

Nepal and Human Induced Climate Change:

I love nature. The peaceful feeling one gets when alone in natural environment is mesmerizing. Growing up, I always felt like the surrounding around me is changing. But wasn't that exactly how it's supposed to be? Nothing is constant and things that are now tangible may be intangible in the future, just like human beings we come across in our lives. But to what extent are we supposed to claim that *this change is natural* and *that change isn't*? That's where manmade changes come. According to Wikipedia, "The earliest roots of *science* can be traced to Ancient Egypt and Mesopotamia in around 3500 to 3000 BCE." Now that is where we realize that we've come this far i.e. to 2020 A.D. and we have made some mistakes.

Climate Change is a natural process but what happens when human beings are involved in it? This human involvement in the process of climate change is what we should concern ourselves with instead of debating whether or not it's real. Some significant questions which could be raised will be answered by me in following ways:

Q. Nepal's Carbon footprint?

According to several researches which were conducted back in 2016, CO₂ emission per capita was found to be equivalent to 0.33 metric tons per person. The population being 27,263,433, there was a rise of 0.1 over the figure of 0.23 metric tons per person as recorded in 2015. This is alarming as there was 44.58% change in the use of CO₂. Similarly in 2017, it was found to be equivalent to 0.34 metric tons per person with a change of 2.84 % and in 2018 it was found to be 0.35 metric tons per person with a change of 2.52 %. Looking at the data from 1999 to 2018 the annual growth rate of 5.94% can be seen and the CO₂ emissions per capita of Nepal increased from 0.14 metric tons to 0.35 metric tons. (WDA, 2018)

Q. Is your country experiencing any signs of Climate Change?

The figures clearly suggest the possibility of signs of climate change. Extreme rainfall was observed in winter of 2019 and 2020 where the winters used to be dry and very cold. The first snowfall in 63 years was observed in Kathmandu in 2007 and then it was observed in 2018 after only a decade. Kathmandu is located in elevation of 1,400 meters where snowfall isn't typical. Similarly, mosquitoes are seen in higher elevation areas of Jumla (2,514 m) where the climate wasn't suitable for them as they weren't able to adapt to it. Tree lines of hilly regions of Nepal and the Himalayas are also changing (previously 4500 m, now 4800m) (ISTE, 2018). The flowering season of various plants have changed. The production of mangoes is now possible in areas of elevation more than 2000 m which shows that the tropical fruits are now slowly starting to be produced in sub-tropical and temperate regions).

Q. The worst Climate Change related disaster that your country has ever faced?

The most disastrous natural calamity due to Climate Change was the Surkhet flood and landslide of August 2013, where a total of 150 people lost their lives. Nineteen districts were affected, and Surkhet was among the worst hit. Similarly, on June 22, 2018 floods and landslides triggered by heavy rainfall had hit Morang, Jhapa and Sunsari, inundating more than 300 houses. Landslides in various places of Mahabharat VDC of Dhankuta had obstructed the Koshi Highway. There are numerous cases visible due to climate change but these two seem to be the worst cases till date. (MR, 2019)

Q. Your Country's Global Ranking on various Climate Change related indicators?

Nepal is considered one of the top ten countries most likely to be impacted by global climate change (WFP, 2009) but is one of the least contributors to the emission of greenhouse gases (GHGs), emitting only 0.027% of global share. (TU, 2016)

Q. How your Government is dealing with it?

According to the Climate Change Policy, 2019, "Nepal has been actively performing the activities related to climate change management ever since it became a Party to the United Nations Framework Convention on Climate Change (UNFCCC) in 1994. Climate change adaptation projects identified by the National Adaptation Program of Action (NAPA) developed in 2009 are in operation." Some policies are under following sectors:

- i. Agriculture and Food Security
- ii. Forest, Biodiversity and Watershed Conservation
- iii. Water Resources and Energy
- iv. Rural and Urban Habitats
- v. Industry, Transport and Physical Infrastructure
- vi. Tourism and Natural and Cultural Heritage

(MOFE, 2019)

Q. How would you suggest to deal Climate Change globally?

The first and foremost goal of every organization, institution or forum should be making everyone aware that the climate is changing. Yes, it should be changing but not at this rate. Everyone should be well aware about the situation and should also be informed about it. According to many researchers, not only just carbon footprint but H₂O also seems to be contributing in a large amount for global rise in temperature, so this should be considered while dealing with human induced climate change. Moreover, since this issue that we are dealing with is a global issue, people from all around the world should join hands and form a common goal to help each other fight against it. Powerful policies like encouraging the use of public transportation should be focused but with proper requirements being provided to the people. Good governance is a precondition required to help fight against human

induced climate change. Moreover, climate governance should be focused more on implementing the policies that have been created. 3R's (REDUCE, REUSE and RECYCLE) rule should be followed to prevent any further harm to the environment.

