

CLIMATE ACTION FOR

TIBET

THE EARTH'S THIRD POLE

Global ecological significance of the Tibetan plateau:

Why Tibet is central to any discussion on global climate change.



The Tibetan Plateau

The highest and largest plateau on earth

The Tibetan Plateau is a vast mountainous region sitting at an average elevation of more than 4,000 meters above sea level with an area of 2.5 million square kilometres, which is nearly 2% of the earth's land surface.



The Earth's third largest reservoir of ice

The Tibetan Plateau is one of the most glaciated regions on earth.

The presence of **46,000 glaciers**, covering an area of 105,000 square kilometres makes the plateau the third largest natural reservoir of ice, after the North and South Poles. For this reason, it is known as the earth's **Third Pole**.



The world's largest source of accessible fresh water

Tibet is the largest source of accessible fresh water on earth, as **the head source of Asia's six largest rivers** (Drichu/Yangtze River, Machu/Yellow River, Zachu/Mekong River, Gyalmo Ngulchu/ Salween River, Yarlung Tsangpo/Brahmaputra River and SengeTsangpo/Indus River). These rivers flow into the 10 most-densely populated nations (Pakistan, India, Nepal, Bangladesh, Burma, Thailand, Laos, Vietnam, Myanmar and Cambodia), **supporting the lives of 1.5 billion people**.



Particularly, in the case of **Indus River**, the largest river in Pakistan and one of the largest in India, **40% of its water is directly glacier melted ice from Tibet.**

Because of the rapid disappearance of Tibetan glaciers, all these rivers could run out of water in the future.

Impact of climate change

The impact of climate change on the Tibetan Plateau, has been extreme.

Temperature rising three times higher than the global average

The temperature on the plateau has increased **0.3°C per decade, three times faster than the global average of 0.12°C per decade**. This means that over the past 50 years the temperature has increased by 1.3 degrees Celsius, which is three times the global average.

82% of ice has retreated.

With the constant temperature rise in Tibet, the once permanently snow-capped mountains are quickly receding at an alarming rate. In **70 years, mount Everest could no longer be covered in snow**.

As a result, 82 per cent of the ice has retreated with 66 percent of the glaciers in danger of melting by 2050.

This would have disastrous consequences for the global society in general and for the people of South Asia in particular.

66% of glaciers in danger of melting by 2050

In 2015, Professor Kang at the Institute of Tibetan Plateau Research found out that there had been no net accumulation of ice in the region since 1950s, clearly indicating a regular loss of glaciers.

Another scientist, Professor Yao Tandong of Chinese Academy of Science, even warned that 2/3rd of all glaciers on the plateau could be gone by 2050 if the current rate of glacier retreat continues.



Unusual Rainfall

The once rain-scarce mountainous terrain of Tibet has witness **consecutive increased torrential rainfall for last the 4 years**, causing simultaneous floods and landslides in many parts of Tibet. Climate researchers at the University of East Anglia and the Chinese Academy of Sciences in an online paper in US academic journal Proceedings of the National Academy of Sciences say the wettest individual year reconstructed in 3,500 years in north-eastern Tibet is 2010.



They say precipitation during the past 50 years in the plateau has been historically high. They have reconstructed precipitation records by using sub-fossil, archaeological and living juniper tree samples from the plateau. This rainfall ads to the massive melting ice resulting in catastrophic floods and landslides.

The unusual rain provoked a twin landslide (October 11, 2018 and November 3, 2018) in Palyul county in Eastern Tibet blocked the Yangtze River – the longest river in Asia and third longest in the world.

46% of forests cut down

Damage caused by rains and landslides is enhanced by uncontrolled logging of Tibetan forests. It is estimated that 46% of the Tibetan forests were cut down by the Chinese from 1951-1985. This deforestation led to the major flood of the Yangtze river, during which 3,000 people died and half a million were displaced. Unfortunately, because of Tibet deforestation, the Chinese people have paid a big price.

In addition, this intensive logging, along with uncontrolled mining, contribute to temperature increase in the Tibetan Plateau and faster glaciers melting.

Destruction of wildlife

Biodiversity comparable to that of the Amazon Rainforest

The Tibetan plateau was perceived as "one great zoological garden" by early explorers. Some scientists have compared its known biodiversity to that of the Amazon Rainforest.

