China’s claims in new white paper about protecting Tibet’s environment are contradicted by increased production of bottled water from shrinking Tibetan glaciers, more dams


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Highlights of this report:

• As the Chinese government released a new white paper claiming it supports “ecological conservation” in Tibet, state media announced that China has stepped up production of bottled water from Tibet’s endangered glaciers, and news emerged of more major hydropower schemes in central Tibet, financed by the state.

• Visiting Tibet from July 25-27, 2018, Chinese Premier Li Keqiang announced increased funding of infrastructure construction despite ongoing environmental challenges, such as the dramatic degradation of permafrost on the Tibetan plateau, and major floods and landslides in the capital city of Lhasa and central Tibet this summer.

• China’s detailed white paper, released in July, focuses on the imposition of top-down policies that are contested even within the People’s Republic of China (PRC) and erases the role of Tibetans as vital stewards of Tibet’s fragile high-altitude landscape and wildlife. It reflects a more strategic approach toward Tibet’s environment emerging from concerns over Tibet’s importance as an essential water source for China.

Bhuchung Tsering, Vice President of the International Campaign for Tibet, said: “The white paper reveals in detail how China is literally re-shaping the Tibetan landscape with devastating consequences. There are clear, implicit tensions between a model of Tibet that is increasingly urbanized with new cities and staggering new developments in infrastructure and mass tourism, and the pristine ecological habitat that China says it seeks to preserve. Many of China’s policies of so-called ‘environmental construction’ in Tibet are raising increasing alarms both within China and internationally, given the environmental significance of the Tibetan plateau, an epicenter of global warming.

“The Chinese leadership uses ‘environmental protection’ terminology as a smokescreen to convince governments globally that their land use policies are aimed at climate change adaptation and mitigation. The reality is that massive dams, mining projects and mass relocation schemes have had a crushing impact on the fragile high-altitude ecosystem of the Tibetan plateau. Now those dangers are
increasing, with the announcement of more hydroelectric power installations and a dramatic increase in production of bottled water from Tibet’s shrinking glaciers.”

**Chinese Premier underlines damaging relocation policies**

The white paper, released in July by the State Council, references the Chinese leadership’s efforts to remove Tibetan nomads from the grasslands, a policy that Chinese and international experts warn is threatening the survival of Tibet’s rangelands and biodiversity. The white paper’s reference to “restoring grazing land to grassland” stands in direct opposition to the latest scientific evidence, which points to the need for pastoralists and livestock mobility in ensuring the health of the rangelands and mitigating negative warming impacts.

The continued high-level emphasis on relocation was made clear by Chinese Premier Li Keqiang, on a rare visit to the plateau from July 25-27, 2018, where his first stop “after getting off the plane” was to a family of Tibetans ‘settled’ by government policy in Nyingtri (Nyingchi) in the Tibet Autonomous Region (“TAR”).

China’s white paper also sets out the leadership’s new push to turn vast areas of Tibet into ‘national parks,’ a development that is contingent upon the displacement of Tibetan nomads from the grasslands.

The first ‘protected’ nature reserve area was delineated in Tibet in 1963, and the Regulations of the People’s Republic of China on Nature Reserves, promulgated in 1994, later defined the “ranking system, the management structure and the function zones of nature reserves, ushering in a period of rapid development of nature reserves on the Plateau,” according to the white paper. The Paper also details the following: “To date, the Plateau has established in total 155 nature reserves at all levels (41 state and 64 provincial ones), covering a total area of 822,400 sq. km. This is equivalent to 31.63 percent of the Plateau’s landmass and represents 57.56 percent of China’s land nature reserve areas. Basically, all of the Plateau’s unique and fragile ecosystems and rare species can be found in these reserves.”

The Chinese leadership is increasingly framing its policies in Tibet in the context of Chinese President Xi Jinping’s idea of ‘ecological civilization’. This broad and vague new Party terminology has been advanced under Xi to incorporate policy objectives ranging from the creation of nature reserves and parks and the settlement of nomads to a major new scientific study of the plateau. The idea of ‘protection’ of the landscape, as opposed to ensuring its productivity, appears to emerge from

