental conservation must go hand-in-hand".

Mohan Krishna Dangol, Assistant Engineer of the Kathmandu Town Panchayat, is a supporter of electric

crematoria, which is not surprising because his office is building two in the Valley, with equipment ordered from Bombay. "It is quite feasible and important to establish these crematoria for they will prevent river and air pollution. The social problems are not insurmountable," Dangol says, adding that firewood can only get more expensive. According to Dangol, an adult body will take 30 to 40 minutes to be consumed by the fire. The cost of cremation? About NRs50.

Krishna Pradhan assisted in the reporting this article.



Dong with *sola* (top) and a fuel-efficient design from Palampur. Photos: K.k.Panday and S. Sharma

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Fighting Alcohol in Uttarakhand

The entire region is slowly sinking into a slough of alcoholism. Districts that have been traditionally dry are being invaded by liquor stores as an under-employed male populace takes to drink. Even in the high Himalaya, where alcoholic beverages are customarily brewed or distilled, people are switching from local liquor and beer to rum, whisky, gin and "medicinal alcohol". The Uttarakhand region of Uttar Pradesh is one area where the hill people have been fighting alcoholism effectively. This report is by Shekhar Pathak, who teaches history at Kumaon University and edits the magazine Pahar.

The anti-alcoholism movement in Uttarakhand differs from earlier attempts to impose prohibition here or elsewhere in the Himalaya. Activists in Pithoragarh, Nainital, Chamoli or Pauri, who have watched alcoholism sap the vitality of hill society, do not have faith in simplistic solutions. They view the problem of alcoholism as a symptom of the deeper malaise of predatory "development", and are confronting it as such.

The major demand of the anti-alcoholism movement has been "nashenahin rozgar do", or employment instead of liquor. Ranged against the movement are the economic and political interests that buttress the liquor trade.

Prior to the period of British rule in India, use of alcohol was restricted to the Tarai and the Bhotiya traders of the upper valleys, who distilled liquor for self-consumption. In the mid-1800s, colonial officials were surprised to find the settled hill communities virtually alcohol-free. Under colonial auspices, consumption of liquor began to spread with the paraphernalia of the Raj: soldiers, bureaucrats and the establishment of "hill stations". Soldiers were recruited into the Gorkha Rifles as early as 1858 and records show a parallel increase in liquor revenue collected in Kumaon.

Dry and Wet

By the turn of the century, alcohol was flowing freely in the hill districts of U.P. Despite several attempts at prohibition, they invariably slipped back into "wet" status. During the Second World War, recruiting agents arrived with crates of liquor as inducement. Liquor stalls were opened at fairs.

In 1962, Sohanlal Bhuhiksuk, a



Garampani contractors promise not to do it again. Photo: Pahar Collection

follower of Vinoba Bhave, started a "postcard movement" against the government's liquor policy and went on a hunger strike in Lucknow. In 1965, in Silyara, the Sarvodaya couple Sunderlal and Vimla Bahuguna started a campaign which soon engulfed large areas of Tehri District. In 1970, Tehri and Pauri were declared dry. However, the move was overturned by the Allahabad High Court following a petition by wine merchants.

The major weakness of that movement was the fragmented perceptions of its leaders, who treated alcoholism essentially as a moral issue. No attempt was made to link the liquor trade to the underlying economic and political questions. In the event, the movement faltered. Within years, the distillation of country liquor became Uttarakhand's major "cottage industry". One such "industrialist" was decorated with a Padma Shri.

The alcoholism trade, properly called, also includes a wide range of "tonics", manufactured in cities like Amritsar, Moradabad, Bareilly, Pilibhit, Kanpur and Patna and trucked to the hill towns. These drinks are distributed in the remotest corners of Uttarakhand and there is a flourishing trade in empty bottles. Mrit Sanjiwini Sura, a tonic, claims 35 per cent alcohol content and Podin Hara 78.8 per cent. Both are produced by Dabur. The actual alcohol content of many tonics exceed 80 per cent and they sell too well to be for medicinal uses. A single shop in Dwarahat sells IRs.3000 of "Ashoka" bottles daily. Despite token gestures at

regulation, the authorities have not been serious about fighting alcohol abuse.

People Power

As with forestry, big dams and mining, the alcohol trade is not an isolated issue but is intimately tied to the social and cultural disintegration of hill society. The issues which underlay the decade-old Chipko Andolan metamorphosed into opposition to liquor. The current anti-alcoholism movement actually began on

1 February 1984 in Chaukhotia, western Almora, which was a thriving centre for illicit trade in alcohol.

Liquor shops were surrounded and officials gheraoed. Activists fanned out into villages and demonstrations were held all over Almora. A bandh organized on 26 March the same year was effective throughout Kumaon. Four well-known liquor contractors were apprehended at Garampani on the Nainital-Almora road and pledged never to sell liquor again. Women led a large demonstration outside the district office at Almora, a scene reminiscent of the opposition to the timber auctions during the heyday of the Chipko movement.

Those were the hectic days of spring 1984. The following year, the contractor system was terminated in Almora District and a co-operative society began the work of distributing liquor to permit holders. Demonstrations, foot-marches and signature campaigns against *nasha* continue, however, because much remains to be done.

The activists' aim is to declare the entire hill area dry. Where liquor sale cannot be avoided, they want it carried out by a government agency. All medicinal syrups with alcohol content exceeding 10 per cent must be banned and genuine syrups be distributed only at government hospitals. A viable cottage industry must be established so that it will replace the alcohol trade.

The major demand has been for employment in place of alcohol. However, prohibition in and by itself is not enough to eradicate the social evil, and must be regarded only as a first step in a more fundamental restructuring of hill society. △

Ozone Hole over Himalaya?

In April, scientists in the United States found that the depletion of ozone gas in the world's atmosphere was at least three times more serious than had been predicted. This means that more ultraviolet rays are reaching the earth past a thinning "ozone shield", increasing cancer rates and harming human vision and crop productivity. For us in the Himalaya, the immediate question is what impact the decline in atmospheric ozone will have on high mountain regions, particularly on the health of people, livestock, crops and forests. Will the hills be more affected than the plains? Himal's Prakash Khanal found scientists agreed on the answer: yes. His report.

Trekkers on the mountain trails have known it for long. Up in the rarified atmosphere of the High Himalaya, the skin peels quicker and sunburn is instant because ultraviolet rays pierce through the thin atmosphere easily. Significant ozone depletion would mean that the higher altitudes would be much more affected by ultraviolet rays, which are sufficiently strong to break even biological molecules like the DNA, which controls heredity and cell control.

It is only in the past four years that the depletion of ozone began to be taken seriously, and studies so far have concentrated on confirming the general worldwide depletion and studying an "ozone hole" over Antarctica. However, from what is known, there seems to be cause for concern in the Himalayan region because of the general thinning of the ozone shield worldwide and the strong possibility that a ozone hole similar to that over the South Pole hovers over the Himalaya.

"Naturally, increasing levels of ultraviolet radiation will affect the mountain people and crop production, the more so at higher altitudes," Sekhar Gurung, Associate Professor of Physics at Tribhuvan University. "If it is true that atmospheric ozone is being depleted, then, without doubt, the mountain environment is being affected. But more research needs to be done to determine the extent," says Suresh Chalisey, a meteorologist presently with the International Center for Integrated Mountain Development (ICIMOD).

Scientists have theorized that ozone holes probably exist over the Arctic and Greenland, and Himal has learnt that a meteorological station in Switzerland has detected significant depletion of the gas



Sun, sky and ice. Photo: Đuro Slota

over the Alps. If an ozone hole exists over the South Pole, and possibly over the Alps and Greenland, could there also be a similar "hole" over the Himalaya?

According to Dan Dudek of the Environmental Defense Fund in New York, ozone holes could be due to "polar stratospheric clouds" found in extremely cold regions. These clouds contain aerosol-type ice crystals that react easily with manmade chlorofluorocarbons (CFCs) in the atmosphere. The reaction between the ice crystals and CFCs uses the ozone gas in the immediate area, creating a "hole". Dudek says it is entirely possible that these conditions, known to exist over the South Pole, could also be present over the mountains of South-Central Asia.

But even without a "hole" over the Himalaya, the worldwide depletion of ozone is already reason enough to start worrying in relation to high mountain populations. As you go higher, there is less atmosphere above. In rural areas, as in the Himalaya, there is also less smog which acts as an additional screen. As more ultra-violet rays reach the surface of the earth, in the Himalaya or elsewhere, there will be increases in cancer rates, cataract and other eye

diseases, according to Dr. Margaret Kripke, an immunologist with the Environmental Protection Agency (EPA), which is the primary United States agency conducting research on ozone. There is also a possibility that increased exposure will negatively affect the body's immune system, which in turn might increase susceptibility to infectious disease.

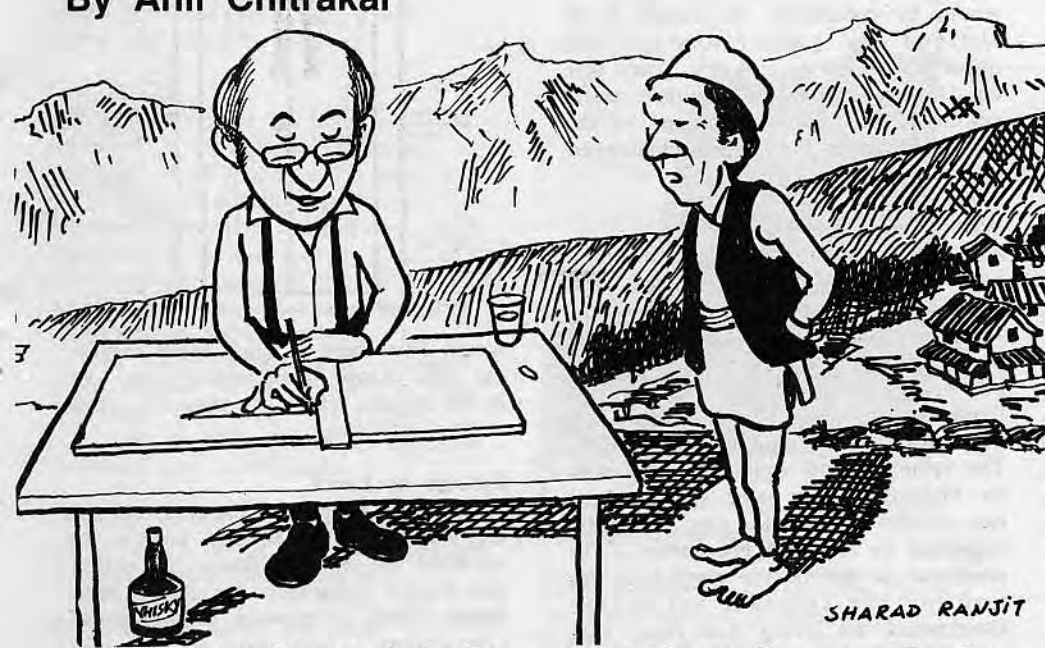
No one has done region-specific calculations, but the EPA's computer models give some indication of the numbers involved. If the actions required by the 1987 Montreal CFC-control treaty were observed, the EPA says, they would avert 132 million cases of skin cancer and 27 million deaths from skin cancer that would otherwise have occurred among people born before 2075. Even with the new controls, Canada's Environment Ministry estimates that there will be 7 million extra skin cancer cases among people born between now and 2075. Logic suggests that a disproportionate number of those skin cancer victims are going to come from higher climes. Moreover, these calculations were done before the April findings that ozone depletion was three times greater than previously thought.

Increased ultraviolet radiation would also affect crop production, animal life and the growth of trees. Studies have shown that two-thirds of all plant life are affected by ultraviolet radiation. Martyn Caldwell of the National Science Foundation in Washington DC, who has studied plants in arctic and alpine zones, cautions that enough specific analysis has not been carried out on the subject to make any dire predictions. However, he says, it is quite possible that ozone depletion could result in direct damage to certain plants in high altitudes and it is possible that mountain crop production and quality will go down.

The next phase of scientific investigation, agree Dudek, Kripke and Caldwell, should be an in-depth worldwide examination of the ozone problem. Going beyond the study of global averages, the next phase of research must relate to specific regions by latitudes and altitudes. Nepali scientists could not agree more. The Himalaya offer one of the best natural laboratories for research into the atmospheric sciences, and the question of ozone provides an urgency for serious research, says ICIMOD's Chalisey. △

The Good, the Bad, and Development Consultants

By Anil Chitrakar



The villagers of Chorkate in Gorkha District recently had a first hand experience with a development consultant and are not ready for another one soon. A foreign expert decided that Chorkate needed to upgrade its livestock and so he flew in a strapping bull from the United States. The bull was too big for little Nepali mountain cows, which collapsed from the weight of the beefy American import before consummation could take place. Shunned by the frightened cows and unwanted by the villagers, the stud today paces the banks of the Daraundi River, alone. The consultant, meanwhile, has handed in his project report and returned to the United States.

Development consultancies are a fast-growth industry in the foreign aid haven that is present-day Kathmandu. Large foreign firms make off with the big dam, airport and highway projects while homegrown consultants do quite well nibbling the tidbits. Most consultants, foreign and local, are upright and professional, but due to the shenanigans of a few, their image by and large is one of carpetbaggers out to make a fast buck. Today, consultants build dams, build roads, plan irrigation, do soil tests, train civil servants, advise ministries and advise those who want to learn how to advise.

Swiss geologist Toni Hagen was the "proto consultant", who set an example with his diligence and creativity. Hagen crisscrossed Nepal in the early 1950s

and made the first comprehensive physical and economic survey of Nepal for what was then known as the United Nations Technical Assistance Administration. Just as Nepal needed Hagen's advice in 1954, there continues to be a genuine need for outside expertise to fuel social and economic progress. Indeed, specialized one-time duties are often best conducted by a consultant. But today consultants are engaged in every stage of a project: from pre-feasibility to final evaluation.

A Development Racket

Awarding a contract has become a racket in Kathmandu as well as in donor-country capitals and agency headquarters. There is feather-bedding, keeping the "national counterpart" happy, or deliberate delay to keep the stipend flowing. Most national consultancies have learnt to play by the local rules. When a construction project is approved, for example, the project manager who signs the papers for the Government normally expects a five per cent commission, the engineer receives four per cent and the accountant one per cent. Only someone blind to local reality would hesitate to give the poorly paid Government staffer his cut, says a consultant.

Aid agencies are insisting that projects they support utilize consultants from abroad. Foreign consultants, unaware of local conditions and often unwilling even to learn, can turn needed projects into failures. One good example is the

Asian Development Bank (ADB) and World Bank funded Second Hill Irrigation Project, meant to provide simple upgrades to existing irrigation systems in four districts of West Nepal. The feasibility survey was conducted by Louis Berger, an American firm, which submitted a positive report and was appointed a principal implementing consultant for the project.

To fill the project's pivotal post, Louis Berger assigned an agri-engineer instead of a civil engineer, a young man who did not have the required field experience. The engineer worked from distant Kathmandu and, according to a 1 March ADB evaluation report, his designs were "too sophisticated (expensive) and did not take adequately into account the existing irrigation systems and the actual requirements of the farmers".

Concerned by the runaway costs of the wayward project, the Department of Irrigation terminated the consultancy on 9 March, but by then NRs400,000 had already been spent by each of the four local consultants that had been hired by Louis Berger. Perhaps ten times that amount was spent by the principal consultant. "For the amount wasted, they could have helicoptered the water to Doti in jerry cans," says an irrigation expert.

Failing Grades

The Resources Conservation and Utilization Project (RCUP, which imported the bull to Gorkha) is another example of how consultants can waste money and achieve little. Funded by USAID, RCUP was meant to be a "multifaceted integrated watershed project" for central Nepal. It began work in 1980 and was implemented by the Southeast Consortium for International Development (SECID), an American firm, which brought in a forester, a soil scientist, three "catchment advisors", one training specialist and a social scientist.

At the very outset, there was rancour amongst the consultants themselves. Then the advisor in Myagdi was withdrawn by SECID after problems arose with the local community. The overall insensitivity to local feelings and needs was exemplified by the catchment

advisor in Gorkha, who secluded himself in a sumptuous "durbar" up on a hill, rarely deigned to mingle with the folks he had come to help, and reportedly treated his Nepali co-workers with condescension and disdain. Some of the RCUP buildings designed for the upper Kali Gandaki Valley required long beams that sweep majestically through the length of the construction. RCUP was hardly conserving resources as its title proclaimed: it was cutting down the tallest trees from the alpine forests.

An evaluation report prepared by the International Science and Technology Institute in 1985 gave RCUP failing grades. Among its findings: "No model for watershed management has been developed...the concept of the watershed as an integrating unit has not been used...too many components were tried over too large an area too quickly". Thus, RCUP's grandiose plans have amounted to very little. \$27.5 million was a lot to pay for a project that has left behind 174 empty buildings scattered across the hills and little else. The RCUP consultants were "terribly underused and overpaid", says a Nepali expert. But much of the blame, he says, rests not on the shoulders of SECID, or USAID, but with the Government, which has allowed consultancies, good and bad, to flourish.

