



## 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 *COP21* and beyond, Tibet must be central to any progress made on climate change.

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/*Dri Chu*, Yellow/*Mach u*, Mekong/*Zach u*, Salween/*Gyalmo Ngulchu*, Indus/*Senge Khabab* and Brahmaputra/*Yarlung Tsangpo*). These waters are critical resource to the 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.
  - ▲ There has been no net accumulation of ice since the 1950s.
  - ▲ At the current rate, 2/3 of the glaciers will be gone by 2050.
  - ▲ 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. The Tibetan permafrost stores one-third of the world's soil carbon. Its degradation and the resulting vegetation loss 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. grasslands. 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 according to the Chinese Academy of Sciences.

## Current Environmental Situation in Tibet

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

### Forests

- ▲ 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.

### 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.

### 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 green house gases contributing to climate change.
- ▲ Tibetan rivers (names in English/*Tibetan*: Yangtze/*Dri Chu*, Yellow/*Machu*, Mekong/*Zachu*, Salween/*Gyalmo Ngulchu*, Indus/*Senge Khabab* and Brahmaputra/*Yarlung Tsangpo*) flowing into the 10 most-densely populated nations in the world, directly

support more than 1.3 billion people and 40 per cent of the world's population depends on Tibetan rivers.

- ▲ 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.

### Nomads (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.
- ▲ Nomads are being forced off their lands and into large-scale settlements. More than two million people have been moved.

## China's New Environmental Protection Law

- ▲ 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.
- ▲ The law officially came into force on January 1, 2015.
- ▲ It includes mention of "autonomous regions" and the rights of people and organizations to establish local environmental quality standards and to "participate [in] and supervise the activities of environment protection".
- ▲ It stipulates "strict protection on key ecological functional zones, areas of sensitive and fragile ecological environment".

## FOR FURTHER INFORMATION:

See: [tibet.net/COP21](http://tibet.net/COP21)

**Tibet—Climate Action for the Roof of the World:**  
*Backgrounder, Q&A and 10-Point Call to Action.*

The *Tibet—Climate Action for the Roof of the World* campaign is an initiative of the Environment & Development Desk (Department of Information and International Relations) of the Central Tibetan Administration.