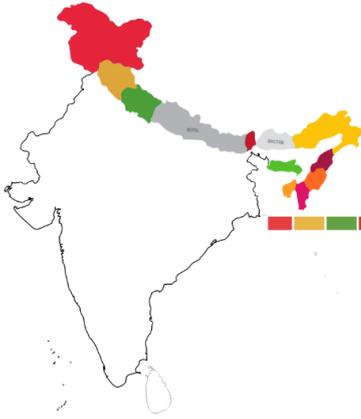


**CALL FOR LOCALIZATION**  
**OF**  
**SUSTAINABLE DEVELOPMENT GOALS (SDGS)**  
**FROM**  
**HIMALAYAN PERSPECTIVE**



सेवा हि परमो धर्मः



**HIM संवाद**  
**Himalayan Ideation Meet**

29 - 30 January 2020

(Forest Research Institute , Dehradun)



MoEFCC



GBPNIHESD



ICIMOD

**Event Sponsors:**

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**Govind Ballabh Pant National Institute of Himalayan  
Environment and Sustainable Development  
(GBPNIHESD)**

**Council for Scientific and Industrial Research (CSIR)-  
Indian Institute of Petroleum (IIP)**

## **Participating Organisations**

**Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India**

**International Center for Integrated Mountain Development (ICIMOD)**

**Indian Council of Social Science Research (ICSSR)**

**Indian Council for Forestry Research and Education (ICFRE)**

**National Research Institute for Sowa Rigpa, Leh, Ministry of Ayush, Government of India**

**National Institute of Food Technology Entrepreneurship and Management**

**Institute for Defence Studies and Analyses (IDSA)**

**Jawahar Lal Nehru University (JNU)**

**The Energy and Resources Institute (TERI)**

**World Bank Group**

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**Uttarakhand State Council for Science and Technology (UCOST), Government of Uttarakhand**

**Uttarakhand State Environment Assessment Authority (USEAA), Government of Uttarakhand**

**HNB Garhwal University, Uttarakhand**

**Gesellschaft für Internationale Zusammenarbeit (GIZ), Uttarakhand**

**Uttaranchal Youth & Rural Development Center**

**Gati Foundation**

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**Rural Development Institute**

**Himalayan Institute of Hospital Trust**

**Asian Agri History Foundation (AAHF)**

**Swami Vivekananda Youth Movement (SVYM)**

**Research Institute of World's Ancient Traditions, Cultures & Heritage (RIWATCH)**

**Beti & Shiksha Foundation**

**Chinmaya Organization for Rural Development (CORD)**

**Juva Vikas Society (JVS)**

**Karuna Trust (Assam)**

**Kheti Virasat Mission**

**Aarohi**

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### Need for the Seminar:

United Nations developed **Sustainable Development Goals** in 25 September 2015 to be achieved by 2030. As a result, 17 Sustainable Development Goals (SDGs) were developed along with 169 integrated targets that ensure economic, social and environmental development across the globe. The SDGs are universal and it becomes a joint responsibility of community and system coming together to achieve the same.

The **Indian Himalayan Region (IHR)** is composed of 9 Indian States (Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, Meghalaya, Nagaland, Manipur, Mizoram and Tripura) and 2 UTs (Jammu & Kashmir, Leh) along with 4 districts in Assam & West Bengal among the most eco-sensitive regions of the earth, as it borders 2 of the most populous nations, India and China and any adverse changes in the geology/ecology of this region could impact around 2 billion people, who depend on the rivers and flora/fauna of the region. With the increase in global warming, the delicately balanced Himalayan ecosystem has destabilized resulting in fast-melting glaciers, loss of soil cover, increasing incidences of climatic disasters (like 2013 floods in Uttarakhand) causing huge loss of lives and infrastructure. All this is further leading to high out-migration of youths especially men, leaving this strategically important region, bordering China, Pakistan among others, vulnerable to military threats.

### SUSTAINABLE DEVELOPMENT GOALS

### The conference envisions following objectives:

- To initiate a dialogue process among key stakeholders - Implementation agencies, Policy makers, Government, Civil society organization, Corporate(s) and the Community itself for fulfilling the target of 2030 agenda for Sustainable Development in the Himalayan Region (HR)
- To create awareness & build consensus among various local stakeholders for a constructive collaboration
- To formulate & implement policies for achieving the Sustainable Development Goals in the HR
- To identify the gaps and build capacity for effective & responsive implementation of SDGs in the HR



### About the Participants:

More than 100 participants and 38 distinguished panelists participated. These were expert professionals from various departments such as Finance, Planning, Education, Health, Policy & Research, and Environment, to allow debate & enable wider discussion on the issues, challenges in the implementation of economic, environmental and social dimensions of the SDGs.

### Seminar Structure:

Following an opening plenary, registration, context setting and inaugural ceremony, the 2-day conference was divided into eight sessions as below followed by closing ceremony.

- Model of Himalayan Agri-based livelihood for small farmers;
- Technology and Innovation : How can they promote sustainable development in Himalayas;
- Women: How to equip them to be agent of change for Himalayas;
- How to ensure holistic healthcare facilities in the remotes of Himalayas;
- Rejuvenation/revival of Himalayan springs;
- Protecting & promoting the diverse flora and fauna: Need and importance;
- Need for sustainable mountain tourism destination (capturing natural, cultural and waste management aspects); and
- Effective collaboration among stakeholders for achieving the goals

## Abbreviations

SDGs	Sustainable Development Goals
MDGs	The Millennium Development Goals
HR	Himalayan Region
GBPNIHESD	G.B. Pant National Institute of Himalayan Environment & Sustainable Development
CSIR	Council of Scientific and Industrial Research
ICSSR	Indian Council of Social Science Research
IIP	Indian Institute of Petroleum · Dehradun
MoEFCC	Ministry of Environment, Forest and Climate Change
FRI	Forest Research Institute (FRI, Dehradun)
ICFRE	Indian Council of Forestry Research and Education
NSDC	National Skill Development Corporation
CORD	Chinmaya Organisation for Rural Development
KVM	Kheti Virasat Mission
IDSIA	Institute for Defence Studies and Analyses
ICIMOD	International Centre for Integrated Mountain Development
USEAA	Uttarakhand State Environment Assessment Authority
AAHF	Asian Agri History Foundation
RIWATCH	Research Institute of World's Ancient Traditions Cultures and Heritage
NIFTEM	National Institute of Food Technology Entrepreneurship and Management
PPP	Public-Private Partnership
PHC	Primary Health Centre
TERI	The Energy and Resources Institute
JNU	Jawaharlal Nehru Univeristy
HNBGU	Hemvati Nandan Bahuguna Garhwal University
IEC	Information Education and Communication

