Nepal's 'white gold': When will it be exploited?

by Ramtanu Maitra

It is a vital question for Nepal, the tiny Himalayan kingdom sandwiched between India and Tibet, whose 19 million people are among the poorest in the world. The "white gold" is Nepal's massive hydroelectric power potential which, if exploited to the full, can make Nepal one of the wealthiest nations in South Asia and help transform the social fabric. But a stagnant and self-perpetuating monarchy, surrounded by a coterie interested only in lining their own pockets, has so far done little to exploit what is Nepal's single most important natural resource, despite the factthat plans and proposals have been put forward for years. Today, however, a wind of change is blowing in Nepal (see p. 38), and though it is yet to be seen whether the change will be cosmetic or real, a new opportunity for serious development initiatives may be at hand.

Nepal's economic performance under an absolute monarchy has been little short of a disaster. The country competes with Afghanistan and Bhutan in infant mortality, illiteracy, and low life expectancy. Nepal's energy consumption per capita (in kilograms of oil equivalent) is one of South Asia's lowest—half that of Bangladesh, and about one-ninth that of Pakistan! More than 90% of its population, living in isolated rural areas where not even a shred of infrastructure exists, depends on agriculture, even though less than 10% of the country's land mass—slightly larger than Bangladesh—is arable, because of the mountainous terrain. Moreover, agriculture in Nepal has stagnated, if not actually regressed, over the past two decades.

Economic hope

In the midst of this dire poverty and perpetual darkness, course four major, fast-flowing river systems that themselves account for nearly 90% of Nepal's surface water and hydroelectric potential. These four river systems—the Mahakali, Karnali, Sapta Gandaki, and Sapta Koshi—and their tributaries are fed by snow and glacier melt from the Tibetan Plateau and the Himalayas, and by heavy monsoon rainfall. Just one project, which has been hanging fire for decades, the Chisapani hydroelectric project located on the Karnali River, could itself produce 4,000 megawatts (MW) of electrical power at peak capacity—about 25 times more than Nepal's present installed capacity of 166 MW. Besides the large hydroelectric potential of the major rivers, Nepal is endowed with many, many narrow, yet fastflowing tributaries where small hydroelectric plants could harness the power potential for rural use. But performance in this sector has been as abysmal as in building large hydroelectric plants. Nepal has harnessed less than 5 MW from such small units, while its total electric power potential, including both large and small hydropower, is estimated at 83,000 MW.

Harnessing Nepal's astonishing hydroelectric potential is not a new idea. For decades, many Nepalis have been convinced that their nation's economic hope rested in tapping the potential of the mountainous rivers and selling the power to India. Northern India is terribly short of electrical power. The development of Uttar Pradesh and Bihar, two north Indian states whose population of 200 million dwarfs that of most nations, has been seriously hindered by the shortage of power for agriculture and industry. No doubt, India could be virtually a captive market. Indian officials friendly to the idea and well aware of the great mutual benefits, have made detailed proposals, including for financial assistance in the projects.

Ironically, the fact that such projects would help India has often been used by the Nepali elite as the reason not to undertake them. The arguments go as follows. First, since the major hydroelectric power plants will need a long gestation period, India may meanwhile build its own thermal or nuclear power plants to meet the shortfall, leaving Nepal holding the bag with massive surplus power and nowhere to sell it. To make this fear scenario convincing, Nepali bureaucrats point out that India does not catalogue sites in Nepal as being among its potential energy sources.

Second, the Nepali monarchy and its coteries have sowed suspicion among Nepali nationalists who might otherwise sympathize with such programs, by suggesting that while Nepal's electricity will make India stronger, Nepal will remain a slave to India's whims as to whether or not to buy electricity.

Economy of looting

India, admittedly, has done precious little to counter this propaganda and alleviate fears that may already have spread

Nepal's hydropower potential



to Nepalis in general. But what really surprises is the fact that the Nepali monarchy does not seem to have ever considered development of large hydroelectric plants to be vital for Nepal's *own* well-being. Besides the enormous economic benefits of abundant electrical power, the reservoirs connected with the large hydro projects will make it possible to store water for agricultural, industrial, and domestic use.