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1 Entitled ‘Ecological Progress on the Qinghai-Tibet Plateau’, published by the State Council Information Office of the People’s Republic of China, the full version in English is at: https://www.scio.gov.cn/zfbps/32832/Document/1633978/1633978.htm
2 UN Special Rapporteur warns of consequences to nomad settlement https://www.savetibet.org/un-special-rapporteur-warns-of-consequences-to-nomad-settlement/
4 Chinese state media, July 26, 2018, http://eng.tibet.cn/eng/index/top/201807/t20180726_6122980.html
5 The term “ecological civilization” used frequently by China’s Party Secretary and President Xi Jinping is absent from the white paper in English although it is referenced frequently in the Chinese version.
This approach coexists with massive urbanization under way in Tibet, predominantly in rural areas—a key tool for meeting China’s economic objectives but with the political agenda of integrating Tibetans into the PRC, undermining ‘ethnic autonomy’ and ensuring top-down control. The official media has announced there will be seven new cities in Qinghai by 2020, as the Chinese authorities seek to urbanize nearly half a million people and create a new network of transport and communications infrastructure.

Infrastructure construction intensifies despite alarm on climate change and ‘ecosystem shift’

The world’s highest and largest plateau, Tibet is known as the earth’s Third Pole. It is the largest repository of fresh water outside the North and South Poles. A landscape of enormous glaciers, alpine lakes and waterfalls, Tibet is a global biodiversity hotspot and is known as a climate change epicenter because it is warming more than twice as fast as the rest of the world.

Massive floods and landslides in Lhasa and central Tibet this summer during the rainy season (June to August) raised alarms about the possibility of seeing the same impacts of climate change that have been evident elsewhere in the world, including heatwaves in Japan, Europe and other areas. A Lhasa resident described the rainfall as “unprecedented,” and areas of central Lhasa were submerged.

A further disturbing signal is the ongoing, rapid degradation of Tibet’s permafrost, the frozen layers of soil that underpin two-thirds of the plateau and provide essential carbon and water storage. Permafrost plays an important role in cold environments by keeping the overlying layer of soil in place

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6 According to an earlier official report, “Since the 18th Party Congress, the CPC Central Committee with Comrade Xi Jinping as the General Secretary has put the development of ecological civilization and environmental protection effort on a more important and strategic position, from the strategic perspective of the overall plan of the socialism with Chinese characteristics for ‘promoting economic, political, social, cultural, and ecological progress’. Account of a Symposium on Development of Ecological Civilization held in Beijing, June 6, 2016, http://english.sepa.gov.cn/About_SEPA/leaders_of_mep/chenjining/Activities/201606/t20160620_354777.shtml


8 A Xinhua report on July 11 (2018) stated: “A section of the Sichuan-Tibet highway was blocked following a mudslide triggered by continuous rain on Wednesday morning, local rescue workers said. More than 20,000 cubic meters of debris fell from a mountain onto the highway, a pivotal route linking Tibet Autonomous Region and neighboring Sichuan Province, covering a 200-meter-long section of the road and causing another 60-meter-long section to collapse in Tibet's Bomi county.”, http://usa.chinadaily.com.cn/a/201807/11/W55b45bcbaa310796d4fd5df11.html

9 For instance, the results of one study “showed that the precipitation over the QXP had an overall increasing trend; however, a slight decreasing trend was observed over the southeast.” ‘Precipitable water conversion rates over the Qinghai-Xizang (Tibet) Plateau: changing characteristics with global warming’, Chenghai Wang and Yipeng Guo, Key Laboratory for Semi-Arid Climate Change of the Ministry of Education in Lanzhou University, Key Laboratory of Arid Climate Change. HYDROLOGICAL PROCESSES, Hydrol. Process. 26, 1509–1516 (2012), Published online 28 September 2011 in Wiley Online Library. ICT has monitored a number of papers documenting this trend.
and serving as the foundation on top of which trees and plants grow.\(^{10}\) While Siberian permafrost is deep and permanent, in Tibet the alternate freezing and thawing of the earth at the surface or just below it comes and goes seasonally, or sometimes even daily because of the wide temperature swings between day and night.\(^{11}\)

The Golmud-Lhasa railway, which has had a dramatic impact on Tibet’s demography and development, could not have been built without massive investment by the Chinese authorities into how to construct infrastructure on the shifting, fragile ground of the Tibetan plateau. China’s top permafrost research facility, the Cold and Arid Regions Environmental and Engineering Research Institute, is based in Lanzhou. However just a month after the line had gone into operation in 2006, the state media made a rare admission that fractures had started to appear in some railroad bridges because of permafrost movements under the rail bed. Even the official press acknowledged that rising temperatures on the Qinghai-Tibet plateau could threaten the long-term viability of the railway.\(^{12}\)

