

**Opening Statement delivered by
Hon. Biraj Bhakta Shrestha,
Minister for Energy, Water Resources and Irrigation**

**at the Opening Session of
The Fifth Ministerial Conference on Space Applications for
Sustainable Development in Asia and the Pacific (MC-5)**

Mr./Madam Chair,
Madam Executive Secretary,
Excellencies,
Distinguished
Delegates,
Ladies and
Gentlemen,
Namaste and Jojo Lapa

It is an honour to address this Conference on behalf of Nepal. I thank ESCAP and the Royal Thai Government for bringing us together to strengthen regional cooperation in space applications.

For Nepal, this discussion has a direct and immediate impact on human lives. It concerns the safety of mountain communities, sustainable use of water resources, and the protection of development, built through years of hard work.

On 26 August, a mass of rock and glacier ice broke away high on Langtang Lirung. It swept down the Bhotekoshi and Trishuli rivers as a torrent of water, ice and debris. More than 1,400 people lost their lives, and more than 5,000 are still missing. Settlements, roads, bridges, a border crossing and hydropower plants were destroyed. Then on 11 October, a landslide dam burst on the Budhigandaki and struck a major hydropower project under construction.

The Rapid Damage and Need Assessment estimates total disaster impact at about 2.7 billion US dollars, with recovery and reconstruction needs approaching approximately 4.8 billion dollars.

These events show the complexity of the risks we face. A dry avalanche can block a river, create a temporary lake, and trigger a flood far downstream. Rainfall forecasts alone cannot capture this whole chain. A hazard born in the high Himalaya can travel hundreds of kilometres, across districts and across borders, in a matter of hours. That is the new reality of our mountains.

Climate change is placing mounting pressure on our fragile mountain eco-system. While each event requires careful scientific investigation, the need for enhanced monitoring and preparedness is clear.

Excellencies,

The Jakarta Ministerial Declaration gave our region a shared direction: stronger partnerships, better use of digital technologies, improved data management, and closer engagement with the people who use this information. I sincerely thank ESCAP for immediate sharing satellite imagery and technical information that helped to find out the causes of the Bhotekoshi disaster. I also thank friendly countries, regional institutions and development partners for their solidarity and assistance.

The information of sharing satellite imagery and disaster information, good practices and training to use SatGPT for disaster analysis recorded in the ESCAP's reports are praiseworthy. These achievements show how regional commitments can become useful services. We must now extend their reach and strengthen national capacity to use them.

Nepal welcomes the draft Bangkok Ministerial Declaration before this Conference. Its emphasis on data sharing, compatible systems, practical digital tools and technical assistance can strengthen cooperation during phase III, from 2026 to 2030.

Its support for Early Warnings for All and satellite connectivity in remote and mountainous areas is particularly relevant to Nepal.

For us, implementation should mean regular monitoring of glaciers, glacial lakes and unstable slopes; timely sharing of upstream risk information; and warnings that reach communities with clear guidance.

We encourage regional partners to develop joint programmes on cascading Himalayan hazards, combining satellite observations with ground measurements and local knowledge. Space applications can also guide safer hydropower development, irrigation planning and watershed management.

We are fully committed to protecting the safety and security of hydropower development, broader energy infrastructure and investments

that sustain Nepal's entirely clean energy system.

Nepal remains committed to its National Adaptation Plan for 2021–2050, its third Nationally Determined Contribution, and its ambition to achieve net-zero emissions by 2045. Despite our negligible 0.01% contribution to global greenhouse emissions, we are committed to clean energy, climate resilience, and practical regional cooperation.

Nepal stands to serve as a regional hub for research and learning on multi-hazards and climate change impacts, while sharing best practices in multi-hazard risk reduction and management across the Asia Pacific region.

Nepal and UN ESCAP are jointly organizing the regional dialogue, **“Sagarmatha to the Sea: Lessons from the Bhotekoshi-Trishuli Disaster in Nepal for Strengthening Resilience to Cascading Hazards in Asia and the Pacific,”** tomorrow on 29 October, from 10

a.m. to 1 p.m., in Conference Room 4. The programme aims to improve understanding of how climate, glacier, geophysical and coastal hazards connect and trigger further disasters across sectors and borders, from “mountains to the sea”. It will promote regional cooperation on data sharing, monitoring, early warning and risk-informed planning, while highlighting how satellite observations, geospatial analysis, artificial intelligence and youth-led innovations can strengthen disaster preparedness.

