

ENVIRONMENTAL ISSUES AND CONCERNS ON THE TIBETAN PLATEAU

Tibet referred to as 'The Third Pole' and 'The Water Tower of Asia' is currently facing a huge challenge to cope with climate change and its impacts. It is one of the earth's most sensitive environments and a unique biogeographical zone on our planet. Despite its cold environment, for thousands of years the Tibetan people occupied this Plateau and created cultural landscapes based on the principles of simplicity and non-violence that are in harmony with the environment.

Glacial Retreat and Rivers Originating from the Tibetan Plateau:

According to a study conducted by a NASA scientist, (Jordan Camp¹) 20 percent of Tibetan glaciers have retreated in the past 40 years and if the current trend continues, more than 60 percent of the existing glaciers could be gone in the next 40 years. The same would cause widespread water crisis across Asia. The IPCC (Intergovernmental Panel on Climate Change) also warned that the continued melting at the current rate will result in massive flooding followed by severe droughts. Without these glaciers the flow of rivers would become seasonal, leaving the livelihoods and lives of tens of millions of people swinging between flood and drought.

The snow covered mountain ranges and glaciers on the Tibetan Plateau are the sources of major rivers that flow into Asia. Mighty rivers such as the Yellow and Yangtze rivers, along with the Brahmaputra and Indus flow down from the glaciated peaks of the Tibetan Plateau.

At some point, the livelihood and well being of about 47 percent of the world population is connected to the unique location of the Tibetan Plateau and the major rivers originating from it.

The Chinese dam building frenzy is creating huge discussions on whether these dams could be an initial step in enhancing its ambitious water transfer projects. (Some experts believe that the current railway network linking Beijing and Lhasa would further enhance the needful transportation of technical staff and inventories to initiate this water diversion project.) After many years of denial, the Chinese side finally accepted in building a HPP (Hydropower Plant; 500 megawatts) on the upper reaches of Yarlung Tsangpo at dZam (Ch: Zangmu), at Lhoka prefecture in Tibet. They have further plans to build five more HPP along the Yarlung Tsangpo. According to South China Morning Post (April, 2010), 'the duties of the armed police include dam-building and mining, particularly when these take place in strategically sensitive areas'.

The Tibetan Plateau also plays a huge role in influencing the Asian summer monsoon and its permafrost landscape acts like a sponge in conserving and managing the flow of the mighty rivers. Recent scientific journals have indicated that the climate warming over the Tibetan Plateau is also responsible for degrading these permafrost and frozen soils.

Endangering Pastoralism and Grasslands Stewardship in Tibet:

Pastoralism on the Tibetan Plateau is an 'adaptation to a cold environment at elevations above the limit of cultivation'. For centuries, the Tibetan nomads and herders have successfully maintained a sustainable and mobile lifestyle, traveling from winter to summer pasture lands and autumn to spring pasture lands. The grasslands on the Tibetan Plateau represent one of the last remaining agro-pastoral regions in the world. The

Plateau itself is covered in almost 70 percent of these precious grasslands. The pasture lands are made habitable through the co-existence of the Tibetan people and their yaks. Through their efforts they have maintained the sustainable use of this area for many centuries. China's introduction of different grassland policies over the years threatened the sustainability of this delicate environmental balance. The new policies restricts the flexibility and mobility of the nomads (which is the main ingredient in the nomadic pastoral production) and blames their livestock for overgrazing the grasslands.

These days many researchers and rangeland specialist are arguing the applicability of these new policies and how much these have actually benefited or affected. Recent scientific findings give us more technical view about the regeneration of the grasslands and the vital role of grazers in replenishing the grasslands.

Few researchers even cited that carrying capacity of the grasslands may not even exist in most of the Plateau's extremely variable (unpredictable) environments.

