

TIBET: THE (DEGRADING) THIRD POLE

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“In the old days it is the emperor who lived far away, and was unable to enforce edicts. In the new China, it is the regulators who are distant and ineffectual”
– Judith Shapiro (2012)

With an average elevation of 4500 meters, the Tibetan Plateau is one of the most distinctive land features on this earth. For many generations, this plateau has met the basic necessities of life and flourishing civilizations beyond its vast border. This vast stretch of cold and high elevation plateau is referred to as ‘The Third Pole’ a home to thousands of glaciers and ice masses besides the two poles. The Tibetan Plateau is also the fountain-head for many rivers that flow into Asia (India, Nepal, Bangladesh, China, Nepal, Pakistan, Thailand, Laos, Myanmar, Cambodia and Vietnam) supporting an estimated 1.3 billion peoples.

Despite its cold and harsh environment, for thousands of years the Tibetan people have lived on this plateau and created cultural landscapes based on the principles of simplicity and non-violence that are in harmony with the environment. Not anymore. The roof of the world is withering away due to climatic warming and industrialization demands imposed by the Chinese communist regime.

A. Climatic warming's degrading effects on the Tibetan Plateau:

For many scientists, environmentalists and other well-informed individuals, it may not be breaking news that the climate warming in Tibet is taking its toll on glaciers, permafrost, frozen soils, lakes, grasslands and the whole biotic community. On a micro level, its future implications are far more threatening; the ongoing flow of rivers that drains roughly 5.4 million sq. km could become seasonal and the change in the rainfall pattern will affect the livelihoods of tens of millions of people, creating more regional tension.

In the past 40 years, the glaciers on the Tibetan Plateau have shrunk by 6,600 sq km (as of year 2006) and it is estimated that they are currently melting at a rate of 7 percent annually. Similarly, a separate study by a NASA scientist (2010) revealed that 20 percent of Tibet's 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. Even China's National Climate Change Program report (2007) has mentioned that the area of glaciers and frozen earth is expected to decrease more rapidly and are estimated that glacier area in western China will decrease by 27.7 percent by the year 2050. The same concerns have been shared by the IPCC (*Intergovernmental Panel on Climate Change*) in its recent report and warned that the concurrent melting at the present rate will result in massive flooding followed by severe droughts.

B. Land use policies denuding the Tibetan Plateau:

Deforestation: The plateau once possessed one of the oldest forest reserves in Central Asia and a wealth of over 5000 species of higher plants, these forests were indiscriminately cut down and transported to China. It was not until the disastrous Driчу (*Yangtse*) flood in 1998 that China realised it was paying the price of stripping Tibet's forest. That flooding killed over 10,000 people and left 240 millions affected by its waters and destroyed over million hectares of farmland and homes in China. Only after the forest had been entirely stripped did the large logging finally stopped in the name of water conservation. Taking remedial action, the government closed timber markets and placed an unconditional logging ban on an area of 4.6 million hectares covering along the Driчу basin in Tibet. Despite the government logging ban announced in September 1998, commercial felling of trees is still prevalent along the Driчу basin up until year 2012. Even though the Chinese government claims to have invested a huge amount in various reforestation projects (*White Paper, July 2011*) most of these new tree plantation are of exotic tree species (*fruit trees, rubber and eucalyptus*) rather than more available indigenous varieties. The State Forestry Administration still claims the increase in the total forest cover and not banning the forest harvesting. Some Chinese researchers argue that these new exotic tree crops along with the significant alteration in the age structure of the standing forests is seriously compromising the ecological services provided by forest ecosystems.

Conversion of grassland to croplands: The overall plan during those periods of Collectivization and Household Responsibility System was to maximize the agricultural production from the grasslands. During that era, almost 20 million hectares of grassland in Tibet and Inner Mongolia were converted to croplands, by state-owned farms, state-owned forestry operations, and other state-owned enterprises. They were all labeled "Newly Claimed Virgin croplands" in the 1950s and the trend continued over the last few decades. These grasslands are now severely degraded due to such land use policies.

Mining: The Plateau's rich mineral resources have become a resource curse for the local residents and its ecosystem. Since the late 60's, these resources have been exploited in various scales and mostly under very poor environmental norms and regulations. The mining sector not only destroys the natural environment but also creates social tension and distrust when international standard corporate best practices and policies are not followed.

A well-known example of this phenomenon is the dramatic environmental collapse in Maduo County (Qinghai Province) and its portion of the Three-River Headwaters (Sanjiangyuan) Nature Reserve, at the confluence of the Yellow, Changjiang, and Qiantangjiang Rivers. Prior to 1970, environmental conditions in this Tibetan county were regarded as excellent, with over 4,000 lakes and rich grasslands. In the 1980s, Maduo accrued wealth quickly through destructive gold mining and achieved the highest per capita income among all of China's animal-husbandry counties. By 2004, however, 90% of its lakes had dried up, in part due to overgrazing. This resulted in economic decline and Maduo becoming one of China's ten poorest counties, despite the fact that the county became part of the Three-River Headwaters (Sanjiangyuan) Nature Reserve in 2001. By 2007, most of the population had migrated out of the region as the area became increasingly unsuitable for human habitation due to ecological collapse.