I warmly invite all delegations to participate.

Let us carry the spirit of Jakarta forward through the Bangkok Declaration, with sustained cooperation that helps countries understand risks, protect development and save lives.

Thank You.

Check Against Delivery

National Statement delivered by

**Hon. Biraj Bhakta Shrestha,
Minister for Energy, Water Resources and Irrigation**

on

**Agenda Item 2: Harnessing space applications for a resilient and
inclusive future through enhanced regional
cooperation**

Mr./Madam Chair, Excellencies, Distinguished Delegates,

As I shared in my opening statement earlier, Nepal's recent experience shows the urgent need to strengthen our ability to understand and respond to complex disasters. Here, I would like to focus on how we can turn space-based information into practical decisions, and regional cooperation into services that people can use.

The secretariat's report, "From Data to Action," offers a useful direction. Our region has growing satellite capabilities, more open data and powerful digital tools. Yet many institutions still lack the skills, resources and systems needed to use them in their daily work.

For Nepal, closing this gap is a priority.

On the morning of 26 August, nearly 680,000 text warnings reached mobile phones along the corridor. In October, around 200,000 more helped communities downstream move to safety.

Within hours, more than twenty drone pilots from government, private companies and volunteer groups had mobilised. Some were flown in by helicopter to reach places no road could. Working with satellite imagery, Nepali engineers, scientists and young innovators mapped the damage and fed our rapid damage and needs assessment, using our own capacity. We are proud of that. It shows what locally led innovation can do in the hardest hour.

And we are building on it. We have extended flood forecasts for our major rivers from three to five days, and flash-flood risk forecasts for smaller rivers from 24 to 48 hours. We are preparing to introduce cell broadcasting, so that one warning reaches every phone in a danger zone at once. That is what inclusive warning means: no one left out because they are poor, remote or not signed up.

What space can see

Excellencies, Ladies and Gentlemen

our experience has also shown the limits of what any one country can do alone.

Satellite radar, analysed after the event, shows that the slope above Rasuwa was moving for weeks before it fell. The signal was there, in orbit. What was missing was a system to watch for it, interpret it and act on it in time.

The task ahead is large. ICIMOD and UNDP have identified 47 potentially dangerous glacial lakes across three Himalayan river basins shared by Nepal, China and India. Twenty-one of them are in Nepal. With the Green Climate Fund and UNDP, Nepal has begun work to lower and monitor four of the most dangerous: Thulagi, Lower Barun, Lumding and Hongu.

However, we cannot pour concrete on every mountain. For the many slopes and lakes we cannot reach, the eyes must be in space. We need continuous satellite observation of glaciers, lakes and slopes, checked against measurements on the ground. We need artificial intelligence to sift what the satellites see, and digital simulations that show how a hazard would travel downstream. Above all, that knowledge must reach decision-makers and families in time.

A satellite can detect a danger in the mountains. Only a warning that reaches a family downstream can save a life.

The river systems of the Hindu Kush Himalaya support the lives and livelihoods of nearly two billion people. Their protection is a shared regional responsibility. **In this spirit, Nepal wishes to highlight three priorities for our collective consideration.**

First, establish high-mountain hazards as a sustained priority of regional space cooperation. We encourage systematic satellite monitoring of unstable slopes and glacial lakes as an integral part of regional monitoring and early warning arrangements.

Second, translate data into practical guidance for timely action. Alongside access to satellite imagery, countries need ready-to-use information, shared analytical tools and trained professionals who can support informed decisions when every minute matters.

Third, ensure equitable and affordable access to space-based information and services. All countries should be able to benefit from these capabilities, regardless of whether they operate their own satellites,

particularly when human lives are at risk.

As the Asia-Pacific Plan of Action advances towards 2030, the success of our collective efforts should be measured by their practical impact: whether timely warnings reach communities at risk and enable them to take protective action. We are ready to work jointly to identify priority applications, develop joint projects and share the lessons with the region.

I look forward, again, to welcoming all of you to tomorrow's regional dialogue.

Our mountains and rivers connect our countries and communities through shared ecosystems and a common future. Let us work together to make that future safer and more resilient.

I Thank you.