## Inauguration Ceremony

**Chief Guest:** Shri. Trivendra Singh Rawat, Hon'ble Chief Minister, Uttarakhand

### **Welcome Address:**

Dr. Sharad Singh Negi, Chairman, Uttarakhand State Environment Assessment Authority (USEAA)

### **Speakers:**

Dr. Suresh Gairola, IFS, Director General, ICFRE

Shri. Amar K Jain, Additional Director, CSIR-IIP,

Shri. Prakash Sharma, Chief Finance Officer, NSDC

Shri. Brij Mohan Singh Rathore, Chief Policy Advisor, ICIMOD, Nepal



*Distinguished Guests and Participants at the Inaugural Ceremony*



*L-R : Sh. Shyam Parande, Sh. Trivendra Singh Rawat, Dr. Suresh Gairola, Dr. Amar Kumar Jain, Sh. Brij Mohan Rathore lighting the lamp*

*L-R : Dr. Amar Kumar Jain, Sh. Suresh Gairola, Sh. Trivendra Singh Rawat, Sh. Prakash Sharma, Sh. Brij Mohan Singh Rathore, Sh. Shyam Parande at Inaugural ceremony*

At the onset of the conference, **Shri. Shyam Parande** in his introductory remarks, brought forward the context of the conference in terms of achieving targets to fulfill the 2030 agenda for Sustainable Development in the Himalayan Region. He stressed on the fact that challenges in hilly regions are much different and tougher from plain areas, and need focused attention & efforts to overcome. Quoting Swami Vivekananda, he said, every particle in the universe, whatever it be, is in relation to every other particle, so we are all connected. We can't solve any of the issues in isolation, but through collaboration only. Subsequently, he welcomed and introduced the distinguished guests, participants, delegates, and thanked the sponsor & co-partner organizations for their support in organizing the conference.

**Dr. Suresh Gairola** spoke about issues in the field of Infrastructure, health and education in Himalayan region. He pointed out to improve networking and solution oriented action plan. Further, he spoke about;

- wholesome learning experience from other states and countries how they are dealing with similar situations like migration, unemployment, resource degradation and eventually adopt best practices and ideas which can be replicated
- launching 5 years action plan for development and conservation of resources.

**Dr. Amar Kumar Jain** spoke about combating pollution and to focus more on solar energy technology as future solution. He further suggested that all the government employees should take holiday in any other day rather than Saturday & Sunday to control pollution.

**Shri. Prakash Sharma** started speaking on Indian philosophy that “Brahma Hi Satya, Baki Jagat Mithya” (The world is a lie and the Brahma alone is the truth) and Sewa International is moving towards Brahma. Mentioning about poverty he said, we’ll eradicate poverty when we impart skill development training to students and create employment opportunities for them. He further acknowledged that India is poised as the youngest country in the world, with an average age of 29 years. Its 869 million strong workforce accounts for around 28 percent of the world’s workforce that makes India, a Skill Capital. He concluded his speech with a quote, “Hunar Hai To Kadar Hai” (If there is skill, there is respect).

**Shri. Brij Mohan Singh Rathore** started his speech by reciting the Atharva Veda - “Girayas Te Parvata Himvanto Aranyam Te Prthivi Syonarn Astu, Ajitohahato Aksato Adhyastharn Prthiv Tamoaham” (May Thy Hills, O Earth, They Snow-Clad Mountains, Thy Forests, Be Pleasant to Us). Sh. Rathore also expressed the impact of global warming and said how, springs are dying, reducing the discharge capacity, and migration is unstoppable in hill region due to distress.

He articulated vision 2035 of the India Government, that included a separate chapter for development of Himalayan region. He also added;

- To focus on eco-tourism, value-addition of Himalaya’s flora and fauna, and
- To develop information & technology and development of clusters.

**Hon’ble Chief Minister of Uttarakhand, Sh. Trivendra Singh Rawat** pointed out that India Government is working on special policies for development of Himalayan states. He expressed concern on depleting water resources and how state government is working to save water resources. Further, he apprised audience on the steps, Uttarakhand state government is working on,

- Opening of the Rural Growth Centers (Over 670 RGC have been planned for the state) for strengthening rural economy
- Establishing Tele-Medicine, Tele-radiology, Tele-Pathology centers to increase accessibility of health services
- Fulfilling local demands and local needs with local produce.
- Promoting value-addition of local resources like Rhododendron, Brahmi, Amla etc.



*Hon'ble Chief Minister of Uttarakhand - Shri. Trivendra Singh Rawat speaking at Inaugural ceremony*

## Panel Discussion

### Chairperson:

Dr. Uttam K Sinha, Senior Research Fellow, IDSA

### Speakers:

Sh. Indu Kumar Pandey, Chairman of the Finance Commission, Government of Uttarakhand

Dr. Amar Kumar Jain, Additional Director, IIP

Shri. Brijmohan Singh Rathore, Chief policy advisor ICIMOD, Nepal

Shri. Bharat Jhunjunwala (Environmentalist)



L-R : Dr. Uttam Sinha, Sh. Indu Kumar Pandey, Dr. Amar Kumar Jain, Sh. Brij Mohan Rathore, Sh. Bharat Jhunjunwala, Sh. Shyam Parande during the Panel Discussion



Participants indulged in interactive panel discussion

**Dr. Sinha** laid down the agenda for the panel, as he spoke on the importance of localized aspects of SDGs. He said that with almost decade left to achieve SDGs, we not only need focused actions from Central/State Govt. adopting global best practices, but also to take into consideration local population & their knowledge systems. Further focus needs to be area specific, to know the ground level local issues and to understand the eco-sensitive value of Himalayan region. Given the significance of this fragile region, we need to continuously learn and re-conceptualize the Himalayan region in an integrated & inter-dependent way involving all stakeholders to achieve success.