According to these research papers, the carrying capacity of some grasslands were far exceeded partly due to inappropriate land-use and land management practices implemented in the 1950s. It was also mentioned that the major determinant for grassland productivity on the Tibetan Plateau is the rainfall rather than the past or the present livestock number. Some recent field studies also revealed that grazing actually helps in regenerating the grasslands by improving the soil Carbon/ Nitrogen ratio and prolonging/ extending the growing season. Even some Chinese researchers have blamed the degradation of these grasslands on many factors such as permafrost degradation, irrational human disturbance (mining, road construction, conversion of grassland to cropland, gold mining, overgrazing etc.,) and climate warming.

Despite all these valid arguments, in the name of modernization and conservation, the Tibetan nomads are forcibly removed from their ancestral pastoral lands, compelled to slaughter and sell their livestock. They now have to live on the state rations and some of them sold their belongings to run small vendors. Furthermore, their lack of other skills prevents them from finding alternate means of making a living.

Development for Whom?

According to Professor Amartya Sen (1998 Nobel laureate), development is 'not the mere accumulation of goods but the enhanced freedom to choose, to lead the kind of life one values'. The ongoing campaigns and activities of boosting Tibet's economy (by investing huge amounts in tourism and industries) are encouraging mass influx of Chinese migrant workers and their extended families to settle in Tibet. It is true that tourism has favored a few Tibetan families but the majority of the households are not able to react to the changes identically or on equal basis. Chinese researchers and academicians have also mentioned that the cash economy is rapidly replacing the traditional self-sufficient economy and exposing the farmers to more volatile market-oriented economic crops and activities, to which they have never coped with earlier.

The Chinese authorities have long regarded tourism as one of Tibet's pillar industries. According to Chinese state run media, 'Tibet Autonomous Region (TAR)' alone is expected to receive 6 million tourists this year (2010).ⁱⁱ Lhasa, the holy city, a place of spiritual power is now being replaced with resorts and hotels to boost tourism industry in Tibet. There are now internationally-branded luxury hotels being constructed in Lhasa including the 2000 rooms property of Intercontinental Hotel and many more.ⁱⁱⁱ With little regard and respect to the available local human resources, these development projects would attract many migrant and skilled workers from the mainland China. About 1.2 million rural Tibetans, nearly 40 percent of the region's

population, have been moved into new residences under a 'comfortable housing' program to make room for large-scale projects, like dam and roads. At present, in 'TAR' there are more than 140 star rated hotels and over 1000 other hotels.

The People's Republic of China's (PRC) National Development and Reform Commission plans to provide 682 billion Yuan (US\$100bn) as financial support for the western region over the next few years. The funds will be used for 23 new infrastructure projects, including railways, roads, airports, coal mines, nuclear power stations and power grids. - (July, 2010).

The central government invested \$3 billion in the 'TAR' last year, a 31 percent increase over 2008. Recently, China mentioned that it had completed the drawing up of a detailed 'Action Plan for Building Lhasa into an International Tourist City in Five Years'. According to Edward Wong (The New York Times)^{iv} makeshift restaurants and houses run by ethnic Han businesspeople have sprung up even at a remote lake (Nam Tso) north of Lhasa. He further writes that the influx of money and people has brought new prosperity, it has also deepened the resentment among many Tibetans. Migrant Han entrepreneurs elbow out Tibetan rivals, then return home for the winter after reaping profits. Large Han-owned companies dominate the main industries, from mining to construction to tourism. Chinese officials say Tibetans make up more than 95 percent of the region's 2.9 million people, but refuse to give estimates on Han migrants, who are not registered residents. In the cities of Lhasa and Shigatse, it is clear that Han neighborhoods are dwarfing Tibetan areas.

