India's environment through numbers

How climate change affects our lives

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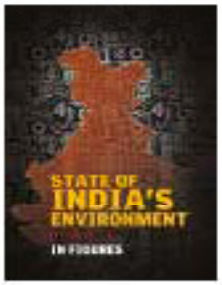
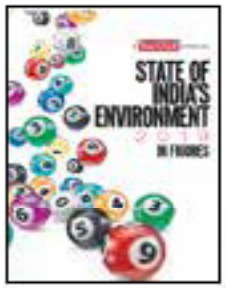
Environment, New Delhi

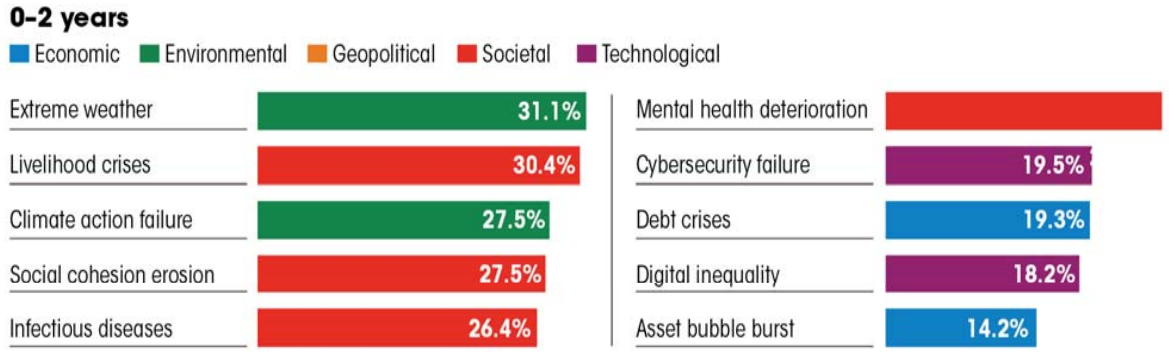
What is covered

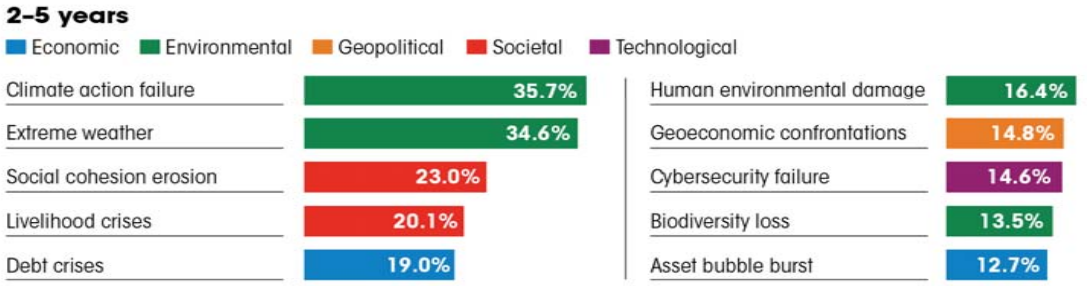
- **7th** edition
- **17** chapters
- **39** factsheets
- **16** factsheets on state-level data
  - State of the states, river pollution, land degradation, Health index, unemployment and more
- **6** factsheets on district-level data
  - Soil health, forests, coastal erosion and more
- **1** urban index of 56 million-plus and capital cities