**Shri. Indu K. Pandey** quoted Atharva Veda, stating that all things are inter-connected. The survival of human race is dependent on stable environment and sustenance of all living species on Earth. Hence, we can't progress in isolation. Quoting the 1st conference on Sustainable Development in Stockholm in 1972, on international environmental issues marked as a turning point to focus on our limited natural capital and its use in prudent manner ensuring future generations will have access to them.

**Dr. Amar Kumar Jain** quoted the statistics from Niti Aayog report on the Development of Indian Himalayan Region said, that it is essential to conserve water resources, revive agriculture/horticulture & promote skill development. The way population is increasing in urban region, that day is not too far away when people will migrate from plain to hilly areas.

There is a dire need to lay emphasis to use technology in health sector, increasing road connectivity, reusing plastic waste for preparing bio-diesel/roads, making a big push for adopting electric vehicles, increasing forest cover and restoring degraded land. The initiatives of Uttarakhand Government like pollution free biomass cook stove and Gur Bhatti are really commendable and should be replicated to other areas too.

Focusing on environment in the Himalayan Region, **Shri. Brij Mohan Singh Rathore** emphasized on the urgency to accept the scientific evidence, which is unequivocally warning us on the increasing threats of climate change. Talking about impact of global warming, he expressed concern over 1.5 °C temperature has been increased in Himalayan region as compared to global average temperature of 1.1 °C in the last century. On achieving SDGs in Himalayan region, he further explained the need to take steps for restoring springs, augmenting rivers and controlling pollution in the Himalayan region.

**Shri. Bharat Jhunjhunwala** said, that we need to correlate both migration and economic development. He criticized the hydro power industry led economic development model as the main reason for destroying aquatic biodiversity, posing threat to the entire ecosystems by blocking the inflow of sediments and nutrients, as well as impacting migratory fish population. Instead, he suggested to follow the sustainable eco-friendly tourism model like that of Switzerland for development in the hills. To stop migration from the hills, he stressed on employment generation at the local level through creation of service jobs in sectors like R&D, Software and Educational institutes.

At the end, **Shri. Shyam Parande** posed a question to all panelists - How can we control the pollution in Himalayas, and what is the permanent solution for that?

And panelists responded as below:

- Amar Kumar Jain said to introduce mass transit system
- Sh. Bharat Jhunjhunwala said to shift from hydro power to solar energy
- Dr. Uttam Kumar Sinha said to formulate policies, precautionary measures and trade-off
- Sh. Indu Kumar Pandey said to minimize carbon footprints and to focus on natural capital as a substitute for manufacturing and man-made capital.

## Proceedings of Day 1

### **Thematic Session: Model of Himalayan Agri-based livelihood for small farmers**

#### **Chireperson:**

Shri. S. S. Negi from Uttarakhand State Environment Assessment Authority (USEAA)

#### **Speakers:**

Dr. S. P. S. Beniwal from Asian Agri History Foundation (AAHF)

Shri. Vijay Swami from Research Institute of World's Ancient Traditions Cultures and Heritage (RIWATCH)

Shri. Umendra Dutt from Kheti Virasat Mission, Punjab



*Sh. Vijay Swami shared good practices adopted in agriculture in Arunachal Pradesh*

**Dr. S. S. Negi** introduced the panel and said agriculture is the main occupation in India and provides employment to large number of people. Rural poverty is high in mountainous areas due to lack of jobs, and thus agriculture provides the basic livelihood option, which needs to be emphasized.

Speaking on Model Himalayan Agri-based Livelihood for Small Farmers, **Dr. S. P. S. Beniwal** said, that potential of an ancient organic practices like using herbal “kunjapala”(organic fertilizer) as mentioned in Vrikshayurveda (ancient treatise on natural agriculture methods, written 1000 years ago), is immense and can be introduced in the hilly region for sustainable agriculture opportunities. He further explained the need for diversified source of income and exploring livelihood opportunities like bee-keeping, horticulture, medicinal plants, animal husbandry, rather than just agriculture to supplement the income levels of hill dwellers.

**Shri. Vijay Swami** explained the changing land holding patterns from community land to individual land ownership. He mentioned two different locations – Debang Valley in Arunachal Pradesh where personal land ownership pattern emerged, but the production pattern did not keep pace. In contrast, Apatani plateau and Ziro valley, where the community land ownership is practiced and customary law is more powerful, traditional methods were practiced leading to higher productivity. The sustainable cultivation of paddy-cum-fishery crops, generating 2 crops of rice with 1 crop of fish, practiced by Apatani tribes for centuries were also cited as a potential way to increase income in an eco-friendly manner. Introduction of afforestation schemes, plantations around home/neighborhood, innovative horticulture programs can be promoted as an economic activity. Roadside plantation of forest species, instead of alien species should be promoted. Strengthening & empowering village forest committees, while also incorporating systems for their accountability was discussed.

**Shri. Umendra Dutt** spoke about the need for self-sustaining agriculture among farmers. He emphasized on the need to re-visit our civilization roots for the issues we are facing presently. He mentioned that the current model of food security is not a sustainable one but rather a reductionist one, unsuitable to agriculture as well as food security. In this model – the farming has no relation with food, and the food has no relation with nutrition. As a result, human eat food but depends upon market for nutrition. The market is dictating the crop pattern rather than human need which is completely opposite to how the system should work. He outlined the value of reviving and promoting indigenous crops like millets, as the best solution to fight health/food crisis.



*Day 1; session 1 - Participants can be seen fully immersed during the session*

## Thematic Session: Technology and innovation: How can they promote sustainable development in Himalayas

### Chairperson:

Dr. Amar Kumar Jain, Additional Director, IIP

### Speakers:

Dr. Sanat Kumar from Indian Institute of Petroleum (IIP)

Dr. Neeraj from Indian Institute of Petroleum (IIP)

Dr. Sunil Pareek, from National Institute of Food Technology Entrepreneurship and Management (NIFTEM)



*Dr. Sanat Kumar explaining the process of recycling plastic waste into bio-diesel*

In this session, the discussion happened primarily on how energy resources can be generated from processing wastes. Speaking on use of plastics, **Dr. Sanat Kumar** said, it is being used more because of low weight, affordability, different variety and flexibility in size. Moreover, it's a challenge now a days to use plastic due to its non-biodegradable nature. He also quoted the use of plastic, 'it's a gift that it is non-biodegradable but it's a curse the way we are using it'. He further explained about 7 types of plastics used and their methods of disposal. Finally, he laid stress upon the recycling of plastic waste to produce bio-diesel.