With the Chinese occupation, **Tibet witnessed a** sudden disruption in **Tibetan age-old tradition** of respect for wildlife and minimum harm to the natural environment and its inhabitants. Many elderly Tibetans, who had to flee Tibet during the Chinese invasion in the 1950s, had seen herds of wild animals slaughtered by the People's Liberation Army (PLA) with their machineguns. Such hunting practice with a horrifying scale of wild animals been killed instantly was utterly alien to the land and people of Tibet.



Consequences on the environment

If the Tibetan permafrost melts, 10 billion tons of C02 and methane would be released

70% of Tibetan Plateau is permafrost (frozen soil). Fast melting of glaciers in the east is rapidly thawing of permafrost in the northwest and generating **drastic expansion of deserts beginning from the north**. This melting of the frozen soil would release 10 billion tons of carbon dioxide which is estimated is underneath as well as an equal amount of methane. If this happened, global warming would reach levels never thought of before.



Consequences on people

Tibet has witnessed an increase in natural disasters since 2016

This is credited to climate change but also to China's rampant and ill-advised mining and construction activities in Tibet in recent years.

Tibetans are concerned that the new climatic pattern emerging on the world's highest plateau is changing too quickly for the inhabitants to adapt.

The alarming scale of logging in some parts of Tibet led to the 1998 Yangtze flood and the 2010 Drukchu (Zhouqu) flood, killing thousands and displacing millions in China.

Eleven days of blockage completely inundated the nearby Bolu Township in Tibet and the horror of a sudden collapse of the artificial barrier caused massive panic in the low-lying regions of China through where the river flows.

Likewise, the melting of the glaciers could result in water shortage to rivers that provide the precious liquid to 1.5 billion people in Asia.

Impact on global climate

To understand and study global climate crisis, it is a must to study its effects on the Tibet plateau.

Scientists agree that as the largest and highest plateau in the world, **Tibet plays a key role in the global climate system**

Scientific studies have even linked the worsening heat waves in Europe and northeast Asia–which have caused massive water shortages and a large number of deaths, to the plateau's receding snow cover.

Snow cover in Tibet determines heat waves in Europe and Northeast Asia

Their findings show that reduced **snow cover on the Tibetan Plateau triggers high pressure over southern Europe and north-east Asia**, reducing cloud formation and pushing up temperatures.

Warmer and drier conditions in turn **further inhibit cloud formation**, intensifying local heat waves, says their paper, published recently in **Climate Dynamics**.



With further snow loss projected in the future, "Tibetan Plateau snow cover may play an increasingly significant role in shaping the Eurasian heat waves in the next decades," the Chinese scientists conclude.

Snowfall in Tibet determines the Asian monsoon system and winter in Canada

Other studies have shown how heavy snowfall over the Tibetan Plateau can both **weaken and prolong_the duration of the summer Asian monsoon system**. Another study linked greater winter snow cover in Tibet with **warmer winters in Canada**.

Global intervention urgent

Protection the Tibetan Plateau should be of global concern

Since the ecological health of the Tibetan Plateau is crucial for a stable social, economic and environmental well-being of many countries, any further degradation of the land will exacerbate the dire situation and could bring catastrophic consequences for Tibet, China and the world.

As Tibetans have joined hands with the international community at the global climate strike, the world, too, must support Tibetans in protecting their plateau from any further degradation.



CTA President Dr Lobsang Sangay flanked by Deputy Director Tenzin Lekshay, Tibet Policy Institute (TPI) on the right and Tempa Gyaltsen Zamlha, Head of Environment & Development Desk, TPI on the left at the launch of the 'COP 25 Climate Action for Tibet: The Earth's Third Pole',

Five-point call to action

The CTA (Central Tibetan Administration) has launched its Five-Point Call to Action ahead of the COP25 with an objective to **bring to the fore the centrality of Tibet in any and all discussion on** climate change and its pertinent significance to the global ecology.

