



## A. Tibet: Global Significance and Climate Impact

### 1. Why does Tibet need to be central to any climate change action?

As His Holiness the Dalai Lama said: “*This blue planet is our only home and Tibet is its roof.*” The Tibetan Plateau needs to be protected, not just for Tibetans but for the environmental health and sustainability of the entire world.

Tibet has an average elevation of more than 4000 metres above sea level with area of 2.5 million square kilometres. It is the highest and largest plateau on earth.

After the Arctic and Antarctic, the Tibetan Plateau is the planet’s “*Third Pole*” with the third-largest store of ice and 46,000 glaciers.

The Tibetan Plateau is the Water Tower of Asia and the head source of Asia’s six greatest rivers (names in English/*Tibetan*: Yangtze/*Drichu*, 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. Tibetan rivers directly support more than 1.3 billion people and 40 per cent of the world’s population, in some way, depends on Tibetan rivers.

Tibet is the Rain-Maker. Due to its elevation, vast area and glacial cover, the Plateau influences the timing and intensity of the Indian and East Asian monsoons.

Almost 70 per cent of the Tibetan Plateau is covered with permafrost. The alpine permafrost on the Tibetan Plateau stores about 12,300 million tonnes of carbon – that’s 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.

A recent study by Chinese scientists highlighted the key role that the Tibetan Plateau plays in global weather systems. The study found that the thinning of snow cover on the Tibetan Plateau meant that Europe and north-east Asia would experience more heat waves.

### 2. What impact has climate change had on Tibet?

Tibet is experiencing the effects of climate change. The Tibetan Plateau has seen an increase in temperature of approximately 0.3 degrees Celsius every ten years. This means that over the past 50 years the temperature has increased by 1.3 degrees Celsius—three times the global average.

We are seeing glacier retreat and permafrost degradation. Over the past 50 years, 82 per cent of the ice has retreated and by 2050 two-thirds of the glaciers could be gone.

The Alpine Permafrost is also at risk and plays a critical role for the health of the planet. Alpine permafrost on the Tibetan Plateau stores about 12,300 million tonnes of carbon but 10 per cent of its permafrost has degraded in the past decade. Tibet is also facing increased desertification. The United Nation Development Program reports that Tibet’s grasslands are turning into desert at a rate of 2,330 square kilometres per year.

### ▲ What impact has climate change had on the glaciers?

After the Arctic and Antarctic, the Tibetan Plateau is the planet’s “*Third Pole*” with the third-largest store of ice and 46,000 glaciers. Unfortunately, over the past 50 years, 82 per cent of the ice has retreated. There

has been no net accumulation of ice since 1950s. The melting season comes earlier and lasts longer. And at the current rate, two-thirds of the glaciers will be gone by 2050. Retreating glaciers are a visible sign of climate change. And as the glaciers melt, they have an impact on water supply and rainfall.

#### ▲ **What impact has climate change had on the permafrost?**

The alpine permafrost on the Tibetan Plateau stores about 12,300 million tonnes of carbon. More than 50 per cent of the Tibetan Plateau is covered by grasslands. Ten per cent of its permafrost has degraded in the past decade. 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.

#### ▲ **What impact has climate change had on desertification?**

The Tibetan Plateau is increasingly facing desertification. The United Nations Development Program reports that Tibet's grasslands are turning into desert at a rate of 2,330 square kilometres per year. The Chinese Academy of Sciences states that the wetlands of the Tibetan Plateau have shrunk more than 10 per cent in the past 40 years.

#### ▲ **What impact has climate change had on the monsoon season?**

The Tibetan Plateau's seasonal heating during summer and spring plays a principal role in determining the large-scale air circulation in summer. The ground freezing and thawing of the Tibetan Plateau has a significant influence on atmospheric circulation. The heating of the Tibetan Plateau is one of the major factors influencing the onset of Asian summer monsoons. Seventy per cent of India's annual rainfall comes from the monsoons.

### **3. What impact has mining had on climate change?**

Mining activities produce wastewater and pollution, contaminating waterways, causing soil erosion and accelerating permafrost degradation. 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 mining companies and local authorities have been ignored and the protesters harassed. Over 20 large

protests are known to have taken place against mining operations in Tibet since 2009.

The Chinese government recently announced more than 3000 new potential mining sites and in its 12th Five-Year Plan mining has been prioritized as the number one industry. Money has been allocated to building resource extraction infrastructure such as highways and railway lines.

### **4. How have Tibet's forests suffered?**

Tibet's forests once covered 25.2 million hectares. Tibet's forests are primarily old growth, with trees over 200 years old. By China's own estimates, 80 per cent of Tibet's forests have been destroyed. The Chinese have removed over US\$54 billion worth of timber from Tibet (1959-1985) and, due to mismanagement, much of the wood has been simply left to rot on riverbanks or in log-jams. Reforestation programmes are often unsuccessful because of poor planning and lack of maintenance from local governments.

### **5. What is the impact of damming projects on Tibet's water systems?**

China's commitment to peak carbon emission by 2030 must not lead to the rapid expansion of mega hydropower projects on Tibetan rivers. The mega hydropower projects would further damage Tibet's fragile ecosystem and threaten Asian rivers originating from the Tibetan Plateau.

Damming leads to heavy loss of water through evaporation and causes significant decrease in river water volume in downstream countries. This water loss contributes to the release of greenhouse gases and climate change. Tibetan rivers (names in English/*Tibetan*: Yangtze/*Dri Chu*, Yellow/*Mach u*), Mekong/*Zach u*, Salween/*Gyal mo Ngul chu*, Indus/*Senge Khabab* and Brahmaputra/*Yar lung Tsang po*) flowing into the 10 most-densely populated nations in the world, directly support more than 1.3 billion people. Forty 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.