**Dr. Neeraj Atray**, who patented the idea of preparing bio-diesel from used cooking oil at room temperature at CSIR-IIP, called as repurpose used cooking oil (RUCO) technology. He further explained that bio-fuel has high potential as a viable alternative to fossil-based fuels. He also explained about supply chain involved in collecting the used cooking oil from restaurants/hotels as a pilot project that has already launched at Dehradun. Given the extensive usage of cooking oil in India, RUCO has huge potential for expansion and reducing our demand for fossil fuels, thereby creating new jobs and less pollution.

**Dr. Sunil Pareek** explained how farmers are being exploited and are not getting Minimum Support Price (MSP) for their agricultural crops/products. He suggested, we should move towards agricultural processing typically called as secondary agriculture. In spite of efforts by the government in setting up modern food processing units and mega food parks, farmers are still not able to get benefits as big Multinational Companies (MNCs) are importing agricultural crops/products from overseas market due to lack of availability of processing units and different varieties locally. He shared a successful case-study for custard apple, where through community intervention and technology support, local jobs & new products were developed in a sustainable way.



*Day 1; session 2 - Laughter is the sign of learning. Our speakers knew it perfectly and gave us few light moments to enjoy !*

## Thematic Session: Women: How to equip them to be agent of change for Himalayas

### Chairperson:

Dr. Kshama Metri from Chinmaya Organization for Rural Development (CORD)

### Speakers:

Prof. Surekha Dangwal from HNB Garhwal University  
Dr. Shuchismita Pandey, Additional Commissioner of Civil Supplies and Consumer Protection Government of Uttarakhand

Smt. Sunita Kashyap from GRASSROOTS(Non Profit Organisation)



*Dr. Shuchismita Pandey beautifully explained how women are role model in the process of development*



*Day 1; session 3 - L-R : Prof. Surekha Dangwal, Dr. Kshama Metri, Dr. Shuchismita Pandey during the session*

The session was focused on how women are integral to the development in the Himalayan region. In the session, it was said that women possess soft skills which is must for holistic development for any region.

**Prof. Surekha Dangwal** spoke about importance of women in driving key movements in the hills. She explained how eco-feminism, considered as a western concept however it was practiced in Uttarakhand hills during old times, when Gaura Devi united the entire community during the famous Chipko Movement.

**Dr. Suchismita Pandey** spoke about Swami Vivekananda disciple, Sister Nivedita that how strong is women of Uttarakhand as she documented it during her travel from 1902 to 1910.

**Smt. Sunita Kashyap** explained the work of her organization doing in Kumaon region of Uttarakhand. How they are able work in various domains of community engagement, livelihood development, clean water, springs conservation, biogas plants. All these initiatives were primarily driven by local women. The importance of 5 Js – Jal, Jungle, Jameen, Janwar and Jan, was explained beautifully.

**Dr. Kshama Metri** spoke about idea that nothing can be achieved in isolation and requires coordinated effort to empower women for the betterment of hills. Her organisation, CORD, therefore has focused attention on Mahila Mandals (Women Groups), which becomes the nodal agents for bringing the societal change to address issues in mountain region. Using panchayat based model to mainstream rural India, with Mahila Mandals as community empowering groups, we can help villages define and drive their own agenda. Women is the backbone of economics in hilly region and we must take steps to strengthen their positions.

## Thematic Session: How to ensure holistic healthcare facilities in the remotes of Himalayas

### Chairman:

Dr. R. P. Bhat, Former Director General, Uttarakhand State Health Commission

### Speakers:

Dr. Padma Gurmet from National Research Institute for Sowa Rigpa, Leh, Ministry of Ayush, Government of India

Shri. Anup Sarmah from Karuna Trust (Assam)

Shri. Pankaj Tewari from Aarohi (Non Profit Organisation)



**Dr. Padma Gurmet** started discussing about unique Himalayan ecology that supports valuable medicinal plants, and how latter can be nurtured in the Himalayan region. He specifically mentioned about Sowa Rigpa which is an ancient Indian medical system, entrenched in the entire Trans-Himalayan region. The recognition of Sowa Rigpa as one of the Ayush system is a step in the right direction. Further, he bolstered the Government efforts to establish more centers to promote this traditional healing system in other mountain regions.

**Sh. Anup Sarmah** spoke on innovative model to provide Primary Health Care (PHC) in the remote Himalayan areas and hence emphasized on the need for,

- Strengthening the PHCs located in remote region
- Reach to inaccessible areas through non-profit private public partnership (PPP) model
- Developing a replicable model of comprehensive primary health care system
- Making a model PHC in the district that can be model center for remote regions
- Implementing innovations in the field of primary health care for the improvement of health issues of indigenous communities.

**Dr. R. P. Bhat** spoke about the need for better health facilities in the Himalayan region. He further said, people want best hospital and best doctors in their locality and if they don't find it, they migrate to other lower regions. He expressed concern about lack of quality health institutions even at district level in the Himalayan region, and deliberated on methods to strengthen these institutions.

**Shri. Pankaj Tewari** spoke about sustainable and holistic mountain development. He said it can be achieved by keeping an integrated approach to create sustainable livelihood opportunities, by providing quality health care and basic education to the rural mountain communities. He further highlighted work done by his organisation towards achieving the health indicators in Kumaon region, Uttarakhand.

Aarohi Arogya Kendra - Provides OPD & emergency services, outreach camps

Mobile Medical Unit - Provides primary healthcare services to far-flung and inaccessible villages

Community Health - Focus being on maternal and child morbidity and mortality

At the closure of the Day-1, cultural program was organised in the evening.



