

Letters to the editor about the contents of past issues and comments on topics of current concern to *Frontiers* readers

The problem of China

The September issue of *Frontiers* (*Front Ecol Environ* 2006; 4[7]) did a very nice job of scientifically analyzing the numerous pollution problems now being generated in China – and spilling over into global ecology. But it may be useful for readers to have an appropriate institutional context for China's emergence as the world's most polluted nation.

In a seeming paradox, China has a fairly tough set of environmental standards on its books, modeled at least in part on the US framework. However, what is lacking is either the political will or institutional ability to enforce these standards.

The problem begins with China's EPA. It is woefully understaffed, under-budgeted, and highly decentralized, while the local environmental bureaus most empowered to enforce the central government's environmental edicts simply don't do the job. One problem is that corrupt local officials often collude with local businesses. Another is that local officials are simply loath to get in the way of economic growth that is otherwise needed to employ local people. In a related and classic “foxes guarding the henhouses” problem, many of China's worst polluters are actually state-run enterprises or companies in which the government is a major shareholder.

There is also the very large matter of the small fines Chinese regulators impose on polluters. These are seen simply as a cost of doing business rather than as a deterrent.

The Chinese legal system also only weakly defines property rights, which makes it difficult for victims of pollution to recover damages. More broadly, there is China's historical and cultural relationship with the environment. The prevailing attitude, as Mao Zedong put it, is that man must “conquer nature and thus attain freedom from nature”.

Finally, it should be no secret that many of the entrepreneurs and multinationals flooding into China from countries like Japan, Korea, Taiwan, and the US are doing so at least in part to evade environmental controls in their home countries – thereby exporting their pollution to China.

Only by addressing the many facets of this institutional context will we all begin to breathe easier.

Peter Navarro

Author, *The Coming China Wars* (2006); www.peternavarro.com

Recognizing Tibet

Given the enormous population of China, and its rapid rate of industrialization, *Frontiers* did us all an important service with the special issue on that country (*Front Ecol Environ* 2006; 4[7]). At the same time, any treatment of another region of the world can have political agendas not appreciated by North American readers. Such hidden issues are particularly severe when dealing with nations, such as China, that still employ strong federal censorship. Here, I wish to raise the subject of the status of Tibet in that issue of *Frontiers*, and the state of its educational system and natural resources.

First, there is the matter of the general omission of Tibet. The maps show no boundaries for Tibet, contributing to the impression that Tibet is merely a part of China. In the text, instead of reading about Tibet or the Tibetan Plateau as a center of biological diversity, the area is referred to as the Qinghai-Xizang Plateau. The Chinese characters for Xizang translate to “Western Storehouse”, which is representative of China's attitude toward Tibet as little more than a warehouse of natural resources. It is important to remind readers that Tibet has a distinct cultural history and retains its own language, despite being occupied by China since 1950.

Second, as educators we may feel a particular connection to teachers and to libraries. During the Chinese occupation, thousands of monasteries and libraries have been destroyed and teachers have been persecuted.

It is difficult to document the degradation of Tibet's natural resources. Here are four examples extracted from web sources, principally the web site of the Tibetan government in exile (www.tibet.com) and that of the International Campaign for Tibet (www.savetibet.org).

(1) Forests. In 1949, Tibet's ancient forest covered more than 220 000 km². By 1985, it had been reduced to half that area, with roads, clear-cutting, and subsequent erosion extending deep into the country.

(2) Grasslands. Tibet has large areas of grassland that once supported vast herds of mammals; early travelers compared the area to East Africa. These herds were largely depleted in the 1960s, and many species, such as the Tibetan antelope (*Pantholops hodgsoni*), are now endangered. Large areas have been fenced to keep horses, sheep, and cattle for the Chinese army.

(3) Rivers and lakes. The high altitude of Tibet provides many wild rivers and lakes that can be dammed for power export to China. However, little attention is given to the needs or views of affected local populations; as but one example, construction continues unabated on the Yamdrok Yumtso hydropower project, despite vigorous opposition by Tibetans.

(4) Immigration. In 2006, the \$4.1 billion Qinghai–Tibet railway was opened. It will enhance rates of resource extraction while simultaneously allowing increased rates of immigration. Should any of us think that this railroad has beneficial intentions, the Chinese have announced that this railway is a part of their “fight-to-the-death struggle” against the Dalai Lama and his government in exile (www.savetibet.org/documents/pdfs/tpw/TPW200602.pdf).