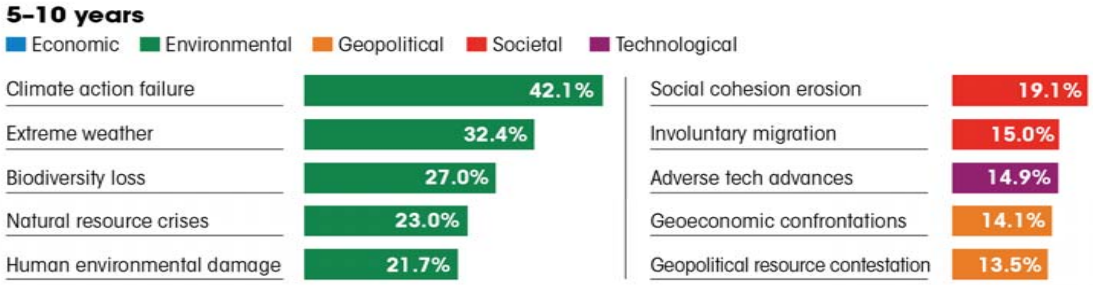




Environmental degradation the biggest challenge







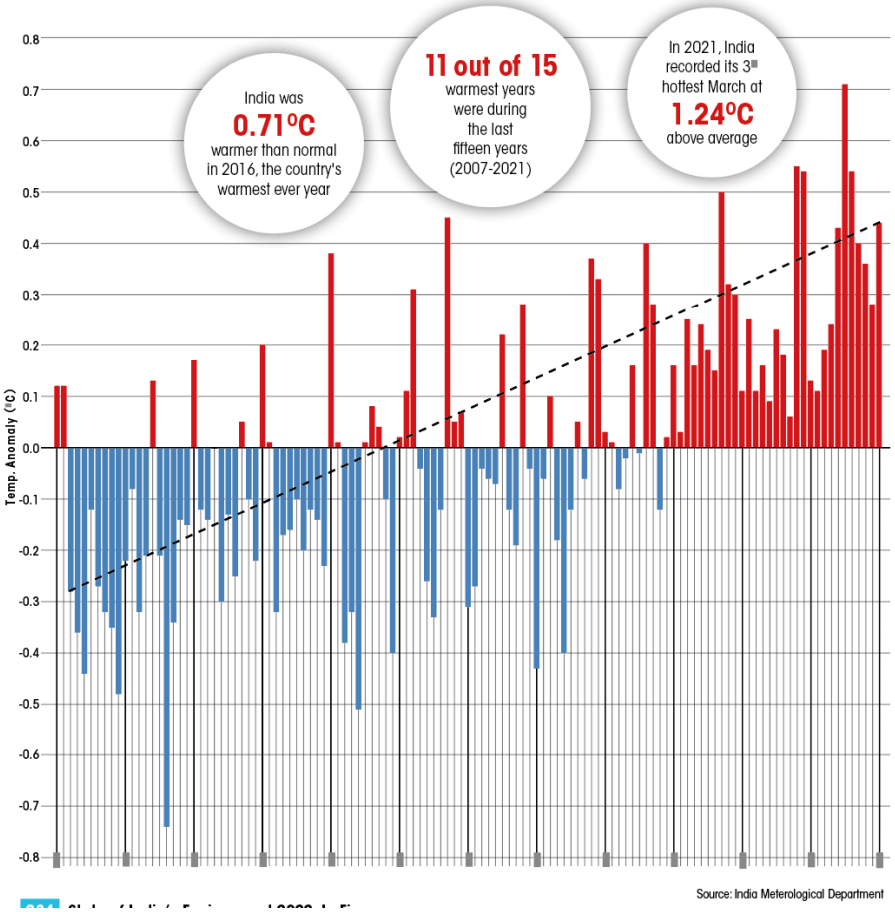
For the next five years, societal and environmental risks will be the biggest challenges globally. Over a 10-year horizon, concerns about the health of the planet will dominate

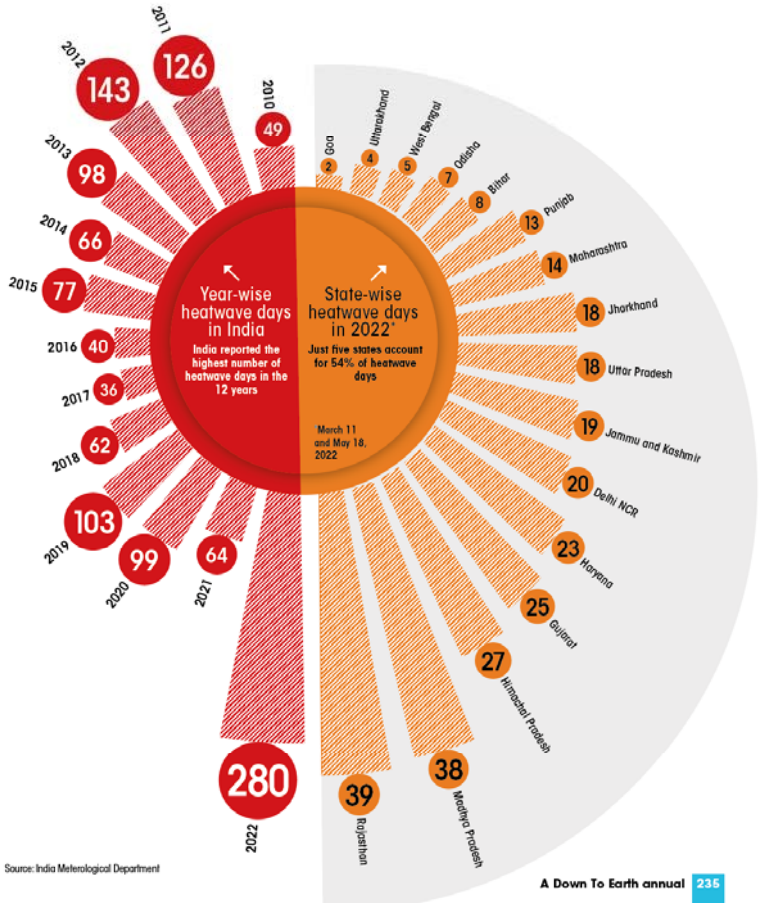
Extreme weather, biodiversity loss, natural resource crises, human environmental damage and climate action failure pose the biggest challenges

