Millennium Post 09-February-2021

Climate change, Western disturbance, or both? Scientists ponder reasons for U'khand floods

NEW DELHI: Global warming or maybe a Western disturbance bringing fresh snow that melted could have triggered the inundation in Uttarakhand's Chamoli district, experts said on Monday as they scrambled to understand the reasons for the avalanche and floods that wreaked havoc in the upper reaches of the Himalayas.

The Snow and Avalanche Study Establishment (SASE) of the Defence Research and Development Organisation is investigating the exact reason for the flooding but there are no clear answers yet for a glacier to have melted in the winter.

It is not clear whether the flood is a typical Glacial Lake Outburst Flood (GLOF) or some temporary damming due to a landslide and avalanche that might have blocked the mainstream to form a temporary lake which burst, said Ranjit Rath, director general of the Geological Survey of India (GSI).

A GLOF is a type of outburst flood that occurs when the dam containing a glacial lake fails.

Once the water level recedes a team of experts will assess the damage as well as the triggering factor responsible for the outburst, Rath told reporters here.

As the nightmare envisaged by numerous environmentalists warning against untrammeled development in the mountains came true on Sunday, glaciologist Farooq Azam said a glacial burst is very rare.

"We have been trying to understand the event since yesterday. Right now what we can tell is a glacier slipped from around 500-600 metres, which started a landslide with an icefall that triggered this disaster," Azam, assistant professor, Glaciology & Hydrology, Indian Institute of Technology (IIT), Indore, said.

"For sure there was no glacial lake outburst flood, for sure there is no cloud burst because there is no lake available in the region at this particular time. Even if there are lakes, they are frozen and they don't have any activity. The disaster happened because of an icefall and landslide." he added.

Satellite and Google Earth images, Azam added, do not show a glacial lake near the region, but there's a possibility there may be a water pocket in the region.

Water pockets are lakes inside the glaciers, which may have erupted leading to this event, Azam said.

The scientist, however, said further analysis, weather reports and data are needed to confirm if this indeed was the case.

There is no doubt that global warming has resulted in the warming of the region. Climate change driven erratic weather patterns like increased snowfall and rainfall, warmer winters have led to the melting point of a lot of snow, he added.

Climate scientist Roxy Mathew Koll agreed and also said more data is needed.

The damaged Tapovan-Vishnugad hydel project of NTPC PTI

He said the recent climate change assessment report for India shows significant melting and decline in glacier mass over the Himalayan region in the recent decades due to warmer temperatures.

Koll also said it was not clear if an accumulation of glacier melt led to this burst, and noted that Western disturbances during last week did bring in a lot of snow over the region, followed by clear sky and warm temperatures.

It is quite possible that climate change and melting of fresh snow led to piling up of water in this area, Koll, the Indian Institute of Tropical Meteorology (IITM) in Pune, said.

Weighing in with his views, Amit Srivastava, head of School of Civil Engineering, Lovely Professional University (LPU), Punjab, said Sunday's event was a simple phenomenon.

Natural reservoirs or ice glaciers are created in the top Himalayan region due to hill boundaries. Due to climate change, when temperatures rise, ice melts and turns into a water reservoir, Srivastava, who specialises in geotech engineering, explained.

High water pressure breaks the barrier and creates flood-like situations, he said, adding that scientists have been predicting this for a very long time but it is happening now.

Pointing out that there is not enough data to give information on what caused the avalanche and floods, Anjal Prakash, adjunct associate professor at the Indian School of Business (ISB), Hyderabad said, What we know, prima-facia, is that this looks very much like a climate change event as the glaciers are melting due to global warming.

According to him, the Intergovernmental Panel on Climate Change (IPCC)'s Special Report on Oceans and Cryosphere in a Changing Climate (SROCC) shows that climate change has altered the frequency and magnitude of natural hazards.

The scientists reported with medium confidence that in some regions snow avalanches involving wet snow have increased while the rain on snow floods have also increased at lower elevations in springs, Prakash, lead author of the ongoing 6th Assessment report of IPCC, said in a statement.

The impact of global warming on glacial retreat is well documented, he said. The IPCC report shows that temperatures are rising in the Hindu-Kush Himalayan region and the rise in global temperature will have more impact in the Himalayan region due to elevation-dependent warming, Prakash added.

He urged the government to spend more resources in monitoring the region better so there is more information about the change, adding this could help develop better adaptation practices.

The glaciers in the Himalayas are retreating under climate change scenario, which is a global phenomenon, Rath said.

"With the passage of time, some of the glacial lakes near the terminus often coalesce together and form large glacial lakes dammed by glacial moraines. The constitution of the moraines comprising loose boulders, gravels, sand admixture often containing dead ice, imparts inherent weakness to these dams, Rath said.

