

A REPORT

# Media Workshop on Climate Change Reporting

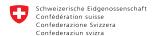
Almora, November 3-5, 2016

















## **A REPORT**

# Media Workshop on Climate Change Reporting

Almora, November 3-5, 2016

Jointly organized by Centre for Media Studies (CMS), Department of Science and Technology (DST) and Indian Himalayas Climate Adaptation Programme (IHCAP) under SDC

Venue: G B Pant Institute of Himalayan Environment and Development, Almora

#### **About Centre for Media Studies (CMS)**

Established in 1991, CMS is a not-for-profit, multi-disciplinary development research and facilitative think-tank. It endeavors to work towards responsive governance and equitable development through research, advocacy and capacity building in social development, environment, communication, media, transparency and governance issues at local and national policy levels. Its flagship programme in environment sector is Vatavaran, a leading international festival of environmental films.

Find more details at: www.cmsindia.org

#### About Indian Himalaya Climate Adaptation Programme (IHCAP)

(Strengthening Capacity on Climate Science and Adaptation in the Indian Himalayas)

Indian Himalayas Climate Adaptation Programme (IHCAP) is a project under Global Programme Climate Change (GPCC) of the Swiss Agency for Development and Cooperation (SDC). In India it is anchored under the Framework of Science and Technology Agreement of November 2003 between the Swiss Federal Council and the Government of India and is being implemented as a bilateral cooperation programme with Department of Science and Technology. IHCAP builds on capacity and knowledge enhancement related to three pillars- increasing knowledge on impacts of and vulnerability to climate change of the Himalayan socio-ecological system; enhancing capacities of academic and public institutions to address climate change; creating awareness, informing stakeholders and disseminating knowledge in the Indian Himalayan Region, Hindu Kush Himalayas and beyond.

# **CONTENTS**

Summary	ı
Inaugural session	2
Technical session 1 - Overview of climate change, impacts and adaptation with focus on the Himalayan region	3
Technical session 2 - Climate change impacts and adaptation – livelihoods, agriculture, biodiversity	5
Technical session 3 - Climate Change and disaster preparedness in the Himalayas	6
Field visit to RTC, organic farm and village communities	8
Annex 1- Programme schedule	12
Annex 2 – List of participants	14
Annex 3 – Clippings of the coverage	15



# Summary

The first media sensitization programme organized by the Indian Himalayas Climate Adaptation Programme (IHCAP) of the Swiss Agency for Development and Cooperation (SDC), Department of Science and Technology (DST) and the Centre for Media Studies (CMS) was held in Almora from November 3 to 5, 2016. The workshop brought together climate change experts and media professionals from all over Uttarakhand state with the objective of improving reporting on the subject in the region.

Dr P P Dhyani, Director of the G B Pant National Institute of Himalayan Environment and Sustainable Development and Dr N Bhaskar Rao, Chairman, CMS, jointly inaugurated the workshop series. Mr R N Jha, Chief Conservator of Forests, Uttarakhand and Dr Rajendra Dobhal, Director General, Uttarakhand State Council for Science and Technology released the media manual titled "Himalayas, Climate Change and the Media" on the occasion. Dr Mustafa Ali Khan, team leader, ICHCAP PMU, gave an overview of IHCAP highlighting the activities undertaken in the first phase.

In the inaugural session, speakers stressed that climate change impacts are being felt across the Indian Himalayas affecting livelihoods, cropping patterns, water availability and biodiversity in the region. Communities in the region need to be prepared for this change, with climate resilient agriculture practices and innovative adaptation approaches. Media can play a critical role in the process. Dr Khan stressed that the objective was to trigger interest in climate change, its impacts on sustainability, livelihood issues and adaptation stories among journalists, editors and media houses in the region and thereby among the masses.

In the first technical session, Mr R N Jha, head of the state climate change cell, presented an overview of the state climate change action plan adopted by the Uttarakhand government. Dr Rajendra Dobhal listed climate change impacts already visible in the state and called for responsible reporting by the media.

In the second technical session, Dr A. Pattanayak, director of Vivekananda Parvatiya Krishi Anusandhan Sansthan, Almora, spoke about impact of climate change on hill agriculture, while Dr D S Rawat gave details of new technologies being made available to hill communities to help them adapt to impacts of climate change. In the third technical session, speakers talked about geo-hazards in the state and ways to reduce risk from such disasters, while focusing on the role of media in this task.

