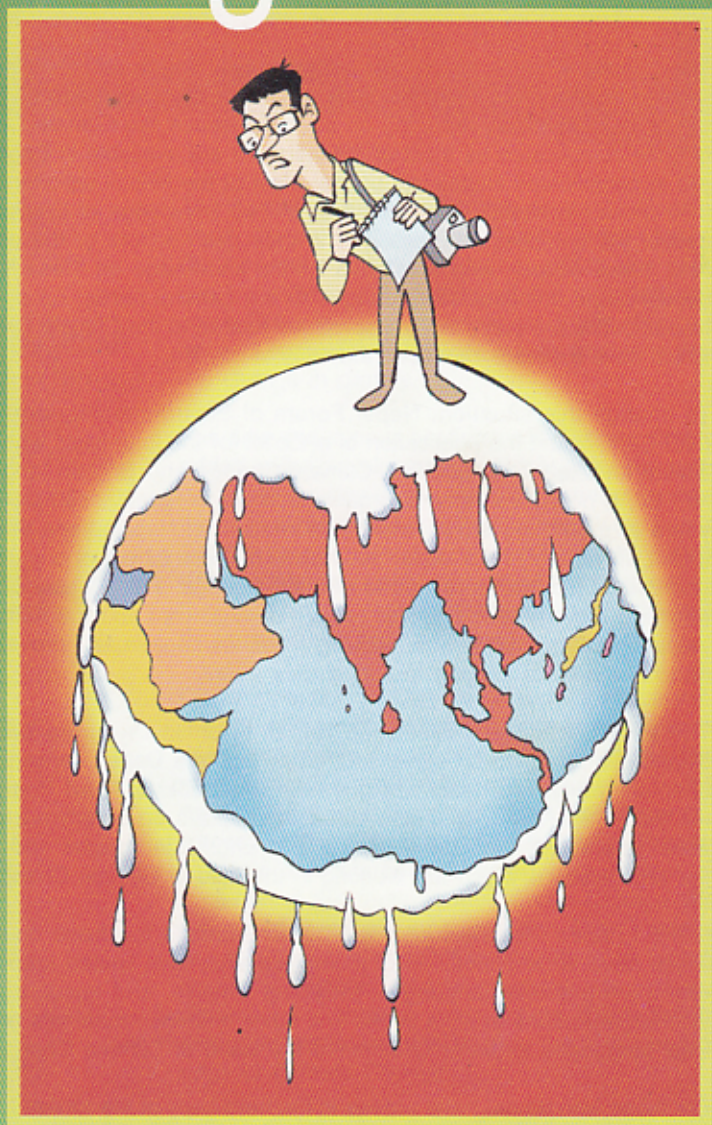


# Climate Change

Understand and  
Communicate





# Preface

The Climate Change stories are complex even for those reporters who regularly cover them and have easy access to the knowledge banks. In the context of Nepal, reporting on scientific issues like Climate Change is quite complicated as most of the literature are available in English or are in complicated Nepali languages. Most of the Nepali reporters write their stories in Nepali, based on their limited knowledge of English and deliver the complicated messages to their desk editors or the editors. And, these editors, who also have limited knowledge on these issues, deliver same complicated messages to the general public. As a result, Nepali public are confused on the issues related to the Climate Change, which have a severe impact on their day to day life.

To change this situation, Nepal Forum of Environmental Journalists (NEFEJ) initiated the publication of a toolkit for the journalists who have limited knowledge on science, Climate Change and English language. NEFEJ, a non-governmental organisation which recently completed 25 years in promoting environmental journalism in Nepal, hope that this toolkit will not only help Nepali Journalists but also others who wanted to understand the issues related to Climate Change. The Ministry of Environment, Government of Nepal ([www.moenv.gov.np](http://www.moenv.gov.np)) and the Asian Development Bank (<http://beta.adb.org/countries/nepal/main>) provided financial and other support to publish this toolkit.

The toolkit, written by renowned Nepali scientist Dr. Tirtha Bahadur Shrestha and edited by senior journalist Rajendra Dahal, contains nine chapters which are described briefly in this booklet. Apart from, nine main chapters, the toolkit also contains chapters on acronym and jargons, references available in Nepali and English languages and list of the organisations which are working in the field of Climate Change.

NEFEJ hopes that the toolkit will be an example for those countries which have large population of journalists who have limited knowledge of the international languages, including English, and encourage the local organisations to write books and other reference materials on their local languages to better understand the issue of Climate Change.

For those who do not have access to the hard copy of the toolkit, NEFEJ has uploaded soft copy on [www.nefej.org.np](http://www.nefej.org.np) for free download.

## About the book



### Our contribution on Climate

Change is almost nil; but we are one of the most affected countries.