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WRITE BACK WRITE BACK WRITE BACK

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Tibet: holy place, not “Western Storehouse”! [Return to top](#)

While I share many of Paul Keddy's concerns about the environment of Tibet, I was troubled by his letter's biased treatment of the issue (Write Back, *Front Ecol Environ* 2007; **5[1]**: 10). No one can predict the future, but the simple fact is that Tibet has never been a sovereign state at any time in the past. Except for a short occupation by the British in the early 20th century, Tibet has always been part of the Chinese family.

No one can deny the hardship Tibetans have suffered as a result of political turmoil – notably the Cultural Revolution of the 1960s – or the many environmental problems they are currently facing. Tibet, however, was and is not alone in these difficulties; people throughout China have suffered the same degree of devastation. I have never been to Tibet and cannot say how much more severe that region's environmental problems are relative to other parts of China, but I would be surprised to learn that Tibet is worse off. The entire country has experienced substantial environmental degradation.

Keddy suggests that the Chinese word for Tibet, Xizang, translates to “Western Storehouse”. His letter is the first place I have read of that particular translation, which might encapsulate the attitude of some individuals, but definitely not of the Chinese people, who regard Xizang as a holy place.

Because much of the world hailed the opening of a railway to Tibet in the summer of 2006, it is surprising to read Keddy's accusation that it is a tool for rapid colonization and plunder of natural resources. Tibet has been isolated long enough by its unique geographic barriers. It is unfair to allow geography to continue limiting the region's access to the booming prosperity of the country and the world.

I am more optimistic than Dr Keddy. I am confident that China, of which Tibet is a part, is moving in the right direction and at the right pace. Politics aside, it is important to continue to raise awareness of and to preserve, respect, and appreciate the unique culture, language, and landscapes of Tibet.

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In his letter (Write Back, *Front Ecol Environ* 2007; **5[1]**: 10), Paul Keddy brings up the status of Tibet, a political issue inappropriate for discussion in a scientific forum. We are disappointed to see such biased views being expressed by a scientist in a professional journal.

The Tibetan Plateau is indeed known as the Qinghai-Xizang Plateau in China. Xizang is composed of the two words *xi* (west) and *zang* (a religious word relating to the teachings of Buddhism and Daoism). The word *zang* is used to reference “holy places”, or temples where the scriptures of Buddhism and Daoism are stored. So “Xizang” literally means “Western Holy Places” or “Western Spiritual Treasures” – “storehouses” of sacred texts, but not of natural resources, as Keddy implies.

Keddy relies almost exclusively on the websites of the Tibetan Government in exile and the International Campaign for Tibet, which show that forest cover declined in Tibet between 1949 and 1985. As in other parts of China, the environment and natural resources of Tibet have been, to a certain extent, overexploited and degraded in the past several decades. However, this situation has been recognized by the Chinese Government in recent years and, in response, many policies have been enacted to protect and restore Tibet's natural resources, with some positive outcomes. For example, with the implementation of forest protection and reforestation policy in the 1980s, total forested area in Tibet has increased from 5.27% in 1981 to 9.84% in 2005 ([Wang 1997](#); [China Internet Information Center 2005](#)). One of us (J-G Huang) worked on dendrochronology

and forest ecology in Tibet between 2001 and 2003 and observed many well-protected natural forests and planted forests of increasing extent.

The total human population of Tibet was about 2.74 million in 2004 ([China Internet Information Center 2005](#)), with 80–85% living by pasturage. Due to the high elevation of the plateau (4000 m above sea level on average), and its long, snowy winters, the growing season is confined between mid-May and the end of August. There are many weather-related disasters recorded in historical documents, climatic observations, and paleoclimatic proxy data such as tree rings ([Huang and Zhang 2007](#)). Consequently, crop production has been low. Livestock such as yak, cattle, sheep, and horses are the main food sources in the extremely cold and long winter. Some grasslands are fenced for livestock by local Tibetans, not by the Chinese army, as Keddy claims.

Tibet is a remote, isolated, and largely underdeveloped region. In the past, there were only two highways through the mountains and along the rivers and lakes, often blocked by landslides in the rainy summers and by heavy snow in the winters. The opening of the costly Qinghai–Tibet railway (about 6% of the total budget of which was allocated to ecosystem restoration and environmental protection; [State Council Information Office 2003](#)) provides more convenient and efficient transportation between Tibet and the outside world. Let us hope that it will stimulate local economic growth and improve Tibet's living conditions in the future.

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