On the second day, all the participants visited experimental farms of the Vivekananda Hill Agriculture Research Institute and Rural Technology Complex of the G B Pant Institute at Kosi Kataramal, and also met members of village communities in Dadimkhola where some of the new climate-resilient technologies and practices are being adapted.

The workshop concluded with a session on media skill development and a roundtable on media, scientists and civil society. Dr Shekhar Pathak (PAHAR), Dr Bhupen Singh (Uttarakhand Open University) and Dr P P Dhyani participated in the round table which was followed by interaction with all media participants. A major recommendation which emerged from the concluding session was the need to establish a forum of climate change journalists in the Himalayan region. Dr Dhyani expressed willingness to host such a network in the G B Pant Institute.

### Inaugural session

#### November 3, 2016

The media workshop on Climate Change Reporting, jointly organized by Centre for Media Studies (CMS), Department of Science and Technology (DST) and Indian Himalayas Climate Adaptation Programme (IHCAP) of Swiss Agency for Development and Corporation (SDC), began with formal inauguration held at G B Pant Institute of Himalayan Environment and Development (GBPNIHESD), Almora, Uttarakhand.



The ceremony began with the lighting of ceremonial lamp by Dr P P Dhyani, Director GBPNIHESD; Dr Mustafa Ali Khan, Team Leader, IHCAP PMU; Dr R N Jha, Chief Conservator of Forests, and Head, State Climate Change Centre, Uttarakhand; Dr Rajendra Dobhal, Director General, Uttarakhand State Council for Science and Technology and Dr. N Bhaskara Rao, Chairman, CMS.

Dr Mustafa Ali Khan gave an overview of the Indian Himalayas Climate Adaptation Programme (IHCAP) which is built on the vision of promoting sustainable mountain development in the Indian Himalayan Region (IHR). He mentioned that IHR is amongst the most vulnerable mountain systems in the world and that there is immense potential to prevent further degradation of the Himalayan ecosystem if effective measures are taken at the earliest. It is in this context that IHCAP has been working in important sectors of glaciology, hydrology, climatology, adaptation measures and risk reduction for vulnerable communities, and linking grassroots voices with science and policy. Under this programme, capacity building and outreach activities are being undertaken with various stakeholders including media persons in the Himalayan states. In the first phase, three media workshops were organised and a media manual developed based on the feedback received from media persons. In the second phase, media workshops will be held in all the 12 Himalayan states. He also mentioned about the media fellowship programme in the second phase.

In his welcome address, Dr P P Dhyani expressed his gratitude to IHCAP and CMS for choosing G B Pant as the venue for the first workshop. Climate change, he said, is a reality and that the world is recognizing its implications. The Himalayas are the youngest, highest and most fragile mountain systems of the world, making the region most vulnerable to climate change.

Temperatures in the mountains are rising faster than in plains and other parts of the country, impacting livelihoods, farming practices and water resources. These impacts of climate change are already being felt in several parts of the Indian Himalayan region. He hoped the workshop will facilitate the exchange of views and ideas on various facets of climate change in IHR and sensitize media persons so that they highlight the impacts of climate change on local communities in the hills and help spread right messages about adaptation practices.

Ms Annu Anand, head, advocacy at CMS, then called upon all guests on the dais to release the Media Manual on Climate Change developed by IHCAP.

In his welcome speech, Dr N Bhaskara Rao congratulated media persons for getting an opportunity to participate in such a unique program. He encouraged them to work towards the big change by way of breakthrough stories as the Himalayas were the 'ground zero' for climate change. The next global story about climate change should emerge from Almora. Reiterating objectives of the media workshop, he underlining that the idea was not so much to sensitise the media as such but to sensitise journalists as individuals.

Dr Rao hoped that experiences and ideas shared in the workshop would be useful not just for media in Almora or Uttarakhand but also for other states and regions. In his view, climate adaptation should be integrated with all development efforts as adaptation was central to all aspects of development. He called upon journalists to play their role as 'observers of change' and identify, authenticate and validate what they observe by associating and networking with institutes like G B Pant Institute and other experts that media workshops will give access to. He urged journalists to widen their stethoscope lens to include environment and understand the linkages between development, adaptation and climate.