"These lakes are quite common on the debris-covered Himalayan glaciers wherein the lower part of the glacier moves very slowly and at times remains almost stationary. The breach glacial and outbursts, termed as GLOF, can result in the discharge of a huge volume of water leading to severe damage in the areas falling in the downstream region," he added. AGENCIES

The Statesman 09-February-2021

Massive rescue operation launched to evacuate trapped workers from Tapovan tunnel

Rescue team inside the Tapovan tunnel in Chamoli on Monday. SNS

RAJU GUSAIN
DEHRADUN, 8 FEBRUARY

Massive search and rescue operation was launched to save trapped workers from the Tapovan tunnel in Chamoli on Monday. The Uttarakhand government has officially confirmed that 197 workers remain missing in the flash flood.

The rescue team has so far recovered 20 bodies and was successful in evacuating 12 persons trapped in a tunnel.

A big rescue team, involving Indo-Tibetan Border Police (ITBP), Army, SSB, State Disaster Response Force and National Disaster Response Force, are working day and night to find trapped workers.

A flash flood in the Rishiganga river created havoc near Reni village in district Chamoli on Sunday. The Rishiganga and Tapovan power projects were badly affected by the disaster. Providing a new theory on the flash flood, the Indian Institute of Remote Sensing (IIRS) (a constituent unit of Indian Space Research Organisation) claims that the flash flood took place after a landslide triggered a snow avalanche. The institute rejects the earlier theory of the disaster taking place due to glacier burst.

The Dehradun based Indian Institute of Remote Sensing used two images- one of 6 February and other of 7 February – to state, "It has been observed from the satellite data of 7 February 2021 in the catchment of the Rishiganga at the terminus of the glacier at an altitude of 5,600 Mts, a landslide triggered a snow avalanche covering 14 sq. km and causing a flash flood in the downstream of the Rishiganga."

The IIRS finding estimates that the flash flood has generated 2-3 million cubic meter of water in a short span. The entire focus of the teams involved in search and rescue operations since Sunday is to rescue trapped workers from the two tunnels at Tapovan.

An ITBP team saved the lives of a dozen workers, who were stuck in a tunnel. Excavators were used to clear the slush and debris inside the other tunnel and the operation continued for the second successive day.

Uttarakhand chief minister Trivendra Singh Rawat said, "I am leaving for Joshimath and will spend the night there. Tomorrow I plan to visit the affected areas and will also meet people. Our relief and rescue operations are continuing in full swing and we are doing best to save lives."

A joint team of the ITBP, Army, SDRF, SSB and NDRF were involved in clearing debris from the Tapovan tunnel. The team has cleared debris from 90 Mts patch and the target is to remove the remaining 50 Mts stretch to reach a junction of the tunnel. It is assumed that 30 to 35 persons are trapped in the tunnel.

Uttarakhand Police's DGP Ashok Kumar, "We are involved in the search and rescue work and presently operation to clear debris from the Tapovan tunnel is underway. We are supplying relief material to affected villages~ which lost their connecting road as their bridges were swept away in the flash flood."

About a dozen villages' remains cut off from the rest of the world after losing the bridges. The Uttarakhand government used choppers to supply rations in the affected areas. Union Minister of State (Independent Charge) Raj Kumar Singh and Union Education Minister Ramesh Pokhriyal Nishank toured the affected area on Monday.

The Statesman 09-February-2021

1.01 lakh migratory birds spotted in HP's Pong dam this year

STATESMAN NEWS SERVICE
SHIMLA, 8 FEBRUARY

Himachal Pradesh Forest Minister Rakesh Pathania said on Monday that a total of 1,08,578 birds of 96 species were counted during this year at the Pong Dam Lake Wildlife Sanctuary.

Of them, water dependent migratory birds were 1,01,431 of 51 species and water dependent resident birds were 6,433 of 29 species. As many as 714 birds of 16 other species were also recorded.

The minister said the results of the annual water bird count show that the habitat of migratory and resident water birds has gradually improved in the state due to effective and timely interventions.

He said that the annual water bird count at Pong Dam Lake Wildlife Sanctuary was conducted in the first week of February, 2021 and the exercise was conducted under restrained conditions due to the prevailing Avian Influenza outbreak in Pong Dam Lake as well as the COVID-19 Pandemic.

The exercise was conducted by Wildlife wing of Himachal Pradesh by deploying [illegible] tions of the sanctuary for counting the water dependent birds. The total population of the flagship species, Bar-Headed Geese, is 40,570.