Xiang Huang^v in her thesis report estimated, that with the current economic development and dramatic demographic change in the region, the total municipal solid waste (MSW) generation in 'TAR' would increase by 37 percent in 2020 as compared to the year 2006. Such increase in the MSW output would severely cripple the municipalities, - attracting unwanted scavengers and spreading diseases. With non existing municipal waste treatment facilities, and the prevailing practice of discharging the waste into rivers and dumpsites near the settlements would seriously pollute the aquifers and rivers beyond human control. We are concerned that, in few years time, many sanctified areas might transform into a dumpsites to manage the inflow of MSW generated by tourists and the migrant workers.

Apart from the waste and housing episode, Beijing's uncertainty and ever-changing policy has once again excluded skilled Tibetan tourist guides from the industry. According to the 'TAR' Tourism Bureau, each guide must possess a national or regional certifications and an employee's card issued by 'TAR' tourism department. The same would be issued only after passing the examination conducted by 'TAR' Tourism Training Center.^{vi} Why need of such new requirement? According to some recent information received, many Tibetan tour guides are losing their jobs to Chinese counterparts due to this current requirements. Not only are these local Tibetans losing their jobs in the hands of Chinese but it creates a deep resentment against the whole system. A BBC video clip shows a Chinese government translator (BBC Taken on Rare Escorted Visit of Tibet^{vii}) wrongly translating to the reporter about a monks . Who knows these new tour guides are trained in a special way of preventing their clients from seeing and hearing the reality!

Natural Resource Exploitation:

It has regularly been mentioned that one main reason for Tibet's occupation by China lies in its unearthed treasure troves. China refers to Tibet as 'Xizang' which literally means the western treasure house. The Plateau's rich natural resources became more or less like a resource curse for the local residents and its ecosystem. Since late 60's, these resources have been exploited in various scales and mostly under very poor environmental norms and regulations. The potential for significant impacts is greater when mining occurs in

remote, environmentally or socially sensitive areas. Besides destroying the ecologically/ environmentally harmonious relationship, most of these mining projects create social tension and distrust when standard corporate policies are not followed or when the project undermines securing a corporate commitment.

Now with the ever expanding railway networks across the Tibetan Plateau, the logistic issue of transporting mineral ores and accessing the drilling sites remains the least of concerns.

There are many areas in Tibet where the local residents are silenced by Chinese military forces against any mining protests. We were told by a witness that loud announcements are carried out in the streets everyday declaring that 'the central government needs to develop and needs these mineral ores. Anybody found revolting against mining would be considered as revolting against the state'. But even under such circumstances, in the past two years, we have witnessed several local oppositions against the mining activities - mostly gold and copper ores in the Tibetan areas as follows;

- *March 2009, Bathang county, Kham Karze (Eastern Tibet)*
- *May 2009, Ser Ngul Lo, Lhara Village, Markham county, Chamdo (Eastern Tibet)*
- *June 2009, Meldro Gyama, Meldro Gungkar county near Lhasa*
- *May, 2010, Wu Yug Sogchen of Namling district in Shigatse (Central Tibet)*
- *August, 2010, Payul County, Kham (Eastern Tibet)*

In all of the above cases, when local people took to the streets, it often involves when the concerned mining company directly disregards the aesthetic and social value of these residents. Or when the higher authorities have turned a blind eye on their grievances against these companies.

We strongly believe that the recent mudslide/ landslide incident at Drogchu [(Ch: Zhouqu), in the south-east of Kanlho-Tibetan Autonomous Prefecture, that took more than ten thousand innocent lives] was also triggered by uncontrolled mining, logging and hydropower projects in that area for many years. Let us not stand still and wish the Constitution of PRC [Article 9^{viii} and 26^{ix} (under the general principles) and Article 27^x, 28^{xi}, 45^{xii} & 66^{xiii} of 'Regional National Autonomy'] to prevail in the test of time. Anytime this year, the Canadian mining company run by Hunter Dickinson Inc. through its subsidiaries of Continental Minerals will be shifting large Caterpillar earth scrapers and wheel loaders for its Shethongmon copper mining project near Shigatse. Once officially in operation, the company is expected to have an annual production of 1.17 million ounces of silver, 116 million pounds of copper, and 190,000 ounces of gold.