The first session concluded with Ms Anand thanking the gathering for their enthusiastic participation. She assured that the workshop would facilitate multiple dialogues to share expertise in climate change issues and build an effective network to support and strengthen conscious efforts to preserve and protect the Himalayan region.

The inaugural session ended with tea and networking break.

### Technical session 1

# Overview of climate change, impacts and adaptation with focus on the Himalayan region



After the break, the participants reassembled for the first technical session. Mr Dinesh C Sharma, Fellow, CMS, moderated the session and requested participants to introduce themselves and also to spell out their expectations from the workshop.

Dr Dhyani, who chaired the session, highlighted the significance of long term data availability for developing strategies and appropriate policies for addressing the challenge of climate change. He stressed the need to connect people, media, science and practice for ensuring sustainable development in IHR. "What we are seeing are disruptive changes and we must get ready with solutions for adaptation," added Dr Dhyani. The Himalayas face multi-pronged challenges. Temperatures are going up and water availability is getting adversely affected. Since agriculture is linked to both temperature rise and water, productivity is getting hit. The intense rainfall events and reduction in snowfall days and intensity are all adding to the risk of flash floods and landslides.





Mr R N Jha, Chief Conservator of Forests and Head, State Climate Change Centre, Uttarakhand gave an overview of the state climate change action plan. He informed that a state council for climate change will be established to take steps for implementing the action plan. All nodal departments at the state level and state climate change centre will work in tandem to implement the plan. The nodal departments will further control the coordination committees and working groups related to four sectors — forests, energy, disasters and water. He further informed that these four sectors have been put on the priority list under the State Action Plan of Climate Change.

Speaking of the way forward, Mr Jha suggested all climate change considerations of SAPCC be integrated into development planning in different sectors. The state climate action plan should be aligned with roadmap given in the Intended Nationally Determined Contributions (INDCs). In his concluding remarks, he emphasized that climate change centre should be made independent, instead of being housed in the forest department.

Dr Rajendra Dobhal, Director General, Uttarakhand State Council for Science and Technology, gave an enriching lecture on Climate change science, impacts and adaptation in the context of Uttarakhand and the Indian Himalayas. In the mountainous regions which are the most vulnerable to climate change, the micro-level picture is already worrisome. For instance, he pointed out, it has emerged that the average temperature in Almora in Uttarakhand has risen by 0.46 degrees in the past 53 years. Another indicator of climate change is the change in rainfall patterns, particularly winter rains which are crucial for hill agriculture. Almora now is receiving 23 percent less annual rainfall compared to the average of the past 53 years and the average rainfall duration is also decreasing.

Other indicators are coming from the upper Himalayas – snow cover area is shrinking, glaciers are steadily receding, glacial-fed rivers are becoming non-glacial fed rivers, size of glacial lakes is increasing, the vegetation line is shifting. Out of 1500 glaciers in Uttarakhand, only 14 are being monitored. In view of significant changes being observed in the state, time has come for us to prepare our communities for new realities, according to Dr Dobhal. Climate change is even causing impacts in the health sector as vector-borne diseases are being reported from the mountains and new infections could emerge with temperature rise in future.

He suggested that media houses should allocate the beat of environment to reporters who have a science background rather than to those who are non-specialists.

### Technical session 2

## Climate change impacts and adaptation – livelihoods, agriculture, biodiversity

After the lunch break, Dr Subrat Sharma, senior scientist in the climate change thematic group at GBPNISHED, chaired the session which focused on covering climate change impacts and adaptation in livelihoods, agriculture, biodiversity. He gave a brief presentation on media trends in climate change reporting and cited examples of some excellent reporting on climate change.

The first presentation by Dr D S Rawat, Theme Head, Socio- Economic Development, GBPNISHED set the stage for discussion. He spoke on the role of eco-friendly technologies on yield increasing, income generating activities towards achieving climate change adaptation. The work being done by the GB Pant Institute in this regard is disseminated through the Rural Technology Complex (RTC). This centre is working towards capacity building of the Himalayan mountain communities by providing options and training on interdisciplinary, practical and comprehensive technological approaches aimed at improving the quality of rural livelihoods. He explained how the institute conducts training, demonstration, interaction with experts, exposure visits, information/ experience sharing, creation/strengthening of farmer groups. The modified technologies and successful case studies are documented for wider circulation, he further informed.