India is becoming hotter

India recorded its fifth warmest year in 2021when the average temperature remained 0.44°C above normal (1981-2010 average). This was due to an unusually warm winter (+ 0.78ºC in January and February) and post-monsoon season (+0.42°C in January and February)

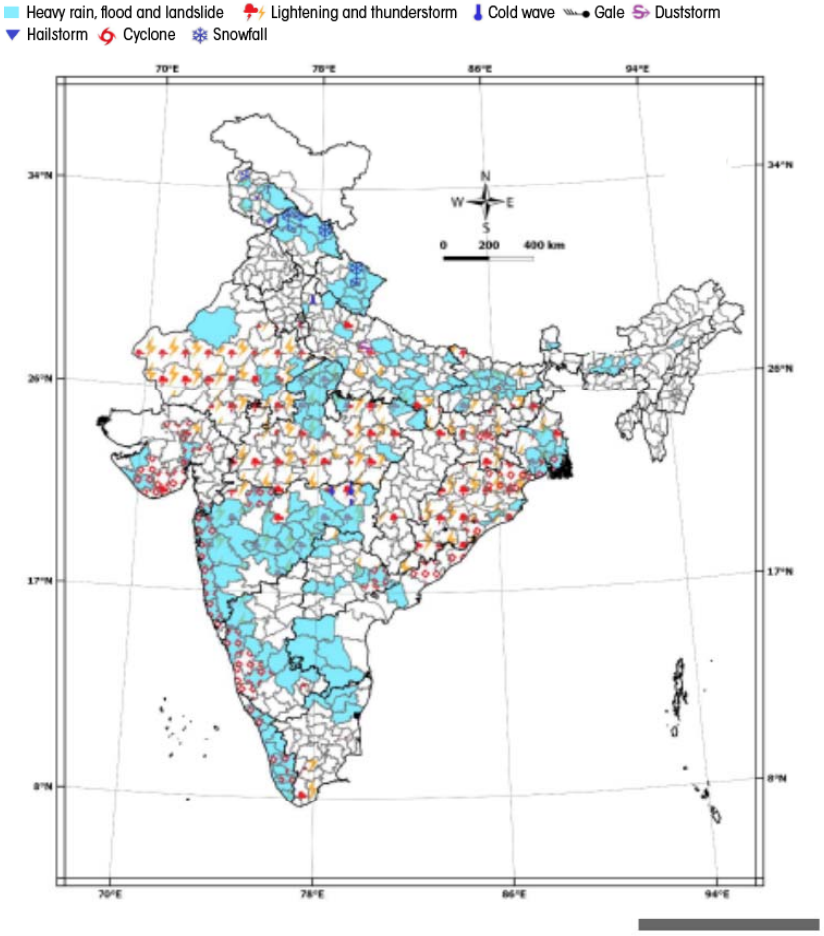
In 2022, India recorded its hottest March. This triggered an early onslaught of heatwaves. The country reported 280 heatwave days between March 11 and May 18, the highest in the past 10 years. This is almost double of what the country experienced in 2012, the second highest heatwave year in the past decade