According to latest (30 August,2010) media sources^{xiv,xv} China Gold International, based in Vancouver, has entered into an agreement to acquire the Gyama copper polymetallic metal mining property located in Meldro Gungkar county. The development will include two pits plus an underground mine that will accessed from two shafts. It was estimated that the mining facility would excavate daily around 12,000 tonnes of ore for three decades. Production will consist of copper concentrate, molybdenum concentrate and lead concentrate. Gold and silver will be separated and smelted in downstream processing.

Looking forward:

The knowledge and experience of Tibetan herders should be incorporated into rangeland management practices. The Tibetan herders should be directly involved in the decision making process or at the least their concerns should be respected before issuing policy decisions. Beijing should give the Tibetan herders the right

and the power to take control of the restoration of degraded grassland rather than giving this responsibility to inexperienced Chinese officials.

Central Tibetan Administration - Dharamsala welcomes development activities related to social and economic upbringing of Tibetan communities inside Tibet, but these developments besides being sustainable, should not outweigh the preservation of the unique Tibetan culture, language and its environment. These development projects should not spark off any social tension and unrest amongst the Tibetan communities. The development projects should first prioritize on training the local Tibetans in their daily life skills and the technical know-how. More attention should be given on improving the health and education sectors reaching down to the village levels.

Tibet matters, because not only are its glaciers melting fast but the Plateau is warming faster than other areas on earth, resulting in more extreme and unpredictable weather across Asia. And with the major Asian rivers originating from its Plateau and also being a significant factor for influencing the Asian summer monsoon, the social security and well being of billions of people are threatened. A healthy ^{xvi} Tibetan Plateau would not only benefit the entire Asian continent but also it helps in promoting peace and harmony within the region, especially between two major emerging powers (India and China). We request all TSGs to not only pass these messages to your local Parliamentarians but request/urge them to bring these issues to their governments with the request that these concerns are raised and discussed in any bilateral talks and discussions with their Chinese counterparts.

In brief, all development projects in Tibet should incorporate the following crosscutting guidelines (DIIR, CTA, 2004);

1. *Involve beneficiaries, from the identification of a project to formulation through the implementation cycle, by applying participatory tools and techniques such as participatory rural assessment (PRA) to ensure accountability and ownership;*
2. *Always insist on small-scale interventions that suit the regions and populace rather than capital intensive ones;*
3. *Foster self-reliance, and build local project management teams centered on community-based organizations (CBOs), through local capacity building;*
4. *Conduct a feasibility study and environmental impact assessment;*
5. *Rely on traditional local knowledge and wisdom, including resource management and survival techniques;*
6. *Respect and promote the Tibetans' culture, traditions, knowledge and wisdom about their own landscape and risk management;*
7. *Be subject to ongoing on-site monitoring by the development agencies to ensure that the intended target group actually benefits, and that those in power do not usurp the benefits meant for the poor and disadvantaged;*
8. *Use Tibetan as the working language of the project;*
9. *Neither provide incentives nor in any way facilitate direct or indirect migration and settlement of non-Tibetans in Tibetan regions;*
10. *Neither provide incentives nor help facilitate the transfer of land and natural resources to non-Tibetans.*

For more details on the guidelines, please visit: <http://www.tibet.net/en/index.php?id=223&rmenuid=11>

ⁱ Jordan Camp, 'Melting Glaciers of Tibet', *Climate Change Research at NASA - Goddard Space Flight Center, 2010.*

ⁱⁱ TAR to receive 6 mln tourists in 2010 (2010-Jun-17) http://english.chinatibetnews.com/travelling/Spots/2010-06/17/content_487695.htm (Accessed: September, 2010)