Copper, Chromium, Gold, Lead, Iron and Zinc are the minerals of greatest interest to Chinese and other foreign miners operating on the Tibetan Plateau. These are being mined to different extents at various locations throughout the Tibetan Plateau. Over the past few years, the Chinese state government has shown more interest and has invested in the extraction of lithium ores (*lithium carbonate*) on the Tibetan Plateau.

Whenever the Tibetan communities try to put forward their grievances in numerous petitions to higher authorities against the miners; either they are ignored, harassed or even fired upon by the police. In the frequent protests by Tibetan villagers, quite often their immediate concern has been the damages done by the miners to the local streams, rivers, holy mountains and pasture land. **The most recent protest in Tibet was reported in Golog county (August, 2012) where the Chinese miners were planning to mine at a sacred holy mountain. According to a recent media interview broadcast on Voice of Tibet (2 Nov, 2012) a local resident of Serkhog town in Amdo (Ch: Seda county, Qinghai)** shares his grievances regarding the huge problem of water and air pollution from a nearby gold miners. Out of any concerns and hesitations, these miners dump the mine tailing and chemical effluents in the local river with no special attention and action from the local authorities.

In recent years, similar negligence have also occurred in other parts of Tibet, for instance in Kumbum monastery in Amdo (Ch: Qinghai), when the tap water detected high lead (Pb)¹ concentrations due to a mining activity. According to Article 34 of revised China's 2002 Water Law², it is illegal to construct waste outlets in protected drinking water sources.

¹Lead interferes with a variety of body processes and is toxic to many organs and tissues including the heart, bones, intestines, kidneys, and reproductive and nervous systems. It interferes with the development of the nervous system and is therefore particularly toxic to children, causing potentially permanent learning and behavior disorders. Routes of exposure to lead include contaminated air, water, soil, food, and consumer products.

²China's 2002 Water Law, Chapter IV: Protection of Water Resources, Water Areas and Waterworks
<http://www.china.org.cn/english/government/207454.htm>

In her latest book, '**China's Environmental Challenges (2012)**', Judith Shapiro writes, "Severe environmental problems are occurring in ethnic minority communities on the periphery of the country, where grab for resources is thinly disguised as development program". She further adds, "When we take a closer look at these regions inhabited by ethnic minorities, we suspect that the government attempts to develop infrastructure are often no more than strategies to extract natural resources at the expense of a minority, marginalized people".

C. The Infamous Match Fixing: Pastoralism vs. Grassland policies

According to Fred Scholz (1995), 'it was mobility that was the very essence of herding, whether in the savannahs of Africa, the steppes of central Asia or the high altitude pastures of the Qinghai-Tibetan Plateau, have always needed to move their animals regularly to make use of the spatial and temporal patchiness of grassland resources'. Nomadism was therefore a 'region-specific survival strategy that maintains the grassland 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 pastoral nomads or **drogpas** (*in Tibetan*), have successfully maintained a sustainable and mobile lifestyle, traveling from winter to summer pasture lands and from autumn to spring pasture lands. The grasslands on the Tibetan Plateau represent one of the last remaining highest altitude agro-pastoral regions in the world.

China's grassland policies over the past several decades have not only destroyed these grasslands but have also undermined the age old ancestral grassland stewardship provided by the *drogpas*. These policies have not only reduced the mobility of the nomads and their herds, but are also responsible for overgrazing some parts of the grasslands.

When these grasslands are degrading, Chinese policymakers offered only one explanation: the nomads were overstocking beyond the carrying capacity of the pastures but they shy away from accepting responsibility for the compulsory overstocking, fencing etc. during the commune system. For decades, other policies such as de-stocking and rodent poisoning were enforced against the religious sentiments of the herders. For these pastoralists, their herd size is the only wealth, security, insurance, capital and collateral against loans.

In 2003, a grassland rehabilitation policy was implemented throughout China's grasslands and in pastoral areas. In Chinese, the Restore Grassland Policy is known as, *tuimu huancao* (退牧还草), which means "closing pastures to restore grasslands." The key measure of this policy is the relocation of herders from the grasslands to state-built housing, a measure that has been intensified in recent years. The harshest measures have been enforced in Golog and Yushul prefectures, in the area China considers to be the source of its great rivers.