Day 1, session 4, L-R: Sh. Pankaj Tewari, Sh. Anup Sarma  
Dr. R. P. Bhat, Dr. Padma Gurmet during the session

Volunteers performed mesmerizing dance performance  
exhibiting the rich culture of Uttarakhand

### **Thematic Session: Rejuvenation/revival of Himalayan springs**

#### **Chairperson:**

Shri. Brij Mohan Rathore from the International Center for Integrated Mountain Development (ICIMOD)

#### **Speakers:**

Prof. A. P. Dimri from Jawaharlal Nehru University (JNU)

Shri. Chander Kumar Singh from The Energy and Resources Institute (TERI)

Shri. Sachidanand Bharti, Himalayan Environmentalist



*Sh. Brij Mohan Rathore explained how important springs are for Himalayan Region*

**Shri. Brij Mohan Rathore** started his speech by saying significance of springs in the Himalayan region. He told that out of estimated 3-5 million springs in the HR, 30-50 % of springs witnessed reduced water discharge level, and approx. 30% are dying-springs. Given the importance of springs for livelihood & water security of Himalayan Region, he highlighted few reasons as,

- Natural Reason: Earthquake, floods, landslide affect the water flows of springs
- Man-made Reason: Climate change, global warming, change in rainfall pattern and weather uncertainty caused by human action and inaction is also affecting the springs
- Damaging drainage channels induced by infrastructure development directly affecting the outflow of springs.

He lamented the lack of ownership of springs by any department or agency. For better management of Springs Resources in Himalayan Region, he suggested,

- Ownership and accountability should be decided and regulated for springs management
- Mapping the springs technologically is also very important as suggested by NitiAayog
- Need to understand the difference between spring-shed, watershed as well as water recharge/discharge mechanisms for any revival program
- Formulation of policies for resolving the governance issues
- Public movement/campaign is needed to restore the springs.

**Prof A. P. Dimri** spoke on impact of Global Warming on monsoons in Himalayan region and how it is affecting water supplies in India. Further explaining about changes necessitated by monsoon variations. Further, he mentioned about Elevation Dependent Warming Rate which is faster in upper Himalayas as compared to Lower Himalayas, leading to more rains in the former. Precipitation mechanism is more intense in higher altitude than in lower altitude, causing much more intense rains, cloud bursts instances and further landslides in the upper region.



*Day 2, session 1, L-R - Sh. Sachidanand Bharti, Sh. Brij Mohan Rathore, Prof. A. P. Dimri, Sh. Chander Kumar Singh during the discussion*

**Shri. Chandra Kumar Singh** shared his experience through research on arsenic poisoning in the Ganga water and its social and economic impact. Further, he explained the steps to be followed for water management as,

- New/Reviving Existing Resources (Science driven approach)
- Monitoring (Community and Quality Control)
- Management (Community Based Approach)

Forestry, Pond and Watershed regeneration experience by CBOs shared by **Shri. Sachidanand Bharati**, was an encouraging project which showed how we can all join hands to conserve water in Himalayas through community involvement. With his rich 40+ years of experience and wisdom, he suggested the following water conservation methods,

- Tree-plantation in barren lands and around the trenches as well
- Construction of Chal-Khal (Artificial ponds on hilltops), system help to retain water infiltrate into the soil and replenish the ground water in the Himalayan region

Over 150 villages have benefited by his social forestry programs, and around 1400-1500 Chal-Khals have been constructed in the Himalayan region, leading to water security.

### ***Thematic Session: Protecting and promoting the diverse flora and fauna: Need and importance***

#### **Chairperson:**

Dr. A. N. Purohit, Former VC, HNB Garhwal University

#### **Speakers:**

Dr. Arun Jugran &

Dr. Lakhpat Rawat from Govind Ballabh Pant National Institute of Himalayan Environment and Sustainable Development (GBPNIHESD)

Dr. Pradeep Mehta, Technical Expert, GIZ



*Dr. A. N. Purohit explaining how climate change is affecting Himalayan Flora & Fauna*

Speaking on the significance of medicinal plants and their impact on livelihood generation in the Himalayan region, **Dr. Arun Jugran** brought forth key importance of using medicinal plants using traditional medicine system as they are,

- Powerful ingredients
- Lower in production cost
- Can be grown wild and raw materials are easily available
- More equitable and acceptable
- Lesser side effects as compared to other medicine practices
- Better managed and affordable
- Sustainable source of livelihood

He also explained about conservation process of medicinal plants – In situ (Conservation within their natural habitats) and Ex situ (Conservation of species outside their natural habitats).



*Day 2; session 2 - L-R : Dr. Arun Jugran, Dr. A. N. Purohit, Dr. Lakhpat Rawat, Sh. Pradeep Mehta during the session*

**Dr. Lakhpat Rawat** showcased 20 technologies for livelihood options appropriate for sustainable development of mountain zones. Speaking on technology packages, he explained about the activities i.e.

- Yield Increasing
- Income Generating
- Life Support Activities

**Shri. Pradeep Mehta** spoke about bio-conservation, bio-diversity act and the requirement of certification of biological products of Uttarakhand. Hence, putting special emphasis on conservation of biodiversity, sustainable use of all components, fair and equitable sharing of benefits arising out of the use of bio-resources, for providing sustainable livelihood in hills.

**Dr. A.N. Purohit** spoke on the need to properly understand the impact of climate change on Himalayan Region before making policies and plans to address it. He emphasized on the need to revive the native species both flora/fauna with focused approach in order to conserve the Himalayan bio-diversity. He cited the example of lost varieties of rice from Uttarakhand in the last century, and also highlighted the need for effective bio-conservation and change in people's attitude.

### ***Thematic Session: Need for sustainable mountain tourism destination (capturing natural, cultural and waste management aspects)***

#### **Chairperson:**

Shri. Tarun Vijay, Chairman of National Monuments Authority

#### **Speakers:**

Shri. Sanjay Gupta from World Bank Group  
Shri. Anoop Nautiyal from Social Development for Communities (SDC) Foundation  
Shri. Nekam Tana Tara from Arunachal Pradesh



**Sh. Tarun Vijay explained numerous eco-tourism opportunities that exists in North East region**

From his personal experiences, **Shri. Tarun Vijay** mentioned about the huge potential of jobs generation in the tourism sector of India especially in the Himalayan Region which presents unique opportunities for adventure, spiritual, eco—friendly tourism options. Few examples being,

- Brahmaputra Darshan and Roing in Dibang Valley in north-eastern parts of India
- Zaskar trek (Ladakh Frozen River Trek), popularly known as Chadar River trek in Ladakh
- Kailash Mansarovar Yatra
- Nanda Devi Raj Jat Yatra

Showcasing a successful model of Eco-Tourism running in Sonajuli, Arunachal Pradesh, **Sh.Tana Nekam Tara**, a self-made social entrepreneur, spoke about the inspiring project which features, 25 sq. km of forest and wildlife area which is fully preserved, conserved and protected by local forest guards day & night. Deforestation/wildlife poaching has been totally banned by the village forest protection committee,

- Over 15 sq. km of farm land has been developed for agro activities
- Availability of modern infrastructure facilities for eco-tourism,
- Employment opportunities to 500+ misguided tribal youth of Arunachal as well as border state Assam, allowing them to join the mainstream,
- People living in the area earning respectable livelihood from the project

This project could be a good model for replication across North-East region, given large forests and huge bio-diversity.

