Floods and landslides in mountain areas

Why in news?

Development of mountain areas over the years has upset the ecological balance.

What are the reasons behind these landslides?

- Monsoon rainfall over India is 8% more than what is usual for this time of the year.
- While this might bode well for agriculture in some regions, it also means floods and concentrated downpours with devastating consequences.
- Torrential rains have triggered flash floods and landslips in Himachal Pradesh and Uttarakhand.
- Several arterial roads were blocked by debris, as currents washed away bridges and vehicles.
- The toll was higher in Himachal Pradesh and Mandi, Kangra, and Chamba were the worst-affected districts in the State.

What are the consequences of the torrential rains?

- While death and damage to property are the surface manifestation of these rains, there are a range of secondary effects with long-term downstream impact.
- The continuous efforts made by the Government to cope with natural hazards through relief and rehabilitation measures are not paying off.
- Landslides and snow avalanches continue to inflict widespread harm and damage to human life as well as property.
- The roads that are the State's lifeline are repeatedly damaged, blocked or washed away by one or other acts of nature.
- Schools and transport facilities, for instance, are immediately put out of action, leading to loss of productive hours.
- Cattle and saplings are left to perish, which in turn destroys livelihoods, debilitates family finances and strains the finances of the state exchequer.
- The monsoon compresses around 75% of India's annual rainfall into four months and unevenly waters the country's highly diverse terrain.
- It is, therefore, inevitable that some spots are far more vulnerable and bear a disproportionate impact of climate fury.
- While hill States such as Himachal Pradesh and Uttarakhand have certain unique challenges, the threats from the vagaries of climate are not unique to them.
- Monsoon rain patterns are being disrupted leading to a rise in cloudburst-like events as well as a rise in the frequency of high-energy cyclones and droughts.
- A report was released by Himachal Pradesh's Department of Environment, Science and Technology.

What are the findings of the report released by the Himachal Pradesh's government?

- Himachal Pradesh is vulnerable to 25 out of 33 types of hazards identified by the Government of India.
- The report underlines that mountain areas are highly vulnerable to natural disasters.
- This is due to the development over the years that has compounded the problem by upsetting the ecological balance of various physical processes.
- The increased pressure on the mountain environment has contributed in some measure to environmental problems such as landslides, land subsidence, removal of vegetation and soil erosion.
- According to one estimate, about 58.36% of the land is subjected to intense soil erosion, the majority of which is located in the Himalayas and Himachal Pradesh.
- This region forms part of the Western Himalayas, which is environmentally fragile and ecologically vulnerable.
- The fragile ecology of the Mountain State coupled with large variations in physio-climatic conditions has rendered it vulnerable to the vagaries of nature.

What is the way forward?

- The India Meteorological Department now provides fortnightly, weekly and even three-hourly weather forecasts to districts.
- Not all of these are accurate and often, they are not provided early enough for authorities to prepare themselves.
- Hence, the department must work towards providing the accurate forecasts.
- The inherent risks of infrastructure development in hills and unstable terrain still exists.
- The increased risk and cost to such projects and infrastructure should be factored in when they are tendered out by the government.
- Scientific advice regarding development ought to be strictly adhered to.

Reference

1. https://www.thehindu.com/todays-paper/tp-opinion/factoring-in-the-risk/article65800059.ece
2. https://www.thehindu.com/sci-tech/energy-and-environment/annual-trysts-with-natures-fury-reveal-himachal-pradeshs-reckoning-with-fragile-ecology/article65790936.ece

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