The objective of technology dissemination to community and other stakeholders was to mainstream RTC approach in development planning, upholding the village as a smallest developmental unit. Under this approach, sector wise activities are demarcated for implementation, market linkages are developed and all development activities are carried out through integration of line departments and proper evaluation and monitoring.

The institute is helping communities in the Himalayan states to cope with climate change with innovative technologies such as cost-effective polyhouses in which green vegetables can be grown throughout the year, water harvesting and weed composting that can help farmers withstand vagaries of changing climatic patterns. Besides being climate resilient, such technologies can also add to the income of the poor.

Dr Arunava Pattanayak, Director, ICAR- Vivekanand Parvatiya Krishi Anusadhan Sansthan (VPKS), Almora, spoke about climate change imperatives of sustainable agriculture in the Indian Himalayas. He said that when speaking about climate change, the difference between the terms weather and climate is often lost and change in weather is described as a climate change event. Climate system is a global system where we play a small role as contributors to climate change and in fact our contribution to climate system mitigation is higher compared to climate system disturbances, he said.

The Indian Himalayan region occupies a strategic position in the northern boundary of the country and touches seven countries. The region is extremely rich in biodiversity, indigenous adaptation strategies and is the centre of origin of many food crops. A considerable part of the region is still unexplored and probable source of genes needed to address problems faced by the modern-day crops may be hidden in these areas. Climate change is causing a drastic shift in cropping patterns, season lengths and extremities leading to loss of biodiversity. Economy of the Hill, which is dominated by agriculture, is feeling the heat of climate change more severely. Climate change is causing a drastic shift in cropping patterns, season lengths and extremities leading to loss of biodiversity. Economy of the hills which is dominated by agriculture, is feeling the heat of climate change more severely.

He showed a graph of the rainfall and temperature trends during Kharif and Rabi seasons from 1964-2015 to show how weather patterns are changing and affecting cropping patterns. Climate-smart agriculture interventions like water harvesting and climate-resilient crops could help farmers cope with climate variations. Conservation, he said, is key to climate resilience/mitigation technologies. Mitigation, he said, entails the use of new technologies and alternative or renewable energies reducing fossil fuel use, using solar, wind, wave and river power carbon capture and storage; making older equipments more efficient; changing management practices and consumer behaviour; protecting carbon sinks like oceans and forests.

The Vivekananda Institute for Hill Agriculture Research is developing farm technologies to help hill farmers withstand climate variability. A combination of traditional knowledge and scientific inputs can provide solutions to the challenge of climate change in the hills, he added.

### Technical session 3

#### Climate change and disaster preparedness in the Himalayas

The final session of the day included presentations by Dr Pankaj Tiwari, Programme Director, Central Himalayan Environment Association (CHEA), Nainital and Dr Ravindra K. Pande, Head, Department of Geography, Kumaon University, Nainital. The two speakers shared their perspectives on climate change and disaster preparedness in the Himalayas.

Dr. Tiwari gave a comprehensive presentation on forest fires in the context of climate change, explaining how climate change and forests are linked. He pointed out that incidents of forest fires have



not risen in India in recent years as often projected in media. In his view, improved communication has drawn greater coverage and attention on forest fires now than earlier. Forest fires are also not limited to the Himalayan region but are reported from all over the country.

Forest fires in Uttarakhand are characterized by frequent surface fires of small size and short duration. This is a common phenomenon in the Himalayan region. Majority of fires occur on drier and warmer facing slopes with chir-pine trees. There are several reasons why fires in the Himalaya are of small size - forest fragmentation, collection of forest floor litter for preparing manure, collection of fallen wood for firewood and pollarding of trees for firewood and relatively rapid litter decomposition which result in the presence of small fuel for fire, arrival of monsoon within two months after the peak of litter fall, grazing of livestock and the recently developed public sensitivity to burning.

Since fire season in the Himalaya is followed by monsoon when most of annual precipitation occurs, soil nutrient loss is considerable. Though large fires which drastically change stand composition do not occur in the Central Himalaya, the high frequency, low-severity fire regime has brought about considerable change in the proposed distribution of forests at a regional scale. "Since precipitation is likely to become more seasonal due to global warming as per IPCC projections, Dr Tiwari pointed out, the intensification of drought may result in larger fires in future. Pre-monsoon droughts have been quite frequent in recent years. He informed that MoEF&CC has prepared a National Master Plan for Forest Fire Control with the objective of integrated approach towards controlling forest fires and sharing information among all agencies concerned. The plan proposes to introduce a well-coordinated and integrated fire-management programme that targets prevention of human-caused fires through education and environmental modification. To journalists, he cautioned against overhyping news on forest fires and requested them to focus on the real causes behind the nature of every fire.