The life on Earth is based on five elements (Panchatawa), which are Jal (water), Sthal (Earth), Vayu (Air), Prakash (light or fire) and Akash (space) and is also the basis of our life. After the beginning of the industrial revolution some 260 years ago, humans started to disrupt the balance of these five elements, which gradually resulted in the change in climate.

The new and serious challenges of Climate Change were added in the development of Nepal while we were developing our country in a sustainable manner by conserving the natural resources and environment in our own method. To face these challenges, we are bound to work together with the international community. According to the international evaluation, Nepal is the fourth most vulnerable country because of Climate Change.

Our contribution on Climate Change is almost nil; but we are one of the most affected countries. In this context, the need is to communicate effectively on the realities of Climate Change with all stakeholders including people, planners, political leaders, policymakers, governments, people whose livelihood is based on the natural resources, youth, students and international community. People can only understand the facts about Climate Change when it is presented in simple language and appropriate manner. For this, the challenge of journalists is to report on the issues of Climate Change in simple, interesting and appropriate way through mass media. Thus, this toolkit is designed for journalists to give them the basic knowledge of Climate Change.



# Chapter 1 Concept

When we talk about the climate, we always think about weather, but there is vast difference in the meaning. Weather is the state of the atmosphere of a region with respect to wind, temperature, cloudiness, moisture, pressure, etc which keeps changing; whereas climate is a long-term characteristic of atmosphere. The year-long climate is generally divided into different seasons. The countries of Europe and Americas have four seasons, which are spring, summer, autumn, and winter; whereas South Asian countries including Nepal have six seasons, which are spring, summer, monsoon, post monsoon, autumn, and winter. The Polar Regions have only two seasons: winter and summer.

The long-term or widespread change in the pattern of climate of certain region or long-term shift in the climate of a specific location, region or planet is the matter of serious concern. And, this situation is related to the worldwide debate of Climate Change.

Apart from these two terms, this chapter also describes other terms of Climate Change in the context of Nepal including, climate of the Earth, Greenhouse gas and its sources, snow, the Himalayas, glaciers, glacial lake, glacial lake outburst flood (GLOF), cloud burst, bio-location, carbon cycle, carbon sink, carbon trade, carbon sequestering, fossil fuel, brown cloud, carbon neutral, moraine, bio-climatic zone etc.



# Chapter 2 Facts of Climate Change

Earth's climate changes naturally and persistent change is its characteristic. If the speed of change is unnaturally and suddenly high or low that can invite accident. We can feel dramatic changes in the temperature of Earth in the recent past. And, that has headed towards global warming. Some decades ago, global warming was a debatable phenomena but now global warming and Climate Change are the main issues of concern in the development, environment and political arena. Naturally, this debate has occupied large chunks of space and time in the mass media. Thus the journalists should maintain objectivity while reporting on this issue and should be based on the facts.

Nepali journalists should understand that global warming is not new for Nepal, but we don't have enough scientific statistics. Another fact is that we don't have enough time to wait for the scientific data. Though we don't have any contribution on Climate Change, we are one of the most affected countries. Journalists have bigger roles to play to save Nepal and Nepal from the impact of Climate Change and to lead us to sustainable development.

There are some facts about Nepal which should be considered by journalists. For example, Nepal has fragile geography and mountains and has the risk of landslides. Our livelihood and national economy is based on the natural resources, including water, agriculture and forest and are vulnerable in the context of Climate Change. The first impact of Climate Change will be on our glaciers. Frequency of natural disasters including heavy rain or minimum rainfall, storms, flood, landslides and droughts will increase and that will increase the impact as well.

Journalists should be able to understand the differences between the cause and result of Climate Change. They should carefully look at both sides of the coin. For example, let's take the popular Nepali news story of 'Invasive species killing Nepali forest'. Let's think about this. Do these flourishing invasive species kill Nepali forest or deforestation is the main cause of growing invasive species? If you seriously think and analyse, then you will find out that second statement is based on the facts.





## Chapter 3 Issues of concern

**we need to understand the balance created by population, human society and their activities on the inter-link between water, land and forest.**

Priority has been given to the issues related to livelihood of Nepali people as the numerous issues of Climate Change cannot be incorporated in this small book. To start with, the study of Climate Change from different angles of land use and land management patterns is relevant. For this, sustainable land management should be in focus. Which means, we need to understand the balance created by population, human society and their activities on the inter-link between water, land and forest because change in the environment and climate has direct effect on that balance. Journalists need to understand the core issues of Climate Change in two categories: (a) situation of environmental balance and sustainable development and (b) environmental degradation and indications of disasters.

