

# **Tibetan Bulletin –**

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## **Importance Of Tibet's Water Resources**

We now live in an era of scarcity, escalating demand, interdependence and the increasingly recognised need for reciprocity and mutual obligations between upstream suppliers and downstream consumers. It is widely accepted that water will become an increasingly scarce resource in the future, certainly much more endangered than it is at present. Many experts have been projecting that the 21st century's conflicts and wars will be over water. Boutros Boutros Ghali had warned in the eighties that the future world war could be fought over water. His successor, Kofi Annan, was also worried about the fierce national competition over water resources, which contained the seeds of violent conflict. Ismael Serageldin, vice-president of the World Bank, predicted in 1995 that "if wars of this century were fought over oil, the wars of the next century will be fought over water". Australian historian Prof. Gavan MacCormack calls Tibet the Saudi Arabia of water for China. Claude Arpi, historian and writer, calls Tibet the Water tank of Asia.

The Tibetan Plateau is the highest and largest plateau on the earth. With a size of 2.5 million sq.km. and an average altitude of 4,000 metres above sea level, it is situated at the center of Asia and is often called the Roof of the World. It abounds in wonderful Himalayan Mountains, numerous turquoise lakes, extensive grasslands and great river valleys, and is home to six million Tibetans.

Tibet, due to its geographic location and geological formation, is the principal watershed for Asia. Ten important rivers originate in Tibet such as the Tsangpo (Brahmaputra), the Sengye Khabab (Indus), the Langchen Khabab (Sutlej), the Macha Khabab (Karnali), the Drichu (Yangtze), Zachu (Mekong), Machu (Huang Ho, Yellow River), Gyalmo Nyulchu (Salween), Lodrak Sharchu (Manas) and Phung Chu/Bhumchu (Arun). About 90% of their runoff flows downstream to 11 countries: China, India, Bangladesh, Nepal, Bhutan, Pakistan, Thailand, Myanmar, Laos, Cambodia and Vietnam. Since those rivers bring fresh water to millions of Asians, the protection of those headwaters becomes very urgent.

Much of the environmental damage caused on the Tibetan Plateau contributes directly to the destruction of Tibets mighty rivers. These rivers, feeding most of Asia, are now often choked with silt, flooded with excess waters, or even dry where they used to run strong. Our research figures show that the great river systems that originate from the Tibetan Plateau impact the lives of about 85% of Asias population, or 47% of the Worlds' population. Therefore, ecological problems of the Tibetan Plateau are not only a concern for Tibetans, but also for the whole world community. In short, the environmental issue of Tibet is not an inconsequential regional issue; it has a huge global significance warranting international attention.

On 22 November 2003, a seminar titled Use of Tibet's Water Resources and Its Impacts on the Indian Sub-continent was held at the India International Centre in New Delhi. This seminar was jointly organised by the Environment and Development Desk (EDD) of the Department of Information and International Relations (DIIR) of the Central Tibetan Administration (CTA) and the Tibetan Parliamentary and Policy Research Centre (TPPRC) based in New Delhi. The seminar highlighted the importance of Tibet's rivers and the vital role the Tibetan Plateau plays as the source of water resources for millions of people in Asia. These river systems are home to a great biodiversity and are the spiritual abode of many religions.

A resolution calling for the protection of Tibet's' water resources was passed at the seminar. The resolution requests the countries which receive Tibet's waters to start a dialogue with the Peoples Republic of China to readdress the harmful development projects in Tibet. It also calls upon the international organizations and various civil society groups to work towards promoting the ecology of Tibet.

Until recently, the flow of Tibet's rivers to downstream countries has been natural, uninterrupted and unharmed by manmade activities. However, over the past 50 years, there has been a drastic increase in the development activities in the name of modernization by China on the Tibetan Plateau. Exploitation of natural resources, particularly indiscriminate logging of ancient forests of Tibet, damming of rivers and population pressure on the Plateau has impacted on the flow of water and also on the general climatic patterns, not only on the Tibetan Plateau, but also beyond. It is becoming evident that the Tibetan Plateau has tremendous influences on the climatic pattern of not only Asia but also the whole planet. China calls the Tibetan Plateau, the water tower of Asia, and what happens on the Plateau has immediate effects on its environment.

The fragility of the mountain ecosystems is well known, and once damage is done to the mountain vegetation, it is irreversible or reversible only over a long period of time, but during that time it may be too late. The ecological stability of the Tibetan Plateau provides immense benefit for the whole Indian sub-continent. Moreover, a peaceful and ecologically stable and healthy Tibet will help especially both India and China in their socio-economic development.

