



CHINA, TIBET AND CLIMATE CHANGE

Number 6 in a series of 10 briefings on climate and Tibet

Tibet and China are physically intimately connected. The yellow colour reserved for emperors comes from the yellow of China's great rivers, known in English as the Yangtze and Yellow, in Chinese as Chang Jiang and Huang He, and in Tibet, where they rise, as the Dri Chu and Ma Chu. The yellow in these rivers is the earth of Tibet, the youngest of lands, uplifted kilometres into the sky by tectonic forces, and still rising.

The high plateau is cut by rivers, bearing enormous loads of silt which form the yellow loess earth of China, from Gansu all the way to the sea. Upstream Tibet and downstream China are intimately connected.

Similarly, in the sky, Tibet is the source of China's bai-yu plum rains, the summer monsoon on which the whole Chinese civilisation is built. Tibet is not only upstream, it is also upwind of the plains and great riversheds of China. China relies profoundly on Tibet, on the environmental services provided by an intact, uncompromised Tibetan Plateau. The physical basis of China's prosperity is provided by the ongoing purity of the Tibetan source.

It is only within the past half century that China has known where its great rivers rise, and only in this century that scientists have demonstrated the connection between destructive floods in China and climatic anomalies in Tibet. The intimate connections are a recent discovery, not yet well known.

China has little historical experience of governing grasslands, nor has it learned to listen to the traditional knowledge of Tibetan pastoral nomads who have long sustained a grassland extending across 1.7 per cent of the earth's land surface. Tibet is too big, too important for all downstream and downwind countries right across Asia, for policy mistakes made by decision makers whose only knowledge of Tibet comes from looking at satellite photos.

China cannot afford to take Tibet for granted. An official slogan of the 1990s was that "Tibet is China's Number One Water Tower", as if Tibet invariably, automatically guarantees China's water supply. In reality, Tibet is naturally much drier than China, even though the spring and summer heating of the Tibetan Plateau is the engine generating the monsoon rains of China.

Until recently, no human interventions in Tibet compromised the seasonal cycle of intense winter cooling and dry high pressure over Tibet, followed by rapid spring heating of the Tibetan Plateau, forming an intense and persistent low pressure so strong it drives the monsoons of Asia. It is the driest parts of Tibet that heat the most in spring and summer. Now, as the entire planet warms, these areas of eastern and northeastern Tibet are rapidly desertifying. This is exactly the area China has in mind when it calls Tibet its' water tower, because that is where both the Yangtze and yellow Rivers (and the Mekong) rise, from glaciers now rapidly melting, high in the mountains of Tibet.

Global climate change can be dealt with only by global responses, by all greenhouse gas emitters, developed and developing, collectively reducing emissions. Tibetans are glad to witness, in Copenhagen, the biggest emitters –both historic and new- considering planetary needs as well as national growth.

Global climate change, according to the scientists, affects Tibet many ways. While southern Tibet, next to the Himalayas, may get wetter, much of Tibet is desiccating, drying out and desertifying as

temperatures rise faster than in other regions. China has the opportunity to respond constructively to these long term trends, which threaten the “number one water tower.” Much can be done in Tibet, as well as in Copenhagen, to maintain the integrity of Tibet’s environmental services to China.

Now that science understands the intimate connections, policy can follow. The grasslands of Tibet are fast degrading, not only due to global change, but also because official policies pushed the rangelands too hard, to carry more livestock, slaughter more animals, commercialise meat production, collectivise the nomads and disempower their traditional knowledge. More recent policies are based on the simplistic idea that there is “a contradiction between grass and animals.” Obviously, the more grass is eaten, the shorter it is, but that does not mean the only way to protect watersheds is to remove both nomads and their herds. Yet that is now the policy, labelling the ex-nomads “ecological migrants”, as if they have voluntarily relinquished their lands, herds and customary knowledge.

Nomads and agronomists know that pasture grazed long enough to maximize production, but briefly enough for sustainability, maintains long term biodiverse complexity, does not erode or desertify, and guarantees water supply. A healthy pasture is rich and complex, with minimal weed and pest invasion, able to withstand not only grazing pressure but also the gales and blizzards of Tibet.

Recent scientific research shows the grasslands of Tibet were formed by nomads, starting 8800 years ago. Tibetan nomads have an accumulated 8800 years of knowledge of grasses, seasons, pastures, meadows, risks and how to keep animals alive, on the hoof, mobile and healthy.

That knowledge has been invisible to China’s planners, and the consequences are disastrous. Now the degradation of the rangelands is so serious that not only are nomadic livelihoods threatened, China’s rivers and bai-yu monsoon rains are also experiencing increasing extremes.

By ignoring and excluding Tibet’s pastoral nomads, fencing them out of their lands and labelling them greedy, ignorant and to blame for degradation, China misses the opportunity to partner with the nomads in the work of rehabilitation. Repairing degrading grassland is labour intensive work, and also expensive. Only China’s central authorities have the finance; only the nomads have the knowledge, love of the land, the ability to live on the high plateau and do the work of remediation.

Chinese scientists are now realising the need for respecting nomad culture. In 2008 a team of seven Chinese researchers said of Tibet: “Policy makers and/or project designers must have a holistic perspective so as to integrate multiple objectives of promoting sustainable socio-economic development, preserving biological and cultural diversities and maintaining the environmentally stable balance of human society, animal population and ecosystem that has existed in the area for centuries.”

Copenhagen can provide the architecture for a global agreement, including the flow of finance from rich to poor to make the necessary changes. On the ground in Tibet, the excluded, victimised nomads can become partners with the state, implementing joint governance of the grasslands. That’s the secret of success around the world where states have stopped blaming their nomads for desertification and switched to working together in positive partnerships for development.