The number of these winged visitors is marginally less than last year due to the avian influenza outbreak, which was first reported on 28 December 2020 in the Pong dam lake wildlife sanctuary

have higher population count during this year are Eurasian Coot (24,163), Northern Pintail (12,702), Common Teal (8,444), Little Cormorant (3,649), Great Cormorant (3,410), Grey Lag Goose (2,297), Northern Shoveler (2,275) and Common Pochard (2,138).

The species which find noticeable mention are Red Lesser White-Fronted Goose, Red Crested Pochard, Ferruginous Pochard, Pied Avocet, Northern Lapwing, Peregrine Falcon etc. During the counting exercise one Bar-headed Goose and one Grey-lag Goose with collars was also spotted.

Pathania congratulated the Wildlife Wing of Forest [illegible] annual bird count exercise in Pong Dam Lake Wildlife Sanctuary as per schedule. He said that this year the annual bird count exercise assumes significance, considering the Avian Influenza outbreak in the Wildlife Sanctuary. He expressed satisfaction over the timely and effective containment measures taken by Wildlife wing to control and contain the outbreak.

Principal Chief Conservator of Forests (PCCF) (Wildlife) Archana Sharma and Chief Conservator of Forests (CCF), Wildlife (North) Dharamshala, Upasana Patial also participated in the annual water bird count.

The total population of birds as well as the number of species counted this year is marginally less as compared to last year, probably due to the impact of Avian Influenza outbreak which was first reported on 28 December 2020.

Although the total population of water birds declined during the peak of Avian Influenza outbreak, there is gradual increase in the total population of birds as a result of continuing containment measures being taken in the Pong Dam Lake, the minister

The Statesman 09-February-2021

GSI working to find out focal point of Uttarakhand flash flood

STATESMAN NEWS SERVICE
KOLKATA, 8 FEBRUARY

In the wake of the natural disaster that took place in Uttarakhand and subsequently paved way for a humanitarian crisis, Dr Ranjit Rath, DG Geological Survey of India (GSI) today assured the organization is in the process of finding out the focal point of this unfortunate flash flood since it is not clear whether it is a typical Glacial Lake Outburst Flood (GLOF) or some temporary damming due to a landslide and avalanche.

While addressing a Press gathering on the Glacial Outburst in Chamoli, Dr Rath said he was of the opinion that the glaciers in the Himalayas are retreating under climate change scenario. Such recession is a global phenomenon. With the passage of time, some of the glacial lakes near the terminus often coalesce together and form large glacial lakes dammed by glacial moraines.

He further opined that the constitution of these moraines comprising loose boulders, gravels, sand admixture often containing dead ice, imparts inherent weakness to these dams. These lakes are quite common on the debris-covered Himalayan glaciers wherein the lower part of the glacier moves very slowly and at times remains almost stationary. The glacial breach and outbursts, termed as Glacial Lake Outburst Flood (GLOF), can result in the discharge of a huge volume of water leading to severe damage in the areas falling in the downstream region.

The Statesman 09-February-2021

Hydel power plants under scanner

TIRTHANKAR MITRA
KOLKATA, 8 FEBRUARY

After a flash flood wreaked havoc in Uttarakhand causing death and destruction on Sunday, the needle of suspicion points to deforestation and indiscriminate sprouting of hydel power stations in that state over the past several years.

As the disaster refreshes the collective memory about the 2013 Kedarnath catastrophe, it also focuses on a report of the Union Ministry of Environment and Forests which took into consideration mushrooming of hydel power plants in the hilly state.

Underscoring the point, a report to the Supreme Court of a committee of the People's Science Institute (PSI), Dehradun, recommended scrapping of more than 20 hydel power stations in and around the Alaknanda river.

The construction of these hydel power stations is changing the water level and course of the river, damaging stability of soil and rocks of the adjacent forests which is essential to prevent landslides.

Apart from a global rise in temperature, the factors raised in the PSI report can be the reason behind the disaster – be it a glacial lakes burst or an avalanche. The hydel power plants of Uttarakhand being based on "run of the river" principle can adversely affect the areas in and around the waterbody, it is apprehended.

Tree roots are important segments of keeping the earth and the rocks therein firmly embedded. But deforestation, often to make way for a hydel power plant weakened the "ground strength" of soil near the river which would hardly put up a strong resistance to the rushing flood water, it was pointed out.

Nearly 7,000 acres of forest land faced the fallout of building more than a 100 hydel power plants, it was learnt. The cumulative effect of indiscriminate tree felling and coming up of hydel power stations have to be probed to arrive at the cause of the recent disaster.

The building of tunnels by blasting rocks in Alakananda valley preceded the building of hydel power stations. It has damaged the adhesion of the rocks in the soil and reduced its capacity to retain rainwater in the event of a heavy downpour.