Many contrast Nepal's experience with that of India, where the Government dictates the terms to multilateral and bilateral donors and invites the participation of foreign consultants only where absolutely necessary. Because of strong technical expertise that exists within Indian departments, there is also little hiring of local experts. In January, a group meeting in New Delhi urged the Government to promulgate regulations to ensure quality in the profession. There is no such move in Nepal, even though every dilapidated doorway in Kathmandu seems to hang a



Toni Hagen (1955)

consultancy shingle. A survey by the Center for Action Research in 1983 found 146 consultancy groups in the Valley, and there are obviously many more today.

Most master plans, evaluations and reports by consultants are written to be shelved and gather dust in the respective ministries. A few years ago, the Director-General of Tourism could not even locate his only copy of the Tourism Master Plan when challenged by a reporter.

Who Reads Them?

Not many consultants' reports break new ground. Many opuses are duplications of studies carried out by someone long gone. The head of a prominent Washington DC firm is presently advising the Ministry of Finance on programme budgeting processes and is funded by UNDP. The same adviser was consulting with the Ministry on the same subject about two decades ago, at that time reportedly supported by the Ford Foundation. "The weakness is not of the consultant for wanting the contract but of the Government for giving it to him," says a Nepali economist.

On occasion, consultants, both foreign and local, do stand up for principle and have been known to withstand pressure. A recent example is the firm of Electrowatt from Zurich, Switzerland, which was studying surface and ground water prospects in the Eastern Tarai. The development bank reportedly had the financing ready and the Irrigation Department was also keen, but Electrowatt was convinced that the project would be unfeasible and stuck by its report.

Ram Prasad Yadav, Deputy Director of ICIMOD, feels that consultancies in Nepal are too busy just keeping alive and are not on the intellectual cutting edge. "The problem with even the respected consultancies in Nepal, such as New Era, CEDA, APROSC and ISC, is that they do little or no research. Only research can provide the analytical ammunition required for giving good advice," he says.

Externally funded projects generally run in five-year cycles. This leads planners to try to squeeze a proposal, regardless of actual time demands, into a five-year time frame. After identifying the hill districts of Tanahu, Syangjha and Gorkha as constituting a food-deficit area, an expert recently proposed an assistance programme for food-grain production, forgetting that there were highways to transport food from nearby surplus areas. Horticultural development



would have been a much better option, but then orange trees, which grow well in the region, take more than five years to start producing.

Foreign or Local

Former Secretary of Finance Devendra Raj Pandey, a consultant known for speaking his mind, disputes the notion that foreign consultants are cut off from Nepali reality as opposed to homegrown consultants. "As long as they are alienated from the local people, what difference does it make whether they are Nepali or foreign?" he asks. "In the garb of native expertise, our experts are often as much outside the Nepali mainstream as the foreign expert."

Local experts are getting lots of work in Kathmandu nowadays, but at the same time there is no drop in the flow of awards to foreign consultancies. The lenders and donors insist on their own experts. Nepal's capability to design, administer and implement development programmes is declining even in the face of increasing financial flows. So donors say that they will implement the programmes on a turn-key basis, "which hurts the very core of technical assistance philosophy", according to Pandey.

Turn-key projects also mean expensive long-term consultants, flights by helicopter to project sites, lots of to-and-fro between foreign capitals and Kathmandu, "R and R" in Bangkok, a spacious mansion and "house staff" in Kathmandu, reports to publish and officials to keep happy. Some of the largesse is also distributed among local consultants and technocrats. The real estate market, the retailers, the airlines, the hotels, the gasoline merchants, the nanny and *mali* markets, all benefit.

There would seem to be few losers in the consulting game, at least in foreign capitals and in Kathmandu. ▽

An Expatriate Consultant in Islamabad

"You don't want Botswana. You want Pakistan!" The Korean man calling from Geneva had an explosive way of talking. "Pakistan. North-west Frontier. Beautiful place. Mountains. Never mind Botswana: you want Pakistan. Next week." It sounded like a good idea. There are so many development-aid people in Botswana you can't find anything to finance any more.

We are six on the mission to the North-West Frontier. None of us have been here before. None of us have previously met. A mix of people because this time its an international agency. We've got four weeks to come up with a project for, say, thirty million dollars. Routine.

We are all foreigners, but we are all Americans. None of us knows Pakistan but we all know what is good for it. I find the view sickening. In front of the veranda are mountain flowers, then the big river, then the mountains. If I look up, it's all snow-capped peaks, like meringue-topping. I don't want it. It's like deceit, a sneer. The people are poor, the mountains a logistical nightmare. Road building will cost twice the average. Thank God we are returning to the Intercontinental in Peshawar tomorrow.

"We want to do something for our people quickly. We don't want your six-year project; we want two years, three years. The people up there hardly know the government

exists. They see the refugees receiving all sorts of international aid and they wonder why they are not getting anything. It's a restless place. You should join these people to the rest of Pakistan. Agricultural research and improved farming are not enough. We want results. The government is ready to move. We know what we have to do. Just release the money and we will do the rest."



"Look, we want to lend you the money you are talking about, but one valley is not enough. One valley doesn't have the absorption capacity. We need a minimum of two, and preferably three, valleys. We want at least a million people. Otherwise Geneva won't like it. Frankly, they will say it was not worth the expense of sending out a mission. We want to give you a project but you'll have to take away some valleys from someone else and give them to us."

"We have decided we can give you two more valleys. We will give you an American valley and one which was going to the Germans. We

want to reduce bilateral funding in favour of international donors. But we have to have assurances that you will release the money fast."

"No problem. I'll tell Geneva."

So what we'll do is this. We'll keep the six-year concept but make a four-year first phase to satisfy the government. We'll go for a small-farmer development package, with increased government staff and transport in the region, but we'll include pre-feasibility studies for the large construction projects so they can't say we ignored them. Logistically and socially the large-scale projects are bad news. We'll include them in the total package but auction them off separately to co-financing agencies. There are plenty of development agencies who would be happy to pick them up. Pakistan is a success story, don't forget: it can pay its debts. We'll put in a good-size road component, but we can't touch the ecological problems -- too long-term. We're getting there. We're in business.

We've done the Himalaya, we've done the provincial government and we've cleared the federal government in Islamabad. After twenty-seven nights together, the mission has dispersed. I try -- not very hard -- to remember the names of the officials in Peshawar and I am pleased to find that already I cannot. △

- from "The Development Game" by Leonard Frank (Courtesy, *Granta*)

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FOCUS ON ARUNACHAL

At the eastern tip of the Himalaya lies Arunachal, which literally means "mountains of the rising sun", now going through a process of uneasy and sometimes reluctant transition to "modernity". The following articles deal with two aspects of that transition, the rainforest, still largely pristine, and the changing status of the women of Arunachal.

There are 20 major tribal groups, encompassing about 110 sub-tribes in the Indian state's 84,000 sq km area. The majority carry out slash and burn cultivation. Culturally, there are three main divisions. The western-most district Kameng, bordering Bhutan, is influenced by Buddhism. The middle region, comprising Subansiri, Siang and Lohit, is rich in cane weaving and bamboo works. Burmese influence is apparent in the eastern-most district of Tirap.



Bruce Lee meets Arunachal warrior.

Photo: S. Acharya

Threatened Rainforest

By Sanjay Acharya

The thumping of log drums tore through the mountain stillness. Bare bodies glistened in the evening light as wooden clubs pounded in unison on the gnarled 100-foot hollowed out log. The message was that the youths of Pongchau had established a new Morung, or fraternity, and to celebrate the event had successfully hunted deer. The village chief arrived with due ceremony, with hornbill feathers springing majestically from his cane headdress and emblazoned with wild boar tusks. Colourful beads decorated a well-muscled chest, a leopard's jaw hung from his formidable sword and five shrunken human skulls bobbed up

and down behind his straw skirt. By the fireside, young girls ladled large quantities of millet beer into long bamboo tankards of the victorious hunters.

I thought that this must certainly be the last frontier. Here, in the rump of the north-eastern Himalaya, the villagers of Pongchau seemed to me oblivious to the 20th century. Yet I knew that most of the tribes in the region were in transition, from hunting and gathering to becoming settled agriculturists. They burn hillsides in a collective effort called *jhum* and cultivate crops in a shifting pattern spread over a period of a decade or so.

They gather firewood and timber from the forests and hunt deer and wild boar. An occasional leopard or even a tiger sometimes falls to the smoking barrel of a muzzle-loader manufactured by the local smithy. Whether hunter-gatherer or agriculturist, however, in either case the tradition of Arunachal Pradesh has been to preserve forests and forest wealth. The Ponchahu tribals know that without these natural assets there is no survival. In these self-sufficient communities, the forests are not sold.

Lately, however, that delicate social fabric has been coming under intense pressure, as an unfamiliar cash-based economy has begun making serious inroads. Modern education is alienating youth from their roots in the tribal family; missionaries, bent on proselytizing the "pagan" animists, are destroying their identity; chiefs are becoming politicians; developers are granted concessions; government agencies have targets to meet. Sawmills and plywood factories have come up to the foothills, some of them even owned by tribal chiefs. The villagers have already been enticed by contractors from the plains to help in illegal timber operations.

These changes are inevitable not because there is no other way, but because the authorities have been too lethargic to find alternative ways of introducing integrated forms of development, designed around local needs and perceptions. There is also a vested interest in exploitation. Assam, Nagaland and Meghalaya have already lost their dense forests. Paper mill owners from Nagaland are now prowling in the forest of Arunachal hoping to lobby for fresh contracts.

Under the thick canopy of the forest around Ponchau, it is wet and dripping even though it has not rained for days. 100-foot trees block out much of the light and leeches wave about menacingly on the moist decaying leaf litter. Giant hornbills flap overhead, while troops of hoolock gibbons loop across the tree tops and crash through the branches. The forest reverberates with their piercing cries. Neither the wildlife, nor Arunachal's tribal society, are prepared for the lumber merchants. Δ

Sanjay Acharya is a Delhi-based photographer and writer.

Women Look to the Future

By Kiran Mishra

The role of women everywhere in the Himalaya is changing and women are adjusting to new exposure and opportunity. But the changes and choices confronting women of the Arunachal tribes have their own complexities. The weight of tradition is heavy and burdensome, yet women are a major force in its preservation. Change will bring about a certain amount of emancipation, but it will also disrupt personal, family and tribal life. Conflict and tension lie ahead.

Villages in Arunachal are normally made up of long houses, with up to ten families and as many hearths in one building. In "patrilineal, fraternal and polygyneous" tribal society, the eldest wife occupies the first hearth on the entrance side and the youngest is farthest in the back. The woman

enjoys a relative economic freedom because she has her own *jhum* fields and hearth. And yet, she has little social or political standing. The patriarch is all-powerful. The man's status is reckoned by the number of wives and *mithun* cattle he possesses.

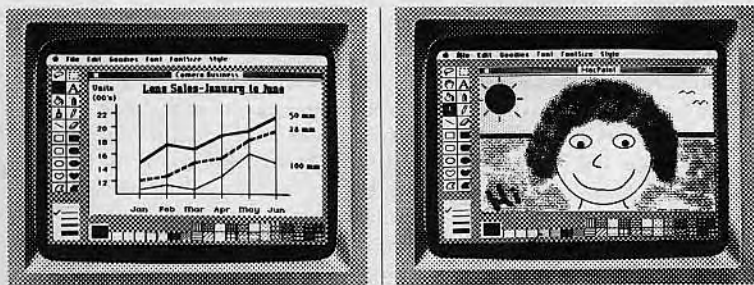
Beginning in childhood, women engage in hard labour. They do the sowing, harvesting, husking, forest gathering, domestic work and household crafts. On occasion, it is they who conduct the rituals to appease ancestors of the long house. Personal property is in the form of ornaments, called *gumn*, which women bring along in marriage. It is normal for the mother to give away her ornaments to her daughter, but it is the father or the brother who receive *mithun* cattle as the bride price.

New elements like the growing cash economy, formation of private property, work opportunities and education are changing perceptions and expectations among Arunachal's people. Among other things, the role of women has started to change. Young educated women are sharply critical of their elders "for selling away their daughters as *mithun* to the highest bidder". These women are spearheading radical action, especially against polygamy, which is central to the tribe's traditional economic, social and family structure. Yet the threat of tribal breakdown does not keep young, educated women like Mano from saying, "We are not like a cane basket to be unceremoniously discarded when it wears out". Δ

Kiran Mishra is a Fellow of the Indian Council of Historical Research.

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Talking Language

Careening on an auto-rickshaw around New and Old Delhi while researching our cover feature on migration, we discovered that you don't need English, Hindi or Punjabi to ask directions in the Indian capital. Nepali will do. With thousands of men and boys from the Nepali hills now manning the dust-ridden street corners of Delhi as *chaukidars* and *darbans*, you can simply ask "Lal Qila kata chha, dai (or bhai)?" It is another matter that he might send you to Greater Kailash.

Speaking of languages, we often get asked why *Himal* is in English. The very premise of this magazine is that development and environment experience must be shared region-wide. Information exchange is integral to that process but there is a communications drought in the region, not the least because we speak different languages. As things stand, English alone can cross borders, watersheds, ridgelines and divisions of the mind. It is our hope that *Himal's* copy will be freely and widely used by other media and in different languages, hopefully reaching a wider grassroots audience.

We have a counterpart in Francophone West Africa, a monthly called *Famille et Development*. It is printed in another colonial language, French. Unlike *Himal*, it is able to reach the grassroots because in countries such as Senegal, Mali or Cote d'Ivoire, the primary health worker or school teacher is fluent in French. Such is not the case for English in most of the Himalaya. For better or worse, acts or omissions by "decision makers" affect the lives of millions in our mountains. Most of them speak English. We hope they subscribe.

World Traveler Himal

Those of you who read the fine print will have noted that the prototype issue of *Himal* was printed in Sri Lanka. The present issue is from New York. What's going on? Does the magazine of the Himalaya see virtue in distance? No. These interim issues were brought out as and when we were able to raise money, for ours is a not-for-profit publication. However, we hope to stop our wandering very soon so that this magazine will come to you straight from Kathmandu, as it should.

Even with only one issue out so far, we have been hit over the head many times for this magazine's "negative content". We plead guilty, up to a point, and promise to track down more good news. But it would help if there were more of it available. Readers can help in the search by sending in ideas and also continuing to hit us over the head.

Our cover now proclaims *Himal* as being "For Development and Environment", rather than "For Environment and Development", as we had it in the prototype issue. Has the E-word lost out to the D-word? Not really. We reversed placement only because "development" is generic and covers the entire social, economic and environmental universe. However, we

continue to keep "environment" because in these fragile, over-populated mountains, the environment-development nexus is more important than anywhere else.

Save Sustainable Development!

If the word development (and *bikas*) had not become a cliché, there would have been no reason to come up with "sustainable development". Prime Minister Gro Harlem Brundtland of Norway, whose World Commission on Environment and Development gave us the new term in its 1987 report *Our Common Future*, defined it in a nutshell at the United Nations: "National and international strategies that offer real options, that secure and enhance incomes as well as the environment".

The Brundtland Commission has commendably kept its efforts alive by getting key groups around the world to participate in the report's implementation. But the Big Bad Cliche is lurking in the woods waiting to pounce on little Sustainable Development and drag it down to be shackled with all the others: Trickle Down, Hundred Flowers, Adjustment With A Human Face, and, the most recent arrival, Perestroika.

Having been embraced by the international set and self-appointed development czars, Sustainable Development has already lost some of its fizz. It will become really flat when national ministers and planning commissioners start jostling it about. Madam Brundtland must devise a way to rescue S. Development. △

SID SUSTAINABLE INTERNATIONAL DEVELOPMENT by G.McBean '88



INTERVIEW

EDMUND HILLARY

Edmund Hillary climbed Mount Everest in 1953 with his partner Tenzing Norgay. His relationship with the Himalaya has, if anything, deepened in the 35 intervening years. Sir Edmund, presently New Zealand's envoy to India and Nepal, talked recently in Kathmandu to HIM/L.

Himal: Some say that there is little commonality among the Himalayan peoples. Do you agree?

Hillary: There is an enormous variety, of course. But there is a lot in common among the mountain communities. There is a strong relationship between the peoples, be they Rais, Gurungs, Tamangs or Sherpas. By and large, they have confidence in their relationship with the mountain environment. Otherwise they would not live here.

Himal: After decades of observation, do you find cause for concern about life and environment here?

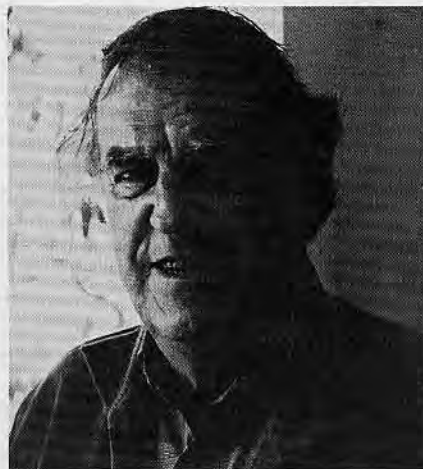
Hillary: There is immense ecological degradation across the mountains. The main problem, of course, is the increase in the number of people, which puts tremendous pressure on arable land. In the Nepal Himalaya, in Garhwal, and other areas in the Indian Himalaya, I have found cause of extreme concern.

The Chipko experience is good and seems to have worked in its specific region, but maybe every area has to develop its own techniques. Not by any means are people conservationists by nature. They have to live from day to day and life is hard. The need for firewood is immediate. It is no good saying "we want this environment unchanged for the next hundred years". The hill people live very much in the present.