Q. What role NDCC could play in dealing with Climate Change?

In my opinion, any step taken towards human induced climate change is one big leap towards a better future, so "What role NDCC can't play?" should be asked instead of that. NDCC being a forum and actively involving all its members and ambassadors towards one common goal is itself a big contribution. Furthermore, the webinars being organized during the pandemic has helped everyone including me to educate myself from many people around the world who know about this issue in depth. I can confidently claim that it has made me and students like me conscious about the major issues which affect climate change.

Finally, my team members have such opinion about human induced climate change which has helped me acquire more information about it. I am glad to have them in our group:

The innovation of technology is equally both boon and a curse to a human life. The information, news, events humans acknowledged in day to day life is due to this innovation of internet, mobile phones, laptop etc. but in long term this technology will be outdated and these fiber, plastics from gadgets might never be vanished from the earth. So I would be looking forward to find the most sustainable solutions on every new construction by protecting our endangered species, plants with minimal degradation on environment from my perspective as a civil engineering student and also to broadened my knowledge in environment, climate change and use this platform to talk and advocate on this burning issues of climate change.

- Sushmita Sapkota

On the whole, human induced climate change is directly related to the environment degradation. Since it is human induced, we can completely minimize it. Hence, let's don't wait for change but be one. "Discourage Environment Degradation and encourage Environment Upgradation"

- Anish Chaudhary

Humanity's overall impact on the planet is affected by many factors, not just the raw number of people. Their lifestyle (including overall affluence and resource utilization) and the pollution they generate (including carbon footprint) are equally to be considered. So it's a misery to be a human and to remain blindfolded about such issues as we all know that a single effort and a single step is also a great contribution. Change is what we seek and must do.

-Sudin Adhikari

Human beings by nature always strive for comfort and convenience in life. So, for the ease of living, they are continually exploiting intact environment. Despite the concept of sustainable development clumsily use of environmental components has created hazard to all life in earth. Earth; planet with life, in no time will be life less planet, if we don't think and act now.

-Kishor Pantha

Although the Coronavirus pandemic has been wreaking havoc in the world right now, climate change is still one of the leading and urgent issues we are facing. Melting glaciers, warming oceans, rising sea levels, declining arctic sea ice are just some of the warning signs the nature has shown us. The coronavirus outbreak has also impacted the environment negatively since gloves and masks are being rapidly produced and used in huge numbers worldwide and are being thrown randomly on the streets which ultimately leads to them ending up in the ocean. Everyone must start making changes now. The environment is our home and its high time people start taking environmental degradation seriously. Humans should start taking responsibility for their actions and immediately start natural alternative measures for those products which are causing an imbalance in our atmosphere.

- Aabha Poudyal

Humans are the key factor who create the balance and disturbance to the environment. Climate Change is induced due to human activities like deforestation, overuse of fodder, lack of modernized concept of farming, and so on which causes the rise of global warming. Any changes on the environment is directly dependent upon the climatic changes. So, it is our responsibility to act seriously on these issues to hope for better life of all organisms.

-Manisha Bhandari

Human impact the physical environment which induce the rise in climate change. Climate change will have progressively increasing impact on environment degradation and environmentally dependent socio-economic system.

-Kanchan Chaudhary

Do you know the reason behind the terrific increase of such diseases??It's because of us. We're the reason. We know balanced environment helps every creature to live their life in happy and healthy manner. But unbalanced activities and polluted environment done by us distracts every single creature's life, as a result causes hazards.

-Aabesh Kumar Shrestha

New types of transportation which could run faster than diesel & petrol should be made to limit the emissions of carbon dioxide gas. And goods production in the factory should also be in the same ratio to its consumer requirement. We should start solar energy harvesting for small to big households purposes and factory too as well as wind energy in this way powering your home with renewable energy will help a lot to limit global warming very soon.

-Suman Shah

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