Asian Age 09-February-2021

An ecological tragedy of Himalayan proportions

A tragedy of gargantuan proportions washed away close to 200 people, destroyed or damaged two hydroelectric dams and five bridges as the Nanda Devi glacier burst in Uttarakhand. The GLOF (glacier lake outburst flood) event that created a deluge of frightening proportions downstream in rivers was said to have been triggered by an avalanche on Sunday morning. The rescue efforts by over 2,000 members of the Army, police and paramilitary forces, and state and national disaster response teams have been heroic as the Himalayan state grappled with yet another tragedy like the 2013 monsoon floods in the wake of cloudbursts that killed nearly 6,000 people, which was the worst ever toll as muddy water poured down the gorges and drowned entire villages.

Ecologically fragile regions around the world are fraught with danger and the pace of development in sustaining a rising population trend, and man's co-existence with nature has been threatened in the most basic ways. The fallout from deforestation is clear even as the more populated stretches of the Himalayas show how precariously man is perched on mountainous terrain. It is obvious that lessons have not been learnt from years of having to deal with floods from the monsoon or melting glaciers. It is against this background that the foolishness of building hydroelectric dams too close to glaciers must be viewed when global warming is seen to create havoc in the icy Himalayan upper reaches.

Melting glaciers are the clearest signs of climate change, and since this event took place outside the monsoon period, it is safe to assume human intervention was a causative factor.

It is a specious argument that a state which has to purchase power in the region of ₹1,000 crore a year must build dams in ecologically sensitive regions in order to save money. So long as the consumer pays for the power purchased, there should be no need for Uttarakhand to spend thousands of crores in building dams to generate electricity. They have been warned about this, including in scientific advice tendered to ruling party politicians. The era of building dams is truly over as man has learnt from experience that Nature is a force that can be overpowering when it is taken on or teased.

Himalayan efforts by a tiny state like Uttarakhand can't by themselves reverse global warming but man can learn from the simple principle that Nature cannot be toyed with, particularly in fragile zones. Melting glaciers are the clearest signs of climate change, and since this event took place outside the monsoon period, it is safe to assume human intervention was a causative factor. It will be up to scientists to study the event and render an opinion on what may have caused it and it is entirely up to the administration in hilly areas to enforce laws strictly to ensure that ecological preservation rules are always followed lest such events recur.

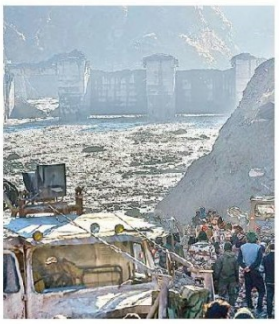
Quick communication of the impending water flow may have saved hundreds of lives downstream of the Ganga's several tributaries as many villagers were evacuated in time. The standard announcement of relief to the families of the dead followed a pattern which points to the government's utter helplessness in dealing with calamities and in stopping human contribution to climate change. The bursting of a glacier in the Garhwal Himalayas is a chilling warning of what we may be up against if we continue to recklessly exploit our planet's finite resources.

The Hans 09-February-2021

THE HANS INDIA

MASSIVE RESCUE OP TO SAVE 39 TRAPPED INSIDE UTTARAKHAND TUNNEL

Toll mounts to 26; Still 171 missing



NEW DELHI

A massive operation led by a joint team of the ITBP, Indian Army, SDRF and NDRF is underway to rescue 39 people, which include power plant workers, trapped inside a tunnel after the glacier burst in Uttarakhand's Chamoli district.

The team had earlier managed to enter the 12-foot high and 15-foot wide tunnel at Tapovan and reach about 100 metres before they were forced to retreat as sludge and water blocked their way.

Uttarakhand Director General of Police Ashok Kumar said that efforts were focussed on rescuing the labourers trapped in the tunnel. Two villages are cut off and essentials are being supplied to them.

The work was complicated by the fact that the tunnel is slightly curved, making difficult to clear the slush, debris and silt blocking it.

Continued on Page 7

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THE HANS INDIA

FUNDS FOR POLAVARAM

Progress after panel decision: Centre

HANS NEWS SERVICE
NEW DELHI

- Jal Shakti Minister says once the committee on revised cost takes a decision, the Cabinet will move ahead
- Asks the State govt first to expedite the rehabilitation and resettlement-related issues as there will not be any difficulty for flow of funds
- He responds to a question by YSRCP member Vijayasai Reddy who raised the discrepancy in recommendations of Technical Advisory Committee and Revised Cost Committee

UNION Jal Shakti minister Gajendra Singh Shekhawat here on Monday in his reply to YSRCP MP V Vijayasai Reddy on Polavaram costs, said that a committee was appointed for the revised cost estimates and once its decision was conveyed, the Cabinet would take it forward.