Himal: What are the major challenges to development?

Hillary: Two major challenges for Nepal, at least as I see it, are family planning and reforestation. Unless much more substantial efforts are made in these two areas, slowly but steadily, the Nepal Himalaya will become a desert. Much of that is also true for the Indian hills. Bhutan is in a better state, but then there are not that many people there. The obsession with roads and big factories is misplaced. Above all, for progress, you must have the support of the ordinary man in the field.

In the Nepali mountains, the Sherpas



"Slowly, slowly is better."

Photo: KMD/Himal

are benefitting from tourism. The Rais are poorer. No doubt, Nepal is a poor country and it has major problems ahead. But in the hill areas, I would rather see slow and steady progress. As my Sherpa friend Mingma Tsering says, "Slowly, slowly is better."

Himal: Are you concerned over tourism's impact on our environment and peoples?

Hillary: In Nepal, there are some places that are just lousy with tourists and trekkers. The idea of tourism is good: you get to know other peoples and cultures, but one has to consider the pressure on the environment and the local culture. There has to be some discipline and control, but by that I do not mean that you immediately increase costs so that only the wealthy get to see a destination. The young and the impecunious must not lose their access. So what is required is balance in control.

Himal: You did open the tourism floodgates in Khumbu by building the Lukla airstrip in 1964.

Hillary: I believe that I am initially to blame for the flood, but console myself with the thought that it would have happened anyway. Once you get away from Lukla and the trading post of Namche, actually, the Sherpa livelihood is not very different from what it was 30 years ago. Those two villages have become extremely tourist-oriented. I say

let Namche be ruined by the tourist, but let us protect Khumjung, Khunde and the other villages which are the real heart of Khumbu. What is needed in the Khumbu, and elsewhere, is not heavy-handed control of tourism, but better administration and lesser numbers.

Himal: Everest has been climbed siege-style, alpine-style, solo, by armies and without oxygen. It has now been traversed from both sides. What is to become of the poor mountain?

Hillary: I say let the mountain alone for five years. There is so much worldwide pressure to climb it and that affects the environment. They should close the peak and then start all over again in a controlled manner. The major expedition syndrome will not fade away, because with siege-style there is a place for television-rights, media. I do not like the colossal size of big expeditions. On the other hand, the big mountains of the Himalaya should not be the sole preserve of hot-shot alpinists. That is an arrogant view. Mountaineering should be for everyone who is reasonably competent.

Himal: Do you prefer "Chomolungma", "Everest" or "Sagarmatha"?

Hillary: I think people should use the name they prefer. But whatever it is called in Tibet and Nepal, the world will always know it as "Everest" no matter what.

Himal: Tenzing Norgay is no more. Did you like the man with whom you made history?

Hillary: In 1953, when we climbed Everest, we were friendly and worked well together, but you would not have said we had warm relationship. In the last ten years, we came closer, and in the last couple of years, we were really very close. We were able to communicate better and we talked philosophy, for he was quite a philosopher. Buddhism was very important to Tenzing, and he had a *gumba* on the top floor of his house. He was very concerned for the education of his children. He had very little to do with the Sherpas of Khumbu. The way of life of the Darjeeling Sherpas and the Khumbu Sherpas are very different. Δ

GRASSROOTS

Indra Bahdur Kapchake

The news item in the papers in late January was brief and perfunctory. A 55-year-old man had been run over by a bus in the eastern Nepal Tarai. Thus was noted the passing of Indra Bahdur Kapchake in Kathmandu, but the grieving villagers of Madhubasha would have written more.

Indra Bahdur was no ordinary village leader, for he had a rare ability to inspire others into action. Indra Bahdur had given people ideas. Today, Madhubasha is a village of hope and purpose because it did not wait for largesse from the ministries, the projects or from distant lands. "Development" in Madhubasha self-ignited.

Indra Bahdur proposed setting up a village co-operative about twenty years ago, and the neighbours agreed. The co-operative began innovating almost immediately. A bio-gas plant was set-up, piped drinking water came next, and a school was built, as were a child-care centre, a forest nursery and latrines.

"You see, the people of this village do not play cards, drink or smoke. There are a few elders who still smoke but they will take the habit with them," Indra Bahdur told me just a few months ago. He said "bikas" involved not only building roads and growing more grain per hectare, but changing social mores as well.

For example, the people of Madhubasha have revised rules for social gatherings

to fit their pockets. Hindu marriages in Madhubasha are not the expensive affairs they tend to be elsewhere. A groom's party is allowed to bring only a priest and three persons as witnesses.

And then, of course, there is the "Pigeon Project". Someone complained that barbers charged too much. Ever enterprising, Indra Bahdur suggested raising pigeons for profit and the members of the co-operative agreed. Before long, hair-cutting in Madhubasha was fully subsidized. The Pigeon Project, Indra Bahdur said, had convinced even the skeptics about the rewards of common effort.

The collective harmony and will to work soon brought attention. Trainee officers came to see "development happen" and farmer groups came for advice. Representatives of the international development set descended on the village, each claiming a small part of the success. The last VIP Indra Bahdur was to meet was Unicef's chief James P. Grant.

Madhubasha is today better off than most Nepali villages, and most of it was Indra Bahdur's doing. He was not another statistic.

By Binod Bhattarai

Prize for Chipko

Last year in these pages we reported that the Right Livelihood Award (the "Alternative Nobel") had been conferred on the Ladhak Ecological Development Group by the Swedish Parliament. This year, a Himalaya group has again been

recognized: Chipko *andolan*, represented at the prize-giving in Stockholm by Sunderlal Bahuguna. So something must be going right in the Himalaya.

The citation for the award stated: "In their intensifying struggle to ward off the increasing commercial pressures that are threatening to wipe out India's Himalayan forests early in the next century, the workers of the Chipko movement have emphasised two themes; that ecology is permanent economy and that the most important forest products are not timber but soil, water and air."

Jara Juri

The 1988 Jara Juri ("grassroots") award goes to the villagers of Sami Bhanjyang in the Central Nepal district of Lamjung. Every year, conservationist K.k. Pandey treks through the Himalayan hinterland in search of farmers who have saved the fragile mountains using their own skills and management techniques. His interviews and photographs are used by a panel of judges in making their selection.

While the rest of the country has been going through paroxysms of planting fast-growing pine and rootless eucalyptus on visible hillsides, the villagers of this small hamlet of 85 households have kept a level head. They established a forest committee which declared a wooded area of 30 hectares out-of-bounds.

The committee decreed that any collection of dry branches, removal of unproductive trees or planting of saplings has to be approved. Once a year, dry limbs and trees are collected and distributed among the villagers. Individuals are encouraged to plant their own fodder trees and bamboo in the forest. Villagers who break the rules are fined. Committee members are fined double.

The villagers needed no expert to tell them what to do. Pandey, who established Jara Juri by setting aside the royalty of a book of his on fodder trees, says, "In fact, their work is as good as, if not better than that of trained foresters." The Award consists of a nominal cash prize and a letter of appreciation which "recognizes the spirit of self-help among the highland farmers". -B.B.



Kapchake with his folk last year.

Photo: Mrigendra Singh

VIEWPOINT

Ecological Dogma in Hill and Plain

By Pran Chopra

Most hill people in India and in the mountain kingdoms of Bhutan and Nepal do not see their hydrological nexus with the plains below as symbiotic. This is because in the past the plains have been predatory and the hill people have rightfully felt robbed. In siting projects and allocating the benefits, the authorities have paid insufficient attention to the interests of the hill areas and populations.

Immense harm has been done to the Himalayan ecology, some of it by the short-sighted exploitation of resources for the sake of the plains. Hills and valleys which have served local needs as well as those of the plains for decades are now in danger of being able to serve neither. They have been badly gouged for meeting immediate local needs for fuel, fodder and food, and by the rash construction of dams.

The answer is to insist on strict implementation of a forward-looking principle, that there be a fair sharing of any project between the upstream and downstream areas and populations. While recent studies have rightly exposed the damage done to the hills for the short-term profit of the plains, many have ignored those strategies by which the natural nexus between the hills and plains can be truly developed for the benefit of both.

There are those who balk at treating the hills and the plains as a single ecological system. They favour India's treating the hills as a self-contained and self-sufficient universe to be developed for meeting the needs of the local people. They would admit to two types of tradeoff: the plains should meet a part of the food needs of the hills to help reduce the pressure of cultivation in the highlands; and the hills should be cultivated in such a way that they do not add to the load of silt in the plains. But this under-estimates the scope for much bigger and mutually beneficial tradeoffs, particularly in relation to water and gravity. This brings us to the subject of power projects and the hill-plain nexus.

It would be wrong to turn our backs upon large hydropower projects and confine the Himalaya to small units. By their very nature, micro projects have a limited radius of benefit. While they certainly are to be recommended for isolated hill communities, they are no substitute for larger projects, which can be far more beneficial not only in terms of power but in wider economic terms if the hills and plains of a river system are treated as an integrated economic resource region.

No evidence supports the proposition that a large number of very minor projects can be linked to deliver as much power

at a main exit point as a suitably located major project. Nor is there basis for maintaining that a major project necessarily causes more ecological damage than would a whole chain of power-equivalent micro projects scattered throughout the upstream hills. On the contrary, it is more likely that a major project, if fully mindful of the ecology, will do much less damage and in a more limited area.

It would be wrong to go back to the atavistic principle that we turn our backs upon large scale hydro-electric projects in the hills and confine the Himalaya to micro projects. The price would be much lower, and the benefits greater, if major projects were not discouraged and at the same time were required to have full regard for the ecological and economic interests of the hills and hill people.

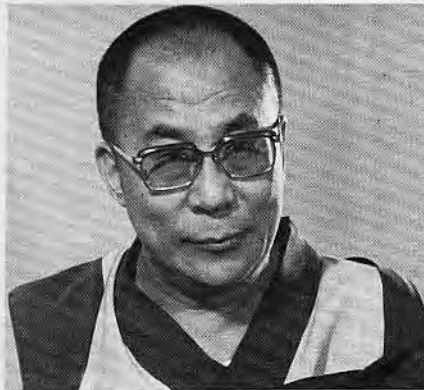
This proposition, writ large, is also the true basis for the most profitable area of economic co-operation between India, Bhutan and Nepal. The whole case for economic co-operation between the three countries rests upon the symbiosis between mountains and the plains below. The true development of this inter-country symbiosis depends on the same strategies as does the nexus between Himalayan and Gangetic India. Δ

The Dalai Lama on Human Thought and the Environment

We excerpt below the Dalai Lama's views from an address on "human survival" he gave at Oxford University on 12 April.

"Though the human family seeks a secure future, we find ourselves confronted by many problems. The delicate balance of the earth's ecology is being eroded on land, sea and in the atmosphere. The global population is increasing while our resources are being rapidly depleted. Under the pressure of a shrinking world, no nation or community can afford to neglect the needs of its neighbours. It is no longer a matter of choice; our mutual requirements are bound to one another.

"The need for mutual respect and a sense of limitations is particularly evident in the environment. Industry has been



insensitive in its exploitation of nature. Although previous generations could not claim the degree of development we have achieved, at least the world they bequeathed to us was intact. It is time to examine ourselves and correct where we've gone wrong. Science and technology cannot solve all our problems.

Our faith in material progress has become too uncritical.

"We need to address our troubles at their root; within the human mind itself. Some may dismiss this as a vague or ineffective view. Ultimately, however, human history itself is nothing but the record of human thought. As one brought up in the Mahayana Buddhist tradition, I really feel that love and compassion are the very fabric of tolerance. To me, a humanitarian approach to world problems seems the only sound basis for world peace. We have arrived at a critical juncture. We cannot create peace and a stable environment on paper. Time is short and the problems we face are great. Mutual respect is no longer an option -- it is the very price of our survival." Δ

Technology's New Rules

By Dipak Gyawali

Three days before the Ides of March 1988, Kathmandu experienced the most shocking mass deaths since the earthquake of 1934. Scores of football fans lost their lives and many more were injured in a stampede as a hailstorm lashed the Dasarath Ranghasala for 15 minutes.

The hailstorm was not the first in Kathmandu, and others before it have never managed to kill as many people in one fell swoop. What has changed for hailstorms that allow them to be so hazardous to public health? Of course, there have been no drastic changes in weather patterns. What is happening is that our society is adopting the trappings of "modernity" without fully understanding the process. The relationship between technological needs and traditional management is still distant.

We have yet to appreciate fully that emergency exits in cinema halls must be kept unlatched, that airplanes have load limits, and that mass exodus is the first thing to anticipate in managing a sports stadium.

The design of Dasarath Rangasala shows an adequate number of large and small exits. However, only the "back-doors" are allowed for use by the ordinary spectator. In normal times they are choking enough; in extraordinary situations they become a deadly bottleneck. The authorities failed to

draw lessons from a similar stampede a few years ago, one that luckily did not claim lives. They continued the quixotic practice of keeping the doors locked for the duration of a game and the prize-distribution and speech-making that follows. Those who want to leave a boring game, or a hailstorm, are trapped.

If there is a message in the Ranghasala disaster, it is that there are similar tragedies waiting to happen wherever modern technology and traditional management are mismatched. One only has to look at buses on the *rajpath* piled high with humanity; the villager who uses pesticide to kill fish in the stream; or the airstrip manager who slips an extra sack of supplies into the baggage hold of a Pilatus Porter.

Nepal is moving from a "rural-diffuse" society into an "urban-concentrated" one, where technology is used to pack people more densely, even while catering to their needs. In urban living, the laws of technology that allow so many people to live so close together must be respected. Stadia, like systems of mass transit or mass production, have their own requirements for functioning smoothly. These mega machines demand that extreme events like sudden power failures or fires or earthquakes be accounted for not only in design but in operation. Engineers and managers knowledgeable about such things must be entrusted with power and responsibility to act in emergencies. A cavalier attitude could only lead to further tragedies. Δ



More room at the top.

Photo: G. McBean/Unicef

Let Them Drink Coke

It is good to see fledgling Nepal-TV doing so well, but distressing to note that most of its advertising revenue seems to derive from come-hither advertisements from soda manufacturers, beer bottlers and cigarette pushers.

An American soda ad shows off scantily clad super-rich California kids wind-surfing on the Pacific coast. What kind of a message is that for poverty stricken, land-locked Nepal, even in ad-speak? No clever commercial here, just an attempt to get an unsophisticated audience to pant after what they cannot have.

Just to keep up with the foreign

competition, a Kathmandu adman has produced a slick commercial showing a shapely Nepali miss going through her paces, while an off-screen voice asks, "Are you man enough?". Now that Kathmandu-*wallahs* know what a television set looks and sounds like, it is time for NTV to show some circumspection in selecting commercials.

Speaking of ads, the good news from New Delhi is that the Health Ministry is planning to ban all advertisements of cigarettes, bidis, cigars and other tobacco-based products. We hope that this plan becomes reality. Initially, the statutory warning on cigarette packs is to be extended to all the other tobacco

products. Specific warnings are to be developed, which will refer to oral cancer, heart problems, respiratory diseases and life spans. Δ



Typhoid Vaccine Trials in Nepal

By Shanta Basnet

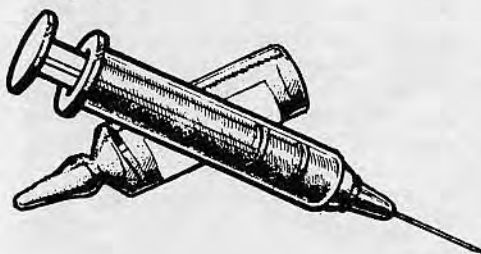
Last year, American and Nepali public health specialists successfully tested a new intramuscular typhoid vaccine. The epidemiologists reported in the *New England Journal of Medicine* that the prevalence of disease among those vaccinated was one fourth that of those who had not been vaccinated. It might well be (and one hopes) that this new vaccine will prove itself by saving lives and health of thousands of Nepalis.

The intramuscular vaccine tested in the study requires only one dose, has few side effects and is 75 per cent effective. An oral vaccine tested in Chile and other countries requires three doses and also has no side effects. However, its effectiveness is 60 to 70 per cent.

Since the preliminary reports point to a major breakthrough, it is important to ask a few questions in the context of Nepali public health. If the research was done for the sole purpose of testing the vaccine, then the project was successful. But if the purpose was to initiate a programme of intramuscular

typhoid vaccine in Nepal, then the matter needs to be discussed.

The intramuscular method of vaccination requires an adequate number of trained personnel for country-wide coverage, plus syringes, vials and special facilities for distribution and storage. Given the scarcity of health professionals and equipment, the best one could do would be to run *ad hoc* immunization campaigns.



If past experience is any indication, in Nepal and elsewhere in the developing world, the tendency is to go for latest, high-tech interventions that look impressive on paper but are secondary in application, especially in village

systems. Top-down health planning inevitably leads one up this path.

The oral vaccine could be distributed through the village health worker, who is presently quite under-utilized due to a lack of drugs and an influential social role. The three doses can be easily administered by the health worker within his precinct at required intervals. This also provides an opportunity to monitor the effectiveness of the vaccine. Even if the oral vaccine is only 60 per cent effective, might it not be preferable to the injectable vaccine because of its much broader reach?