Scientists have documented how a combination of urbanization, intensified militarization linked to China’s strategic aims, infrastructure construction and warming temperatures are creating an ‘ecosystem shift’ in Tibet. This involves irreversible environmental damage, including the predicted disappearance of large areas of grasslands, alpine meadows, wetlands and permafrost on the Tibetan plateau by 2050, with serious implications for environmental security in China and South Asia.\(^{13}\)

These disturbing developments have not affected the Party leadership’s push to build more infrastructure in the region, with Premier Li visiting a site in Lhokha (Chinese: Shannan) prefecture in July where a tunnel is being built for the railway line between the TAR and Sichuan. The Chinese state media announced the beginning of construction of a new rail link from Lhasa to Nyingtri (Chinese: Nyingchi) in 2014, as part of the extension of China’s rail network into central Tibet, which China describes as “the south-western frontier of the motherland.”

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\(^{10}\) Permafrost is defined as “permanently frozen ground remaining at or below 0°C for at least two consecutive years,” according to a document on the policy implications of warming permafrost, released by the United Nations Environment Program. The thickness of permafrost is determined by the distance between the top of the permafrost layer, known as the permafrost table, and the bottom, also called the permafrost base. There may be an active layer above this, which thaws and freezes seasonally. The most robust type of permafrost is continuous coverage, where the permafrost table is very thick and extends for many meters into the soil. Areas with larger gaps in the permafrost can be called discontinuous permafrost zones, or sporadic permafrost.

\(^{11}\) A dramatic video circulating online last year depicting a slow-moving landslide, looking like a lava flow, in a nomadic area of eastern Tibet, attracted attention online, leading to questions about climate change and grasslands degradation on the world’s highest and largest plateau. An International Campaign for Tibet report explored the significance of the earth-flow: ‘Slow-moving landslide in Tibet raises questions about climate change’, September 13, 2017, https://www.savetibet.org/inside-tibet-dramatic-video-of-slow-moving-landslide-in-tibet-raises-questions-about-climate-change/


During his visit, the Chinese Premier said that Beijing would invest more in infrastructure in Tibetan areas, which he linked to "ecological protection" in a demonstration of the language used by Chinese authorities to frame construction, urbanization and mass tourism as beneficial to the environment, even though they are actually harmful.\textsuperscript{14} Dramatic increase in Chinese domestic tourism in the TAR and a rapidly expanding infrastructure that has put Lhasa at the center of a new network of roads, railways and airports with dual military and civilian use, reflects the region’s strategic significance to the Chinese government.

‘As absurd as melting icebergs’: production of bottled water from Tibet stepped up

Despite the fragility of Tibet’s landscape and its shrinking glaciers, provincial authorities and state-owned businesses are pushing ahead with a massive expansion of the bottled water industry in the TAR and recently announced a major increase in production. According to Xinhua, “Last year, 800,000 tons of water was bottled, up 30 percent year on year,” although the state media agency said this still fell “well short of the target of 1 million tons.”\textsuperscript{15}

It is not only a question of the environmental problem caused by the plastic used for bottling water, but as the Hong Kong Free Press reported: “The whole Himalayan region, and the Tibetan part of it in particular, is under enormous environmental pressure; bottling its waters is as absurd as melting icebergs, even if the price tag is lower.”\textsuperscript{16}

One of the major companies producing bottled water from Tibet is the Hong Kong-listed company, Tibet Water Resources, which produces Tibet 5100, a brand of water bottled at the source of the Tibetan glaciers, at 5,100 meters altitude. A coalition of Tibet groups have petitioned Liverpool Football Club in Britain to end a sponsorship deal it has with the company.\textsuperscript{17}

\textbf{Intensification of hydropower could spell environmental catastrophe}

While immensely damaging, bottled water does not have nearly the impact that dams and water-intensive industries do. Powerful Chinese state-owned consortiums have built multiple dams on all the major rivers running off the Tibetan plateau. The intention is to integrate Tibet into the national grid, with connections between hydro-dams and long-distance electricity supply from the foot of the Tibetan plateau to southern China. Locally, the electricity generated will also be used for mining and mineral processing.

