

A GLOBAL HOTSPOT

- ▶ The Himalayas is one of the world's most sensitive hotspots to global climate change, with impacts manifesting at a particularly rapid rate. A situation that is predicted to intensify in coming years, with dire and far-reaching impacts on food, water and energy security, as well as biodiversity and species loss. Not just in the Himalayas, but throughout Asia.

“ Climate change; Environmental situation today already is, and in the future will be, different from what it has been previously ”

CLIMATE CHANGE

- ▶ **Climate change (in Himalayas) poses a serious threat with dire and far-reaching impacts on biodiversity, food, water and energy security**
- ▶ **Earth**
 - ▶ Most vulnerable ,Drought situations ,desertification
- ▶ **Water Resources**
- ▶ **Biodiversity**
 - ▶ Human Beings
 - ▶ Vegetation
 - ▶ Animals/ Wildlife

INDICATORS

- ▶ Extreme weather conditions
- ▶ Erratic and unpredictable weather conditions
- ▶ Drawing-up of water sources
- ▶ Changing rainfall /snowfall patterns
- ▶ Extreme weather conditions
- ▶ Changes in temperatures
- ▶ Dust storms

MELTING OF GLACIARS

- ▶ Glaciers are store homes for freshwater
- ▶ For centuries, millions of people downstream have benefited from the glacial meltwaters that feed the rivers downstream. In addition to providing freshwater, glaciers are repositories of information about climate change as they are sensitive to changes in temperature and precipitation.
- ▶ Accelerated soil erosion, landslides, melting glaciers and rapid loss of habitat and genetic diversity

VANISHING FAUNA AND FLORA

- ▶ There is widespread livelihood issues for millions of humans within Himalaya and adjoining regions
- ▶ Impacting on the people and wildlife of the region.
- ▶ It is widely understood that the Himalayan region is one of the most ecologically sensitive
- ▶ Over 200 million people live in the mountains, valleys, and hills of the imalayan region, and over 1 billion people live in the basins downstream. An estimated 3 billion people benefit from the water and other goods and services that originate in the mountains above..
- ▶ The region is undergoing dramatic change that is triggered largely by the climate change and human activity .

KNOWLEDGE GAP

- ▶ The peoples who live in the mountain regions are disproportionately affected by the impacts of climate change
- ▶ Most of the grass root level poor people have no knowledge regarding the severe impact of climate change in the mountain regions.
- ▶ They have encountered disasters all year including flash floods, rising temperatures, windstorms, endemic disease, heat-waves, decreasing area of wetlands, rainfall instead of snowfall in the high mountains and intermittent rainfall.

PROBLEMS

- ▶ In addition to problems getting water, prolonged droughts also make it difficult for people to get sufficient food . It is not possible to irrigate the cultivable land in the hill regions, thus the production of crops like rice, potato, maize etc. is continuously decreasing in the Himalayas.
- ▶ Intensive rainfall, caused by global warming, also leads to heavy soil erosion, damaging cultivated lands.
- ▶ Climate change, land use change, and population dynamics are highpoints

Where is the story – a news peg

1. Himachal is predominantly state; Impact on crops, fruits ,Horticulture
2. Shifting of farm operations
3. Forests and Environment; Forest felling and its impacts
4. Rivers – Hydro power ,Irrigation, Drinking water issues (water scarcity),and floods
5. Disasters – Himachal in seismic zone, Landslides ,falling trees ,Sinking of soil
6. Constructions --- Urban areas, buildings ,hotels (Shimla, Dharamshala, Kasauli, Manali , Solan)

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- 7. Health and sanitation**
 - 8. Monkey issue and wild animals**
 - 9. Governance and policy issues**
 - 10. Pollution – Environmental degradations; - Industrial belt, Hill
tourists destinations ,vehicular pollution**
 - 11. Population**
 - 12. Migrant labour or migration**
 - 13. Sustainable development –Infrastructure projects ,Roads and
Highways**
 - 14. Dumping and landfills**
 - 15. Transport**
 - 16. Illegal mining**
 - 17. LPG issue –Ujwala yojana**

MEDIA

- ▶ Crops, plantations, even livestock in 151 districts, or slightly more than one-fifth of the total districts in India, are susceptible to the impact of climate change, according to an annual review by the Indian Council of Agricultural Research (ICAR), a wing of the agriculture ministry.

The effects of climate change on India's agriculture, which employs half the population and accounts for 17% of the country's economic output, are no longer about distant projections. The latest research, cited by the ICAR study, shows the impact of climate change will be increasingly felt, as demonstrated by extreme weather events -- and manifest itself in economic, political, even social consequences

--- Hindustan Times

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Climate change is also an opportunity for correction and a wake-up call

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-- SUNITA NARAIN



India

Agriculture goes downhill in Himachal, its share in state's economy drops to just 8.8%

Agriculture used to account for 26.5% of the State Domestic Product in 1990-91, but many factors have contributed to its decline in Himachal Pradesh.

ASHWANI SHARMA

25 June, 2019



Women farmers at work in their vegetable plots near Kullu town, Himachal Pradesh



Water Sector Options for India in a Changing Climate



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Himanshu Thakkar

STATE OF INDIA'S ENVIRONMENT

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A DownToEarth ANNUAL