The final presentation of the day was on 'Climate Change & Disaster Risk Reduction (DRR)' by Dr Pande. He shared his experiences on natural disaster management and mitigation in Uttarakhand. Even though global climate change is subject to a great deal of uncertainty, IPCC has concluded that human intervention has a discernible effect on global climate. Global mean surface air temperature has increased and global sea level has over the past 100 years. In Uttarakhand, it could mean uncertain rainfall, cloud bursts, higher rates of erosion, flash floods and landslides. This is particularly dangerous in a region where population, economic activity, and infrastructure have shifted towards Tarai-Bhabar areas and urban settings in recent years. Given the high dependence of the region on rain for potable water, changes in the rainfall pattern may cause serious problems. Climate change is also projected to exacerbate health problems such as heat-related illness. Coupled with this is indication that Uttarakhand may be entering a period of increased tectonic activity, after a relatively calm period, Dr Pande noted.

Dr Pande mentioned that due to the influence of climate change, the geo-environment of Uttarakhand is increasingly getting more susceptible to a number of problems. The state is exposed to multiple natural hazards. If the state is to achieve sustainable development, it must counteract these climate change effects by avoiding hazardous areas whenever possible and by designing and constructing resistant housing, commercial buildings, and infrastructure. Torrential rains, cloud bursts, flash floods and landslides are fascinating, even awesome, natural events. It is possible to imagine the day when these events cause some damage and inconvenience but no longer disrupt normal community functions nor dislocate the economy. Disaster risk reduction is intended to bring that day closer.

He also propagated better adaptation to climate variability and extreme events. He stated that "instead of changing the climate, we should change ourselves and start living with the climate."

The day's proceedings ended with a lively interactive session.

# Field visit to RTC, organic farm and village communities

After a day of intense scientific presentations and interaction with thematic experts, participants got to see some of the action on the ground. The field visit began with the organic farm (at Kosi Katarmal) and experimental farms (at Hawalbagh) of ICAR-Vivekananda Hill Agriculture Research Institute, which is the lead national laboratory for promoting sustainable agriculture in the North-West Himalayas. Workshop participants saw various technologies for organic farming which are being made available to farmers as well as technologies developed for enhancing productivity under moisture-stress conditions - a concrete move towards climate-resilience agriculture. The visit was conducted by Dr Dibankar Mahanata, a senior scientist in the crop production division at the institute.

This was followed by a visit to the Rural Technology Complex of the G B Pant Institute of Himalayan Environment and Development at Kosi-Katarmal. The RTC houses demonstration plots where low-cost technologies for protected cultivation are demonstrated to visiting farmers. Journalists saw various technologies being transferred to farmers such as polypits, polyhouse, composting, water harvesting, briquette making from pine needles etc. All these technologies are climate-friendly and designed for small land holders in the mountains. The visit was conducted by Dr D S Rawat, head of the socio-economic division of the institute. He had spoken about all this during his presentation the previous day.

The third leg of the visit was to Dadimkhola village in Hawalbagh block, where a progressive village head is spreading new technologies like briquette making and polyhouse among farmers with the help of scientists and several government agencies. Journalists interacted with the village head as well as several village women and men about the innovations and how they are helping them. The village is emerging as inspiration for other villages by adopting sustainable and eco-friendly



practices like creating water bodies for irrigation and ground water recharging. Members of village community shared that they had started farming of products such as turmeric, ginger, garlic and tej patta which support their livelihoods, adding that they are now using vermicompost for better yield of organic products. People have also been trained in making fuel briquettes from pine needles with the help of scientists and several government agencies which has lessened their dependence on forest wood.

From the CMS side, Dinesh C Sharma facilitated the field visit. Scientists were available to answer queries of journalists during and after the visit over tea.

## Media skill development and roundtable on "Building bridges among media, scientists and civil society"

The concluding session of the three-day media workshop took place at the G B Pant Institute of Himalayan Environment and Development on November 5, 2016.

The session began with Ms Annu Anand opening the dialogue on the challenges of climate change reporting in a changing media scenario and emergence of digital media. She informed the participants that a network of journalists reporting on climate change in all the Himalayan states will be formed as part of the media sensitization project of CMS and IHCAP.