It might well be that after thorough study the intramuscular method will be found preferable. The issue has been raised here mainly to illustrate a larger issue for public health planners. The best available method in a developed country or in Kathmandu may not be the most advisable one for a hill district. In any event, whichever vaccine is found suitable must immediately be put to use before the next typhoid epidemic engulfs us. ▽

Swapping Debt for Nature

By David Sassoon

If you imagine this planet to be a single organism with a body of its own, then tropical forests would rank as one of its most vital organs of circulation and respiration. They capture, store and recycle rain, control floods, drought and erosion, regulate the global climate and play a major role in the earth's life support system. But if present trends continue, most of these forests will be stripped bare in 20 years, and the planet will suffocate.

One major factor contributing to the wholesale murder of this planetary organism is the debt crisis, with developing countries now owing close to a trillion dollars of borrowed currency. To pay back this debt, or in many cases, just to pay back the interest, nations deplete their natural resources in a mad rush to meet payments. Forests are cut down, the earth is ripped open by mines, and the natural bounty is consumed like fast-food to generate exports and cash. The debt crisis, in

short, is blocking development and promoting the torture of the planet and its people.

Last year, an innovative approach to easing national debt problems and saving the natural environment was tried out in three Latin American countries, Bolivia, Ecuador and Costa Rica. In these deals, one US dollar can effectively "buy" multiple dollars of local currency, which is then spent on conservation and environmental protection. In Bolivia, where the swap was first tried, Conservation International, an American organization, purchased \$650,000 of Bolivia's debt at the discounted price of \$100,000 from a bank holding the debt notes. With the collapse of tin prices and high inflation in Bolivia, the bank had little hope of recovering the loan and so was willing to get what it could by selling at a discounted price.

In turn, Conservation International

swapped those debt certificates with the Bolivian Government in exchange for its agreement to protect 3.7 million acres of Amazonian forest and grassland by expanding the Beni Biosphere Reserve. The reserve is home to the indigenous Chimane Indians and 13 species of endangered plants and animals. In addition, the Government set up a \$250,000 fund in local currency for the administration, management and protection of Beni reserve.

These debt-for-nature exchanges will not, by themselves, cure the debt crisis or halt deforestation. Such swaps may be able to absorb several billion dollars worth of debt in the long run, but will hardly put a dent in the trillion dollars that is owed. But these swaps are bringing the attention of decision-makers to the role of natural resources in promoting development. As one commentator observed, "conservationists never had the attention of bankers, now they do." ▽

PHOTO ESSAY

Portering -- "It is such a hard life..."

Pictures by Kevin Bubriski

Portering in the Nepal Himalaya is deadly serious business. It involves enormous toil for little gain; it brings on premature aging. It is among the most primitive uses of human physiology -- the hauling of loads for long distances on sheer "manpower".

In Nepal, the porters are the subsistence farmers, men and women mired in extreme and general rural poverty. In a country where underemployment is endemic, the Himalayan peasants have few means of earning cash other than by bearing wickerwork baskets up and down mountain trails: oil and salt for the village merchant, pipes and tin roofing for development projects, firewood for hill markets, fodder for cattle, provisions for trekking parties and mountaineering gear for expeditions.

Farmers from isolated corners of the country also make annual treks down to the nearest roadhead to buy the year's supply of salt, calico and cooking oil.

The porter (a *bhariya* or *dhakray*) balances the basket (*doko* or *dhakar*) on the back and uses a strap across the forehead, a *namlo*, to take most of the weight. The strain on the headband forces the porter to lean forward and down while taking a climb, breathing in steady, deep rhythms. The calf muscles are tense, the hands on the temples to steady the *namlo*, and the feet bare. Porters often have flat feet. Their soles are thicker than a shoe's and as insensitive to the touch.

A grown man carries baskets that weigh 85kgs or more. Able-bodied western

mountaineers have found it impossible even to stand upright and steady with a *doko* that a five-foot Rai or Tamang hillman has been carrying all day. It is partly a question of technique and partly a question of not having a choice.

Everest summitter Edmund Hillary recalls with wonder a porter who was keeping pace with him on a trail between the east Nepal hamlets of Junbesi and Takshindu. "When we stopped for lunch, I saw he was carrying two bags of cement, all of one hundred kilograms. His body-weight must have been about 65 or 70kgs."

The tortuous steps up the steep, often dangerous trails are interrupted by short breathers, when the porter slips a thick wooden cane, called *taken*, under the



Magar father and son, porters in Baglung.

basket. The porter then leans back to make a tripod out of his legs and the cane. The balancing act is difficult to maintain for long.

If the trail is in prosperous country, there will be a *chautara* with a rock platform to place the basket on, a peepul tree that whispers in the slightest breeze to provide shade, and a diverted stream nearby for a quick drink. But the stop cannot last too long, and before the body has had time to cool off, it is time to heave the load and push off for the high pass.

Descending the other side is much more difficult, as any hillman knows. The technique perfected on the Himalayan trails is to keep the thigh muscles tense but flexible, to take quick short steps, slipping easily from one boulder to the next. Heavy footfalls, such as with heavy climbing boots, would ruin a *bharyia's* knees in no time.

The International Labour Organization (ILO) in 1967 recommended 55kg as the limit for loads being "manually transported" by an adult male worker. But existing rules allow men to carry loads ranging from 45kg in East Germany to 56kg in Mexico and 90kg in Bangladesh. In India, dock-workers have a limit of 100kg. But unlike the dock-worker, who heaves loads intermittently, a Nepali porter labours for hours at a time for days on end. (While researching this article, we could not locate a specific medical report on what years of hauling can do to the peasant's backbone or general physique.)

Diet during these long excursions consists of *sattu*, powdered maize or grain. At lunch break, porters bring out their ubiquitous battered aluminium pans, add water to the *sattu* from a nearby stream and consume the paste with the aid of red pepper and salt. This is the time for some conversation with other toilers on the trail. Even as part of a group, portering is a very lonely pursuit. While on the road, the constant heavy breathing does not allow the peasant to sing, hum or converse. Nights on the trail are spent under a coarse homespun.

The pinnacle of portering is to be a climbing partner to the *sahebs* who need help in getting to the top of Himalayan peaks. Sherpas have had a virtual



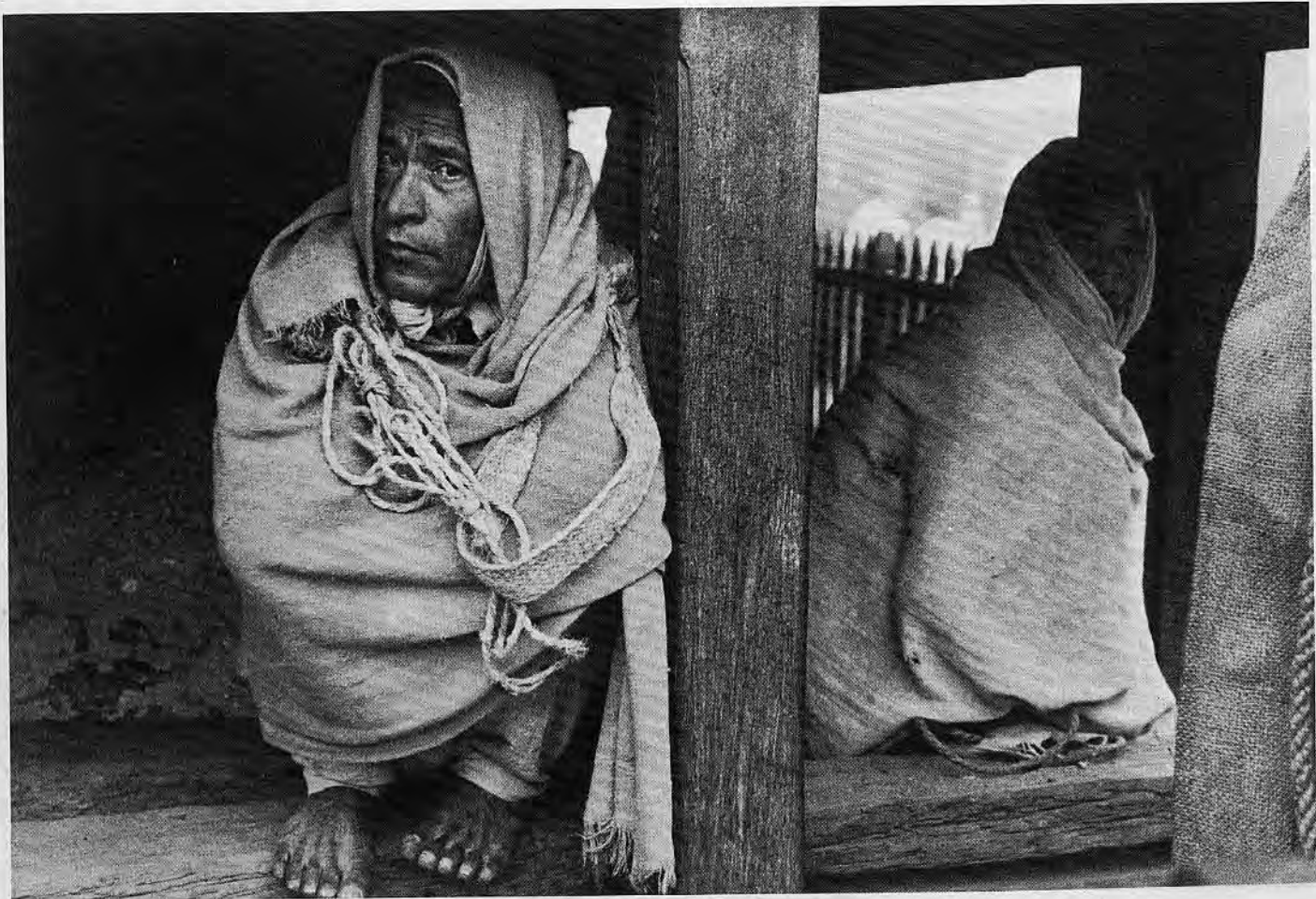
Sick man portered four days from Upper Arun.

monopoly over this end of the trade, although other hill tribes are finally making inroads. Lately, Sherpas have begun to leave the actual portering to others as they run trekking agencies and lodges and work as *sardars* and high altitude guides.

Local merchants in central Nepal pay a porter NRs60 a day to carry a 80kg load of provisions. In the tourists' staging point of Pokhara, trekking agencies might pay as little as NRs50 daily, while individual tourists pay

anywhere from NRs80 to NRs100. In the Arun valley of East Nepal, still out of bounds to tourists, the average is NRs.40 a day. Off season, the prices come down all over.

Nepal's development efforts have focused on building highways to link population centers. Roads have helped bring the mountainous country together by improving communications. The transport of bulk goods is much easier and the national economy has benefitted immensely.



Waiting for work at Kastapmandap.

Firewood for the Patan Market.

For the micro-economy of the hill villages, however, highways have been at best a mixed blessing. Very often, income that was spread fairly widely among mountain porters -- all of them poor without distinctions of race, tribe or ethnicity -- has now to be shared with urban businessmen who run buses, trucks and jeeps.

Porters do use the highways, but mostly to walk on the smooth tarmac. Even the cheapest bus fares can be too expensive for some of them. In the end, portering too is a "socio-economic indicator" -- a manifestation of the material poverty of the hill society.

"The more simple the life, the poorer you are, the bigger the load you will carry," says Edmund Hillary. "I believe that portering will decline with economic progress in the hills. It is such a hard life." △



A Lonely Death on Thorung La

By Padam Singh Ghaley

On 10 April, 1986, I was leading a trekker's party in central Nepal from Manang over the Thorang La (5330 metres) and down to Muktinath. We had just crossed the pass when a little to the side of the trail we noticed a black and blue sleeping bag spread out on the snow. A closer look showed that the lightweight sleeping bag was but a death shroud for a young porter. Scattered around were the contents of his *doko*: onions, potatoes, trekking food and utensils. It seemed that he had fallen victim to frostbite and altitude sickness and died a lonely death, far from the lowland hills where he obviously belonged.

My investigations showed that the dead man was from the village of Khanchok, on the Pokhara-Dumre road. He had been hired by a trekking party of an American couple, led by a *sardar* from a prominent trekking agency in Kathmandu.

As a mountain guide, I am concerned with the poor treatment often meted out to hill porters by some parties. While most tourists and trek organisers are quite decent, a few take advantage of

the extreme poverty of our mountain peasants to take them to the limits of their endurance and capacity with little or no equipment, poor diet, and no support when they need help.

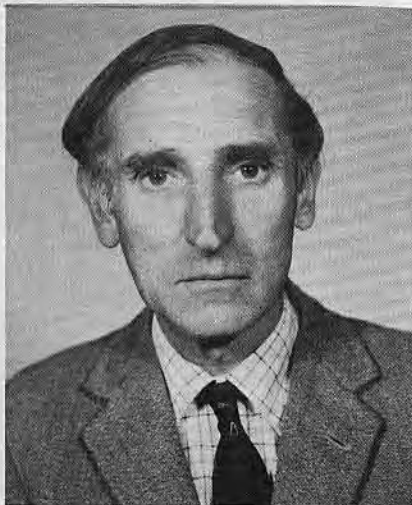
To retain and develop further the trekking trade, which forms an increasingly important part of our national economy, we must regulate and monitor it so that our image is not tarnished, neither in the eyes of foreigners nor in those of our rural compatriots.

I remember a 1984 article in the *Rising Nepal* in which a Bavarian climber was quoted saying that in his trip, "We didn't suffer any losses, just one porter was killed." The title of that article was, "No Losses: Just the Death of a Porter". It seems as if nothing has changed. △

Padam Singh Ghaley has been climbing and leading treks in Nepal for more than a decade.



Photo: P.S. Ghaley



When Mike Cheney died early in the new year, a few months short of his 60th birthday, the hill people lost a true friend. He had come from afar and stayed, not for the money or the glamour, but because of his attachment to the people of the mountains. After leaving the British Army in 1957, Mike managed tea estates in Darjeeling

and later helped to found the tea industry of Nepal. In 1967, he joined the trekking trade and stayed on as a thoughtful keeper of conscience. The best tribute is to recall some of his words, excerpted here from the book Bikas-Binas.

"At present, cases of death or injuries of porters, on treks especially, are 'hushed up' and kept quiet. Complaints and reports are largely ignored. No enquiries are held as to why people died and how such deaths could be prevented in the future. Everybody just wants to forget -- publicity would be bad for tourism. We in Nepal must work very hard at improving 'man skills'. There is one very good, if unorthodox way of doing this. This is by shaming those responsible for bad management resulting in maiming or death of those in their care. Just by making public the names or individuals and organisations responsible, without any other action, will quickly lead to big

improvements." (Himalaya Conference, Munich, 1983)

"Every winter there are reports of porters carrying goods for trekkers dying because they did not have good, warm clothing. Porters increasingly tend to wear western-style clothes -- thin nylon shirts, cotton shorts or thin cotton trousers, and fancy but thin nylon jackets from Hong Kong. *Daura* and *suruwal*, your own type of clothing, is the best and warmest dress for working in the winter. So do not give it up because people in the towns who work in offices do not wear it -- be proud to be Tamang, or Gurung or Rai, dressed in your own way. There are many things we need to learn from foreigners and for which we need help from foreigners. But to learn these things we don't have to change ourselves. In the villages of Nepal, we do things differently, and better." (Radio Nepal Tourism Programme, 1984) △

PARKS AND WILDLIFE

Fur Smuggling in Kashmir

Two conservation-minded tourists posing as buyers of rare Himalayan furs have found evidence to indicate that Kashmir is a center for a network of poachers, middlemen and shopkeepers engaged in international trade of protected animals.

Struck by the abundance of pelts on open display along the Polo Ground View Road of Srinagar, travelers Martin Berg and Rasi Damihus decided to do some investigating. Posing as rich tourists looking for the most expensive buys, they visited ten taxidermists. Their brief survey revealed 10 skins of the clouded leopard, 55 of panthers, 10 of tigers, 60 of lions and 50 of the leopard cat. Prices ranged from IRs150 for a leopard cat to IRs3500 for a tiger skin, with scope for bargaining. There were 24 skins in all of the very rare snow leopard.

Berg and Demihus learnt that customers could pay through their home bank accounts. The fur was air-freighted upon notice of payment. Most of the skins found in the Srinagar shops were of species not native to Kashmir, but to other parts of India and neighbouring countries.

India ratified the Convention in International Trade in Endangered Species (CITES) in July, 1976. The Indian Wildlife (Protection) Act of 1972 prohibits commercial trade of rare species. But the two tourists learnt what many have suspected for long: in the name of pleasure and trade, Indians continue to hunt, sell, buy and export "protected" animals and their products. Preventive legislation is meaningless unless backed by strict enforcement. - **Rajiv Chopra in Jammu Tawi.**

Wild Buffaloes Nearly Washed Out

15 September 1987, 7 a.m.: Two exhausted arna males plough slowly through the muddy waters of the Sunkosi River, trying to return to their old homes three miles upstream in the Kosi Tappu Wildlife Reserve. What awaits them there is a vast expanse of water, no more lush grasslands and shady forests. Although normally at home in the water, the wild buffaloes are not used to the Kosi in flood. The river moves in ocean-like waves, with crests of more than two metres. By sunrise the next morning, the animals are gone. Did they survive?