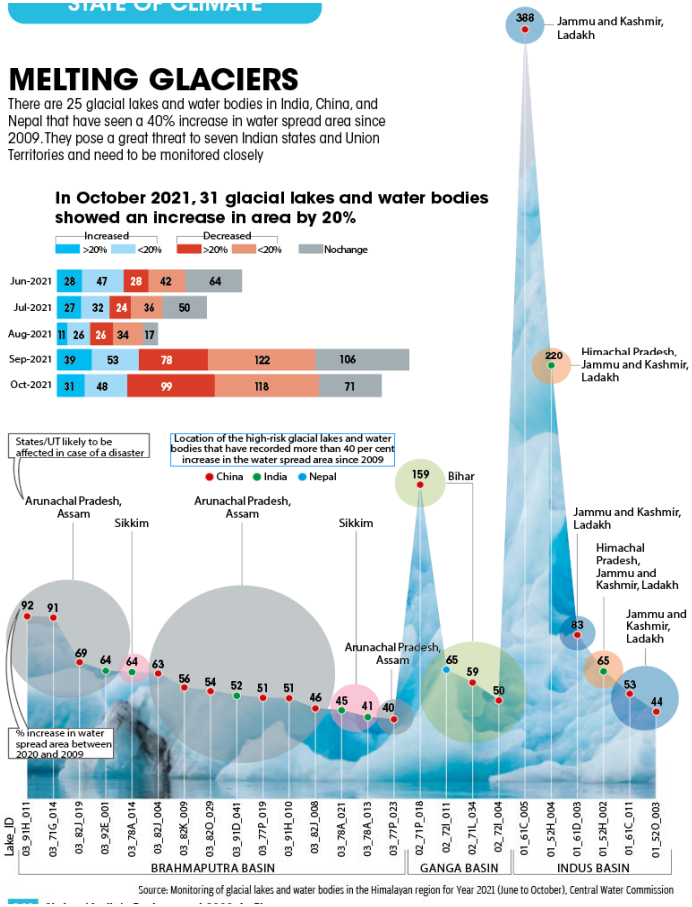


Climate threats

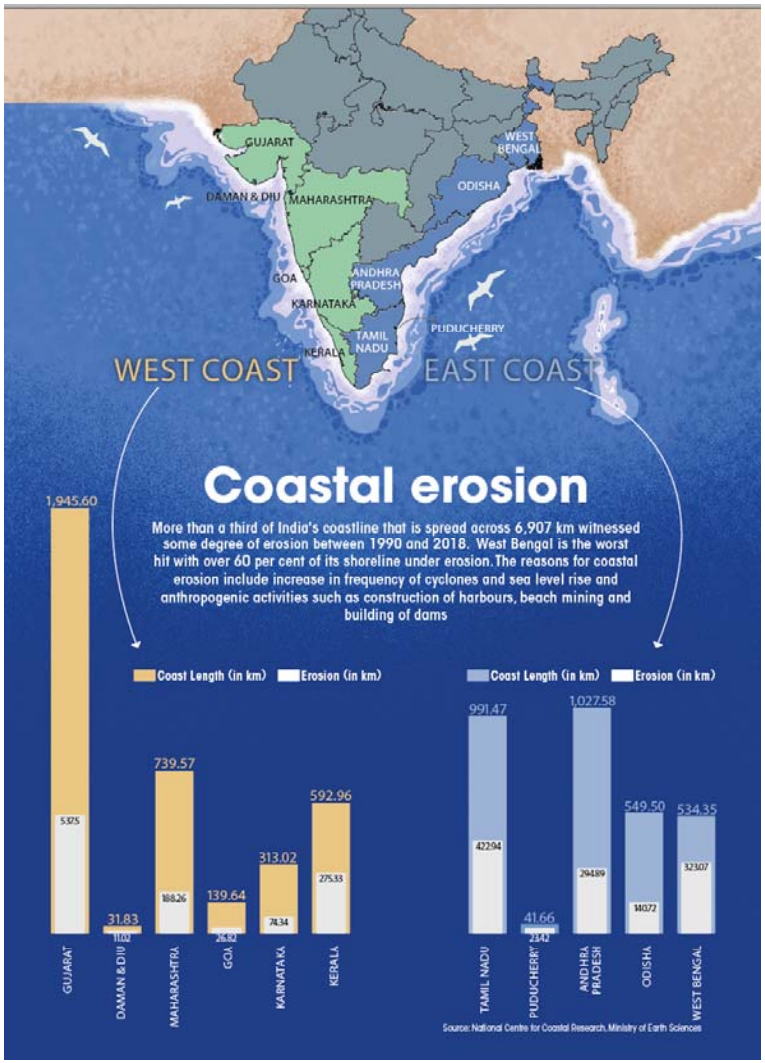
At least 1,750 people died due to extreme weather events in 2021. Bulk of the deaths were due to lightning and thunderstorms, and floods, heavy rainfall and landslides



There are 25 glacial lakes and water bodies in India, China, and Nepal that have seen a 40% increase in water spread area since 2009. They pose a great threat to seven Indian states and Union Territories and need to be monitored closely



