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The Problem with Monsoon

What is the issue?

The recent flash floods and landslides in Kerala is a matter of concern as variations in the monsoon pattern and intensity are increasingly witnessed.

What is the recent happening in Kerala?

- The torrential rain in Kerala has killed at least 35 people so far and red alert has been declared for 10 dams including Idukki.
- It has caused alarm as the Northeast monsoon lies ahead.
- The IMD has issued an alert for more heavy rainfall in Kerala from October 20.
- The Health Department has sounded an alert against the outbreak of infectious diseases due to heavy rains.
- The inundation of towns in 2018 and mudslides in 2019 had catastrophic effect in the State.

What is causing frequent floods in Kerala?

- **Relief** -Kerala hosts a vast stretch of Western Ghats with almost no break between severe spells of rainfall.
- **Cloudburst phenomenon** - Mini cloud bursts are marked by intense short spells, which may not exceed 10cm in one hour.
- For example, Mini cloudburst caused 2019 floods in Kerala.
- **Human intervention** - Illegal quarrying and mining activity has resulted in stones and rubble silting the streams and rivers thus increasing the magnitude of the damage.
- Timber felling, improper tree cutting has also had an adverse impact.
- **Premature silting up of reservoirs** - Premature silting up of reservoirs especially in the steep valleys in the Western Ghats is a major concern.
- **Unplanned constructions** - The construction of Athirappilly dam on the Chalakudy river in Kerala's Thrissur district has been strongly opposed.
- **Unscientific and improper water management** - poor management of

reservoirs as happened in 2018 floods aggravates the situation

- **Inefficient legal framework** - The Kerala Conservation of Paddy Land and Wetland Act, 2008 has not been able to prevent construction of houses and other buildings in paddy fields and riverbeds

What efforts have been taken to minimise the losses?

- The Kerala government has upgraded its Orange Book for Disaster Management, which includes the standard operating procedures (SOP) and protocols for disaster management in the state.
- **Disaster management at taluk-level**- As part of an Incident Response System, individual officers at district and taluk level have been assigned to handle any emergencies.
- 33 hazard prone zone maps have been given to local bodies for increased preparedness.
- **Multiple weather inputs** - The state is taking inputs from IMD, Skymet, IBM, etc. for situational awareness.
- **Resilient Kerala Program** - The Government of India, the Government of Kerala and World Bank has signed a loan agreement of USD 250 million to boost disaster preparedness.

What measures have to be taken for increased preparedness?

According to an estimate by researchers in 2017, quarrying area in Kerala accounts for over 7,157 hectares, much of it in central districts that were hit later by mudslides.

- Nurturing the health of rivers by proper silting
- Keeping the rivers free of encroachments
- Ending mining and deforestation in unstable areas
- Avoiding incompatible constructions
- Accurately mapping the hazard zones
- A more benign development policy treating nature as an asset
- Implementation of **Madhav Gadgil committee** report on Western Ghats

Gadgil report (2011) recommended designating the entire hilly region of Western Ghats as an Ecologically Sensitive Area.

The Kasturirangan panel that was constituted to examine the Gadgil report recommended reducing the area to be protected ecologically

in Western Ghats to only 37 per cent.

- Following best practices - For instance, **Hakku initiative** in Hyderabad involves a team of six people to identify and visit risk-prone areas and pushes them towards solutions.

Source: The Hindu, Economic Times



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