Other researchers also cite rainfall - rather than livestock numbers, past or present - as the major determinant of the conditions of the grassland on the Tibetan Plateau. Some field studies also revealed that grazing actually helps regenerate the grasslands by improving the soil carbon-nitrogen ratio and extending the growing season. Many researchers have found that depopulating these grasslands and labeling the nomads as 'ecological migrants' will not help to restore the pastures. Although the stated objective of *tuimu huancao* is to grow grass and thus conserve watersheds, careful scientific observation shows that when all grazing is removed, the biodiversity of grasses diminishes, medicinal herbs are driven out by toxic weeds, and woody shrubs make the land unusable. Field observations conducted on these grasslands indicate positive connections between the grazing herds of the nomads and the grasslands. But recent research has revealed that overgrazing and degradation of the grasslands are not the result of grazing livestock alone. They also say that abandoning these grasslands will lead to the domination by invasive species and reduced biodiversity. The herders point to weather changes, rodents, and mining activities as important factors causing grassland changes.

Despite all these valid arguments, under the pretext of modernization and conservation, these policies were enforced by the Chinese government at any cost, irrespective of the ground reality. The losers are those who defy the central command in Beijing. As a result, tens of thousands of nomads are forcibly removed from their ancestral pastures, compelled to slaughter and sell their livestock. They now have to depend on the state rations and some are forced to sell their belongings to start again small vendors for survival. Furthermore, their lack of other skills prevents them from finding alternate means of livelihood.

D. Denaturalizing Tibet: Tourism industry

The Chinese authorities have since the 1990's regarded tourism as one of Tibet's pillar industries. According to Chinese state run media (2012), 'Tibet Autonomous Region (TAR)' alone expects 10 million tourist arrivals and 12 billion Yuan in tourism revenue: that would be an increase in more than 60% of visitors. Lhasa, the holy city, a place of spiritual power, is now full of resorts and hotels to boost tourism industry in Tibet. For instance, in Lhasa only, there are now more than 190 hotels with room tariffs ranging from US \$100 – 8000 per night. With little regard and respects to the available local human resources, these projects have attracted many migrant workers from the mainland China, outnumbering the local Tibetans in Lhasa. These days, more than 65 percent of Lhasa populations are Chinese immigrants and with the current expansion of railway network, this would increase further. The Chinese official media (*June 2012*) also brags about investing US \$63.5 million in Nyingtri (*320 km southeast of the Lhasa*) to develop tourism by building model villages. Similar tourist projects are initiated in various sacred sites and lakes in Tibet without consulting local communities. This proves the ineffectiveness of the central command and the widespread illegal behavior of the cadres, officials and business people.

According to article 5 & 11 as stipulated in the Environmental Impact Assessment law (2003) of the People's Republic of China, it is mandatory that public value and participation should be incorporated in the environmental impact assessments.^{3, 4} But it is evident from the public outrage and protest in Qidong, Jiangsu province (*August 2012*) and in Ningbo, Zhejiang province (*October 2012*) that such laws remains insignificant on actual ground.

Few years back, a local school teacher voiced against the Hydropower Development Plan for the Middle and Lower Reaches of the Gyalmo Ngulchu or the Nu River and said, *"Most villagers have no idea where the dams are to be built or whether their village will have to move. It's useless caring anyway, because nobody cares what we think. If the government wants to go ahead with the dams, there's nothing peasants can do about it"*.

A survey poll conducted in 2011 by GALLUP in China revealed that most of the adult Chinese prioritize environment over economy. The only questions remain whether the policy makers will act accordingly.

E. Looking Forward & Recommendations:

Tibetan nomads are the expert custodians of the alpine pastures and their knowledge and experience should be incorporated into rangeland management practices. The Tibetan herders should be directly involved in the decision-making process or there should be at least a principle of collaborative management attending to the needs of the pastoral nomads and herders alike.

A healthy and sustainable 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). This has an important geostrategic significance.

The Tibetan Plateau is the land bridge connecting South Asia with East Asia. The very survival of almost 1.3 billion people depends on the water resources originating from the Tibetan Plateau. The impact on Tibet's landscape and its natural resources due to climate warming, land-use policies and large-scale development will threaten not only the future food security of many nations but also their development.

TSGs could spread words in their own constituents about the degrading Third Pole and its implications to gather supports of the local parliamentarians to provide political, financial and institutional support. To this end, we offer the following recommendations to all TSGs attending this conference in Dharamshala:

³ Article 5 of the EIA Law requires the government to invite experts and the public to participate in EIA.

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1: MONITORING: In collaboration with private and academic institutions, partner with Chinese and international scientific institutions to monitor and report the environmental degradation in Tibet.

2: MITIGATION: With the parliamentary support, have your government engage with the Chinese government and NGOs to encourage a systematic re-consideration of policies related to grassland management and nomad resettlement. We believe that changes in the ecosystem of the Tibetan Plateau will require sound mitigation policies and on-the-ground stewardship, which must include the integral participation of Tibetan stakeholders, primarily the nomads and their indigenous experience in managing this land for centuries.

3: REGIONAL FRAMEWORK: We realize the significance of creating a regional framework on water security that would facilitate cooperative agreements among all riparian neighbors so as to promote transparency, sharing of information, pollution regulation, and arrangements on impounding and diversion of river water. As an initial step, with your support, especially from those participants who belong to the downstream countries we can initiate and explore the possibility of creating a common network with our office to share information related to the rivers that flow from Tibet.