Arna at Kosi. Photo: JJB

We had come to Kosi Tappu to investigate the effects of the two late-monsoon floods on its forests, grasslands and wildlife, especially the last surviving population of arna in Nepal. There were an estimated 91 arna in Kosi Tappu before the flood, and a rough estimate is that about ten per cent were lost to the Kosi. Loss of other species, such as Chittal deer and wild boar are believed to be much greater. The impact of high rainfall in the Kosi catchment area is compounded by the regulation of water flow at the Kosi Barrage downstream. During the peak of a flood in 1968, 40 to 50 percent of the arna population are thought to have perished.

The plight of the arna raises an important question: should they be left to an uncertain future without any intervention? An alternative is to select a breeding stock out of the remaining population and to translocate it to safer areas such as the Royal Chitwan National Park or the reserves further West in Bardiya or Shuklaphanta. (The arna disappeared from Chitwan in the 1960s.) That option would cost money, which is scarce. But the longer we wait, the more precarious will be the existence of Nepal's surviving arnas -- due to floods, inbreeding, and cross-breeding with domestic buffaloes. - **J.J. Bauer, National Parks and Wildlife Office, Kathmandu.**

Bustards on the Brink

Despite repeated calls to ban hunting of the endangered Houbara bustard, Pakistan continues to welcome well-heeled parties of falconers from the Middle East who have brought the migratory bird close to extinction.

Wildlife experts report a 75 percent decline in the Houbara population since 1965, when hunting parties were first allowed to track it in Pakistan.

Ruthless hunting has virtually eliminated it from many Arab countries and now an estimated 3000 are killed every year in Pakistan. Commented an official of the World Wildlife Fund in Pakistan: "They've finished them off in their own regions ... and now they are coming to do the same here."

In 1983, an international seminar on the houbara called for a five-year ban on hunting to allow time for natural replenishment. The call was ignored and wildlife authorities now say the Houbara could disappear entirely within 30 years.

Afsar Mian of Baluchistan University estimates that about 20,000 houbaras presently migrate to Pakistan but that the figure is dropping by about 10 per cent a year. Faced with such grim statistics, WWF/Pakistan has repeatedly called for the five-year hunting ban.

The houbara is one of 23 varieties of bustard, five of which winter in arid Baluchistan. The bird is hunted by predators flying at speeds of up to 200 mph. Its meat is considered a delicacy and an aphrodisiac. - **Miriam Habib, Gemini**

Almora Sanctuary

About 35 km from Almora on the Bageshwar Road, the reserve forest known as Binsar has seen its resources depleted and wildlife decimated. Poachers in search of the black bear and red panda, contractors tapping resin and villagers carting away pine and oak have left the habitat in poor condition over the years.

But now there is hope, with the organisation of the Paryavaran Jan Jagran Samiti, started by over 200 *pradhans* from the surrounding 32 villages and by Mukti Dutta. According to Janak Singh of the *Times of India*, Dutta raised hell at the office of the Hill Development Secretary in Lucknow, emerging with permission to start work to convert the 100 sq km reserve forest into a wildlife sanctuary patterned after parks in Corbett, Dudhwa and Bharatpur.

The Central Government has reportedly ordered the preparation of a detailed five-year plan for converting Binsar reserve into a sanctuary. The villagers' committee is said to have drawn up a comprehensive scheme that takes into account their needs for fodder and firewood. Their plan calls for a buffer forest, leaving the main Binsar woodlands untouched. △

BRIEFS

And now, paddle-wheels

On a sunny January morning, the villagers of Ghat Besi, 60 km west on the highway from Kathmandu, suffered an invasion by six Japanese scientists, a delegation from the Royal Nepal Academy of Science and Technology (RONAST), and strange contraptions with paddle-wheels and rudders. They were witnessing the testing of hydraulic devices recently developed in Japan with hill communities in mind. Down into the turbulent waters of the Trisuli went the first device, light enough (18kg) to float. The white paddles started churning, and river water quickly made its way up a 15 metre polythene pipe. Impressed, the villagers looked on as, next, a generator was coupled to the device. This time, instead of pumping water, it generated electricity, lighting bulbs strung along the river bank. Here was an electric generator that floated, but could the villagers use it? Was this "appropriate technology"? RONAST Member Khilendra N. Rana was of the view that the output of the devices was low, which would limit their use.

What seemed more useful to the Ghat Besians, at least, was a synthetic fibre and resin ferry-boat on which they were effortlessly transported across the river and back. Clever use of ropes attached to the vessel

and the two banks propelled it across the turbulent Trisuli. "The design deflects the water's flow and the resulting side force pulls the boat across," said Dr. Ogawa, leader of the Japanese team.

The prototype devices were sponsored by Japan's Association for Technical Cooperation in the Himalayan Areas. While the demonstrations were declared successful, questions that remain to be answered include those of cost, efficiency during the monsoon torrents, maintenance and spare-parts. - **Prakash Khanal**

Rainforest Rescue Plan Under Fire

The World Bank's US\$8 billion Tropical Forests Action Plan to save tropical forests took a beating last fall at the Asia-Pacific Conference on Deforestation and Desertification in New Delhi, where NGO representatives called it "an old programme seeking fresh legislation to commercialise forests", reports APPEN Features.

The Action Plan, prepared by the Washington DC-based World Resources Institute (WRI), was criticized for not adequately involving communities and voluntary agencies and for proposing an "investment pattern" that would run counter to the interests of indigenous populations. Moreover, the very title "Action Plan" was

inappropriate as it merely outlined an approach.

A study commissioned by the World Rainforest Movement maintains that the Action Plan has a commercial and industrial bias. In effect, it was just an extension of the World Bank's ongoing forestry projects, which has serious negative social and ecological impact.

Peter Hazelwood of WRI told HIMAL that much of the criticism of the Action Plan is coming from a "vocal minority with a narrow point of view". The Action Plan, he concedes, is not perfect, and the shortcomings are being corrected, "but WRI firmly believes that the Action Plan provides a unique opportunity to stimulate a coordinated global effort to address the critical problem of tropical deforestation".

Hazelwood rejected the charge that WRI has been co-opted by the Bank. "Like it or not, the Bank is a major actor in the field and it is important to establish a working relationship." As a result of the Action Plan, governments and aid agencies are now giving greater attention to NGO participation in country-level planning exercises, and fifty developing countries are already using it as a framework for national action, he says.

China Studies Qinghai-Tibet Plateau

China Pictorial reports that the Qinghai-Tibet Plateau Survey of the Chinese Academy of Sciences has begun an ambitious five-year project to map and study the Karakorum and Kunlun mountains. The survey team is made up of 60 scientists whose interests extend from geology to glaciology to palaeontology.

Between June and September 1987, the scientists

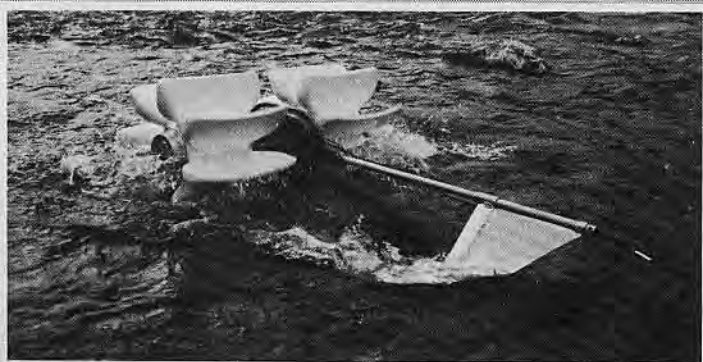
conducted studies in Xinjiang and western and northern Tibet, labouring through deserts, dry valleys and high mountains. They worked in the shadows of Kungai, Kongur and Muztagata in the western end of the Kunlun. They studied wild yaks, wild asses and Tibetan antelope roaming in the luxuriant grasslands along the Memar Lake, "probably the highest and most secluded paradise for wild animals in the world."

The foray into the Kunlun and Karakoram comes after the Survey completed geological, biological and botanical studies of central Tibet, including the Mount Everest area, and the Hengduan Mountains north of Burma. New findings were reportedly made on the geological formation of the Tibetan Plateau, its evolution and uplift, and its biological resources. Significantly, findings on mineral resources and their exploitation were also said to have been submitted.

A Broom for Peshawar

Peshawar was once an orderly garden city, watered by small rivers, beautiful enough to serve as the winter court of the kings of Afghanistan. Today, whole suburbs of brick houses are going up without lanes, streets, sewers, proper drains or parks. Dirt and confusion are the rule.

To try to avert disaster, provincial and city government officials have now accepted a British firm's offer to revamp the city. The plan calls for buying land for a 44-kilometre ring road and the construction of new suburbs. Planner Richard Mabbit says, "It will work. The provincial government is very good. Very active. The World Bank and the Asian Development Bank are here frequently. They want it to happen."



But what does it cost?



Cleaning Up,
Photo: Gemini

Despite Mabbit's optimism, buying land for the ring road and four new model suburbs is going to be a problem. The area is heavily populated and, while the Government has powers of acquisition, large sums of money will be needed.

The first priority is to remove the mountains of rubbish that clog the city. All of Peshawar has only 13 dilapidated trucks to cart away tons of daily trash. One suburb of 18,000 people has 140 sweepers and only four wheelbarrows. Although there are a few fly-infested trash containers in the neighbourhoods, rubbish is heaped outside homes. Afghan refugee children poke around looking for plastics and metal to sell to recyclers. The city's 30 km of two-lane tarred roads are swept by hand, with each sweeper responsible for .75 km.

Population has put heavy pressure on housing. In the poorer sections of the old walled city, families are packed in at more than five to a room. Most people live along the city spine, a gently curving 10-km stretch that is one of Pakistan's main arteries. Says Mabbit, "Peshawar is one of the largest cities I know that hangs off one road". It is to lessen the pressures on this

artery that the ring road is planned. - Len Mograne, Gemini

The Alps in Danger

"The most threatened mountain system in the world" is not the Himalaya after all, but the Alps. At least, that's what mountain researchers representing the Alpine countries concluded at a recent meeting organized in Chambrey, France, by the International Union for Conservation of Nature and Natural Resources (IUCN).

Several ills were identified: forest death, the decline of agricultural and mountain communities, excessive tourism, unacceptable levels of road traffic, air and water pollution, all of which affect the Alpine habitat.

When in doubt, create an institution, much like ICIMOD in Kathmandu. So that's what the Chambrey group suggested: the setting up of an International Centre for the Alpine Environment.

According to IUCN's Frederic Briand, one of the obstacles to Alpine co-operation till now has been the linguistic barriers. He says the new centre, by virtue of its international character, would break down such barriers.

Pollution Kills Chinese Forests

The environmental stress in the Himalaya is starkly physical: land erosion, floods and landslides. Problems of toxicity, acid rain and polluted aquifers therefore tend to be neglected and thought of as affecting only industrialized societies. That, of course, is not true. Areas contiguous to industrial centers are often affected, as the dying forests of south-west China indicate. The Himalaya lies just a few hundred miles to the west. The following report is from *WorldWatch* magazine:

Chinese scientists are linking

dramatic diebacks in China's south-west forests to atmospheric pollution and acid rain. In Sichuan's Maocaoaba pine forest over 90 per cent of the trees have died. On Nanshan hill in Chongqing, the biggest city in the region, a 1800 hectare forest of dense masson pine has been reduced by half. Both regions have highly acidic rain and elevated levels of pollutants, such as sulfur dioxide and particulates.

According to Chen Zhiyuan of China's National Environmental Protection Agency, most of the precipitation is moderately acidic. The rain would be even more acidic if China did not have high atmospheric concentrations of neutralizing agents, such as ammonium and calcium ions.

The air pollution problem derives almost exclusively from China's heavy reliance on coal. In 1982, coal accounted for almost three-quarters of all energy consumed and over 90 percent of the sulfur dioxide released. The situation in the south-west is aggravated by the predominance of low quality, high-sulphur coal, and by topography and weather that trap pollution in the valleys.

In the light of this, the passage of the country's first air pollution prevention law in September 1987, was a step in the right direction. Unfortunately, China's industrialization plans include doubling the use of coal by the year 2000. - Lori Heise

Asia's Green Journalists

In the countries of Asia, environmental information is often considered confidential by government agencies. Information relevant to the development process is controlled by "developers". At the same time, there is over-reporting of environmental disasters and little coverage of good work to enhance the environment. Journalists must not only raise environmental

consciousness but motivate people into action.

These are the highlights of decisions taken at a meeting of 69 journalists from 18 Asian countries last January in Bangkok. The meeting also saw the establishment of the Asian Forum of Environmental Journalists (AEFJ), under the auspices of the Economic Commission for Asia and the Pacific (ESCAP). According to AEFJ's first president, A. M. Shrestha (Nepal) the forum plans to bring out a guidebook on environmental reporting. Other office bearers are: Yang Mao (China) and Soegyarto Ps. (Indonesia), Vice-Chairmen. Adlai J. Amor (Philippines), Secretary. Chanchal Sarkar (India), Ex-Officio Member. AEFJ's address is: GPO Box 3094, Kathmandu.

AEFJ's Shrestha:



"ORT" High Fashion

Unicef has teamed up with a private manufacturer to spread the message of its life-saving oral rehydration therapy (ORT), known locally as "noon-chini-pani". It can now be found not only on posters and billboards, but on people.

The message, and a diagram, are now being hand-printed in the traditional style on Nepali cloth and sold by a Kathmandu manufacturer, O.P. Naulakha (GPO Box 4421, Kathmandu). A woman's *cholo*, most popular, goes for NRs75, a man's shirt for NRs80, a child's labeda surwal for NRs100, and a Nepali topi for NRs15. The cloth itself retails at NRs22/m.



Noon-chini-pani model



Himalayan Tectonics

The classical theory of plate tectonics holds that the Himalaya was formed when the Indian plate, drifting northwards, slipped beneath Tibet, which was part of the Eurasian plate. Not so, according to noted geologist K.S. Valdiya of Kumaon University, reports Agence France Presse.

Speaking before the Indian Science Congress recently in Pune, Maharashtra, Valdiya said that it was the Indian plate which had bulged over to form the Himalaya. If the Indian plate had been submerged under the Eurasian landmass, the large Himalayan basins would have disappeared, he said, adding that the presence of many thermal springs with heat sources just 10 kilometres (six miles) below the surface could not be explained by the classical theory. The Himalaya was made up of the front end of the Indian plate at the point of collision because of the immense resistance of the Eurasian plate.

Solar power in Kabul

Afghanistan is one of the sunniest countries in the world. But in a country whose winter is among the harshest and which has always had an energy crisis, little has been done to harness the abundant solar energy.

Now, with UNDP help, scientists in Kabul are finally preparing to tap solar power to alleviate their country's energy drought.

An Afghan planner says use of solar energy has proven viable in other "sunny" cities such as Tashkent in Soviet Uzbekistan and Jerusalem. "Kabul, receiving 3000 hours of sunshine annually, is in their league," he says.

There is desperate need to use every available renewable energy source because firewood, the traditional fuel, is getting scarce. Only 1.9 million hectares, or 3 per cent of Afghanistan's area, remains under forest cover.

Moreover, 90 per cent of the natural gas extracted is exported and only a small quantity of the coal mined is available for domestic consumption. Electricity is available only in the major towns.

Under the agreement with UNDP, a Renewable Energy Research Centre will be established. It will develop cost-effective appliances based on solar energy for domestic, industrial and agricultural uses. Research in solar energy has already begun in the Physics Department of Kabul University and in the Academy of Science. - Rita Sebastian, a Sri Lankan journalist, filed this report from Kabul.



Photo: S. Sharma

Ladakh Desert Blooms

Colonel D.S. Cheena of the Indian Army is proud of what he and his men are doing in Ladakh, but it has nothing to do with border security or high mountain warfare. He is proud, instead, of cauliflowers weighing six kilograms, Jersey cows that are apparently happy to be up this high in the Himalaya and poultry that think nothing of laying eggs in the rarified atmosphere.

Cheena is an agriculture specialist who runs the Field Research Laboratory of the Army's Defense Research and Development Organisation on the banks of the Indus. The Laboratory's team of experts is seeking solutions to problems faced by the Ladakhi peasants, which include low rainfall, rugged terrain, shallow soils, low humidity and high intensity of the sun.

On the other hand, Ladakh averages 300 sunny days yearly, providing ideal conditions for research. For example, the over-sized cauliflower was possible in this environment because there is plenty of short-wave solar radiation, including infra-red which promotes photosynthesis, gamma rays which promote mutation and alpha and beta which promote growth.

To counter strong surface winds, Cheena's men grow vegetables in trenches, with a plastic sheet providing the necessary temperature for

growth. Experiments are underway to identify the best variety of wheat, barley and oilseed for the climate. In an effort to reach out to the community, each year the Laboratory organizes a farmers' fair and supports peasants who ask for assistance. - Sudhirendar Sharma

The Silk Route Remembered

For centuries, the Silk Route which passed through the western extremities of the Hindu Kush-Himalaya served as a vital link between civilizations. It is a link that Unesco seeks to commemorate beginning this year as part of the United Nations Decade for Cultural Development.

Unesco's five-year project will mobilize the international scientific and cultural resources through exhibitions, seminars and three expeditions over the Maritime Route (1989), the Steppe Road (1990) and the Overland Road (1991). More than 35 countries will participate in the activities.