In his presentation, Mr Dinesh C Sharma, environment journalist and Fellow, CMS, gave an overview of environment journalism in the country with a brief introduction to its history. He said environment journalism in India is a byproduct of people's movement in environment such as Chipko, Silent Valley, Jungal Bachao Aandolan, Narmada Bachao Andolan and events like the Bhopal gas disaster and economic liberalization. These turning points gave a boost to environment journalism and threw up a new brand of journalists like Anil Agarwal, Darryl D'monte, Usha Rai, Claude Alvares and K S Jayaraman, who did exemplary work in environment reporting.

He then touched upon the popular perception of climate change in the newsroom in the last twenty years based on his own experience as a journalist. He emphasized that a lot of climate change related coverage is concentrated around disasters, extreme weather events, climate change negotiations and controversies. He noted that climate change denial, skepticism, sensationalism of climate stories and wrongly attributing any weather events to climate change are some of the problems facing environment reporting in India.

Mr Sharma then talked about what he believes are the missing elements in climate change reporting. These included impacts being felt on the ground; impacts on livelihoods through community voices; risks and vulnerability; community action success stories; research in climate resilience; analysis of state climate action plans; profiles of climate leaders; and new technologies.

Climate change is a complex beat but there is inadequate appreciation for environment reporting in most newsrooms. Climate reporting encompasses subjects ranging from health, policy, politics, science to business to diplomacy to civil society, he said, insisting that environment reporters must acquire these skills to do justice to their stories. He stressed on bridging communication gap between scientists and media, government agencies and media, civil society and media. All agencies must address the challenge of ensuring public understanding of science. Other key factors are developing resources such as simplifying data of climate science for the media to easily acquire and publish, he said.

Telling a good climate change story entails effectively communicating the science of climate change, impact of climate change on people, communities, using quotes of readily accessible people, experts and scientists, acquiring pictures, graphics and audio clips, utilizing relevant data with attribution. He cautioned against the use of jargon, extrapolating data or transposing one situation in a particular state on another event in a different part of the country. He underlined the need to develop the capacity to spot trends of impending natural disasters and help avert it with news stories backed

by sufficient data and facts. He also shared details of scientific and academic institutes that the journalists can access to gather authentic information.

Knowledge portals which can be useful resource for reporters include India Environmental Portal; Climate Himalaya (chimalaya.org); Himalayas Climate Change Portal (knowledgeportal-nmshe.in); International Center for Integrated Mountain Development (ICIMOD.org); IHCAP, among several others.

News portals covering climate change related stories in the mountainous regions are The Third Pole; India Climate Dialogue; India Water Portal; Climate News Network, he informed. Journalists can also make use of fellowships and workshops, especially those that can give them global exposure, help expand capacities for skill development and equip them for quality reporting on climate change adaptation and other issues.

Dr Shekar Pathak, historian and editor of People's Association for Himalaya Area Research (PAHAD), gave a perspective on the change in politics of the environment in Uttarakhand, starting with the colonial period and continuing with important mass movements in the post-independence period. The Chipko movement was a landmark as it brought forests on the political agenda in the country. The Forest Conservation Act of 1980 and the very creation of the environment ministry are due to the consciousness created by Chipko.

Apart from visible and invisible geo-tectonic and geographical forces, he said, misuse of natural resources has also becomes a major cause of calamities. With growing human encroachment, calamities are not purely natural but have become partly man-made. Many of them are result of little understanding of the nature and our inability in knowing the art of sustainability. It is in this way that natural resources, calamities and climatic changes have got inter-linked, and media should be able to highlight and explain these linkages to people and policy makers. The destruction of the natural resources accelerates the pace of climatic change and calamities together. In this context, he spoke of the deluge that ravaged the state in 2013 — one of the worst calamities the state has witnessed — that resulted in flash floods and landslides. He stated that the calamities in the Uttarakhand region for almost four decades have failed in fully sensitising the system, administrators, and policy makers and little has been done by the state government in the area of disaster mitigation and management.







Dr Pathak expressed his disappointment over the serious gap in existing knowledge and projections in terms of observations and research related to climate change, insisting that scientists and journalists can help address this gap by working together. Scientists can contribute by way of releasing easily accessible and comprehensible information in institutional websites and internal publications, while journalists need to be sensitive while reporting on climate change science and research, avoiding hype and oversimplification. This interactive dialogue between journalists, government representatives and scientists can help change society's attitude and increase action at a political level.

