# Where is Nepal in terms of **Climate Vulnerability**?

In the recent decades, climate change has hit Nepal hard and with almost immediate impacts. Experts say the high mountainous region like the Hindu Kush Himalayan region, warm faster than other regions of the world, making Nepal one of the most vulnerable countries to risks of floods, including Glacier Lake Outburst Floods (GLOFs), water borne diseases, etc.

Reportedly, Nepal is already experiencing greater variations in weather patterns like unpredictable monsoons and rise in temperature and extreme weather events and the country's distinct topography further exposes the natural systems and livelihoods of people further to consequences of climate crisis.

Let's take a glance at where Nepal stands as a contributor to climate change in a global scale.

### Nepal's contribution to global

## Annual CO<sub>2</sub> emissions by fuel



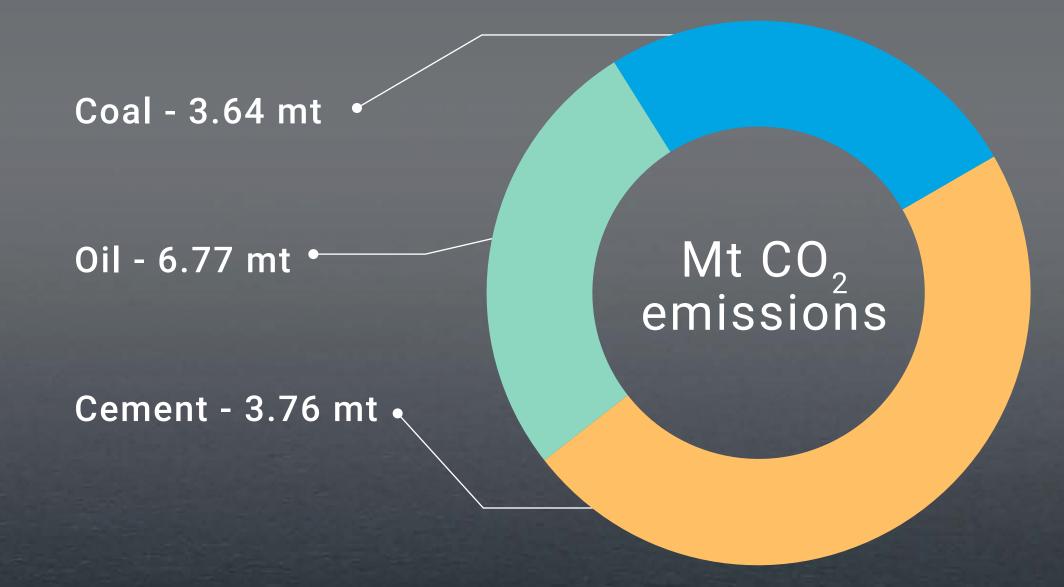
#### 14.17 million tonnes (Mt) of The average CO<sub>2</sub> out of total 52.8 Giga Nepali person tonnes (Gt), comprising emits $0.47t CO_2$ 0.04% of annual global CO<sub>2</sub> per capita. emissions by fossil fuels and industries. CO 14.1 Mt • • • • 0.47 52.8 Gt

Since 1972, CO<sub>2</sub> emissions in Nepal has been increasing by average annual rate of 9.13%

## GHG emission by sector, 2019



or industry type in 2021



Nepal's contribution in the GHG emission to the global GHG emissions



0.1%

Nepal is the world's 89th largest emitter and contributes around 0.1 percent of total global GHG emissions.



Industry Processes - 7.28%

In 2021, Nepal emitted

Land-use charge and Forestry - 8.58%

- Energy - 28.32%

Compared in a global scale, Nepal's contribution to global GHG emissions is relatively insignificant, however, emissions and its effects are progressively increasing within the country.

### How vulnerable is Nepal to effects of climate change?



Nepal is ranked 4th in terms of vulnerability to climate change and estimated to be the 9th hardest-hit nations by climate calamities (during the period of 1999-2018).



By the 2080s warming in Nepal is projected to increase by 1.2°C- 4.2°C under the highest emission scenario (as compared to the baseline period 1986-2005).



More than 80% of property loss is attributed to climate disasters, especially climate events like floods, landslides, GLOFs, etc.



Nepal's fragile topography, climate-sensitive livelihood of the people and their limited adaptive and coping capacities makes the country extremely vulnerable to effects of climate change.

Although a relatively negligible contributor to global emissions, Nepal must rethink about strengthening domestic preparedness and response to

climate induced disasters and diseases while negotiating for commitments to climate finance and supports from countries, whose GHG emissions are higher. Hence, it is significant to understand the actual impacts of climate change from national to local levels and Nepal's strategies and plans to cope with these ongoing as well as upcoming climate threats.

Source: Nepal: Climate Risk Country Profile Nepal, Global Climate Risk Index 2020; Climate Watch, Country Climate and Development Report; CO<sub>2</sub> Country Profile, Our world in Data, 2022; GON, 2020; National Adaptation Plan (NAP); Nepal's NAP Process: Reflecting on Lessons Learned and the Way Forward, 2017; Second Nationally Determined Contribution (NDC); WB Group & ADB, 2021

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