The objective of the Decade for Cultural Development is "to enhance recognition of the cultural dimension of development and to affirm and enrich cultural identities". This leads us to suspect that the "First Annual Silk Road Auto Rally", which will cover the 7500 km between Beijing and Urumqi in October, is not part of the Decade celebrations. Car rallies tend to use exotic locales for



Classical view of Himalayan uplift.

commercial purposes: a lot of gasoline burnt for little cultural gain.

Ladakh Project for Bhutan

The Ladakh Project, known for its support of environmentally sustainable development in Leh, has now been invited to Thimpu to help support Bhutan's development drive. According to the Project's newsletter, its Director, Helena Norberg-Hodge visited Thimpu in September to discuss arrangements.

The Project will provide technical assistance in the construction of wind pumps, ram pumps and solar water heating systems. Norberg-Hodge will also teach courses on the development process at Thimpu's recently-established Royal Institute of Management. It is reported that all of Bhutan's civil service personnel and professionals will be required to study at the Institute for

འབྲུག་ཡུལ་གྱི་འཕུལ་སྐྱོད་ལྷན་ཁག་གི་

The "Stone Potatoes" of the Andes

Long before canning techniques or food preservatives were invented to conserve food and tubers, the Aymara and Quechua Indians of the Bolivian and Peruvian Andes used a technique to "freeze-dry" potatoes, a technique that could also prove useful in the Himalaya. The Aymaras still live on the Altiplano, which means "high plateau" and averages 4000 metres in altitude. The nights are freezing and the days full of sunshine that burns the skin. This dramatic temperature difference between day and night dehydrates the potatoes.

After the potatoes are gathered from the fields in the summer, they are stored till the cold months when they are brought out and left in the open for two nights. During the freezing process, as the potato cells separate from the water,



Chuno from Bolivia.
Photo: P. Sudhakaran

they become soggy. The potatoes are stepped on to squeeze the water out, then left out under the sun to dry. What is left after a few days is *chuno*, the freeze-dried potatoes of the Andes, a fifth of their original size and as hard as pebbles. The *chuno* can be stored for years and do not deteriorate even in the summer months. To use, they have to be rehydrated by soaking in water overnight and boiling the next day. - **Mario Zapata in La Paz, Bolivia.**

Bugless Mangos

Fruitflies, scale insects and mealy bugs have long targetted Pakistani mangos and often destroy half the year's crop. Chemicals have proved useless because they also kill off predator insects that eat the pests. The BBC reports that scientists at Pakistan's Agricultural Research Council are now using smart yet simple techniques to save the mangos.

Biological control was used to tackle the fruitflies, with the males attracted into large glass jars by using lures, there to die. The fly was thus completely controlled and because the predators were not killed, the scale insects were also controlled.

There remained the mealy bug. The scientists found that the lady-bird beetle loved to make meals of the bug, so they tied sackcloth around tree trunks, which the ladybugs find attractive as shelters. The beetles moved in and wiped out the mealy bugs. Sighs of relief could be heard from the mango groves.

The U.N. in Tibet

West German Chancellor Helmut Kohl's 1987 trip to Tibet highlighted the role of United Nations development activity in the high plateau. Kohl visited Yangbajain, where a joint UNDP-Italian project is developing some of Tibet's massive geothermal resources. Today, Yangbajain is the major supplier of electricity to Lhasa, 90 km away. According to the UNDP office in Beijing, their largest projects in China. A large number of engineers and geologists have been trained in the use of geothermal energy.

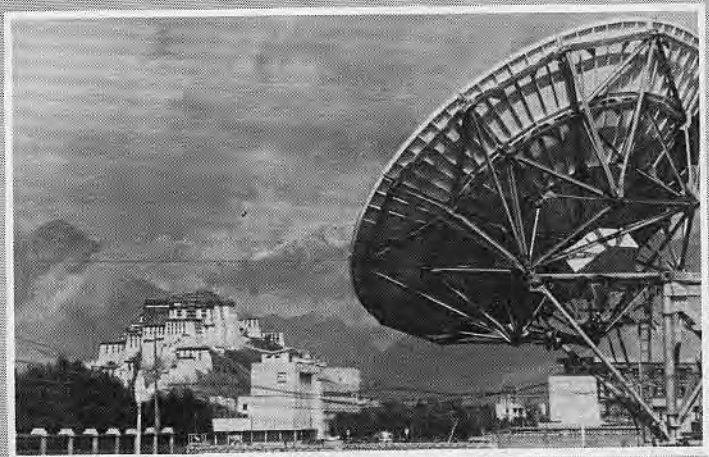
A mission of the World Tourism Organization visited Tibet in March 1987 and submitted two project proposals for tourism planning and vocational training. These are being discussed in Lhasa and Beijing. Some Tibetans have already taken part in an ILO-sponsored training course for vocational instructors in tourism.

In the social sector, UNPF has extended help in encouraging population education. Unicef, following a visit by its Director, James Grant, has approved six projects dealing with maternal-child

health services, childhood immunization and iodine deficiency control. The Fund's help will also extend to women's leadership training, support for an audio-visual center and an education center with special emphasis on nomadic populations.

The first food-for-work project of the World Food Programme (WFP) is expected to start in 1989, concentrating on public works like irrigation, afforestation, pasture, rural roads and fencing. WFP will provide food worth around US\$11 million. The Food and Agriculture Organization is looking into the possibility of investing in river regulation, irrigation and agricultural development in the area around Lhasa.

International agencies have also helped in a remote sensing study of the ice and snow cover in the Himalaya, including Tibet. FAO has suggested extending the use of the remote sensing technology to agricultural development. According to Manfred Kulesa, UNDP's Resident Representative in Beijing, the United Nations agencies are willing to support larger efforts at regional co-operation in the study and protection of the fragile Himalayan environment.



Antenna on the roof of the world.
Photo: Canadian Space Agency

Desk-top in Thimpu

It is Friday, and the small editorial team of Bhutan's newspaper, *Kuensel*, is rushing to meet its weekly deadline. Sub-Editor Kul Prasad prepares graphics on one of three computers, while compositor Raj Kumar Chetri designs front-page layout on another. In his office, Editor Kinley Dorji makes last-minute changes to an article from a school-teacher stringer in northern Bhutan.

The 12-page issues of *Kuensel* (The Enlightener) brings its readers national and international news and features, a letters page, sports, photographs, public notices and a leisure section featuring Bruce Lee comics and a crossword puzzle. The newspaper is printed in three languages: Dzongkha, English and Nepali. It is presently a weekly, but the plan is to become a semi-weekly during this year, and eventually a daily.



Sub-editor Kul Prasad lays out *Kuensel*.
Photo: R. Massey, UNDP

Thimphu is covered by one reporter, and stringers send copy for the rest of the country. Druk Air flies in photographs for the international section from Calcutta.

Dorji got the idea of a national newspaper when he returned to Thimpu after studies in Australia. The go-ahead was given by the Director of Information and Broadcasting and a decision was made to get an Apple Macintosh computer and laser printer to produce the paper.

The next step was to come up with the money for the equipment, which the United Nations Development Programme (UNDP) did, with a grant of \$93,000. The twenty-fifth day of the seventh month of the Year of the Fire Tiger, between 10 in the morning and noon, was the auspicious time for the launch. Monks held a full *shugdryel* and the Social Services Minister pressed a button and Bhutan's first newspaper was a reality. - Ruth Massey, UNDP information officer.

Women Lose to Divorce

There is an alarming increase in the divorce of Nepali women by their husbands, says Shilu Singh, Chief of the Women's Legal Service of the Nepal Women's Organization. Her office helps poor and illiterate women handle legal matters.

The trend is a cause for special concern, says Singh, because of the social stigma attached to divorced and separated women, very few of whom remarry. Most divorce initiators are men who married under parental pressure and later decided that the spouse is "unsuitable".

Sweeping changes have been introduced in Nepal's Civil Code since 1975 to protect the interests of divorced women, but most women still remain ignorant of their rights. - Jan Sharma, Depthnews. ▽

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INVESTIGATION



Higher Education in Crisis

By Binod Bhattarai
and Sajag Rana

Dozens of interviews with students, lecturers, and top administrators of Nepal's government-run Tribhuvan University have revealed that Nepal's higher education system is in a tailspin. The teachers are underpaid and untrained, the facilities are deplorable, the students unmotivated, and the administration drifts aimlessly like a ship without a rudder.

His Majesty's Government props up the University, providing 92 percent of its budget. Of this, 80 percent goes into salaries, with administrators outnumbering the teachers. Besides staff and space, most University colleges have nothing else. Academic and cultural societies, clubs, seminars and conferences are virtually non-existent. Laboratories are ill-equipped, libraries are full of mutilated books and sports facilities almost unheard of. Classrooms are overcrowded and students are squeezed into benches and desks that are nothing more than roughly sanded lumber.

Among the students interviewed was Deepak Joshi, 22, an MBA student, who manages to keep up with his course

work without attending the overcrowded, unimaginative classes. "I make up for what I miss by consulting the text books," says Joshi. Sakuntala Parajuli, 21, typical of young women from traditional families, is reluctant to commute to the Kirtipur campus because she is forced to travel in an overcrowded, dilapidated bus, pressed amongst sweating bodies of strangers.

Other students, such as Hemanta Rai, 25, are sent to Kathmandu to study by their well-to-do village families once they finish high school. Rai, a political science major, admits he only attends the University because it gives him something to do and, as an out-of-towner, he values campus social life.

No Loyalty

An economics professor, who requested anonymity, says that because the students are not motivated he feels no loyalty towards them. He therefore willingly misses classes, leaving his students to chat happily in the sun outside the central cafeteria.

A campus life that is dominated by carping and confusion was described by Shanti Mishra, TU's Chief Librarian, in this way: "Those supposed to teach are not teaching and those supposed to study are not studying."

A lecture in progress at
Kathmandu's Padma Kanya Campus.
Photo: P.Khanal

Tribhuvan University was created in 1959 and now has a student body of staggering proportions -- 60,000 -- up from the 250 who were attending colleges in the early 1950s.

"The system suffers from an explosion in numbers, but the quality is being compromised," says Professor Govinda Ram Agarwal.

Sole Manager

In 1971, TU absorbed all existing colleges and was declared the sole manager of education under the new National Education System Plan. The Plan, now widely acknowledged to have backfired, may in fact have triggered the downward spiralling of standards.

There is no doubt that the Plan changed the University beyond recognition and sparked an "admissions rush". The jump in enrollment led to indiscriminate recruitment of teachers, 50 per cent of whom are not even fit to teach in high schools, according to Surya Bahadur Shakya, TU's highly-respected former Vice-Chancellor.

Under the National Education System Plan, the "classical system" of yearly exams was suddenly abandoned and surprised students and unprepared faculty were forced, without any time for adjustment, to cope with the intricacies a "semester system" with "internal assessments", "comprehensive examinations" and "credit hours". Colleges were renamed "campuses", and intermediate and bachelors levels dubbed "certificate" and "diploma" levels. Students fleeing Nepali higher education had enormous difficulty being recognized in Indian universities under the newfangled names, copied mindlessly from the North American system.

The semester system was not inherently bad, but it was implemented too suddenly for teachers and students used to the "classical" system, according to former Vice-Chancellor Shakya.

Professor K.P. Malla blames the "unceremonious demise" of the plan in 1977 on a complex web of social, economic and political causes. He notes that the enormous demand for higher education, "which provides a leverage to power and position", the over-dependence of TU on government grants, and strident political posturing of students who converted the campus into an ideological battleground, all weakened the system's fragile structure.

Malla is also extremely critical of the open admissions policy where 98 per cent of high school graduates are allowed into college, and recommends something more stringent. "We have to choose between quality and equality in higher education," he says.

Last Resort

One explanation for the poor quality of instruction is the extremely thin pay envelope. A professor at TU earns a mere NRs4000 monthly and it is no wonder that teaching is becoming a profession of the last resort. Since teachers are not required to stay on campus after class, they make the extra *rupiya* through private tutorials. "Low pay has forced teachers to be constantly on the lookout for other means to make ends meet," says Badri Dev Pandey, who works in TU's Centre for Research Innovation and Development.

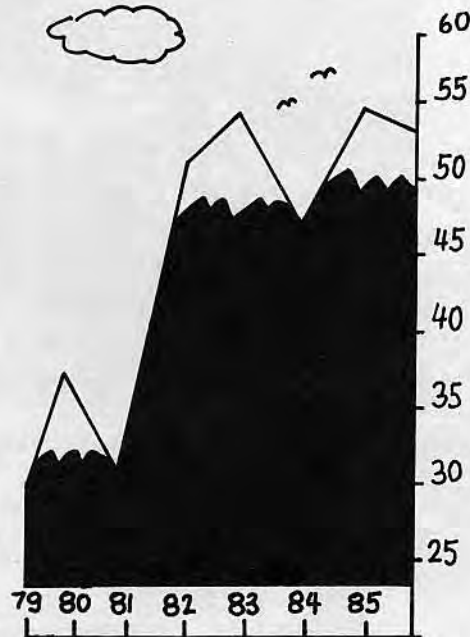
According to Pandey's colleagues, another legacy of the National Education System Plan has been a dramatic decline in the quality of science and liberal arts education. The Plan attempted to correct the obvious imbalance in a country with more doctors than nurses and more engineers than overseers. It therefore gave autonomy and large independent budgets to the technical colleges, which had long been neglected. But, as more and more resources were poured into the technical institutes, pure science lagged behind. Today, the science campuses have to struggle for a piece of TU's budget pie and are not getting their fair share.

Uncontrolled Expansion

On the other hand, liberal arts education (including humanities, social sciences and fine arts) has always been the intellectual backwater of higher education in Nepal. Liberal arts campuses have served as a dumping ground, the place where aimless drifters who have failed everything else come to roost.

Even though it is financially neglected, liberal arts education is experiencing uncontrolled expansion. Most of the 55 new private colleges opened in recent years are social science institutes, which are cheaper to run and require nothing more than a small faculty and teaching space. Students in rural areas, unable to move to the cities which have science and technical institutes, have to fall back on liberal arts whether they like it or not.

"The standard of higher education in Nepal has remained the same, that is, poor," says Suresh Raj Sharma, former



T.U. Enrolments in '000s.

Member-Secretary of Education Planning, "It is the standard of Nepali and English that is slipping. The graduate of today has a weaker language base than the graduate of 20 years ago."

"Politics" is one aspect of Nepali higher education which generates excitement. Filled with leftists, centrists and rightists, TU is a beehive of crusaders. Many "student leaders" are a determined lot who have been around for years, switching subjects to remain politically active on campus. An assistant-lecturer who just had his first TU-style class disruption and political bickering, has this to say, "Everyone seems against everyone else: students versus teachers, students versus students, teachers versus teachers, teachers versus administration and administration versus students."

Zig-zag Policy

The Government's decision to go back on its earlier decision and to allow private colleges was an attempt to fulfil the country's insatiable demand for higher education. Today, out of 140 colleges in Nepal, 62 are privately run. These private campuses receive no financial assistance and follow the University calendar. They are run mostly on an *ad hoc* basis, on rented premises with part-time teachers. All of them are limited to the undergraduate level, so their graduates all ultimately line up at the TU door in Kirtipur.

Despite the acrimony, poor implementation of oft-changing policy, lack of facilities and inappropriate curriculum, Tribhuvan University continues to rake in SLC students and churn out graduates in ever-

increasing numbers. In a survey conducted by HIMAL at Padma Kanya Campus in March, every one of 20 girls at the first year Bachelors level wanted to go in for a Masters in "soft" subjects such as English, Home Science and Economics. Yet few can answer the question, "Why do you want a Masters?" and have only a vague idea about careers and opportunities.

What is clear is that the enormous problems of higher education in Nepal are not of Tribhuvan University's making alone. They also have to do with a social mindset about education and the seemingly preordained and inevitable progression from Intermediate to Bachelors to Masters, unless interrupted by migration, death, ill-health, employment or (in the case of women) marriage. TU has become the baby-sitter for the nation, providing its charges with "something to do" while awaiting their adult destiny.

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A Diluted Experiment

There was a time when the National Development Service of Tribhuvan University was the most colourful feather in its cap. Today's NDS is a feeble copy of its former self.

Originally, TU required Masters-level students to spend nine months serving rural communities before receiving their degree. Relatively well-to-do students thus had their eyes opened to the pervasive poverty in the countryside and at the same time provided a boost for the development of remote areas.

However, a host of factors converged to upset the good intentions. As the number of graduates rose, the costs became more than anticipated, with monthly stipends, travel allowances, supervision and general administration. There were also problems getting support from rural Nepalis, the supposed beneficiaries, and adjustments to the local calendar disrupted the University's



NDS students flying high in Dolpa (1978).

own timetable. Politically polarized campus unions did not help matters and a noble plan became a political hot potato which was rapidly dropped.

The NDS in its present incarnation is regarded by students as a prerequisite evil for procuring a degree. The period of study is three months and NRs750 is provided to cover expenses. The

student is supposed to stay in the village for a month, which hardly allows time to interact with the community and is a far cry from the original nine months. Many students merely go through the motions of service and even copy the required "village profiles" from those who have served before in the same village. **B.B. S.R.**



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NEW PUBLICATIONS

A Bimonthly Magazine of the Worldwatch Institute, Washington, DC 20036

WORLD-WATCH

The first issue of this magazine, published by Worldwatch Institute of Washington DC, contains articles on AIDS in the Third World, the danger of future Chernobyls, and the increasing number of smokers in the developing world. The magazine hopes to address "the growing worldwide hunger for information on the fast-changing relationship between five billion Earthlings and the natural support systems". A section on "Promising Initiatives" lauds enlightened policies while a section called "Wrong Turns" details wrong turns. Six issues a year at U\$20. Contact: 1776 Massachusetts Avenue NW, Washington DC, 20036.