\textsuperscript{14} Chinese State Council website, July 28, 2018, \url{http://english.gov.cn/premier/news/2018/07/28/content_281476240005360.htm}
\textsuperscript{15} Xinhua, July 9, 2018. The report stated: “The industry generated more than 1.57 billion yuan (over 223 million U.S. dollars) and employed 20,000 people. Tibet has 35 bottled water producers, mainly based in regional capital Lhasa. According to a 10-year plan introduced in 2015, Tibet has identified fresh water resources as a sustainable growth pillar.”
\textsuperscript{16} ‘Bottled water from Tibet: How Hong Kong consumers are contributing to an environmental disaster’, Ilaria Maria Sala, Hong Kong Free Press, \url{https://www.hongkongfp.com/2017/09/17/bottled-water-tibet-hong-kong-consumers-contributing-environmental-disaster/}
\textsuperscript{17} International Tibet Campaign website, \url{https://actions.tibetnetwork.org/tell-liverpool-fc-drop-its-sponsorship-deal-tibet-water}
A major goal of China’s Five-Year Plan, from 2016-2020, is to intensify the buildup of hydropower dams on all of Tibet’s major rivers, with cascades of dams on the wild mountain rivers, and others stemming China’s last free-flowing international rivers such as the Yarlung Tsangpo (Brahmaputra). Damming upstream in Tibet carries great risks, particularly as the plateau is one of the most seismically active areas of the world. These risks are ignored in the white paper on the environment.

Dr. Wang Weiluo, an engineer and geographer who is an expert on dam-building at the University of Dortmund, points out the high risks of building dams in high mountain regions like Tibet: “Dam-building raises the water level of the river which increases the pressure of the water on the ground. This raises the number of geological catastrophes especially since the valleys [of the Himalayas] are so young; landslides or rockslides will already increase as has happened in the Three Gorges dam region.”

According to Tibet watcher Gabriel Lafitte of rukor.org, on June 14, 2018, China’s National Development and Reform Commission instructed the TAR to establish a market-based electricity supply, with sufficient incentives for corporations to invest in hydropower. There was almost no mention of photovoltaic solar power or of wind power, though Tibet is very capable of providing both, being both sunny and windy, especially in winter.

This policy announcement means that there will likely be many new hydropower schemes in the TAR, coordinated by central planners into three grids, one centered on Lhasa, one on Chamdo (Chinese: Qamdo or Changdu) in eastern TAR, and one in the far west, centered on Ngari (Chinese: Ali). Construction of these grids will be financed by the state, a major subsidy for corporate electricity generators. These three could eventually become interconnected by ultra-high voltage direct current power grids, which in turn could connect TAR to the rest of China, for exporting electricity to lowland China.

Lafitte writes: “China has in recent years prioritized water supply from Tibet, to China’s lowlands, as Tibet’s primary contribution to the Chinese economy and environment. Provision of water takes priority over pastoral production, farming, heavy industrialization and other uses of water within Tibet. Widespread clear-cut logging of Tibetan forests was officially halted 20 years ago on the grounds that bare mountain slopes in Tibet caused flooding along the mid-Yangtze. China is willing to empty the land of Tibet or nomads, if that seems to enhance water provision, but that water must also generate electricity, according to the latest intervention from Beijing, which clearly comes with finance for grid construction, and regulatory power to fix prices sufficient to guarantee corporate investment in building hydropower is profitable.”

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19 Dr. Wang Weiluo makes the vivid comparison of the Mohne dam near his university in Dortmund, Germany, which was breached during the Second World War by RAF bombers (the ‘Dambusters’). The resulting floodwave killed at least 1579 people. Dr Wang, whose work is blocked from publication in China according to the German documentary ‘Struggle for Tibet’, said: “Here we see a relatively low dam, which when breached released an eight meter high flood wave. But dams in Tibet which are 400 meters high would result in unprecedented catastrophe if these were to be breached.” Dr Wang Weiluo was speaking in the film ‘Struggle for Tibet’, a documentary originally shown on German TV, written and directed by: Shi Ming, Thomas Weidenbach for WDR and NDR, in collaboration with Arte. The film won the International Campaign for Tibet Germany’s ‘Snow lion’ journalist award in 2014 (http://www.laengengrad.de/en/produktionen/dokumentationen/tibet.php).
Given the growing scarcity of water resources in the North and Northeast of China, water is regarded as a strategic asset by the Communist Party government.

The high political priorities of this issue are reflected in the language in the white paper referring to, for instance, a set of “Opinions on Building an Important National Barrier for Ecological Security and Accelerating Ecological Progress” issued by the TAR, and the “construction of an eco-safety barrier.” The emphasis on ‘sci-tech’ in the white paper is also consistent with China’s global aims under the ‘One Belt One Road’ strategy, with the Beijing leadership now undertaking scientific study of the entire Tibetan plateau. Major initiatives underway support key objectives of the Chinese Communist Party in Tibet. Because of their high-level significance, environment policies are exempt from major debate and enquiry in China.