The Centre had been reimbursing the expenditure on irrigation component of the project with effect from April 1, 2014, upon receipt of verified bills and recommendations from the Polavaram Project Authority (PPA) and Central Water Commission (CWC), with the approval of the ministry of finance (MoF).

Funds were being provided through Extra Budgetary Resources (EBR) from NABARD from Long Term Irrigation Fund (L TIF), after seeking specific approval.

Further, NABARD raises the funds from the market once requirement of requisite amounts is conveyed to them by this ministry. NABARD normally requires about two to three weeks to arrange funds from market (depending upon market conditions) and transfer to National Water Development Agency (NWDA). The funds are then transferred to the state, the minister added.

Vijayasai Reddy sought clarification regarding the total amount pointing to the fact that the minister had previously said in the Lok Sabha that the Revised Cost Committee recommended the revised estimates at Rs.47,725 crore and the Technical Advisory Committee (TAC) has given investment clearance for Rs 55,656.87 crore as per 2017-18 price level. The state government so far had spent over 2,500 crore own money for the national project, he added seeking to know when would the money be reimbursed.

The Union minister further added that under the AP Reorganisation Act when the Polavaram Irrigation Project (PIP) was declared a national project, it was decided that the state government would undertake it. The ministry of finance moved the Cabinet note of the Act under which it was written that the project would be completed under the 2013-14 price level.

The RCC (Revised Cost Committee) had worked out the estimate as of 2017 and the matter after this was yet to be discussed.

This would then be finalised and would be sent to the Cabinet and then what the Cabinet finally decides would be taken up.

As far as flow of funds is concerned, there were no difficulties involved in it, the minister assured. "I would like to tell the House that there are no difficulties involved in it. While it was decided that Polavaram would be a national project it was decided then only that it would be paid in a reimbursement mode. From LTIF and NABARAD, this money is raised and given to the state government based on the bills and documents they submit which are then verified and funds are released. I think the difficulties are not involved in the flow of funds. I think the state government needs to focus and expedite the process of R&R (rehabilitation and resettlement) related issues. This project can then be completed at the pace desired by the Chief Minister of Andhra Pradesh".

The Pioneer 09-February-2021

जलवायु परिवर्तन या पश्चिमी विभोक्ष, पता लगा रहे वैज्ञानिक

● भीषण तबाही मचाने वाली प्रलय के कारणों का अभी स्पष्ट पता नहीं चला

पायनियर समाचार सेवा। नई दिल्ली

उत्तराखंड के चमोली जिले में बाढ़ जलवायु परिवर्तन या पश्चिमी विक्षोभ के कारण बर्फ पिघलने से आई होगी। ऐसा अनुमान रविवार को हुए हिमस्खलन तथा बाढ़ के कारणों का पता लगा रहे विशेषज्ञों ने जताया है। भीषण तबाही मचाने वाली इस बाढ़ के कारणों का अभी स्पष्ट पता नहीं चल पाया है। इसने उत्तराखंड में 2013 की त्रासदी से मिले जख्मों को फिर से हरा कर दिया जब पहाड़ों में भीषण बाढ़ आने से हजारों लोगों की मौत हो गई थी। बीते रविवार को जोशीमठ में नंदा देवी ग्लेशियर का एक हिस्सा टूट गया जिससे अलकनंदा नदी एवं उससे जुड़ी अन्य नदियों में भीषण बाढ़ आ गई। सोमवार दोपहर तक 18 शव निकाले जा चुके थे और 202 लोग अभी भी लापता थे। रक्षा अनुसंधान एवं विकास संगठन का बर्फ एवं हिमस्खलन अध्ययन संस्थान बाढ़ के कारणों का पता लगा रहा है, लेकिन ठंड के समय में ग्लेशियर के पिघलने का स्पष्ट कारण पता नहीं चल पा रहा है। जियोलॉजिकल सर्वे ऑफ इंडिया (जीएसआई) के महानिदेशक रंजीत रथ ने कहा कि यह स्पष्ट नहीं है कि बाढ़ ग्लेशियर झील फटने के कारण आई या भूस्खलन और हिमस्खलन के कारण अस्थाई तौर पर यह घटना घटी। रथ ने यहां संवाददाताओं से कहा कि जल स्तर कम होते ही विशेषज्ञों की टीम क्षति का आकलन करेगी और ग्लेशियर टूटने के कारणों का पता लगाएगी। भारतीय (शेष पेज 9)