In the millennium address, His Holiness the Dalai Lama stressed the importance of protecting the environment of the Tibetan Plateau:

"Environmental damage is often gradual and not easily apparent and by the time we become aware of it, it is generally too late. Since most of the major rivers flowing into many parts of Southeast Asia originate from the Tibetan Plateau, it..(is of).. crucial importance of taking care of the environment in that area."

It is in this spirit that His Holiness the Dalai Lama has proposed turning Tibet into a zone of Ahimsa and of environmental protection.

A recent chronology of floods and threats of floods in India from Tibet's rivers

Floods and droughts have caused huge loss of life, crops, properties and businesses, particularly in China, India, and Bangladesh in recent years. The devastating flood of Yangtze river in 1998 compelled Beijing to impose an indefinite logging ban around the source of two major rivers of China, the Machu (Yellow river) and the Driчу (Yangtze river). Both the rivers took birth in the high plateau of Tibet. China acknowledged the indiscriminate logging in the Tibetan area as one major cause of floods.

Similarly, India and Bangladesh face problems of floods every year due to heavy rain and swelling of the Brahmaputra river. Flashfloods due to formation and bursting of artificial lakes has become more common. The 1998 Brahmaputra flood caused heavy damage both to the wildlife and to the Kaziranga National Park in Assam, home of the Indian one-horned rhinos.

In 2000, flashfloods on the river Sutlej and Brahmaputra has caused huge loss of life and properties in the Indian states of Himachal and Arunachal Pradesh. The cause of floods in both the cases were attributed to bursting of lakes in Tibet.

In 2004, formation of an artificial lake in Tibet on lake Pareechu, a tributary of the Sutlej river, has caused alarm and threat of another flashflood on this river. The threat of flashflood has led to evacuation of thousands of people to safer places and shutting down of hydropower stations resulting in enormous loss due to idle power stations and loss of tourist revenue. Luckily there has been no loss of human lives. Nonetheless so far, this artificial lake formation on Pareechu in Tibet is still a major concern.

The increasing frequency of natural disasters like floods, droughts, and storms in the Asian continent is related to environmental degradation and global warming. Glacial melt from the mountains in the Tibetan Plateau has been increasing each year. Therefore, it plays a significant role in the ecology of the whole Indian subcontinent and the world at large. These rivers not only provide life-sustaining water, but also bring with them fertile soils from the high Tibetan Plateau to the prime agricultural regions of the downstream countries. Thus they are the lifeblood of millions of people in the Asian continent.

The disastrous flooding of the Yangtze river in 1998, affecting some 240 million people, was linked to soil loss and deforestation

The health of the glaciers and rivers are essential to the health and prosperity of all downstream users. If flows are disrupted by massive hydro-dams and water diversion, the quality of life downstream is compromised.

In order to preserve the environment of the Tibetan Plateau, especially water resources, the Asian countries have a special responsibility because of the obvious ecological connections.

Most of the major rivers in Tibet are trans-national in nature, as they originate in Tibet and flow through one or more countries before they reach the oceans. Therefore, whatever happens to the source of the rivers and their immediate watershed in the Tibetan Plateau, will have a direct impact on the rivers flow and behavior downstream. Thus, it is practical that for realistic planning, and to extract the full benefits from such rivers, a closer dialogue and collaboration should be established. It is a wake-up call to India and other downstream nations to speak out for environmental protection in the Tibetan Plateau. Moreover, sound ecological data would help especially both India and China in their socio-economic development.

International pressure and opinion can play a major role in restoring the ecological balance of Tibet, where man and nature may once again live in harmony. A peace zone where all human beings from all nations and cultures can come for solace, inspiration, hope and peace of mind, is what has been proposed by His Holiness the Dalai Lama in his Five Point Peace Plan for Tibet.

Urgent Challenges:

- # effective management of all water components: rivers, lakes, ground water, and wetlands;
- # improvement in information sharing related to rivers;
- # establishment of crisis management systems, assuming the occurrence of large scale disasters, including post- disaster measures to minimize damage due to severe floods. By establishing such measures, residents, the media and government agencies should clearly recognize their roles and responsibilities and reinforce collaboration of all levels at a time of disaster;
- # both government and agencies should thoroughly disclose information on water, showing the degrees of danger in an area, and residents should be enabled to survive disasters based on the information they receive;
- # it is necessary to enlighten the public through awareness programmes or school education and regional social activities for the purpose of precise actions in times of disaster and crisis management rooted in daily life;
- # correct flow of information during the time of disaster is indispensable to minimize damage;
- # to establish information exchanges between related organizations and residents is equally important;
- # traditional ways of managing water resources must be improved in order to support continuing sustainable growth. The report presented by Environment and Development Desk of DIIR.

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