Eroding coasts

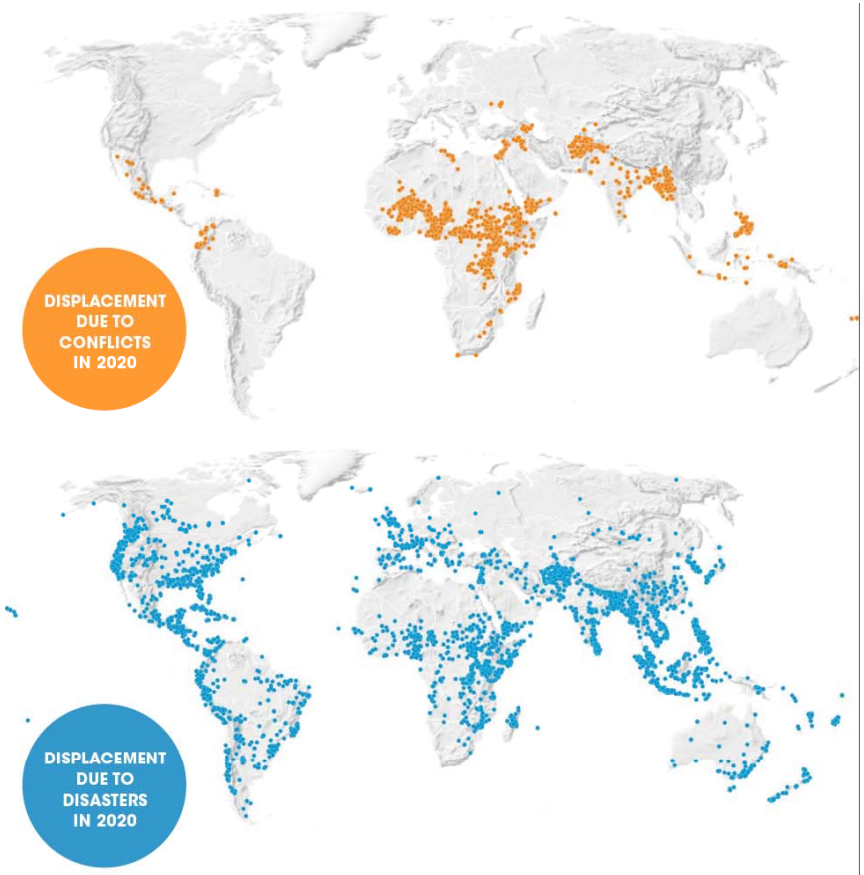


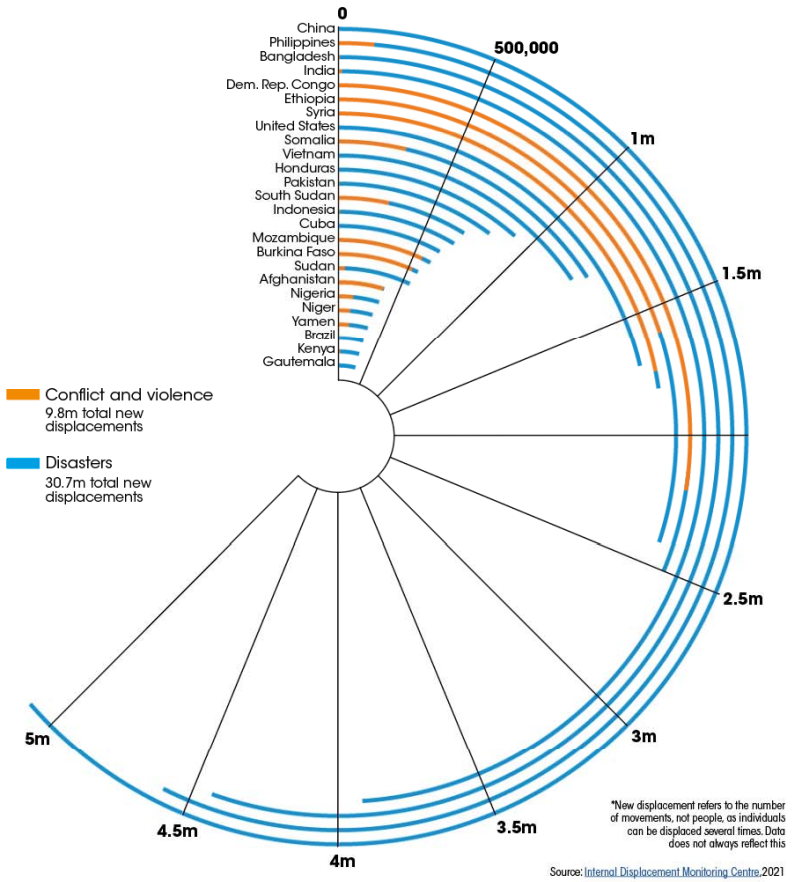
More than a third of India's coastline that is spread across 6,907 km witnessed some degree of erosion between 1990 and 2018. West Bengal is the worst hit with over 60 per cent of its shoreline under erosion. The reasons for coastal erosion include increase in frequency of cyclones and sea level rise and anthropogenic activities such as construction of harbours, beach mining and building of dams