1. Recognition of the global ecological importance of the Tibetan Plateau

The CTA's Five-Point Call to Action stated that the United Nations Framework Convention on Climate Change (UNFCCC) must recognize the global ecological importance of the Tibetan Plateau

2. Strengthen Climate Change Research on the Tibetan Plateau

The UNFCCC should launch scientifically based research studies to better understand both the impact of climate change on the Tibetan Plateau and the critical role it plays in reversing the pace and scale of global climate change.

3. Respect Traditional Knowledge and Way of Life in Tibet

The Tibetan pastoral nomads have served as skilful custodians of the alpine pastures. Their knowledge and experience must be incorporated into climate mitigation and adaptation practices.

4. Strictly Regulate Urbanization and Tourism in Tibet

The rapid expansion of towns and cities places a severe ecological burden on Tibet's fragile ecosystem. A clear and ecologically favourable framework of urban planning guidelines must be set-up and rigorously adhered to by the Chinese government at all levels of administration.

5. A Global Climate Action for Tibet, the 'Earth's Third Pole', is Needed

The Tibetan people, Chinese government and the international community can and should work together to protect the Tibetan plateau, which, after North Pole and South Pole, is the home to the third largest natural repository of ice on the earth. As His Holiness the Dalai Lama has rightly stated, "Climate change is not the concern of just one or two nations. It is an issue that effects all humanity and every living being on this earth."

The Tibetan plateau needs to be protected, not just for Tibetans but for the health and sustainability of the entire world. Therefore, a 'Global Climate Action for Tibet' needs to be carried forth by the international community and the various national governments to ensure that Tibet is placed at the forefront of the Global climate change and Environment agenda. And need for the international community to carry forward this global 'Climate Action for Tibet: The Earth's Third Pole' campaign, meaning to bring to the fore the centrality of Tibet in all discussions on climate change.

Campaign events

The Tibetan administration in exile announced a series of events such as panel discussion 'Climate Action for Tibet Campaign' on 13th Nov. on Tibet tv, a marathon; 'Climate Run for Tibet' in Dharamshala on 17th Nov. followed by an Exhibition-cum-Panel Discussion on 'Tibet's Environmental Situation' at the Tibet Museum on 20th November 2019. Likewise, **two panel discussion on 'Climate Change on the Tibetan Plateau: Earth's Third Pole' will take place in Madrid on December 7**, during the official UN climate Summit in Spain.

The CTA maintains that such campaign is a follow up to the hugely successful 'Climate Action for Tibet: The Roof of the World' campaign, which was launched four years ago during the COP21 UN Climate Summit in Paris in 2015 and called on the general public to make the second campaign a successful one too with their active participation.

Declarations from authorities

Tibetan spiritual leader and Nobel laureate **His Holiness the Dalai Lama** has been saying his homeland Tibet is currently vulnerable to climate change.

He has been emphasizing that "climate change is not the concern of just one or two nations. It is an issue that effects all humanity and every living being on this earth and that there is a real need for a greater sense of global responsibility based on a sense of the oneness of humanity".

Likewise, **democratically elected CTA President Lobsang Sangay** has asserted "to have a comprehensive understanding of global climate change and that it's very important to study what is happening on the Tibetan Plateau". Sangay urged the UNFCCC "to recognize the global ecological significance of the Tibetan plateau and make Tibet central to any discussion on global climate change".

Placing concerns of the Tibetan people, Environment and Development Desk of CTA's Tibet Policy Institute **Tempa Gyaltsen Zamha** said in a statement: "*Tibet has seen increasing cases of floods and landslides since 2016, primarily due to climate change but exacerbated by excessive mining and construction activities in Tibet in recent years.*"

He urged the Chinese government to "implement more pro-active climate awareness programs, adaptation and mitigation efforts, and a proper disaster relief mechanism in the Tibetan areas to reduce possible disasters and its effects".

The 17th **Karmapa Ogyen Trinley Dorje**, the third most important Tibetan religious head, also believes Tibet is currently highly vulnerable to climate change.