ⁱⁱⁱ *St Regis Resort. Owner: Starwood Hotels & Resorts Worldwide (HQ: USA) in partnership with Lhasa Yungao International Hotel Company, Ltd. Scheduled to open 15 November 2010 (delayed from December 2009). <http://www.starwoodhotels.com/stregis/property/overview/index.html?propertyID=3129>. (Accessed: September, 2010)*

Intercontinental Resort Lhasa Paradise. Owner: Intercontinental Hotel Group (Global HQ: UK) and Chengdu Exhibition and Travel Group. "Ground-breaking" ceremony took place May 2010; scheduled to open early 2012. Situated in Lhasa's newly developed business center, only a few kilometers away from the Potala Palace, the 2,000-room property will be the largest hotel in Tibet. Target market is both tourist and conferences/exhibitions. <http://www.chinahospitalitynews.com/en/2010/06/01/16416-worlds-highest-altitude-intercontinental-hotel-to-open-in-tibet/> (Accessed: September, 2010)

Shangri-La Hotels and Resorts. Owner, Shangri-La Hotels and Resorts (HQ: Hong Kong). Scheduled to open 2012. 350 rooms, located on Lingkor Road, one mile from the Potala Palace. <http://www.shangri-la.com/en/corporate/press/pressrelease/41804>. (Accessed: September, 2010)

^{iv} *Edward Wong, The New York Times, 'China's Money and Migrants Pour Into Tibet' (July 24, 2010), http://www.nytimes.com/2010/07/25/world/asia/25tibet.html?_r=2&th&emc=th# (Accessed: September, 2010)*

^v *Xiang Huang, Water Quality in The Tibetan Plateau. ' Chemical Evaluation of the Headwaters of Four Major Asian Rivers', Publications of the University of Eastern Finland. Dissertations in Forestry and Natural Sciences (2010)*

^{vi} *New requirements for tourist guides in Tibet, http://eng.tibet.cn/news/today/201003/t20100318_554795.htm (Accessed: September, 2010)*

^{vii} *BBC Taken on Rare Escorted Visit of Tibet, <http://www.bbc.co.uk/news/world-asia-pacific-10639713> (Accessed: September, 2010)*

^{viii} *Article 9:[...the state ensures the rational use of natural resources and protects rare animals and plants. Appropriation or damaging of natural resources by any organization or individual by whatever means is prohibited.]*

^{ix} *Article 26:[The state protects and improves the environment in which people live and the ecological environment. It prevents and controls pollution and other public hazards...]*

^x *Article 27:[...destruction of grasslands and forests by any organization or individual by whatever means shall be prohibited. Reclamation of land from grasslands or forests by destroying grass or trees shall strictly be prohibited.]*

^{xi} *Article 28:[In accordance with legal stipulation, the organs of self-government of national autonomous areas shall manage and protect the natural resources of these areas...]*

^{xii} *Article 45:The organs of self-government of national autonomous areas shall protect and improve the living environment and the ecological environment and shall prevent and control pollution and other public hazards, so as to bring about the coordinated development of population, resources and environment.*

^{xiii} *Article 66:[...while exploiting resources and undertaking construction in national autonomous areas, the organizations or individuals shall take effective measures to protect and improve local living and ecological environment and to prevent and control pollution and other public hazards.]*

^{xiv} *Bloomberg, China Gold International to Acquire Tibetan Copper Mine for \$742 Million' <http://www.bloomberg.com/news/print/2010-08-30/china-gold-international-to-acquire-tibetan-copper-mine-for-742-million.html> (Accessed: September, 2010)*

^{xv} *China Gold International acquires polymetallic mine in Tibet from largest shareholder, <http://www.proactiveinvestors.com/companies/news/7985/china-gold-international-acquires-polymetallic-mine-in-tibet-from-largest-shareholder-7985.html?CGG=> (Accessed: September, 2010)*

^{xvi} *Healthy: In this context refers to an environment where nature and the spiritual sanctity of the landscape along with the local knowledge is respected for its purity and life sustaining potentials as has been for many centuries.*
