

Impact of Climate Change in the Himalayas: 4th December 2015, Paris

Nepal, the country of the birth place of Lord Buddha, the symbol of International Peace and Harmony and home of the tallest peak in this planet, the Mount Everest from where I come from, though small in size, is a land with diverse climatic conditions, ranging from alpine in the north to tropical in the south. The diversity in Nepal's climate is matched by the diversity of its multiple ecosystems and flora and fauna species. Nepal hosts some of the most spectacular natural areas and biodiversity in the world. Nepal also boasts 118 ecosystems, 75 categories of vegetation, and 35 types of forest.

Its mountain, hill and plains landscapes also support a highly diverse array of cultures and livelihoods. Each of these Himalayan communities has evolved through generations to develop a close bond with the land they live on—to take advantage of the opportunities offered by local ecosystems and micro-climates and to respond to the constraints they impose on livelihoods. The livelihoods of over three-quarters of my country men and women are based on agriculture and forest resources, and almost 65 percent of agriculture is rain-fed.

However, global climate change is impacting Nepal rather disproportionately compared to its size and its own meager contribution of the global greenhouse gases. The Himalayas face temperature rise at double the rate of the global average. Its glaciers are retreating rapidly at an average rate of 30 meters every year, many of them forming into dangerous glacial lakes held back by frail moraine walls. Climate change is making rainfall patterns more irregular and it's increasing the incidence of extreme droughts and floods in recent years.

Mountain communities are particularly vulnerable to natural hazards, which are a common feature of mountain environments. Earthquakes, landslides, Avalanches, heavy rain and Snowfall, floods and glacial lake outburst floods can destroy lives and livelihoods especially when infrastructure and settlements are built in hazardous areas.

Climate change is affecting Nepal's biodiversity as invasive species spread fast and threatens to destroy useful medicinal, food and nutrition related plants. Most of the big rivers of Nepal are glacier-fed and its main resources of water—and for a country that already faces chronic power cuts—hydroelectricity production is going to be seriously affected due to the changes in glacier reserves, snowfall and natural hazards. These alarming trends not only make Nepal's major sectors of economy such as agriculture, tourism and energy, more vulnerable but also endanger the health, safety and wellbeing of Nepali people.

The IPCC report projects that climate change will disproportionately affect the welfare of the poor and marginalized in rural areas. This is no longer just a projection in my country, where people are already facing water scarcity, increased food prices, food insecurity and agricultural productivity decline and destruction of homes. Climate change is threatening to undo the years of little progress Nepal has seen over the past few years as it slows down economic as majority of the rural inhabitants depend on climate-sensitive industries such as agriculture, forestry, and eco-tourism.

However, the impact of climate change in this region has larger implications not just for the Nepali people but for the 3 billion people, whose lives are supported by the waters that originate at the Himalayas. Glaciers and snow lock up precipitation during the winter or rainy season, and release water regularly during the dry season when it is most needed by downstream populations. However, more than 600 glaciers globally have disappeared over the past few decades. In all but a few mountain regions, glaciers continue to shrink and the melt rate is increasing.

Mountain communities have a wealth of knowledge and strategies, accumulated over generations, on how to cope with harsh environments and to adapt to changes in the climate. We have rich experiences and indigenous solutions to climatic challenges. However, we have never experienced anything to match the enormity of the current climate change problem. As a result, our traditional knowledge needs to be supported by advances in technology and our current resources and abilities need to be bolstered by those nations that are more developed. Through a collaborative effort, we can improve the resilience of mountain communities by developing sustainable solutions and practices in the field of water, food security, renewable energy and energy efficiency in mountain areas which will provide benefits for climate change adaptation and disaster risk reduction.

Thank you very much for your kind attention.

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