**Shri. Anoop Nautiyal** highlighted the waste is being generated by numerous human activities in Ganga Basin mostly in Uttarakhand, which is harming growth of tourism and local bio-diversity in the area. He proposed management of waste through segregation, IEC distribution, behavior change and people's participation. Speaking on achieving inclusive growth through Sustainable Solid and Liquid Waste Management in Himalayan Region (HR).

**Shri. Sanjay Gupta** said about waste hierarchy – 3 Rs (Reduce, Reuse and Recycle), included various stages such as Prevention, Preparing for Reuse, Recycling, other Recovery and Disposal.



Day 2; session 3 - L-R : Sh. Nekam Tana Tara, Sh. Tarun Vijay, Sh. Anoop Nautiyal, Sh. Sanjay Gupta during the discussion

## Thematic Session: Effective Collaboration amongst stakeholders for driving the Goals

### Chairperson:

Shri. Indu Kumar Pandey, Chairman of the Finance Commission, Government of Uttarakhand

### Speakers:

Dr. Markandey Rai, Senior Advisor, UN-Habitat

Dr. R Balu from Swami Vivekananda Youth Movement (SVYM), Mysore



Dr. R. Balu shared perfect examples of societal collaboration for development model

Speaking on effective collaboration among stakeholders, **Shri. Indu Kumar Pandey** said that it is an integrated approach where everybody is a stakeholder in the environmental system. It is more essential that we must have localized collaborative approach for our strategic planning, policy design and successful implementation.

**Dr. R. Balu** spoke about co-creating value for Communities – Partnering for Public Good. For effective collaboration, he defined and accentuated the following points,

- Beyond the cliché (Go deeper than the obvious)
- Rationale (Define the benefits of Partnership)

# Himalayan Ideation Meet

29 - 30 January 2020  
(Forest Research Institute , Dehradun)



L-R : Dr. Markandey Rai, Dr. Indu k. Pandey, Dr. R. Balu explained collaboration is vital to achieve these goals

- Resources needed for the collaboration
- Clarify the specific roles of each partner
- Each partner's right and responsibility
- Reward points
- Define risk
- Review (Measuring social impact)

Speaking of significance of Prayers, **Dr. Makandey Rai** recited Shanti Mantra, "Om Sahana Vavatu Sahanau Bhunaktu Sahaveeryam Karavavahai Tejas Vinavati Tamastuma Vidhwishavahai". That signifies the gist of the entire SDGs that is, 'nobody should be left behind'. He also pointed out that we should not only focus on mitigation but also on prevention of solid waste. On the context of use of single-use plastics, he said, "Why don't we stop production"? Talking further about strategic plan, he suggested, we should emphasize on partnership, and not only about only 5-year plan but pledge to make it a mass movement to save our mother Earth.

## CLOSING CEREMONY

**Cheif Geust:** Smt. Baby Rani Maurya, Hon'ble Governor of Uttarakhand

**Welcome Address:** Shri. Shyam Parande, Secretary of Sewa International

**Speakers:**

Dr. Kshama Metri from Chinmaya Organization for Rural Development (CORD)

Shri. Dinesh Kulkarni from Bhartiya Kisan Sangh

Dr. R. S. Rawal from GBPNIHESD, Uttarakhand



Welcoming Hon'ble Governor of Uttarakhand, Smt. Baby Rani Maurya at Closing ceremony

At the closing ceremony, welcome address and introductory remarks were provided by, **Shri. Shyam Parande** followed by the National Anthem. Further, he quoted a mantra Maataa Bhumi Putro Aham Prthivyaah means Bhumi is our mother, and I am her son/daughter, and nobody can do injustice to her. He said this is our tradition, and somewhere down the line we have lost our faith in following her. Further conveying on our rich traditional values he said, how the impact of globalization enforced us to forget our tradition and change our behavior.



L-R : Dr. R. S. Rawal, Sh. Shyam Parande, Smt. Baby Rani Maurya, Dr. Kshama Metri, Sh. Dinesh Kulkarni  
2-day conference brief progress report was shared by Dr. Bhashabi Gupta at the closing ceremony

**Shri. Dinesh Kulkarni** began his speech with a quote by Mahatma Gandhi ji that "Yeh Duniya Mein Sabki Avashykta Poori Ho Sakti Hai Par Ek Insaan Ka Lalach Pura Nahi Ho Sakta" (This earth can satisfy everyone's needs but cannot fulfill human's greed). As he said, we should keep this as our base and follow our path of sustainable development. He also pointed out the modernization in tandem with culture & tradition without getting influenced by westernization.

Speaking on importance of Himalayas, **Dr. R. S. Rawal** said, sometimes we don't see the importance of nature in our lives. He said we should understand that,

- Himalaya keeps a lot of significance for the ecology and economic security of Indian sub-continent
- Himalaya is one of the most fragile ecosystems of the world due to climatic perturbations

He mentioned about the utmost importance of Himalaya Region and various initiatives started by the India Government.

**Dr. Kshama Metri** from Chinmaya Organization for Rural Development (CORD). On signifying the indicators and targets of SDGs in Himalayan states, she spoke about the impact of globalization on generation of carbon footprints and how to reduce ill-effects caused by globalization. Further, she added,

- SDGs can be achieved when we have people-centric approach. When people are united, it becomes a people's movement but at the same time, we need not to overlook our culture and take it alongside.
- SDGs can be achieved more easily keeping women in front as it is women's nature that exhibits love, nurturing and protecting her environment and belongings.

She stressed that we need to focus on environmental friendly inventions and give more emphasis on hydro power and solar energy.

Hon'ble Governor of Uttarakhand, **Smt. Baby Rani Maurya** spoke about conservation of Himalayan wildlife, flora & fauna, restoration of water bodies and awareness campaign for maintaining the natural resources. She also emphasized on promotion of eco-tourism and homestays as a pro-women livelihood opportunity in the Himalayan region. At the end, she thanked and appreciated all sponsors and partners who have given their support to conduct such seminar.



