



FACTS AND FIGURES

Tibet, known as the “Roof of the World”, is an environmentally strategic area and critical to the health of the planet. And as the world focuses on climate action at COP23 and beyond, Tibet must be central to any climate change discussions.

As climate change accelerates, the effects will resonate far beyond the Tibetan Plateau, changing the water supply for billions of people and altering the atmospheric circulation over half the planet. A global environmental catastrophe can be avoided, but we must act now to ensure that the Tibetan Plateau’s fragile ecosystem is protected.

As the natural stewards of the Tibetan Plateau, Tibetans’ traditional knowledge of their own land and expertise must be taken into account when tackling climate change.

Global Significance of the Tibetan Plateau

- ▶ **Tibet The Roof of the World**—Tibet, at an average elevation of more than 4000 metres above sea level with area of 2.5 million square kilometres, is the world’s highest and largest plateau on earth.
- ▶ **Tibet the Third Pole**—Due to its extremely high elevation, the Tibetan Plateau has 46,000 glaciers, making it home to the third largest concentration of ice after the South and North Pole.
- ▶ **Tibet The Water Tower of Asia**—The presence of the third largest number of glaciers in the world and an extensive permafrost makes the Tibetan Plateau the head source of Asia’s six largest rivers (names in English / Tibetan: Yangtze/ Driчу, Yellow / Machu, Mekong/ Zachu, Salween/ Gyalmo Ngulchu, Indus/ Senge Khabab and Brahmaputra/ Yarlung Tsangpo). These waters are critical resources to more than 1.3 billion people in the 10 most densely-populated nations on earth surrounding the Plateau.
- ▶ **Tibet the Rain-Maker**—Due to its extremely high elevation, vast area and extensive glacier cover, the Tibetan Plateau influences the timing and intensity of monsoons in the region.
- ▶ **Tibet Heat Waves in Europe**—Worsening heat waves in Europe and north-east Asia are linked to thinning snow cover on the Tibetan Plateau, highlighting the Plateau’s key role in global weather systems.

Impact of Climate Change on the Tibetan Plateau

Glacier Retreat

Retreating glaciers are a visible sign of climate change. And as the glaciers melt, they have an impact on water supply and rainfall.

- ▶ After the Arctic and Antarctic, the Tibetan Plateau is the planet’s “Third Pole” with the third-largest store of ice.
- ▶ Over the past 50 years, 82 per cent of the ice has retreated. At the current rate, 2/3 of the glaciers will be gone by 2050.
- ▶ There has been no net accumulation of ice since the 1950s. The melting season now comes earlier and lasts longer

Permafrost Degradation

- ▶ The alpine permafrost on the Tibetan Plateau stores about 12,300 million tonnes of carbon. 37% of the plateau’s soil carbon stored in the permafrost. Its degradation would lead to a huge amount of carbon entering the atmosphere, exacerbating global warming.

- 10 per cent of the Tibetan Plateau's permafrost has degraded in the past decade. Tibet's grasslands are turning into desert at a rate of 2,330 square kilometres per year.
- The wetlands of the Tibetan Plateau have shrunk more than 10 per cent in the past 40 years.

III. Current Environmental Situation in Tibet

Tibet has suffered from massive deforestation, mining and damming projects all contributing to climate change and increasing natural disasters.

Increasing Natural Disasters in Tibet

- The year 2016 saw an unprecedented number of natural disasters across Tibet. Between the months of June-September, there were droughts in northern regions of Tibet, flash floods and mud-floods in north-eastern Tibet, glacial avalanche in northwestern Tibet.
- The year 2017 saw simultaneous floods across many parts of South-eastern Tibet between the month of June and July.
- A rare tornado also occurred in central Tibet, fortunately no damage was caused.
- All these clearly signal a drastic shift in climatic pattern on the plateau and possible continuation of more natural disasters in coming years.

Deforestation

- Tibet's forests once covered 25.2 million hectares. By China's own estimates, 80 per cent of Tibet's forests have been destroyed.
- Tibet's forests are primarily old growth, with trees over 200 years old.

Excessive Mining

- Tibet has deposits of about 132 different minerals accounting for a significant share of the world's reserves of gold, chromite, copper, borax and iron.
- Since the late 1960s, mining operations have been carried out under poor environmental norms and regulations. Official grievances by Tibetans against the miners have been ignored and the protesters harassed.
- China announced more than 3000 new mining sites. And in its 12th Five-Year Plan Budget, money has been allotted to increasing resource extraction infrastructures such as highways and railways.
- There has been numerous cases of mining in Nature reserves, releasing mine waste into rivers and destroying grasslands.
- There has been more than 130 mine related protest across Tibet since 2009.
- Most of the mining happened on sacred mountains, undermining Tibetan cultural sentiments.

Rapid Damming

- Dams cause heavy loss of water through evaporation, leading to significant decrease in river water volume in downstream countries and are a source of greenhouse gases contributing to climate change.
- Tibetan Plateau seismically very active.
- China has dammed every major river and their tributaries in Tibet. And more damming is expected. In China's 12th Five-Year Plan, hydropower projects have been prioritized.
- The dams are both the trigger for and end up being destroyed by earthquakes.
- Cascade of dams are likely to amplify the impact of any earthquake in the region. 'Domino Effect'
- There are also possibility of dams being used as weapons at time of any regional conflicts.

Nomad Removal (Tibetan: Drogpas)

- Around the world, governments are recognizing that pastoral nomadic mobility holds the key to sustainability and addressing climate change.
- China's grassland policies and laws restrict flexibility and mobility of Tibetan nomads.
- Despite Tibetan Nomads proved to have preserved grassland for last thousands of years. The Chinese government have blamed them for grassland degradation and forced more than two millions off their traditional way of life.
- The once happy and self-sufficient nomads were forced into absolute poverty and chronically depended on government subsidies in the new settlements.
- The new settlement for nomads are neither provided education nor jobs to sustain a dignified life.

China's New Environmental Protection Law

- The law officially came into force on January 1, 2015.
- The law is a legal framework to hold the Chinese government to account for its actions on climate change. This law should be fairly and rigorously implemented in Tibetan areas.

National Nature Parks

- As a positive sign, the Chinese government has been declaring more and more national parks and nature reserves across Tibet in recent years.
- For formulation of any such laws and policies, the Tibetan cultural sentiments and local knowledge should be considered.
- Life of millions of Tibetans who live in the areas declared nature reserves should not be undermined.
- People voice and needs should be listen to and respected.

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