Haribhoomi 09-February-2021

राहत एवं बचाव अभियान में युद्धस्तर पर जुटी सेना

सुरंग में जिंदगी की 'जंग', 203 मजदूर फंसे

हरिभूमि ब्यूरो ▶▶ नई दिल्ली

उत्तराखंड में ग्लेशियर फटने की त्रासदी में दुनिया भर से बढ़े मदद के हाथ

उत्तराखंड के चमोली में ग्लेशियर टूटने से आई आपदा ने काफी इलाके तबाह कर दिए हैं। आपदा के बाद से 203 लोग लापता हैं और कुल 24 शव बरामद हुए हैं। तपोवन की दूसरी सुरंग में फंसे लोगों को बाहर निकालने की कोशिशें हो रही हैं। तपोवन की टनल में करीब सौ मीटर तक टीमें पहुंच गई हैं, लेकिन अंदर दलदल होने के कारण मिशन में देरी हो रही है। सोमवार को केंद्रीय मंत्री आरके सिंह ने भी घटना स्थल का दौरा किया। उत्तराखंड के चमोली में ग्लेशियर फटने से आई त्रासदी में भारत को दुनियाभर के शीर्ष नेताओं का समर्थन मिल रहा है, जिसमें एक ओर वह मुश्किल की इस घड़ी में भारत को अपना समर्थन दे रहे हैं। ▶▶ शेष पेज 5 पर

तपोवन डैम बादल फटने से बहा

वायुसेना के जोशीमठ में तैनात एडवांस लाइट हेलिकॉप्टरों (एएलएच) की शुरूआती जांच रिपोर्ट के हिसाब से तपोवन हाइड्रो इलेक्ट्रिक पावर डैम चमोली में बादल फटने की घटना की वजह से पूरी तरह से बह चुका है। साथ ही तपोवन के पास मलारी घाटी के प्रवेश पर बने हुए दो पुल भी पूरी तरह से ग्लेशियर के साथ आए पानी और मलबे के सैलाब के साथ पूरी तरह से बह गए हैं। जबकि जोशीमठ से तपोवन जाने वाली मुख्य सड़क पूरी तरह से ठीक है। घाटी में जारी निर्माण कार्य और निचले भाग में हादसे से क्षति पहुंची है। नंदादेवी ग्लेशियर के मुहाने से लेकर धौलीगंगा और अलकनंदा तक पत्थर ▶▶ शेष पेज 5 पर

ऑस्ट्रेलिया-फ्रांस का मिला समर्थन

सरकार के सूत्रों ने बताया कि त्रासदी को लेकर सोमवार सुबह ऑस्ट्रेलिया के प्रधानमंत्री स्कॉट मॉरिसन ने ट्वीट कर पीड़ित परिवारों के प्रति अपनी संवेदनाएं प्रकट करते हुए कहा कि दुख की इस घड़ी में ऑस्ट्रेलिया अपने एक सबसे अच्छे और गहरे दोस्त भारत के साथ खड़ा है। भारत से एक दुखद खबर सामने आई है, जिसमें ऑस्ट्रेलिया सहयोग करेगा। इससे पहले हादसे को लेकर फ्रांस के राष्ट्रपति इमैनुअल मैक्रो और भारत में जापान के राजदूत संतोशी सुजुकी ने अपनी संवेदनाएं प्रकट की थी। फ्रांस के राष्ट्रपति ने अपने ट्वीट में कहा था कि फ्रांस उत्तराखंड में हुए इस हादसे को लेकर पूर्ण एकजुटता से भारत के साथ खड़ा है, जिसमें 100 से अधिक लोग लापता हो गए हैं। हमारी संवेदनाएं भारत और ▶▶ शेष पेज 5 पर

Haribhoomi 09-February-2021

त्रासदी का अंदेशा पहले से था

उत्तराखंड

डॉ.रमेश ठाकुर

तपोवन समेत समूचे उत्तराखंड में जितने भी मौजूदा वक्त में प्रोजेक्ट्स चल रहे हैं, उनका पर्यावरणविदों ने कई बार विरोध किया है, लेकिन सब बेअसर साबित हुए। उत्तराखंड देवोत्थान है, देवों की भूमि कही जाती है। लेकिन उनके आशियानों को उजाड़ने में मानवीय हरकतें युद्ध स्तर पर लगी हैं। बड़े-बड़े गगनचुंबी पहाड़ों को तहस नहस किया जा रहा है। विरोध होता है, पर असर नहीं होता। मानव सुविधाओं के लिए परियोजनाओं को संचालित किया जाना भी जरूरी है, पर कुदरत को नुकसान पहुंचाकर नहीं? कालांतर के काल खंड में इस बात का संदर्भ है कि जब-जब मानव ने कुदरती वस्तुओं को कोई नुकसान पहुंचाया, उसका ख़ामियाज़ा समूची मानव जाति को भुगतना पड़ा।