Hon'ble Governor of Uttarakhand,  
Smt. Baby Rani Maurya spoke about promotion of  
eco-tourism and empowering local women

## Conclusion & Key Messages

These conclusions and recommendations were agreed upon by all the participants at the conference, to come together, share their individual experience/expertise for performing a common goal by respecting the local values in the Himalayan Region (HR).

The key messages that came out of this 2-day conference are as follows:

- To move towards solution apart from sensitization.
- To build linkages among all the key stakeholders – Government, Civil Society, Industry and Community to implement these goals.
- To work more on specific area, know the local issues and understand the eco-sensitive value of the Himalayan region.
- To focus on our limited natural capital/resources and its use in prudent manner to ensure access to future generations.
- To emphasize on use of technology in health sector, increased road connectivity and reuse of plastic waste to prepare bio-diesel.
- To take corrective steps for restoring springs, augmenting the rivers and taking action to control pollution in the region.
- To improve 3 sectors – Agriculture, Manufacturing and Service sector to improve local demands, needs and produce locally.
- To give priority to eco-tourism, homestays and value-addition of Himalaya's flora and fauna.
- To develop information & technology for better communication and connectivity.
- To enhance networking and design action-plan for solution.
- To encourage traditional diversified agriculture and to ensure diversified sources of income for the local community.
- To introduce afforestation schemes and horticulture programs as an economic activity.
- To strengthen village forest committees and to incorporate system for their accountability.
- To promote women empowerment as part and parcel in development process.
- To raise employment and livelihood opportunity through entrepreneurship and vocational training for local Himalayan youth.
- To connect with community for volunteering opportunities.





## Annexure - 1

<b>5</b>	<b>Session Topic</b>	<b>Rejuvenation/revival of Himalayan springs</b>	
		Name	Individual Topic
	<b>Chair</b>	Sh. Brij Mohan Rathore	Rejuvenation/revival of Himalayan springs
	<b>Speaker</b>	Prof. A P Dimri	Climate change impacts on Himalayas
	<b>Speaker</b>	Sh. Chander Kumar Singh	Accessing and Managing Water
	<b>Speaker</b>	Sh. Sachidanand Bharti	Rejuvenation/revival of Himalayan springs
<b>6</b>	<b>Session Topic</b>	<b>Protecting and promoting the diverse flora and fauna: Need and importance</b>	
		Name	Individual Topic
	<b>Chair</b>	Dr. A N Purohit	Protecting and promoting the diverse flora and fauna: Need and importance
	<b>Speaker</b>	Dr. Arun Jugran	Medicinal plants for promoting livelihood options in Indian Himalayan Region
	<b>Speaker</b>	Dr. Lakhpat Rawat	Endorsing livelihood options using appropriate hill specific technologies for sustainable development of Himalayan rural landscape
	<b>Speaker</b>	Sh. Pradeep Mehta	Addressing SDG's through Biodiversity Act
<b>7</b>	<b>Session Topic</b>	<b>Need for sustainable mountain tourism destination (capturing natural, cultural and waste management aspects)</b>	
		Name	Individual Topic
	<b>Chair</b>	Sh. Tarun Vijay	Need for sustainable mountain tourism destination (capturing natural, cultural and waste management aspects)
	<b>Speaker</b>	Sh. Anoop Nautiyal	Waste in Ganga Basin in Uttarakhand
	<b>Speaker</b>	Sh. Sanjay Gupta	Achieving Inclusive Growth Through Sustainable Solid and Liquid Waste Management
	<b>Speaker</b>	Sh. Nekam Tana Tara	Eco-Agro Model
<b>8</b>	<b>Session Topic</b>	<b>Effective collaboration amongst stakeholders for driving the goals</b>	
		Name	Individual Topic
	<b>Chair</b>	Sh. Indu Kumar Pandey	Effective collaboration amongst stakeholders for driving the goals
	<b>Speaker</b>	Dr. R Balu	Effective collaboration amongst stakeholders for driving the goals
	<b>Speaker</b>	Sh. Markandey Rai	Effective collaboration amongst stakeholders for driving the goals
<b>9</b>	<b>Panelist</b>	Sh. Bharat Jhunjunwala	Ganga and Water conservation in Himalayan Region

## Annexure - 2

<b>List of Participants</b>	
<b>Event Sponsors</b>	
1	Dr. Bashabi Gupta, Professor, Miranda House, Delhi University
2	Dr. R. S. Rawal, Director, Govind Ballabh Pant National Institute of Himalayan Environment and Sustainable Development (GBPNIHESD)
3	Dr. Amar Kumar Jain, Additional Director, CSIR - Indian Institute of Petroleum
<b>Speakers</b>	
4	Dr. Arun Jugran, Scientist, Govind Ballabh Pant National Institute of Himalayan Environment and Sustainable Development (GBPNIHESD)
5	Dr. Lakhpat Rawat, Technical Expert, Govind Ballabh Pant National Institute of Himalayan Environment and Sustainable Development (GBPNIHESD)
6	Dr. Sanat Kumar, Sr. Principal Scientist, CSIR - Indian Institute of Petroleum
7	Dr. Neeraj Atray, Principal Scientist, Indian Institute of Petroleum
8	Dr. Suresh Gairola, Director General, Indian Council for Forestry Research and Education (ICFRE)
9	Sh. Indu Kumar Pande, Chairman, Finance Commission, Government of Uttarakhand
10	Sh. Prakash Sharma, Chief Finance Officer, National Skill Development Corporation (NSDC)
11	Dr. Shuchismita Pandey, Additional Commissioner of Civil Supplies and Consumer Protection, Government of Uttarakhand
12	Dr. Sharad Singh Negi, Chairman, Uttarakhand State Environment Assessment Authority (USEAA), Government of Uttarakhand
13	Dr. Rajendra Dobhal, Director General, Uttarakhand State Council for Science and Technology (UCOST), Government of Uttarakhand
14	Dr. R. P. Bhat, Former Director General, Uttarakhand State Health Commission
15	Sh. Brij Mohan Singh Rathore, Chief Policy Advisor, International Centre for Integrated Mountain Development (ICIMOD), Nepal
16	Dr. Sunil Pareek, Professor, National Institute of Food Technology Entrepreneurship and Management
17	Dr. Uttam Sinha, Sr. Researcher, Institute for Defence Studies and Analyses
18	Prof. A P Dimri, Professor, Jawahar Lal Nehru University (JNU)
19	Dr. Chander Kumar Singh, Professor, The Energy and Resources Institute (TERI)
20	Prof. Surekha Dangwal, Professor, HNB Garhwal University
21	Dr. Padam Gurmet, Director, National Research Institute for Sowa Rigpa, Leh, Ministry of Ayush, Government of India
22	Dr. Pradeep Mehta, Technical Expert, Gesellschaft für Internationale Zusammenarbeit (GIZ)
23	Sh. Ramaswami Balasubramaniam, Founder, Swami Vivekananda Youth Movement
24	Dr. Bharat Jhunjhunwala, Himalayan Environmentalist, Ganga Trust