The situation of environmental balance and sustainable development includes the issues related to the improvement of ecosystem because of sustainable land management, sufficient forest land, wildlife and biodiversity, balance between agricultural land and forest, protected habitat of wildlife, environmental and economic benefits from conservation area, community forest, religious forest (forest conserved for religious purposes) and greasing land, planned urbanisation and easy access to education, health facilities and employment and increasing use of alternative energy.

On the issue of environmental degradation and indications of disasters, journalists should basically focus on environmental and social aspects of the issues. Environmental aspects include scarcity of water (drinking water, water for sanitation and irrigation), flood, drought, forest fire, decreasing number of wild species etc. Social aspects include internal conflict, migration, displacement and forced migration, famine, food shortage, epidemic etc.

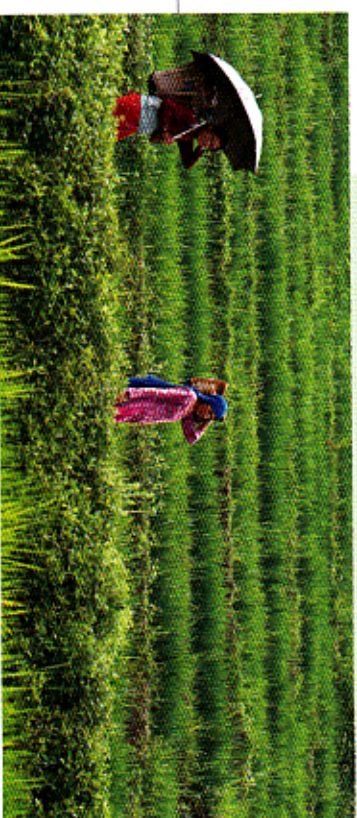
## Chapter 4 Impact Assessment of Climate Change

### Change

Climate Change impact assessment is normally based on hypothesis. It is very difficult to assess the impact of Climate Change in the country like Nepal, which has diverse ecological condition, for example, Pokhara and Mustang. Pokhara gets regular rainfall whereas Mustang is highland desert with no rain. In this situation, it is advisable to base the assessment on the traditional knowledge and local experiences rather than the findings of international scientists. For this serious thinking and open dialogue is needed. Open dialogue should include all the stakeholders of the community including representatives from all class, ethnicity, castes and age groups. Special priority should be given to the thoughts expressed by women as they are permanent residence of the area in the context of Nepal. The hypothesis expressed by different groups usually varies. All the idea express on open dialogue should be respected.

Locals may express various ideas including impacts of Climate Change on the agricultural production, productivity, and long and short term impact on agricultural system, food security, issues related to health and disease, impact on transportation, natural disasters etc. Concerns of women may be different; they may express their concern related to family health, nutritious food for children, education, issues of livelihood and security. However, concerns of men and representatives of poor community may be different.

Increase in the temperature, change in the rain pattern and natural disasters are the major indicators of Climate Change in the context of Nepal. While reporting on Climate Change, journalists should read these indicators carefully before writing. Apart from that, issues related to agriculture and livestock, forest, flora and fauna, drinking water, energy, public health, sanitation, tourism, livelihood of vulnerable and marginalised community should be analysed.







## Chapter 5

### Climate Change and Public Health

Climate Change is a significant and emerging threat to public health including diseases related to extreme weather.

The 2007 report of Intergovernmental Panel on Climate Change (IPCC) estimated that average one degree rise in the temperature will increase cases of diarrhea by eight percent. It will also increase the cases of heatstroke. It will be a major cause of increasing population of insects, which carry many infectious diseases including mosquitoes. Climate Change is a significant and emerging threat to public health including diseases related to extreme weather. According to official statistic of government of 2008, 75 people died because of heatstroke and 20 died of extreme cold in Nepal. Health problems related to extreme weather events rise because of Climate Change. Extreme weather also causes flood, landslide, cases of fire etc. In 2009, 462 people were killed because of waterborne diseases and diseases carried by mosquitoes in Nepal. Climate Change will affect air quality and will increase the cases of asthma, respiratory allergies and airway diseases. This chapter briefly describes the health policy of Nepal, which needs to improve in accordance with the impact of Climate Change.

This chapter is based on the report by Dr. Bandana Pradhan for NHEICC ([www.nheicc.gov.np/home.html](http://www.nheicc.gov.np/home.html))

## Chapter 6

### International conventions and other initiative

Chapter Six briefly describes the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol. It also describes the responsibilities of the Annex I countries. Nepal has designated the Ministry of Environment as focal point for UNFCCC and the Ministry is also Designated National Authority for Clean Development Mechanism-CDM.