He pointed out that when a natural calamity is man-made, it becomes all the more important for journalists to investigate cutting-edge questions and be aware of potential confusions in order to help clarify these issues for the public. He admitted that "serious books" fail to reach as many people as journalists manage to do, adding that the key issues, and best practices and future actions to address issues of climate change in Himalayas could be identified once the realisation comes to journalists' minds that this is the time to understand the aspects of Himalayan society and ecology with more depth and dedication.

Dr Bhupen Singh cautioned media persons about underlying nexus of vested interests while covering environment and climate related issues.

In his concluding remarks, Dr Pathak supported the idea of a network of environment journalists in the Himalayan region and suggested that it could take the shape of a Pan Himalayan Journalist Network serving as a knowledge sharing platform to bring together scientists and journalists. Dr Dhyani welcomed the idea and expressed willingness to host the network in the G B Pant institute and hold an annual meeting to share all research work with journalists and editors.

The session ended with Dr Pathak and Dr Dhyani distributing certificates of appreciation to all participants on behalf of CMS and IHCAP.

# Annex 1 – Workshop Agenda

	DAY 1: NOVEMBER 2: 2016 (11:00 cm to 12:00 cm)				
DAY 1: NOVEMBER 3, 2016 (11.00 am to 12.00 pm)  11.00 am Inauguration					
11.00 am	Welcome remarks	Dr. D. D. Dhyoni, Director, CDDNIII IFCD			
	Welcome and introduction to the	Dr P P Dhyani, Director, GBPNIHESD			
	workshop	<b>Dr Mustafa Ali Khan</b> , Team Leader, IHCAP PMU			
	Release of the Manual on Himalayas, Climate Change and the Media	<b>Dr R N Jha</b> (Chief Conservator of Forests, and Head, State Climate Change Centre, Uttarakhand) and <b>Dr Rajendra Dobhal</b> (Director General, Uttarakhand State Council for Science and Technology)			
	Chairman's remarks	Dr N Bhaskar Rao, Chairman, CMS			
	Vote of Thanks	Annu Anand, Head (Advocacy), CMS			
12.00 noon –12.15 pm	TEA				
	Technical session I - Overview of climate change, impacts and adaptation with focus on the Himalayan region (12.15 pm to 1.45 pm) – Chair : Dr P P Dhyani, Director, GBPNIHESD				
12.15 pm - 12.30 pm	Icebreaker and introduction of participants	Moderator: Dinesh C Sharma			
12.30 pm - 1.00 pm	Overview of climate change action plan in Uttarakhand	R.N. Jha (Chief Conservator of Forests, and Head, State Climate Change Centre, Uttarakhand)			
1.00 pm - 1.30 pm	Climate change science, impacts and adaptation in the context of Uttarakhand and the Indian Himalayas	<b>Dr Rajendra Dobhal</b> , <i>Director General, Uttarakhand State Council for Science and Technology</i>			
1.30 pm - 1.45 pm	Question and answer session				
1.45 pm - 2.30 pm	Lunch and informal interaction				
Technical session 2 – Climate change impacts and adaptation – livelihoods, agriculture, biodiversity (2.30 pm to 3.30 pm) – Chair: Dr. A. Pattanayak, Director, ICAR- VPKS, Almora, Co Chair: Dr. Subrat Sharma Sr. Scientist, Climate Change Dept, GBPNISHED					
2.30 pm - 3.00 pm	Climate change imperatives of sustainable agriculture in the Indian Himalayas	<b>Dr. A. Pattanayak</b> , Director, ICAR- Vivekanand Parvatiya Krishi Anusadhan Sansthan (VPKS), Almora			
3.00 pm - 3.30 pm	Role of eco-friendly technologies on yield increasing, income generating activities towards achieving climate change adaptation	<b>Dr. D S Rawat</b> , Theme Head, Socio- Economic Development, GBPNISHED			
3.30 pm - 3.45 pm	Chair's remarks and Q & A session				
3.45 pm - 4.00 pm	TEA				
Technical session 3 – Climate Change and disaster preparedness in the Himalayas (4.00 pm to 5.30 pm)					
4.00 pm - 4.30 pm	Nature and extent of forest fires in Uttarakhand	<b>Dr. Pankaj Tiwari</b> , Programme Director, Central Himalayan Environment Association (CHEA), Nainital			
4.30 pm - 5.00 pm	Natural disaster management and mitigation in Uttarakhand	<b>Dr. Ravindra K. Pande</b> , Head, Department of Geography, Kumaon University, Nainital			
5.00 pm - 5.30 pm	Question and answer session				