Large scale internal migration

Climate a bigger problem than conflicts

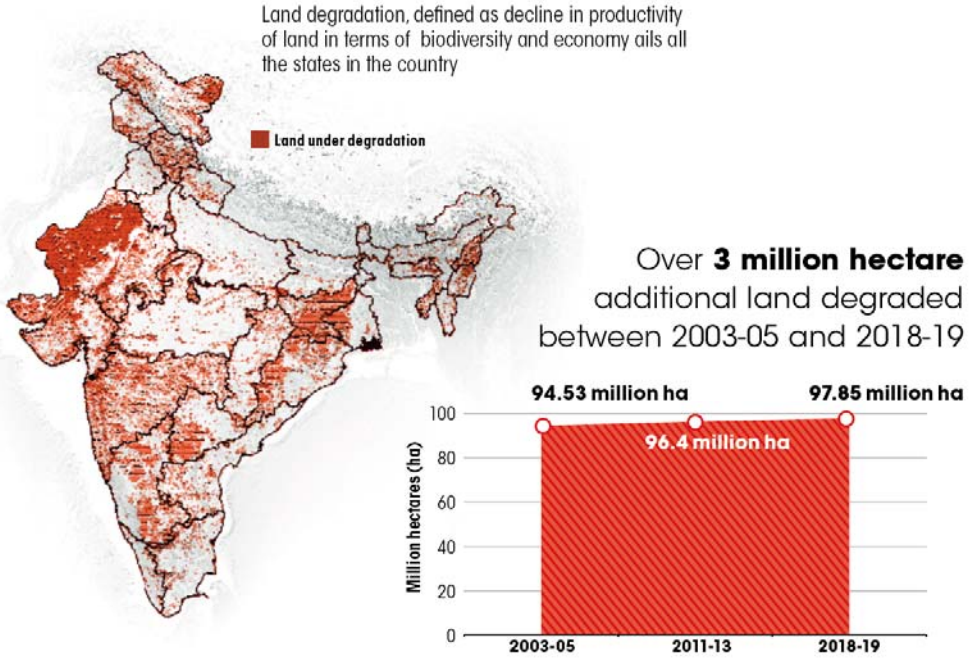
By the end of 2020, new internal displacements took place across 42 countries and territories due to conflict and violence, and 144 countries and territories due to disasters.
India, fourth worst hit by disasters

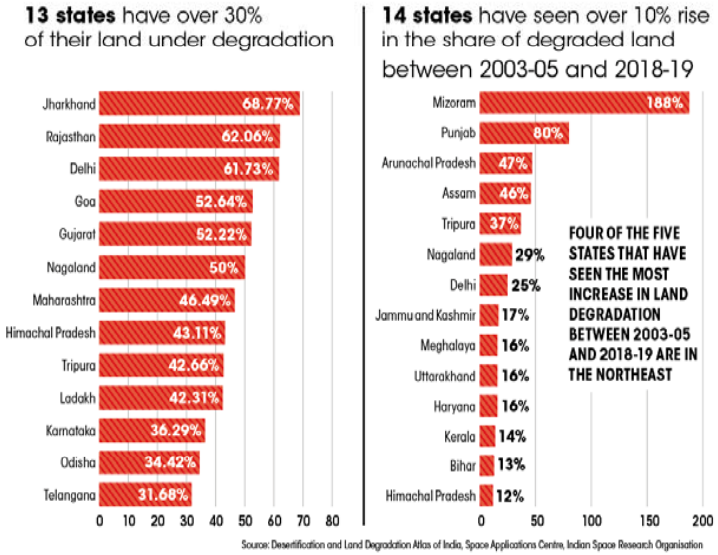


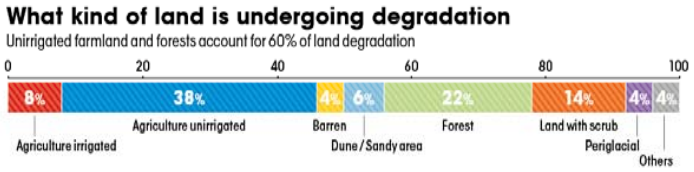


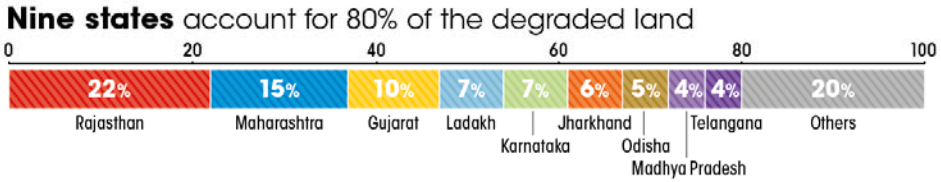
Land quality is deteriorating

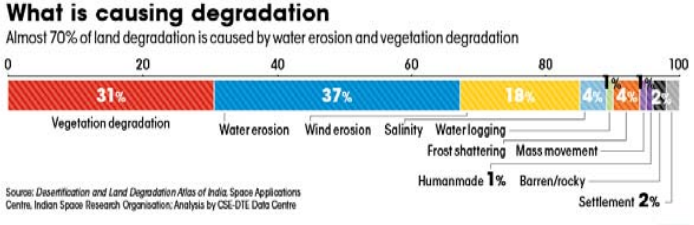
India has almost 30% of its geographical area under degradation. It is triggered by various factors including climate and human induced factors