In its second year, this bi-monthly is providing increasingly comprehensive coverage of voluntary efforts in rural India. The first issue of 1988, in an editorial, criticizes voluntary agencies for ignoring the local community. "It is essential to first accept the basic premise that not only do people know what is good for them but that they have a right

to decide." Published by the Council for Advancement of People's Action and Rural Technology, Guru Nanak Foundation Building, New Mehrauli Road, New Delhi 110 067. Annual subscription is IRs30.

VOICE OF CHILD WORKERS

This is a newsletter of Child Workers in Nepal, a group formed to protect the rights, welfare and dignity of working children in Nepal. The first issue (October 1987) presents a thorough report on Kathmandu's street children and also describes the work of restaurant kids (*hotel kanchas*). Edited by Gauri Pradhan. Annual subscription is NRs80 for individuals. Write to PO Box 4374, Kathmandu. Frequency of publication is not specified.

NETWORKER

This publication is brought out three times a year by the Centre for Women and Development, one of Kathmandu's respected research-consultancies. The inaugural number (November 1987) assesses the impact of "development" on "gender" and maintains that the massive governmental investment on development since 1952 has created greater inequality

between the sexes, with women worse off. A writer states that alternative approaches to development can be supplemented by the private sector. "Room must be cleared for private autonomous organizations to evolve and emerge rather than leaving development solely to administrative decree," she says. Contact: PO Box 3637, Kathmandu. Annual rate: NRs150 for institutions, NRs75 for individuals.

WORLD RIVERS REVIEW

The *International Dams Newsletter* is now the *World Rivers Review*. The editorial says this shift reflects changes in worldwide water polity and marks "the beginning of the end of the big dam era". The latest issue of this bimonthly, published by the International Rivers Network, reports on dam projects in Tanzania, the Soviet Union, Brazil and Malaysia, a cure for river blindness (onchocerciasis), a study of siltation in reservoirs, and the call for "glasnost" at the World Bank so that it will release information on big dam projects. Address: 300 Broadway Suite 28, San Francisco, CA 94133, USA. U\$40 for institutions and U\$15 for NGOs and individuals. △

NGO HOTLINE

ASIA-PACIFIC PEOPLES' ENVIRONMENT NETWORK (APPEN)

APPEN was formed in 1983 by a diverse group of NGOs from the Asia-Pacific region in order to act together on issues related to development, natural resources, the environment and "human dignity". APPEN's objectives are to disseminate information on the environment among NGOs and to establish links with groups outside the region. APPEN produces a quarterly newsletter on the environment (U\$12 annually), a bimonthly Environmental News Digest (U\$40), and a directory of environmental NGOs in the Asia-Pacific region (U\$15).

CONSORTIUM ON RURAL TECHNOLOGY (CORT)

Is a voluntary organization working to disseminate low-cost rural technology. It does this by linking research and development institutions, grassroots organizations and funding agencies. Recently, it decided to strengthen regional

grassroots organisations, and formed a regional consortium called Himalaya Takniki Mandal (HITAM). Through HITAM, the Consortium will disseminate and propagate technologies related to the hills. CORT: D320 Laxmi Nagar, Delhi-110092

HESCO

HESCO is a multidisciplinary group of young scientists working to create innovative, sustainable options for eco-development. It is active in protecting the fragile Siwalik region of the Himalaya, where the focus has been on stabilizing land-slides with indigenous plant species. The Border Road Organisation is now using HESCO's assistance for the maintenance of high roads in other parts of Uttar Pradesh. The organisation has also initiated work towards sustainable village-level development. It has promoted the use of agave plants as fencing for village plots and also the use of agave fibre which has developed into a small-scale industry. HESCO: PO Box 7, Kotdwara - 246149, Uttar Pradesh.

SOUTH ASIA PARTNERSHIP (SAP)

Working in association with the Social Service National Coordination Council, SAP facilitates contact among NGOs in Nepal to enhance their understanding of approaches to development. SAP seeks to support small and newly established groups which work at the local level and with the neediest. To receive funding, these groups are required to have a local support base and the ability to design and implement projects. Also they must be registered NGO's with one of the Coordination Committees under the SSNCC.

The projects which pass muster are recommended to a group of Canadian NGOs, which select the projects they are able to support. SAP is presently supporting 66 projects, from piggeries to soap-making to drinking water to print shops. Applications for funding must be addressed to: SAP, GPO Box 3827, Kathmandu. △

REVIEWS

Across the Himalayas through the Ages

Khemanand Chandola
Patriot Publishers IRs90

By Rashmi Pant

In this study, the author examines a variety of ancient, medieval and modern sources to advance a political claim for an Indian interest in Western Tibet today. He bases his thesis on the tributary relationships with northern Indian kingdoms in the past, common lineages, shared religious beliefs and practices, as well as close economic ties through trade. Such a political claim is questionable in its own right; it is also supported in this book by an often erroneous interpretation of historical sources.

Statements from epics, courtly chronicles, myths, travelogues, reports of colonial officials, works of historians as well as archaeological evidence are all accepted at face value. Such uncritical use of sources has characterized almost every history of the Garhwal region. History as a professional discipline today must involve economics, geography, anthropology, structural linguistics and literary criticism.

Chandola recounts myths that trace the descent of Tibetan ruling dynasties from Indian clans such as the Licchavis and the Mallas. Rather than taking the myths literally and trying to establish biological descent, it would have been truer to the nature of myth to see them as legitimizing ideological claims. Similarly, the folk myth that Bhotiya and Huniya traders on either side of the border belong to branches of one family could be better utilized as an ideological construct.

According to Chandola, Indo-Tibetan trade is marked by pre-market exchange in which gift-giving, familial norms and exclusive partnership temper purely commercial transactions. Trading between Tibet and China is more commercial and lacks such ritual and personal ties. It would be wrong to argue from this, as the author does, that Tibet's economic ties are closer with India than with China.

In fact, the trading structure on the Chinese border even led to the rise of a Tibetan bourgeoisie which set up mediating mechanisms between individual Tibetan traders and Chinese

merchants. In the comparative framework of economic anthropology, the economy of Tibet would thus appear to be better integrated with China than with India, therefore requiring less support from quasi-kinship structures.

Notwithstanding his interpretation of materials, the author, a political activist in Garhwal, has great familiarity with the region. The book is replete with details that come from a long association with the people. Had the book focused on economic and social institutions within a comparative framework, it would have had greater relevance. (This review first appeared in *The Times of India*.)

Red Data Book of Indian Plants -- Volume I

M.P. Nayar and A.R.K. Sastry
Botanical Survey of India IRs 160

By Pallava Bagla

The usefulness of this much-needed book on plants of India crosses international frontiers. The format is taken from the IUCN Red Data books. The first volume lists 230 rare, vulnerable and endangered categories, encompassing 52 families of plants, both flowering and non-flowering, but mainly from among angiosperms. Most of the material for the book was provided by scientists from the Botanical Survey of India.

There is a wealth of information here. Each data sheet contains a description of the plant itself and its family, status, distribution, habitat and ecology, conservation measures taken or proposed, biology and potential value, cultivation and reference. Most species are illustrated by line-drawings and there are some colour plates. Nayar and Sastry list 78 Himalayan plants as requiring attention, of which 34 are from the Western Himalaya and 44 from the Eastern Himalaya. Forty-five varieties of orchids are identified for immediate conservation measures.

Although the book arranges plant families and individual species alphabetically, only Latin names are used. Non-botanists will therefore be at a loss. The poor quality of some sketches will hinder field identification. Future volumes should include common and vernacular names of species and

have maps showing distribution. Algae, fungi and bryophytes should also be included, as should a few other plants that have been missed by this first volume.

Pallava Bagla is a research associate at the Indian Institute of Public Administration in Delhi.

Nepal Diary

Hugh B. Wood
American Nepal Education Foundation
US\$23.95

By Jayaraj Acharya

According to its author, an advisor to Nepal's National Educational Planning Commission (NEPC) in the mid-1950's, "*Nepal Diary* is not an autobiography....it is a biography of an event, a project, a program, a revolution."

The nine-part volume takes us through the planning and implementation of the education programme by the NEPC during the early and mid-Fifties, a time of great public enthusiasm. Popular participation in the planning process was such a priority that opinions on the direction of national education were sought even from illiterate people, who voted with their thumb-prints on questionnaires.

Nepal Diary reminds us of those days of hope, with volunteer teachers, voluntary labour to build schools, and NEPC members who "would devote from 750 to 1000 hours to their assignments without pay". In response to such enthusiasm, the NEPC defined the goals for national education for Nepal as: universal education (for children and adults), national education (one single public system) and free education (primary education and literacy immediately).

It is impossible to read this book without contrasting those early days of Nepali education with the directionless meanderings of today. The book, for example, describes the establishment of a Teacher Training Center. Yet where are the trained educators the country needs so desperately today? According to the World Bank, the literacy figure for Nepal remains at a low 20 per cent.

Wood returned to Nepal in the summer of 1961, this time with Unesco, to study Nepal's educational problems. He



School kids in 1954.

Photo : UN

found that "there was 1100 percent growth in the number of schools from 1951 to 1961, a 1900 percent growth in the number of pupils, and an increase from 0.9 percent to 15.8 percent in the number of school-age children attending schools".

He seems to have detected a significant change in the government's education policy as well. So, in tune with this policy, he writes: "However, while not discouraging continued efforts in this direction, we pointed out the dangers of too rapid growth of primary education." The team thus "recommended maintenance of a proper balance, and postponement of the 100 per cent enrollment goal, if necessary."

Thus, Nepal's educational progress was

braked before it could gain speed and we were "saved" from the danger of "too rapid growth". A foreign adviser can give advice, regardless of its moral value. In a country with minimal literacy like Nepal, the fault of deciding not to expand primary education or literacy "too rapidly" does not lie with foreign advisors, but with ourselves. Thus ends this "biography of...a revolution", not with a bang but with a whimper.

Nepal Diary is well-written, though not without its share of typographical and statistical errors. Despite its weaknesses, the book will be instructive reading to all those who worry about education in Nepal. But who worries.

Jayaraj Acharya is a Nepali linguist.

Everest: The Mystery of Mallory and Irvine

Produced and Directed by David Breashears and Andrew Harvard
Arcturus Films

What happened to George Mallory and Andrew Irvine up on the northern flanks of Mount Everest in 1924 is the most tantalizing mystery of Himalayan mountaineering. Did they reach the summit three decade before Edmund Hillary and Tenzing Norgay, or did they die soon after they were seen disappearing into clouds above Camp VI by Noel Odell?

This fifty-minute historical documentary, made by two well-known American climbers in association with the BBC, asks those questions and many others. Could Mallory and Irvine have reached

the summit at all, given their primitive climbing gear? And how about the ice axe which was found a decade later? Did a Chinese climber, now dead, actually see their bodies? Why did Mallory choose a novice, Irvine, as his partner for the summit attempt when the obvious choice was Odell?

The film faithfully recaps the story so well known to climbing enthusiasts -- the approach march up from Darjeeling via Dingri up to Rongbuk, Changtse and the North Col; the mountain, "a prodigious fang excrement from the jaws of the earth", in Mallory's words; and Mallory himself, the poet and enigmatic hero, obsessed with the mountain. Breashears and Harvard intermix film taken during their successful North Ridge Expedition of 1986 with original footage taken by Jon Noel during Mallory's 1922 and 1924 expeditions. One memorable, scratchy

sequence shows how Base Camp got the message of the tragedy: six blankets high up on the mountain laid out in a cross.

The best feature of the documentary is conversations with Odell, Noel and Jack Longland, valuable because the first two have died in the past year. There is Odell insisting that the two figures he saw above 27,000 feet were not rocks, for they distinctly moved. A Mallory "expert" recites a long-winded and unbelievable theoretical replay of what *might* have happened to the pair. Jack Longland unexpectedly calls Mallory "a stout-hearted baby unfit to be put in charge of anything including himself". Hillary is asked "what if" the two had in fact made it to the top in 1924? His answer is mock-serious but to the point: "the getting down is rather important".

The documentary is replete with such interesting vignettes, but in the end its appeal will be limited to mountaineering buffs. This is because the film literally gets lost on the mountain, with the lay viewer unable to follow the chronology of events, the succession of camps and the geography of the mountain's north face. The 1922 and 1924 footage is mixed up, and locations from the old film are not related to the current footage, which should have been easy to do.

Harvard and Breashears, unhappy with cinematographers' treatment of mountaineering, decided that it was time climbers themselves got into the act. In doing so, they have remained faithful to the historical characters and the mountain, but expect too much of a general interest audience, for whom this film was evidently made. However, the documentary is a pleasure for the initiated and, best of all, does not solve the mystery of Mallory and Irvine. - KMD



Mallory, second from left on Everest (1922).

ABSTRACTS

HAMARA SAMUHIK BHAVISHYA

The World Commission on Environment and Development April 1988

This Hindi adaptation of the World Commission on Environment and Development's report *Our Common Future* was undertaken by the Energy and Environment Group of (Post Bag 4, New Delhi-66) for use by Indian non-governmental organizations. The Commission, chaired by Gro Harlem Brundtland of Norway, called for "sustainable development" in order to tackle environmental degradation and stalled economic progress. In her foreword to the report, Brundtland calls for translating "our words into a language that can reach the minds of the people" so as to correct the course of development. This Hindi edition should prod the process along.

THE OTHER SIDE OF POLYANDRY

Sidney Ruth Schuler

Westview Press November 1987

This new book by anthropologist Sidney Schuler is about "property, stratification and non-marriage" in a Tibetan-speaking community near Muktinath in North-Central Nepal, where almost one-quarter of all women never marry. Discussing religious values, the author takes issue with literature which tends to romanticize and inflate the status of Tibetan women in contrast to that of Hindu women in India and Nepal. Although this contrast is not without some basis, it is misleading, she argues, because in Tibetan as well as in Hindu societies, women's access to property and wealth is through marriage.

MAP OF SOUTH-CENTRAL TIBET

Stanfords International Maps 1987

The result of Rene de Milleville's painstaking research, this map is a valuable guide for overland travelers to Lhasa from Kathmandu, although recent disturbances in Tibet might have limited its immediate use. The map gives routes that are open to foreign travelers and provides elevations: such as 560m in Dolalghat in Nepal to 4350m in Shekhar Dzong to 5300m at the Suge La pass five hours short of Lhasa. Map also provides distances, the time for travel and a rudimentary street map of Lhasa town. Besides the regular route from Shigatse to Lhasa via Gyangze, the map also sets out the "northern road" along the Tsangpo.

HAMARA PARYAVARAN

Gandhi Peace Foundation IRs200

Due out shortly, this compendium adds to and enhances the "The State of the

Indian Environment Report", in Hindi. It also updates the earlier Hindi version of three years ago. The 400-page report was prepared with the collaboration of environmental activists throughout India and the Centre for Science and Environment in New Delhi. Among other things, the report deals with land, water, forests, dams, environment, public health, fuelwood, nuclear energy, and the role of government policy in all these areas.

'हमारा पर्यावरण'

कोई तीन वर्ष पहले

देश का पर्यावरण 'नामक पुस्तक के माध्यम से गांधी शांति प्रतिष्ठान ने पर्यावरण से जुड़े कई विषयों का लेखा-जोखा आपके सामने रखा था। बदलते पर्यावरण के कारण देश की माटी, जल, वन, हवा, शहर और गांव के लोगों और पेड़ पौधों, पशु-पक्षियों पर क्या ब्रीत रही है, इस बात को जिस रंग से रखा उसका काफी असर हुआ।

ALTITUDE GEOGRAPHY

Ram Kumar Pandey

Center for Altitude Geography, Kathmandu NRs250

This 408-page book contains a mass of data and information on Nepal's physical terrain, environment, climate, economy, agriculture and people. There is an unprecedented number of tables, maps and diagrams. The book is valuable for its sheer range and is a significant contribution to the field of contemporary Nepali geographical science. Somewhat unclear, however, is the precise need for a separate discipline called "altitude geography", defined in the book as "the study of spatial variation brought by elevation differences".

A D H A R B H U T ABASYAKATAHARUKO PARIPURTI KA LAGI KARYAKRAM (B.S.2042-57)

National Planning Commission Kathmandu October 1987

This booklet summarizes the programme prepared by Nepal's National Planning Commission for achieving the basic needs for all Nepalis by the year 2000 (B.S. 2057), according to the declared policy of His Majesty's Government. The booklet defines the basic needs requirements in terms of individual income (Nrs.4093 per annum), daily

food intake (2250 calories), clothing (11 metres plus one pair of shoes or *chappals*) and living space (30 sq. meters). The aim is also to reduce annual population growth to below 2 per cent, child mortality to 45 per thousand, and increase longevity to 65 years. It proposes to reduce the number of Nepalis under the poverty line from 42.5% presently to nil.