कालांतर में कही गई बात कि विकास के साथ विनाश भी आता है, उत्तराखंड में दूसरे दौर की आपदा के बाद सिद्ध हो गया है। पर्यावरण से संबंधित कुछ बातों को शायद हम नकारते चल रहे है। दशक भर पहले वैज्ञानिकों और पर्यावरणविदों ने हुकूमतों को मुफ्त में सलाह दी थी जिसे तत्कालीन केंद्र सरकार ने दरकिनार कर दिया है। सलाह के मुताबिक समूचे हिमालयीय क्षेत्र में ग्लेशियरों पर अध्ययन की जरूरत बताई थी। इसके अलावा ग्लेशियरों पर मुकम्मल अध्ययन के लिए सन् 2000 में सुप्रीम कोर्ट ने एक कमेटी भी बनाई थी। बावजूद इसके हमने पनबिजली योजना, बांध-बैराज आदि बनाने का लालच नहीं त्यागा। तपोवन में मचा कोहराम उसी हठधर्मी और नकारेपन का नतीजा है। केदारनाथ हादसे के बाद भी हमने कोई सबक नहीं सीखा। अब भी अगर हम सतर्क नहीं हुए, तो कुछ अंतराल के बाद अगली तबाही झेलने के लिए फिर से तैयार रहना चाहिए।

कुदरत ने दूसरी बार अपने रुद्र रूप से हमें परिचय कराया। संकेत साफ हैं कि मानव जाति को जितना संभलना है संभल ले, भविष्य में कभी भी कुछ भी हो सकता है। रविवार को सुबह से लेकर ढलती दोपहरी तक उत्तराखंड का ऋषिवास कहे जाने वाला तपोवन पूरी तरह से गुलजार था, लेकिन भगीरथी के प्रकोप ने क्षण भर में रौंद कर उसे पूरी तरह नष्ट कर दिया। ज्ञान, विज्ञान, सरकारी सिस्टम व स्थानीय लोग मूक दर्शक बनकर देखते रह गए। तपोभूमि उत्तरकाशी में विनाश की यह दूसरी किस्त है। सरकारी स्तर पर विनाश के कारणों को खोजना शुरू कर दिया है। वजहों को खोजना भी चाहिए? लेकिन निवारण ढूढ़ना उतना आसान नहीं दिखता? आपदा का कारण प्रथम दृष्ट्या ग्लेशियर का टूटना बताया गया है। हो भी सकता है ऐसा ही हुआ हो। क्योंकि पूर्व में हिमालय में भी ऐसी घटनाएं सामने आई थीं। जब वहां ग्लेशियरों के फटने से बड़ा सैलाब उमड़ा।

ग्लेशियर की जांच के लिए दिल्ली से वैज्ञानिकों बड़ा दल केंद्र सरकार ने रवाना किया है। ये दल वास्तविक रूप से तबाही की वजहों को खोजेगा और पता लगाएगा कि भविष्य में अगर ऐसी घटना घटे तो कैसे बचाया जाए। वैसे देखें तो घटना के कुछ कारण और मानवीय हिमाकतें सामने हैं, प्राकृतिक का वहां खुले आम दोहन किया जा रहा है। पहाड़ों को चीरकर तपोवन विष्णुगाड प्रोजेक्ट, ऋषिगंगा हाइड्रोप्रोजेक्ट, बिजली मेगावाट के अलावा कई प्रोजेक्ट्स वहां संचालित हैं। फिलहाल सभी परियोजनाएं विनाशकारी तबाही में नेस्तनाबूद हो गई हैं। सिर्फ निशान ही बचे हैं। प्रोजेक्ट्स में कार्यरत कर्मचारी-मजदूर पत्तों की तरह पानी के तेज बहाव में पता नहीं कहां-कहां बह गए हैं। तस्वीरों में साफ दिख रहा है, बहाव की जद में जो भी सामने आ रहा है वो बहता ही चला जा रहा है।

तपोवन में जितने भी मौजूदा वक्त में प्रोजेक्ट्स चल रहे हैं उनका पर्यावरणविदों ने विरोध भी किया है।