25	Sh. Tarun Vijay, Chairman, National Monument Authority
26	Sh. Dinesh Kulkarni, Organising Secretary, Bhartiya Kisan Sangh
27	Sh. Vijay Swami, Executive Director, Research Institute of World's Ancient Traditions, Cultures & Heritage (RIWATCH)
28	Sh. Markandey Rai, Senior Advisor, UN-Habitat
29	Sh. Gopal Arya, National Coordinator, Paryavaran Bharti
30	Dr. Kshama Metri, National Director, Chinmaya Organization for Rural Development (CORD)
31	Sh. Sanjay Gupta, Consultant, World Bank Group
32	Dr. A. N. Purohit, Former VC, HNB Garhwal University
33	Sh. Nekam Tana Tara, Founder, Papum Para Eco-Agro Estate, Arunachal Pradesh
34	Sh. Anoop Nautiyal, Founder, Gati Foundation
35	Sh. Umendra Dutta, Executive Director, Kheti Virasat Mission
36	Dr. S. P. S. Beniwal, Chairman, Asian Agri History Foundation (AAHF)
37	Dr. Pankaj Tiwai, Manager, Aarohi (NGO)
38	Sh. Shachidanand Bharti, Himalayan Environmentalist
39	Sh. Anup Sarmah, Program Coordinator, Karuna Trust (Assam)
40	Smt. Sunita Kashyap, Secretary and founder, Mahila Umang Producers Company (Umang)
41	Sh. Ashok Shah, Manager, Grassroot Organisation (NGO)
<b>Other Participants</b>	
42	Dr. Kailash N Bhardwaj, Scientific Officer, Uttarakhand State Council for Science and Technology (UCOST), Government of Uttarakhand
43	Dr. Jyoti, Technical Officer, CSIR - Indian Institute of Petroleum
44	Dr. Manisha, Technical Officer, CSIR - Indian Institute of Petroleum
45	Sh. Rajesh Kumar, Prindpal Scientist, CSIR - Indian Institute of Petroleum
46	Dr. Suman Jain, Sr. Scientist, CSIR - Indian Institute of Petroleum
47	Dr. D. C. Pandey, Principal Technical officer, CSIR - Indian Institute of Petroleum
48	Sh. Kavi Kumar, Aarohi (NGO)
49	Dr. Anil Jaggi, CEO, Company CSR
50	Sh. Harpal Singh Negi, Secretary, Uttaranchal Youth & Rural Development Center
51	Sh. Siddharth Singh Negi, Director, Uttaranchal Youth & Rural Development Center
52	Sh. Anil Vartak, Delhi Prant Pramukh, Vishwa Vibhag
53	Smt. Renu Sharma, Founder, Beti & Shiksha Foundation
54	Sh. Anil Kumar Joshi, Technical Expert, Gesellschaft für Internationale Zusammenarbeit (GIZ)
55	Smt. Hem Bahuguna, Social Worker
56	Dr. J. P. Semwal, Director, Padumjee Agro Industries
57	Dr. Rajeev P. Bijalwan, Dy. Manager, Rural Development Institute

## Annexure - 2

58	Smt. Neelam Pandey, Rural Development Institute
59	Sh. Raj Kumar Verma, Rural Development Institute
60	Sh. Ashwani K Saxena, Himalayan Institute of Hospital Trust
61	Sh. Rajiv Berry
62	Sh. Madhu Berry
63	Sh. Sourabh Saini
64	Sh. Kuldeep Negi
65	Sh. Jagesh Maugar
66	Sh. Baljeet Kaur
67	Sh. Praveen Mawpi
68	Sh. Pradeep Gairole
69	Smt. Maria Wirth
70	Sh. Arshu Ali
71	Mohammed Ali
72	Smt. Anuradha Sharma
73	Smt. Subhadra Rani
74	Smt. Surekha Chan Juyal
75	Sh. Manoj Srivastav
76	Sh. Shivam Dwunaliyal
77	Sh. Pankaj Gupta
78	Sh. Rajesh Sharma
79	Brig. CP Jiwan
80	Sh. Rakesh Bhatt
81	Sh. Sanjay Kumar
82	Sh. Sanjeev Pant
83	Sh. Chandi Dhar
84	Sh. Sanjeev Gupta
85	Sh. Kaushal Gupta
86	Smt. Navneet Goel
87	Dr. B. S. Bohra
88	Dr. Kavita
89	Dr. Usha
90	Sh. Kalayan Rawat
91	Sh. Dansan lal
92	Sh. Kishor Joshi
93	Sh. Nitish Kaushik
94	Sh. Rajendra Saklani
95	Sh. Dansan lal

Organising Team	
96	Sh. Rakesh Mittal, Trustee, Sewa International (Organising Team)
97	Sh. Shyam Parande, Secretary, Sewa International (Organising Team)
98	Sh. Nishant Aggarwal, CEO, Sewa International (Organising Team)
99	Sh. Jineshlal
100	Sh. Abhishek Kumar
101	Sh. Kailas Narawade
102	Sh. Ganesh Wagaskar
103	Sh. Shashidhar Muthyala
104	Sh. Akhil Koul
105	Sh. Prashant Padihary
106	Sh. Ranjit Singh
107	Ms. Shashi Chand
108	Ms. Anchal Pundir
109	Sh. Vipin Kumar
110	Sh. Nagendra Singh
111	Sh. Mahendra Pratap
112	Sh. Vijay Rawat
113	Ms. Preeti
114	Ms. Lata
115	Sh. Phagun Adhupiya

**THANK YOU!!**