### **6. Why is protecting the nomadic life important in tackling climate change?**

Around the world, governments are increasingly recognizing that pastoral nomadic mobility holds the key to sustainability on the dry lands of the world. Unfortunately, China's grassland policies and laws restrict the flexibility and mobility of Tibetan nomads. Nomads are being forced off their lands and into large-scale settlements. To date more than two million people have been moved.

Tibetan nomads are the expert custodians of the alpine pastures and their knowledge and experience should be incorporated into rangeland management practices. Tibetan nomads should be directly involved in decision-making processes based on a principle of collaborative management attending to their needs.

## **B. COP21 Questions**

### **1. What is the Central Tibetan Administration's goal at COP21?**

The Central Tibetan Administration wants to see the Tibetan Plateau put on the global climate change agenda. The Tibetan Plateau must be central to climate change discussions at the Paris COP21 meetings.

### **2. What actions must be taken at COP21 to address climate change issues in Tibet?**

World leaders gathering in Paris for COP21 must:

- ▲ Commit to a strong climate change agreement.
- ▲ Recognize the global significance of the Tibetan Plateau to the environmental health of the planet and take steps to protect its fragile ecosystem.
- ▲ Make the Tibetan Plateau central to discussions during the Paris COP21 climate negotiations.

### **3. How can the international community support Tibet in addressing climate issues?**

- ▲ Recognize the global significance of the Tibetan Plateau and make it a key issue during any discussions on global climate change.
- ▲ Urge the Chinese government to protect Tibet's fragile ecosystem and respect local traditional knowledge in nature conservation.
- ▲ Urge governments and research institutions to support cross-boundary cooperation on climate change research on the Tibetan Plateau.
- ▲ Promote Tibetan participation in regional and global climate change-related conferences.

### **4. Has the Central Tibetan Administration been consulted during the run-up to COP21?**

No, the Central Tibetan Administration has not been consulted. This is despite the Tibetan Plateau's critical role in mitigating climate change with its 46,000 glaciers acting as cooling system. Over the past 50 years the Plateau's temperature has increased by 1.3 degrees Celsius—three times the global average.

Due to the current repressive political circumstances in Tibet, the lack of freedom of speech and expression,

and the impunity with which the Chinese government destroys Tibet's environment, Tibetans living in the free world must speak on behalf of Tibetans in Tibet.

Since COP15 in Copenhagen, the Central Tibetan Administration has been highlighting the global significance of the Tibetan Plateau and the importance of putting Tibet on the global climate change agenda.

### **5. What does the Central Tibetan Administration want to see from China at COP21?**

The Central Tibetan Administration welcomes China's recent announcement capping carbon emissions by 2030. However, this goal must not be reached on the backs of Tibetans by damming their rivers, putting the fragile ecosystem of the Tibetan Plateau at risk and endangering the lives of the Plateau's inhabitants. Moreover, these measures would all compromise meaningful action on climate change.

### **6. What do you think of China's COP21 country action plan?**

China's action plan is a good start. What needs to happen, however, is for China to follow-through on these and other commitments. It could start by rigorously enforcing its own Environmental Protection Law.

China needs not only to have a plan, but it needs to set specific targets and to take action. This is particularly the case for the Tibetan Plateau, where environmental conservation should be a priority given the sensitive nature of its ecosystem and impact on neighbouring downstream countries.

## **C. Recommendations**

### **1. China recently passed an Environmental Protection Law. Do you think, realistically, it will be enforced?**

China's Environmental Protection Law 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".

The Law also stipulates "strict protection on key ecological functional zones and areas of sensitive and fragile ecological environment".

Although there is skepticism about whether or not the Law will be rigorously enforced, the law is a legal framework that can be used to hold the Chinese government to account. This law should be fairly and equally implemented in Tibet.



**2. The United States and China recently signed an agreement on climate change. What hope does this hold for addressing climate change in Tibet?**

The Central Tibetan Administration welcomes China's recent announcement capping carbon emissions by 2030, but there is a concern that this may lead to the rapid expansion of mega hydropower projects on Tibetan rivers. These hydropower projects would further damage Tibet's fragile ecosystem and threaten Asian rivers originating from the Tibetan Plateau.

**3. What actions, separate from COP21, do you want China to take to address climate issues in Tibet?**

China must rigorously enforce its new Environmental Protection Law and it needs to consult with and take into consideration the views and needs of Tibetans, including nomads, in making decisions that have an impact on the Tibetan Plateau. Minimally, China should adhere to the principle of collaborative management attending to the needs of nomads. The development and urbanization of the Tibetan Plateau must be environmentally sustainable in light of its fragile ecosystem. As China seeks to urbanize the Tibetan Plateau it must not repeat the mistakes made in inland areas.

**D. What can Citizens Around the World Do?**

**Social Action Photo Challenge Questions**

**1. How can people participate?**

Take action by joining the global “Roof of the World” photo challenge.

Show your solidarity for climate action for Tibet. Take the “Roof of the World” photo challenge. Groups and individuals can take a photo with their arms above their heads forming a roof with their hands. Share your photo on Twitter, Instagram and Facebook with a message:

*“I support #climateaction for #Tibet - the #RoofOfTheWorld at #COP21”*

**2. Why launch the photo challenge social action? What do you hope to achieve?**

As His Holiness the Dalai Lama has said: “This blue planet is our only home and Tibet is its roof.” The importance of Tibet to the environmental health and sustainability of the planet cannot be overstated. The photo challenge provides a platform for people the world over to tell decision-makers that Tibet must be central to any action on climate change.

**Solutions exist. People want action.**

**FOR FURTHER INFORMATION:**

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

**Tibet—Climate Action for the Roof of the World: Facts and Figures, Q&A and COP21 Backgrounder.**

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.



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