Nepal has prepared the action plan related to capacity building under the National Capacity Needs Self Assessment Project in order to implement the Rio Conventions (Climate Change, Desertification and Biological Diversity). Nepal has also developed the action plan to review and approve the project related to Clean Development Mechanism. National Adaptation Programme of Action (NAPA), Climate Change Policy, 2011 has been developed and preparation for Local Adaptation Programme of Action-LAPA, and National Communication Report are on progress.

The livelihood of population of this region is directly relying on monsoon which has close relationship with the Himalayas.

Regional cooperation: Studies have shown that the South Asian countries, including Nepal, where the fifty percent of world's total poor population live, will be the most affected area because of Climate Change. It is also important to mention that the livelihood of population of this region is directly relying on monsoon which has close relationship with the Himalayas.

To handle the global problem like Climate Change, regional cooperation is an important factor. Two regional organisations, The International Centre for Integrated Mountain Development (ICIMOD) and the South Asian Association for Regional Cooperation (SAARC) are active in this field. Climate Change was the main agenda of SAARC Thimpu Summit in 2010.







## Chapter 7 Policy, laws and implementation

Nepal signed the United Nations Framework Convention on Climate Change (UNFCCC) on 12 June 1992 and became the party to the Convention in 1994. Under this convention, Nepal prepares Climate Change Policy, 2011. National Conservation Strategy 1998 is also a milestone in the field of Climate Change, which have three objectives: (a) sustainable use of water, land, forest and other renewable resources, (b) conservation and promotion of bio-diversity (forest and agricultural) and (c) protect the eco-system.

**Climate Change Policy, 2011 was proclaimed by the Government of Nepal to promote climate adaptation and mitigation.**

Climate Change Policy, 2011 was proclaimed by the Government of Nepal to promote climate adaptation and mitigation. The policy has strategy and action plan to promote human resources, to promote public participation, to convert waste to resources, to prepare for disaster and epidemic, to promote public awareness and capacity building, to develop climate model and to encourage low carbon emission by providing financial and technical support and incentives. The policy also set timeline to establish a Climate Change Centre within one year to conduct Climate Change research and monitoring, to prepare a national strategy for carbon trade in order to benefit from Clean Development Mechanism by 2012. The policy also set timeline to form and implement a low carbon economic development strategy that supports climate-resilient socio-economic development by 2014, and, assessment of losses and benefits from Climate Change in various geographical areas and development sectors by 2013.

## Chapter 8 Reporting on Climate Change

Journalism is easy if you follow the saying, "The communicators should know what to communicate and how to deliver the messages to make the deepest possible penetration into the minds of the audience." The same is applied to Climate Change reporting.

Like other issues, journalists cannot report on Climate Change unless they know the subject thoroughly. By reading the materials included in this book and other reference materials, by interacting with the experts and the victims and by directly observing the impact of Climate Change, they can know the issue very well.

While reporting on the issues of Climate Change, journalists should understand that this field of science is not mature as other fields of science. Giving any scientific statements needs lot of scientific data, but journalists might not get enough scientific data on the issues related to Climate Change. Knowledge on this subject is based on some scientific facts and on the experience of locals, which might not be true all the time. For example, Climate Change was reported as the cause of dryness on the waterspout of water springs of mid-hills of Nepal, but scientists were unable to find any clue on this issue.

Climate Change reporting is complex issue and simply reporting on the basis of incident is not enough to understand the issue completely. Journalists should develop feature stories/documentaries to provide complete information to the general public.

People have false impression that Climate Change is only related to glacier, snow, mountains, space etc. which are far from the human settlements, but these issues are directly related to people. In fact, reporting on Climate Change is reporting on human. Interaction with experts and victims is very important for reporting. That will make the story interesting and authentic. Some people are very good at presenting their feelings, for example, a Koshi victim says, "I really like to kill this river by beating up, this river swallowed my family, my father, mother, brothers and sisters."

Journalists also need to reconfirm and recheck the data and facts collected during the reporting period. This chapter is written by Mohan Mainali.

**"I really like to kill this river by beating up, this river swallowed my family, my father, mother, brothers and sisters."**





## Journalism for Sustainability

NEFEJ is a pioneer among the non-governmental organizations promoting the environmental journalism in Nepal. It led its foundation stone on June 1, 1986, and since then it has been providing the forum to debate, study, influence public policy, and raising awareness for conservation and sustainable development.

Throughout its 25-year long journey, NEFEJ, along with its members and stakeholders, has continuously been working in the environment conservation, awareness generation, and sustainable development. There are several instances of achievement of success in these fields. It has played an important role in creating environment for formulation and amendment of the environmental laws and rights. Furthermore, it has also been successful in advocating for the proper management of solid waste generated in the capital.

NEFEJ has been carrying out its activities through its five major departments: Radio Sagarmatha, Community Radio Support Center (CRSC), Media Training Center (MTC), Audio-Visual and Publication Department

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