"It's an unfortunate fact that the temperature of the Tibetan plateau is increasing faster than most other places on earth due to climate change," said the Buddhist monk in a write-up titled "Walking the Path of Environmental: Buddhism through Compassion and Emptiness" in Conservation Biology, a prestigious scientific journal

Sources

Central Tibetan Administration, Dharamsala, India. <u>https://tibet.net/cta-launches-cop25-climate-action-for-tibet-the-earths-3rd-pole/</u>

Why Tibetans are Embracing Global Climate Strike

<u>http://tibet-edd.blogspot.com/</u>Less snow in Tibet means more heatwaves in Europe

Study links melting snow on the Tibetan Plateau to more frequent heatwaves in Europe and northeast Asia – underlining the region's key role in the global weather system

Heat waves Heat waves hit parched Europe, US and China

https://www.dw.com/en/heat-waves-hit-parchedeurope-us-and-china/g-49725195

Include Tibetan plateau in UN discussions: Climate researchers

https://www.outlookindia.com/newsscroll/includetibetan-plateau-in-un-discussions-climateresearchers/1657078

Heatwave with record-high temperatures sweeps across Europe

http://www.xinhuanet.com/english/2019-07/29/c_138267604.htm

Connections Between a Late Summer Snowstorm Over the Southwestern Tibetan Plateau and a Concurrent Indian Monsoon Low-Pressure System

https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1 029/2018JD029710

Contribution of the Autumn Tibetan Plateau Snow Cover to Seasonal Prediction of North American Winter Temperature

https://journals.ametsoc.org/doi/full/10.1175/2010JC LI3889.1

Event in Madrid

Two-panel discussion at the Ateneo on Dec 7, 2019

A two- panel discussion will take place in Madrid about "Climate Change on the Tibetan Plateau: Earth's Third Pole" during the official UN climate summit COP25 with the presence of different Tibetan and international authorities on the matter. **Program attached.**

Venue Address: El Ateneo de Madrid Calle del Prado, 21, 28014 Madrid, Spain

Date: December 7, 2019

Time: 5-8 pm

Entrance free of charge subject to available seating.

Document made in collaboration with:

Centro Thubten Dhargye Ling C/Canillas 22 – 28002 Madrid, Spain www.budismotibetanomadrid.org Press coordinator: Marta Esteban Miñano

Tel: +34 606 300 906 (also available in Whatsapp and Telegram)

Email: martaesteban@yahoo.es

(Spanish, English, French and Italian spoken)



Thubten Dhargye Ling

| COMUNIDAD BUDISTA TIBETANA |



PANEL DISCUSSION 2nd Climate Action for Tibet

December 7, 2019 - 5:00 PM Venue - Ateneo de Madrid



Panel One - Impact of Climate Change on the Tibetan Plateau

5:00 PM	Kai Muller	- Moderator
---------	------------	-------------

- 5:05 PM The implications from Melting Permafrost on the Tibetan Plateau Martin Bursik- Former Environment Minister, Czech Republic
- 5:20 PM The role of Tibetan culture and Buddhism on environmental protection Ven. Thubten Wangchen- President, Casa Del Tibet, Spain
- 5:35 PM The Warming Tibetan Plateau and the Future of Asia's Water" Dr. Martin A. Mills- Director, Scottish Centre for Himalayan Research, UK
- 5:50 PM Possible factors for increasing cases of natural disasters in Tibet Tempa Gyaltsen Zamlha- Executive Head, Environment & Development Desk, Tibet Policy Institute, Tibet/India

6:05 PM Q&A

Panel Two - Current State of Environment on the Tibetan Plateau

6:15 PM	Martin Bursik - Moderator
6:20 PM	State of pastoral nomads in Tibet Kyinzom Dhongdue- Executive Officer, Australia Tibet Council, Australia
6:35 PM	Excessive resource extraction in Tibet Kai Muller- Executive Director, International Campaign for Tibet, Germany
6:50 PM	State of Yarlung Tsangpo /Brahmaputra River & its implications for the Indian sub-continent
	Dechen Palmo- Research Fellow, Tibet Policy Institute, Tibet/India
/:U5 PM	State of Lacnu of Mekong Kiver & its implications for south-east Asia Michael Buckley- Author & Film Maker, Meltdown in Tibet, Canada

7:20 PM Q&A

Jointly organized by-

Tibet Policy Institute, India & Casa Del Tibet, Spain **Venue Address-**

Ateneo de Madrid Calle del Prado, 21, 28014, Madrid, Espana (Spain)