DAY 2: NOVEMBER 4, 2016 (11.00 am to 5.00 pm)		
11.00 am	Assembly at RTC, Kosi	
	Departure for field visit	
	Field visit 1	
1.30 pm - 2.30 pm	Lunch and Group photograph	
2.30 pm - 3.30 pm	Field visit 2	
5.00 pm - 5.30 pm	Tea and informal interaction	

DAY 3: NOVEMBER 5, 2016 (11.00 am to 3.00 pm)  Media skill development and roundtable on "Building bridges among media, scientists and civil society"				
11.00 am - 11.30 am	Experience sharing and challenge of climate change reporting	Dinesh C Sharma, Fellow, CMS		
		Shekhar Pathak, Historian and Editor, People's Association for Himalaya Area Research (PAHAD)		
11.30 am - 2.00 pm	Building bridges among media, scientists and civil society	Bhupen Singh, Assitant Professor, UOU		
		Subrat Sharma, senior scientist, GBPNISHED		
		Annu Anand, Head, CMS		
2.00 pm - 3.00 pm	Lunch Break			
3.00 pm - 4.00 pm	Lunch and departure			

### Annex 2 – list of participants

#### Ms. Seema Sharma

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# जलवायु परिवर्तन की रिपोर्टिंग चुनौतीपूर्ण : राव

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HIMALAYAS

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Paharin, a landmark initiative on the history of the

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The online database, called
'Mountains of Central Asia
Digital Dataset', covers
information related to the
Himalayas and its outlying





### 'केदारनाथ में बादल फटने से हुई थी क्षति'

मार्थशाला जलवातु परिवर्तन आज बड़ा मुख

देखे परिवर्तनः डोमाल

Culture, employment in tocus at GB Pant Institute

### Rise in air pollution alarming: Experts

हिमालय में बहुत कुछ समझना बाकी: प्रो. पाठक

सँट्रम फार फार मीडिया स्टडीज और आईकैय की कार्यशा

# क्लाइमेट चेंज का सबसे अधिक असर हिमालय पर'



हिमालय के लिए नया फ्रेमवर्क जरूरी

### Dip in rainfall, rise in Almora temperature due to climate change: U'khand Council for Science



हिमालयी संकेतकों की अनदेखी ला सकती है तबाही मोरक्को में पहली बार पेरा होगा हिमालय से संबंधित विस्तृत ब्योरा, आगे की कार्ययोजना पर भी होगी बात

# Adapting to climate change



torian Shekhar Pathak

attached ranges — Hindu Kush, Karakorams, Pamiri Tian Shan and Kush Lun Tbetan highlands and Tarim basin. The collectio is organised in five cate-gories — books, journals,

रूपोप्र | स्करे तंबद्यत

# आठ गांवों में पिरूल से बनेगा कोयला

केदारनाथ की आपदा जलवायु परिवर्तन का नतीजा तकत प्रदेश
 गर्ड र भी



उत्तराखण्ड

### At CoP 22, India will highligh climate impact on Himalayas

जलवायु परिवर्तन से आया केदारन





### Need to discuss Himalayas at global forums: Dhyani 'Climate change events can help parties win poll'



Adopt resilent farming practices, adaptation methods: Experts

विशेषज्ञों व प्रतिभागियों की टीम ने गांव के खेतों में देखा क्लाइमेट चेंज का प्रभाव

मौसम का प्रभाव रोकने को करने होंगे नए प्रयोग

### पलायन की वजह गांव की सुविधाओं के बाद भी गांव से 50 परिवारों का पलायन उच्च शिक्षा और रोजगार की चाहत से

में फेलपानें को पावन

र 15 सात में 50 प्रीवर त कर चुके हैं। इड़ के मोर्स का सिक्र असा है त्रचार और सुविधानी की बर्मी चल को जाती है। कहा जाता है वलावन की सकत्व जा समाचार

हवालबाग ब्लॉक के दाड़िमखोला गांव की विडंबना

घुट रहा है गांव