Out of an average runoff of close to 200 billion cubic meters, Nepal has succeeded in capturing a mere 1 billion cubic meters annually, about 0.5% of the total. Of an irrigable area estimated at close to 1.5 million hectares, fewer than 0.2 million hectares have so far been brought under command. As far as domestic water consumption goes, less than 10% of the population—95% of whom are in Kathmandu, Pokhara, Biratnagar, and a few other towns—have access to safe drinking water.

The lack of basic infrastructure and an extremely low literacy rate—19%—has turned Nepal's economy into one of looting. In 1956, when the first five-year plan was begun, 75% of total spending was for general administration and internal and external security. Then the looting was direct, with the nobility and elites enjoying the fat. Later five-year plans have helped to bring in new groups of looters bankers and others. Developmental expenditure, which now competes with internal debt payment, has become increasingly dependent on foreign aid and grants. In 1961, almost 50% of overall development spending was supplemented through internal resources. When the Seventh Plan was initiated in 1985, it showed that Nepal would have to depend on foreign aid and grants for 70% of its planned expenditure.

As a result of the government's inability to finance its developmental plans and increasing dependence on foreign money, Nepal has been opened up for foreign looting too. The foreign debt is now more than \$1 billion, about six times annual export earnings. Rising inflation, now at 20-40%, has been a definite factor behind the recent political turmoil.

Naysayers and schemers

Not surprisingly, the foreign aid providers have expressed much concern about the safety of the proposed big hydroelectric projects. Much anxiety has been shown about the seismic activity of the Himalayan area. Although it is widely admitted that techniques have been developed to make dams earthquake-proof or -resistant, the aid donors are very worried that such new engineering techniques have not been fully tested and may turn out to be quite costly.

A recent pamphlet "Eastern Waters Study," sponsored

by the U.S. Agency for International Development (AID) and compiled by a galaxy of U.S.-based experts, argues that while building high dams with large reservoirs may help Nepal reduce annual floods and increase irrigational water supply at time of need, a run-of-the-river plant—which takes energy from the river as the water flows by, without storage or timed release capacities—is much less expensive and quicker to build, and does not create the potential for a catastrophic release of water in the event an earthquake causes the dam to burst. Moreover, AID states that the Himalayan rivers are laden with silt and therefore storage reservoirs cannot be looked at as permanent assets. The reservoirs will be gradually filled up with silt, making the hydropower plants redundant, the argument goes.

It is apparent that at least one faction close to the Nepali royal household has no use for large power plants or major infrastructural projects in any case. Officially, lack of resources is cited as the reason why the large hydropower plants cannot be built. Meanwhile, this group's obsession with the idea of making Nepal another Hong Kong or Singapore in South Asia, has given rise to all kinds of shady monetary transactions, smuggling, tourism, gambling casinos, and even drug peddling. Kathmandu's casinos, fivestar hotels, and jet-set drug scene are eloquent testimony to the situation.

As a highly place official close to the royal household told the Indian daily *The Hindu* several years ago: "Our moral fiber has degenerated. Corruption has never been so rampant as today. Smugglers with their black money and international links are virtually controlling the country. They have corrupted the Nepalese upper and middle classes. Smuggling is now a recognized, legalized trade in Nepal. Corruption at the top now permeates to the bottom." There are strong rumors that a part of the royal household, under the control of Queen Aishwarya, is even involved in the drug trade.

For Nepal, the only way out of the economic and social quagmire is through development of its physical economy and making the best use of every citizen's potential. Building large hydroelectric plants will provide sufficient amounts of inexpensive electrical power which can be effectively used to make agriculture productive and convert Nepal from a food-importing to a food-exporting nation. But with only 10% of its land mass arable, Nepal can never remain an agricultural nation; there is no other choice but to build up industry.

The abundant electrical power from the Himalayan rivers can help Nepal to build up a highly sophisticated, smallscale sector that will not only provide employment to the millions, but generate enormous wealth for the nation. It is this development which can transform Nepal's depressing rural scene into a vibrant one. The resultant economic surpluses can be plowed back into education, transportation, and communication for all.

Currency Rates