सिर्फ तपोवन में ही नहीं, बल्कि समूचे उत्तराखंड में जितने भी प्रोजेक्ट चल रहे हैं उनका भी विरोध किया था। लेकिन सब बेअसर साबित हुए। उत्तराखंड देवोत्थान है, देवों की भूमि कही जाती है। लेकिन उनके आशियानों को उजाड़ने में मानवीय हरकतें युद्ध स्तर पर लगी हैं। बड़े-बड़े गगनचुंबी पहाड़ों को आधुनिक मशीनों से तहस नहस किया जा रहा है। विरोध होता है, पर असर नहीं होता। मानव सुविधाओं के लिए परियोजनाओं को संचालित किया जाना भी जरूरी है, पर कुदरत को नुकसान पहुँचाकर नहीं? कालांतर के काल खंड में इस बात का संदर्भ है कि जब-जब मानव ने कुदरती वस्तुओं को कोई नुकसान पहुंचाया, उसका ख़ामियाज़ा समूची मानव जाति को भुगतना पड़ा।

याद आता है, अगस्त 2013 में सुप्रीम कोर्ट ने एक एक्सपर्ट बाडी का गठन किया था जिसमें कोर्ट ने कहा था कि धौल गंगा घाटी में प्रस्तावित बिजली परियोजना पर रोक लगाई जाए। क्योंकि वह क्षेत्र पैराग्लेशियल जोन में आता है। वहां तबाही के संकेत पहले से थे। ग्लेशियर अपने स्थान से काफी पीछे खिसक चुके हैं। जो जगह ग्लेशियरों ने छोड़ी थी, वहां बोल्डरयुक्त मलबे के बड़े-बड़े पहाड़ खड़े हो गए थे, जो कभी भी तबाही कारण बन सकते थे। उन पहाड़ों ने तबाही की तारीख सात फरवरी मुकर्रर कर रखी थी जिसका किसी को भनक तक नहीं हुई। हां, इतना जरूर पता था उन पहाड़ों का पानी के रूप में बहना निश्चित था। इस बावत पर्यावरणविद प्रो. रवि चोपड़ा ने सुप्रीम कोर्ट में शिकायत भी की थी। उनकी शिकायत को गंभीरता से लेते हुए अपनी बनाई कमेटी में उन्हें सदस्य भी बनाया था। उस समय उन्होंने जो सुझाव दिए, उनपर कांग्रेस की हुकूमत ने अमल नहीं किया।

केंद्र की मोदी सरकार के पहले कार्यकाल में जब उमा भारती मंत्री थी, तो उन्होंने भी उन पनबिजली योजनाओं का विरोध किया था। बाक़ायदा इसकी रिपोर्ट भी दी थी। लेकिन सरकार को काम रोकना उतना आसान नहीं था, तब तक सत्तर फीसदी परियोजना पूरी हो चुकी थी। परियोजना सन् 2000 से संचालित थी। इसलिए पर्यावरणविद प्रो. रवि चोपड़ा और तत्कालीन मंत्री उमा भारती के विरोधों का भी कोई असर नहीं हुआ? परियोजना का काम बदस्तूर जारी रहा। वैज्ञानिक रिपोर्ट ने भी केंद्र व राज्य की हुकूमत को आगाह किया था। विज्ञानियों और पर्यावरणविदों की सजगता को अगर गंभीरता से लिया होता तो शायद आज हमें इस प्रलय से सामना नहीं करना पड़ता। ये परियोजना अबकी नहीं, कांग्रेस सरकार के वक्त शुरू हुई थी।

वैसे, कायदा तो यही बनता था कि सरकारों को संभावित खतरों के लिए तैयार रहना चाहिए था और किसी भी तरह की वैज्ञानिक संस्तुतियों को नजरअंदाज नहीं करना चाहिए था। लेकिन ऐसा नहीं किया गया। खैर, जो हुआ उसकी भरपाई तो नहीं की जा सकती है, पर भविष्य में ऐसी आपदाओं से कैसे निपटा जाए उसके लिए हमें सक्रिय होना होगा। घटना की जांच के लिए केंद्र सरकार से भेजी गई वैज्ञानिक टीम की रिपोर्ट को गंभीरता से लेना होगा। ये तय है कि पहाड़ी क्षेत्र में सामान्य क्षेत्रों के मुकाबले खतरे ज्यादा रहते हैं। उच्च हिमालीय क्षेत्र व संवेदनशील स्थानों के प्रति हमारी हुकूमतों को अलग से कार्य योजनाएं बनानी चाहिएं। ग्लेशियर अपनी जगहों से काफी पीछे हट चुके हैं। आगे भी ऐसे हादसों के संकेत मिले हैं। संभावित खतरों से बचने की चुनौती हमारे समक्ष आगे भी रहेगी।

(ये लेखक के अपने विचार हैं।)

लेख पर अपनी प्रतिक्रिया edit@haribhoomi.com पर दे सकते हैं।