STATE OF THE WORLD: 1988

Worldwatch Institute

W.W. Norton & Company

The fifth annual report of the Washington-based Worldwatch Institute finds the vital signs of the earth very weak. Worldwatch laments that forestry has remained the poor stepchild of development agenda and calls for ecological restoration of tropical forests to their original state. Millions of farmers in developing countries, unable to break the "pesticide habit", are being poisoned by chemicals. Worldwatch's President, Lester Brown, speaks with alarm of water, fodder and firewood situations in the Subcontinent and makes a pitch for "sustainable development". Because of wholesale deterioration of the environment, officials fear that living standards may turn downwards within the next few years, following the trend in Africa, he says.

AGRICULTURAL RESEARCH IN NEPAL

Ram P. Yadav

International Food Policy Research Institute 1987

The study describes the poor state of agricultural research in Nepal, which it says has affected the country's attempts to increase productivity by adopting new technologies. Yadav, now a deputy director of the International Centre for Integrated Mountain Development (ICIMOD), says that agricultural research in Nepal is poorly funded, organized and managed. He calls for establishing a high national priority for research, unifying all agricultural research activities under an autonomous body, and motivating researchers through better personnel policies.

THE PURPOSE OF FORESTS

Jack Westoby

Basil Blackwell

343 pages, 35 Pounds Sterling

A useful sampler of ideas in tropical forestry over the last two decades and more, spanning the evolution from industrial forestry to social forestry. Westoby, who was FAO's director of forestry till 1974, writes, "Forestry...is

Next Time on HIMAL

November 1988 Vol 1 No 2

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THE KILLER DISEASE UNDERSTOOD

Acute Respiratory Infection (ARI) is a deadly killer of Himalayan children, but has been little studied because it does not occur in developed societies. HIMAL will cover in detail the first-ever significant study on ARI, expected out later this year.

THE UNDP IN NEPAL: TAKING STOCK

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NEGLECTED PROVIDERS OF FOOD

Because of the research bias towards food-crops from developed countries, the staple crops of the Third World have been ignored. Rice, wheat, maize, and now soya beans receive extra attention, while more modest crops such as mountain barley and millet are neglected. Other crops that can help hill people: the proso millet of China, the *t'ef* grain of the Ethiopian

highlands, and the amaranth and quinoa plants used by the Andean Indians.

PARKS AND WILDLIFE: HOPE FOR KASHMIR STAG

The upgrading of Kashmir's Dachigam Sanctuary into a full-fledged National Park as part of Unesco's Man and Biosphere Programme significantly improves prospects for the Hangul, or Kashmir Stag.

PHOTO FEATURE: SUSPENSION BRIDGES

Some of them nearly a century old, suspension bridges across the Himalaya have served the mountain people better and longer than highways and STOL airstrips. Sadly, many are in extreme disrepair. Early in 1988, Nepal signed an agreement with SATA, the Swiss aid agency, for rejuvenating these vital communication links.

AGRICULTURE: THE POTATO

Its importance for high mountain populations, problems with research and propagation, impact of cold storage facilities on the industry. Potato diseases and the need to shift cultivation from the traditional "white potato" to better species.

PART OF THE WAY TO LHASA

For the people of Kathmandu (and others) wanting to retrace the route of their trading forefathers and mothers to Lhasa, our resident trek-advisor charts a leisurely seven-day trip from the Valley to the border post of Kodari. A thinking traveler's guide to the history of this time-worn trail, made famous by Laxmi Prasad Devkota in the ballad *Muna Madan*. Like in the epic, today, there is tragedy along the trail but of a different kind.

POINT OF VIEW:

"The Perils of Environmental Tokenism"

By Ramachandra Guha

"Eco-Politics" By Karna Sakya

"Himalayan Highways" By Toni Hagen

GRASSROOTS:

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And in Future Issues

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The differing experience of South Asian countries with foreign aid.

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The Lantana and Banmara weeds, which arrived in the Himalaya from the Americas with the PL-480 wheat shipments and today cover a significant part of former woodlands. Can the weeds be controlled, or should they be controlled? Have they reduced the severity of soil loss?

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FOLLOW-UP

In this page, we report on significant developments regarding articles in past issues of *Himal*. What follows concerns articles which appeared in our prototype issue.

THE VALLEY CHOKES: The Chobar Cement Factory has doubled its daily production rate of Portland Cement to 400 metric tonnes a day, without installing scrubbers to curtail the dust and other emissions. The air pollution problem has become worse during the past year, according to experts. With increased production, the factory now employs 703 workers and is the major industrial employer in Kathmandu. The major thoroughfares of Kathmandu were spruced up for the SAARC Summit meeting last October, but overall sewerage, sanitation and waste disposal problems remain as they were last year.



Chobar: Still smoking

LIGHTS GO ON IN NEPALI VILLAGES: HMG did not follow through with its promise to subsidize "mini-micro hydel plants" and the Agricultural Development Bank ended up paying for projects, but only those financed up to B.S. 2042-2043. There has thus been a drastic drop in orders for electrification units and communities are now looking for alternate funding sources. As for the "electrified dekchi" developed by DCS in Butwal, three hundred of these Nepali cookers are being produced. They will be tested in a pilot scheme with the Andhi Khola Rural Electrification Programme in Syanjha District this summer.

MANY BABIES DIE IN NEPAL: Many babies continue to die because of poor nutrition, rudimentary sanitation, diarrhoea and acute respiratory infection (ARI). An 11 February Unicef report estimates that 45,000 children under the age of five die from dehydration due to diarrhoea.

Another 40,000 die from vaccine-preventable disease. A study on the extent of ARI, conducted by the Mrigendra Medical Trust, is expected to be out in 1988.

KMTNC, EMERGING ENVIRONMENTAL WATCHDOG: The Annapurna Conservation Area Project of the King Mahendra Trust for Nature Conservation, trying to cater to the needs of both villagers and tourists while protecting the environment, set up a kerosene depot at Chhomrong to popularize firewood-saving techniques. Three nurseries provided villagers with 80,000 fodder saplings and a lodge operators' training programme was held. A "Minimum Impact Code" leaflet is handed to every trekker passing through the area. It carries the motto, "Nepal is here to change you, not for you to change it".

Mingma Norbu, Director of the Project, says many villagers still mistakenly worry that the national park will displace them. Inordinate expectations are also being placed on the Project. "On the whole, though, they are now very supportive of the Project," he says.

ICIMOD SEARCHES FOR ITS SOUL: Still searching, some would say. But Colin Rosser, Director of the International Centre for Integrated Mountain Development, says that ICIMOD is actively building up a "knowledge bank" for the Himalaya, acting somewhat like an autonomous international planning commission for the region. "The Himalaya is dominated by the 'project', and so they ask to see ICIMOD's project. But what we are trying to do is to evaluate, assess and suggest strategy," says Rosser. ICIMOD expects to open up offices elsewhere in the region. It also plans to hold training workshops for senior level officials of the region so that they are brought up to date with new technologies, such as remote sensing, new management tools and new ways of thinking.

For the next three years, ICIMOD's "area focus" will be, going eastwards, on the North West Frontier Province, Himachal Pradesh, the Uttar Pradesh Hills, Bagmati Zone in Nepal, the West Central Region of Bhutan, the Lhasa Valley Region, selected Hengduan Mountain prefectures of

China, and the Chittagong Hill Tracts in Bangladesh.

TEHRI: TEMPLE OR TOMB? The debate continues. The proponents of Tehri Dam in Garhwal emphasize its importance for the regional economy and for power in the energy-deficient region. They claim that the project, which will require up to IRs2035 crores, is cost beneficial. In opposition, the Delhi-based group INTACH estimates that for every rupee spent the return will be 56 paise.

Engineers have failed to study upstream glaciers, nor have they taken into account the possibility of strong earth tremors, INTACH maintains, adding that because of siltation the lifespan of the dam cannot exceed 65 years. In October, a conference of NGOs of the Asia-Pacific region called for a moratorium on the construction of large dams, in particular the Nam Choan Dam in Thailand and the Narmadasagar and Tehri dams in India as "symbols of environmental destruction, social injustice and economic folly".



NO THOUGHT FOR WOMEN: Women's issues continue to be treated as supplementary, "almost as footnotes", to the "male-oriented" development projects, according to the Kathmandu-based Centre for Women and Development. Nepal's sixth and seventh plans are inadequate to ensure the full participation and integration of women in the overall development process, says the Centre. There has, however, been some forward movement. Over 1175 rural Nepali women have benefitted from a production credit programme launched in 1982 by the Women Development Section of the Ministry of Panchayat and Local Development. New Era, a consulting firm, is preparing a strategy for "resource management with the active participation of local women". ▽

HIMAL and Himal Associates

Himal Associates is a newly established non-profit group of professionals in Kathmandu. Its objective is to provide a citizen's forum for discussion and action on all areas of Himalayan "development" broadly understood, including public health, the economy, the environment, education and culture.

The organization emphasizes the development of indigenous knowhow backed by appreciation of innovation worldwide. It supports small-scale research and applications which will directly help improve the quality of life.

Himal Associates publishes the magazine HIMAL because it takes seriously the slogan "Communications for Development". Public information is one of the scarcest commodities in the mountains and hinders progress.

Even though HIMAL is not a political newsmagazine aimed at the mass market, we expect it to ultimately earn its keep. Till then, as publisher, Himal Associates will continue to welcome contributions from individuals and foundations to help support this publication.

For further information, write to:

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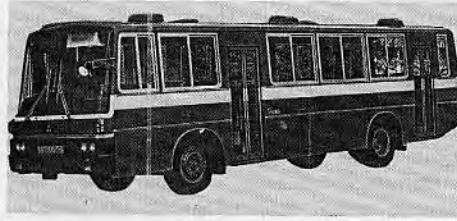
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INFOE is a platform for those remaining "societies" of plants, animals and people beyond the industrial civilization who are without a lobby. Infoe regards resistance to permanent loss of global ecological systems and support for ethnic minorities who fear for their lives as part of the same struggle. Ecologists and ethnographers who advocate the protection of these societies are both part of action anthropology.

For too long has the link between the destruction of nature and the elimination of tribes in the "Third World" been concealed.

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Abominably Yours,

Up here in my little hideout on a cliff overlooking the Barun Gorge, the days drag idly by. The langur brought up the papers the other day. The good news is that they're thinking of extending the Sagarmatha National Park to down here, so more quiet days to look forward to. I remember an expedition in the mid-1970s that came to these parts in search of me. They made quite a racket, but all they found was a new species of the Himalayan Shrew.

I hope the park extension will keep out all snoopers, including Soviet scientists who in January set up a society under the Ministry of Culture to look for the "abominable snowman". A commission for studying the "snowman problem" had evidently been set up 30 years ago by the Soviet Academy of Sciences. "However," said the press statement, "some time later it reduced its activities." More reduction please, is all I can say.

The King Mahendra Trust for Nature Conservation seems to have come to its senses and changed the name of its news bulletin from *Centaur* to *Prakriti*. If there was just one way for KMTNC to banish all thought of nature conservation from the mind of a Nepali reader, it was to name its bulletin after a genetically malformed monster out of Greek mythology. For a creature of myth, we did not have to go to the Aegean. I refer not to myself but to Narasimha or Garuda, the first, Vishnu's *avatar* and the other, his mount.

One news item almost made me fall off this here cliff. Space alien bodies found right next door on Mount Everest! Banner headlines told of Nepali and American authorities huddled in a coverup so as not to set off "global panic". But once I saw that the cover picture mis-identified Ama Dablam as Everest, I thought it might be a hoax.

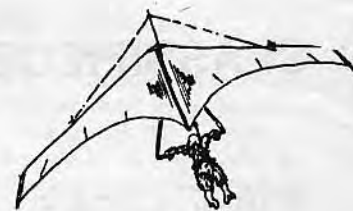
Trans-continental investigations revealed that the story had been cooked up by

the writers at the *Weekly World Report*, which is what they call in Big Footland "supermarket tabloid". Its reporters never leave their sofas and survive by titillating the listless American masses with made-up stories of infants reared by she-wolves, haunted toilets and organisms from Jupiter kidnapping high school principals.

Then there was the sigh of relief heard nationwide when the Italians finally confirmed that, after all, Everest was 800 feet higher than K-2. Thank you, Ardito Desio of Italy's National Research Council, otherwise this neighbourhood would have lost its market value. All 200-plus Everest summitteers would have had to slink to embarrassed crevasses and tourism revenue would have fallen off the South-West Face.

Geologists say "the Indo-Australian Plate is pushing the Eurasian Plate harder along the Eastern Axis than towards the Pamir". What this means is that Everest is rising two inches a year, while all K-2 can muster is half-an-inch. So there's no worry for the future either. Everest is also higher because of all the junk piled up at the top: oxygen canisters, tripods, Sherpa worry beads, Mao busts, Czech chocolate wrappers and assorted flags.

Actually, this sub-regional chauvinism is quite unbecoming, as I am the first to admit. After all, K-2 is also ICIMOD territory. Speaking up for K-2, therefore, let me (quite indignantly) quote from something else the langur brought up. The February issue of *China Pictorial* speaks of Mount Qogir, "the main peak of the Karakoram Mountains". No quarrel there. But then a caption beneath a picture of that mountain states, without so much as a by-your-leave, "Mount Qogir, which stands at 8,611 meters (28,260 feet), is the world's second-highest peak." Well, here we go again. We'd better send Ardito Desio right over to the



Karakoram before someone comes along to claim that the pyramids of Giza are taller than Nanda Devi.

Good that the Everest-K-2 hoohah got defused, for it could have set off some nasty vibes within youthful SAARC. Actually, the spirit of SAARC long preceded its actual birth, at least in the naming of aircraft. Why else but for genuine sentiments of regional co-operation would Air India have decided 25 years ago to name its Boeing 707s after Nepali mountains -- Lhotse, Makalu and Annapurna?

Sadly, these workhorses of the Air Indian fleet are being phased out, but the possibilities of SAARC-inspired regional name-swapping are endless. Druk Air could name its new HS-146 *Adam's Peak*, PIA could go for a Boeing 737-300 named *Gangotri* and Vayudoot could do worse than name one of its Dornier 228s -- why not -- *Mount Qogir*.

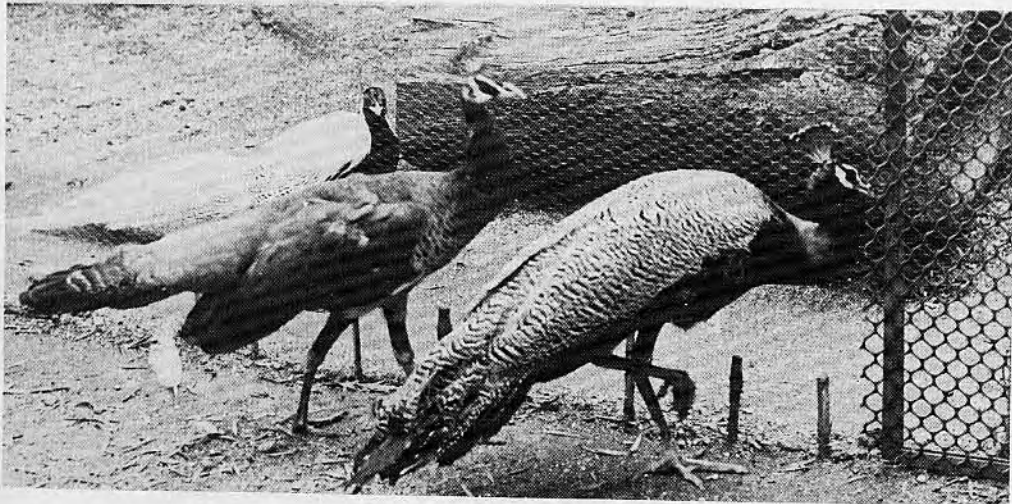
Talking of air travel, we yetis are not doing too badly ourselves. A few years ago cousin Big Foot sent over a hang-glider kit. Now we produce our own sailplanes using dwarf juniper branches and tightly woven yak wool cloth. Trans-glacial travel is now done by air. Someone go tell the Russians that they should search for thermals and updrafts, not footprints.

Abominably Yours,



Government clamps lid of secrecy on incredible find!

**SPACE ALIEN BODIES
FOUND ON MT. EVEREST**



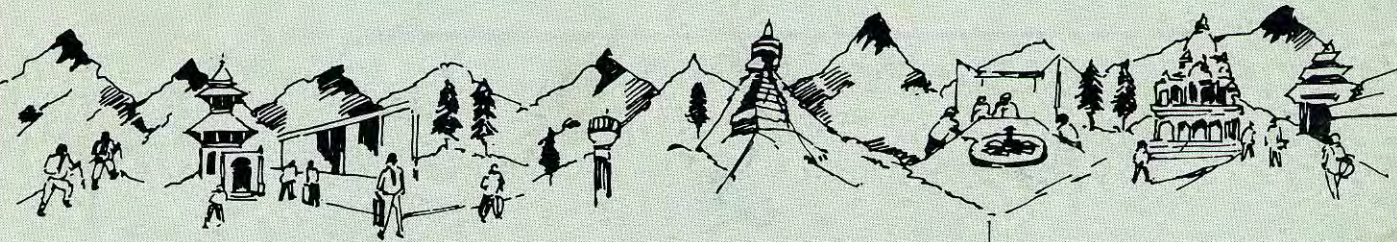
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pheasants preen themselves
in a prize winning
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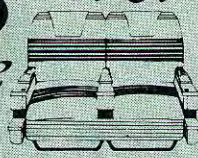


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