



## **The Tibetan Plateau and its Global Environmental Significance**

The Tibetan Plateau is an immense upland comprising an area of 2.5 million km<sup>2</sup>, at an averaging an altitude of 4,500 meters, and accounting for about **2% of our planet's land surface**. It is world's highest and largest plateau, referred to as "**The Roof of the world**".

**The Third Pole:** the Tibetan Plateau being home to over **46,000 glaciers** and storing more fresh water than any other region apart from the **North and South poles**, the Tibetan Plateau is now referred to as the planet's '*Third Pole*' by numerous scientists. The *Third Pole's* climate is, however, **warming twice** as fast as the rest of the world, not only resulting in more extreme and unpredictable weather across the whole Asian continent, but also threatening the complete disappearance of the Tibetan glacier. According to a report (May 2014) by the Institute of Tibetan Plateau Research of the Chinese Academy of Sciences (CAS), glaciers on the plateau and surrounding areas have **shrunk by 15 percent** from 53,000 to 45,000 km<sup>2</sup> over the past three decades.

**The Rain Maker:** the Tibetan Plateau plays an important role in generating and regulating the Asian monsoon. It is like an island in the sky, so vast it deeply impacts wind circulation, draws the Asian monsoons deep inland into the heart of Eurasia, disturbing even storm tracks of the North Pacific and Atlantic oceans.

**A Water Tower of Asia:** the Tibetan Plateau is the source region of Asia's six greatest rivers such as Dri Chu (Yangtze), Machu (Yellow River), Zachu (Mekong), Gyalmo Ngulchu (Salween), Yarlung Tsangpo (Brahmaputra) and Senge Khabab (Indus) which run into some of the world's most populous nations like China, Burma, Thailand, Vietnam, Laos, Cambodia, India, Bangladesh and Pakistan. According to Daniel Miller, USAID Agricultural Officer ( September 30, 2003), the water from the Tibetan plateau affects an estimated three billion people, **85% of Asia's population**, and about **half of the world's population**.

For instance, according to an ICIMOD report, the *Yarlung Tsangpo* (Brahmaputra) originates in the glaciers of Mount Kailash in Tibet and drains an area of 651,335 km<sup>2</sup>, connecting the populations of Tibet (50.5%), India (33.6%), Bangladesh (8.1%) and Bhutan (7.8%).

But a report released by the International Rivers highlights that the Chinese government has built as well as plan to build 27 dams on Nu River, 30 dams on upper Mekong River and 115 dams on Yangtze Rivers and its tributaries. In the 12th Five Year Plan for National Economic and

Social Development, the Chinese government has approved **three large dam** projects on the mainstream of the Brahmaputra River in Tibet Autonomous Region, causing concern and strong protest from downstream nations like India and Bangladesh.

According to the World Commission on Dams, the Chinese government increased the number of large dams from 22 in 1950 to 22,000 by year 2000.

**The Carbon Sink:** the vast Alpine grasslands of the Tibetan Plateau, similar to the Amazon rainforest, play the important role of **absorbing carbon dioxide and act as a carbon sink**. Over one-third of the Tibetan Plateau's grassland Soil Organic Carbon (SOC) is stored in its permafrost regions. The release of carbon contained within the grasslands (positive feedback) could also accelerate global climate change. Like the vast Amazon rainforest, the Tibetan Plateau is on the brink of being turned into a desert, with catastrophic consequences for the world's climate. This sudden environmental degradation on the Tibetan Plateau is caused by both natural and anthropogenic factors such as misguided government policies and destructive mining practices, as the Plateau is home to 131 different types of minerals, some are rare earth elements.

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