

## Important Vocab For the Editorial

1. **drought** (noun) – lack/dry spell, lack of rain, shortage of water.
2. **address** (verb) – deal with, tackle, focus on.
3. **crippling** (adjective) – weakening, impairing, paralyzing.
4. **redoubled** (adjective) – (made something more) intense.
5. **vigour** (noun) – strength, robustness, high level of activity.
6. **scarce** (adjective) – rare, insufficient, deficient,
7. **robust** (adjective) – strong, powerful, tough.
8. **augur well** (verb) – bode, indicate, portend (a good outcome).
9. **apparently** (adjective) – seemingly, evidently, , it appears that.
10. **bountiful** (adjective) – abundant, plentiful, ample.
11. **catastrophe** (noun) – destruction, damage, disaster.
12. **rain-shadow** (noun) – a region having little rainfall; a dry area on the leeward side of a mountainous area (away from the wind).
13. **downpour** (noun) – a heavy rainfall.
14. **underscore** (verb) – underline, emphasize, highlight.
15. **harvesting** (adjective) – capturing and storing of water.
16. **advocate** (verb) – support, champion, uphold.
17. **mitigate** (verb) – reduce, lessen, decrease, make less severe.
18. **avert** (verb) – avoid, prevent, stop.
19. **decadal** (adjective) – relating to a period of ten years.
20. **Gross domestic product (GDP)** (noun) – a measure of economic activity in a country. It is the total value of a country's annual output of goods and service.
21. **resilience** (noun) – strength, toughness; the capacity to recover quickly from difficulties.
22. **point out** (phrasal verb) – identify, recognize, designate.
23. **imperative** (noun) – necessary/essential condition, necessity, prerequisite.
24. **tardy** (adjective) – slow, sluggish, not to be done on time/delayed.
25. **indifferent** (adjective) – uncaring uninterested, uninvolved; mediocre/ordinary.
26. **hesitant** (adjective) – lacking confidence, timid, insecure.
27. **encroachment** (noun) – infiltration of, appropriation of, infringement of.
28. **persuade** (verb) – convince, influence, make certain.
29. **abdication** (noun) – disowning, rejection, refusal/avoidance.
30. **populous** (adjective) – densely populated.
31. **hydrology** (noun) – the scientific study of the movement, distribution, and quality of water on Earth and other planets.
32. **couple with** (verb) – combine, join, add.

## Cycle of extremes: On droughts and floods

### India must address its crippling cycles of drought and flood with redoubled vigour

After a worrying pre-monsoon phase between March and May, when rainfall was scarce, the current robust season in most parts of coastal, western and central India augurs well for

the entire economy. Aided apparently by beneficial conditions in the Indian Ocean, very heavy rainfall has been recorded, notably in Maharashtra, Gujarat, Rajasthan, the northeastern States, Karnataka, the Konkan coast, hilly districts of Kerala and Tamil Nadu. This pattern may extend into Chhattisgarh, Odisha, Bengal and other eastern regions. A normal Indian Summer Monsoon is bountiful overall, but as last year's flooding in Kerala, and the Chennai catastrophe of 2015 showed, there can be a terrible cost in terms of lives and property lost, and people displaced. Distressing scenes of death and destruction are again being witnessed. Even in a rain-shadow region such as Coimbatore in Tamil Nadu, the collapse of a railway parcel office after a downpour has led to avoidable deaths. What this underscores is the need to prepare for the rainy season with harvesting measures, as advocated by the Centre's Jal Shakti Abhiyan, and a safety audit of structures, particularly those used by the official agencies. In drafting their management plans, States must be aware of the scientific consensus: that future rain spells may be short, often unpredictable and very heavy, influenced by a changing climate. They need to invest in reliable infrastructure to mitigate the impact of flooding and avert disasters that could have global consequences in an integrated economy.

The long-term trends for flood impact in India have been one of declining loss of lives and cattle since the decadal high of 1971-80, but rising absolute economic losses, though not as a share of GDP. It is important, therefore, to increase resilience through planning, especially in cities and towns which are expanding steadily. Orderly urban development is critical for sustainability, as the mega flood disasters in Mumbai and Chennai witnessed in this century make clear. It is worth pointing out that the response of State governments to the imperative is tardy and even indifferent. They are hesitant to act against encroachment of lake catchments, river courses and floodplains. The extreme distress in Chennai, for instance, has not persuaded the State government against allowing structures such as a police station being constructed on a lake bed, after reclassification of land. Granting such permissions is an abdication of responsibility and a violation of National **Disaster Management** Authority Guidelines to prevent urban flooding. As a nation that is set to become the most populous in less than a decade, India must address its crippling cycles of drought and flood with redoubled vigour. Scientific hydrology, coupled with the traditional wisdom of saving water through large innovative structures, will mitigate floods and help communities prosper.