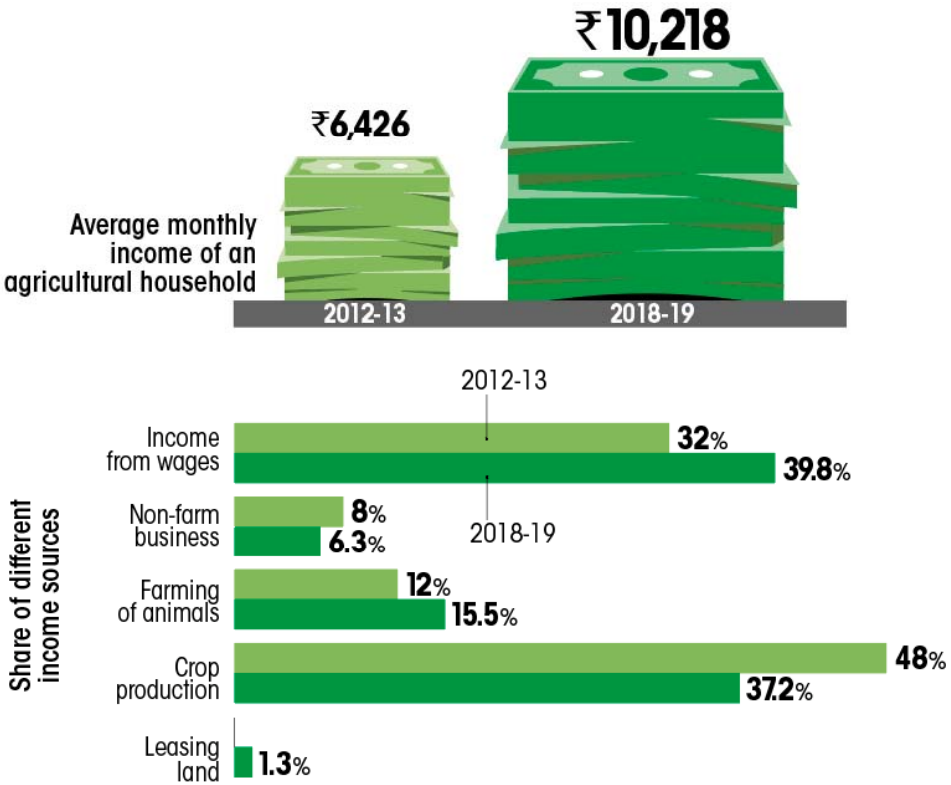




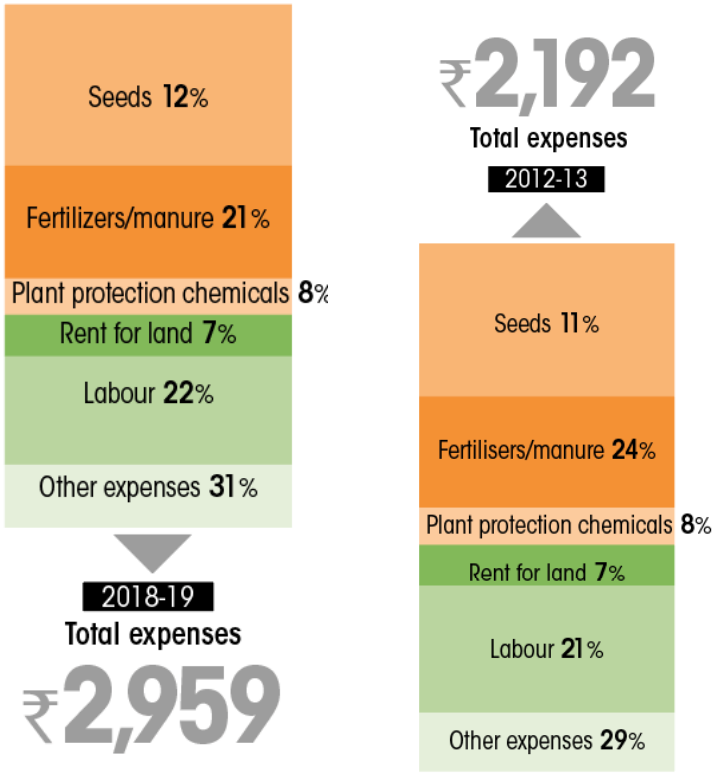


Farming is becoming unviable

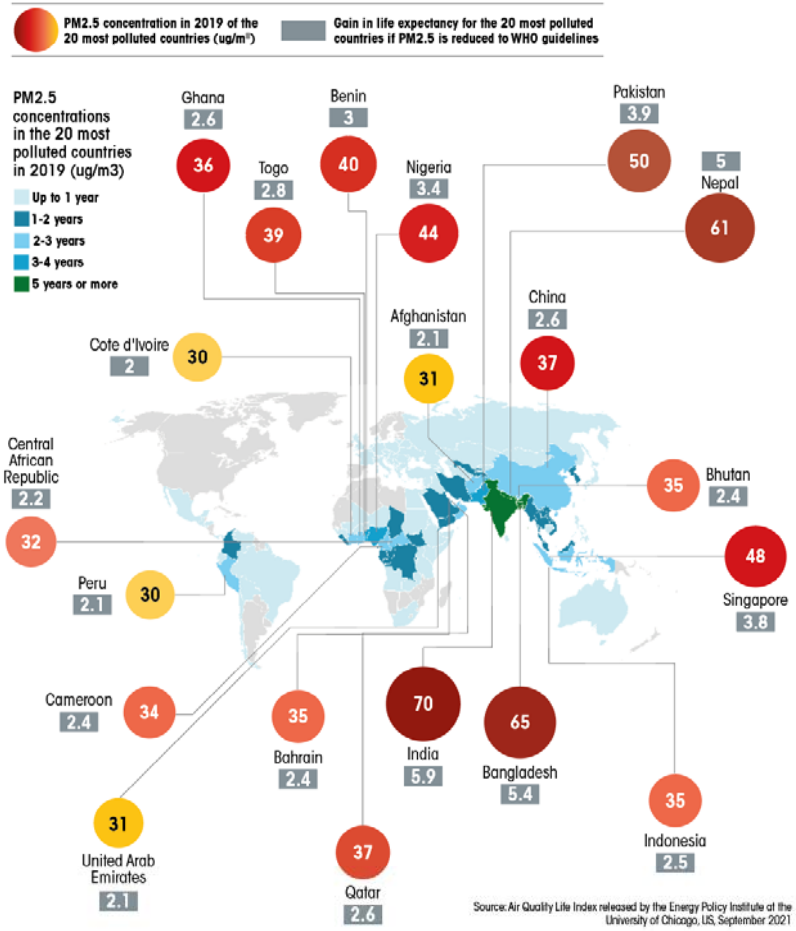
In 2012-13, crop production was the main source of income for an agricultural household. In 2018-19, income from wages has become their main source of income



35% increase in the monthly cost of cultivation between 2012-13 and 2018-19



Air pollution is reducing our life expectancy



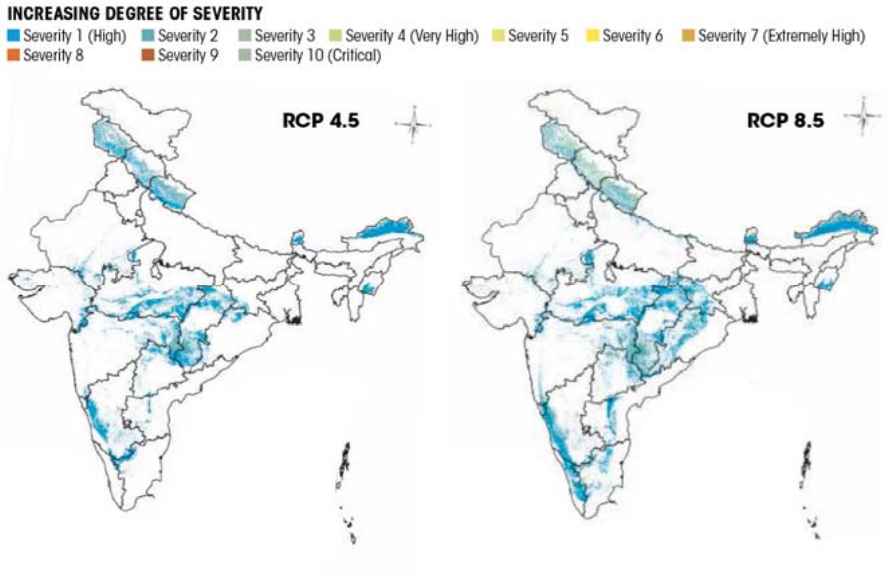
Reducing air pollution to meet the WHO's levels would add 2.2 years to global life expectancy.

Indians, on an average, will live for an additional 5.9 years if the country meets the WHO levels of PM2.5

Future tense; need action now

By 2030, 45 to 64% of India's forest cover is likely to become a climate hotspot. Almost the entire forest cover of the country is likely to become a climate hotspot by 2050. The severity, in terms of damage due to climate change, is set to increase in 2085

2030

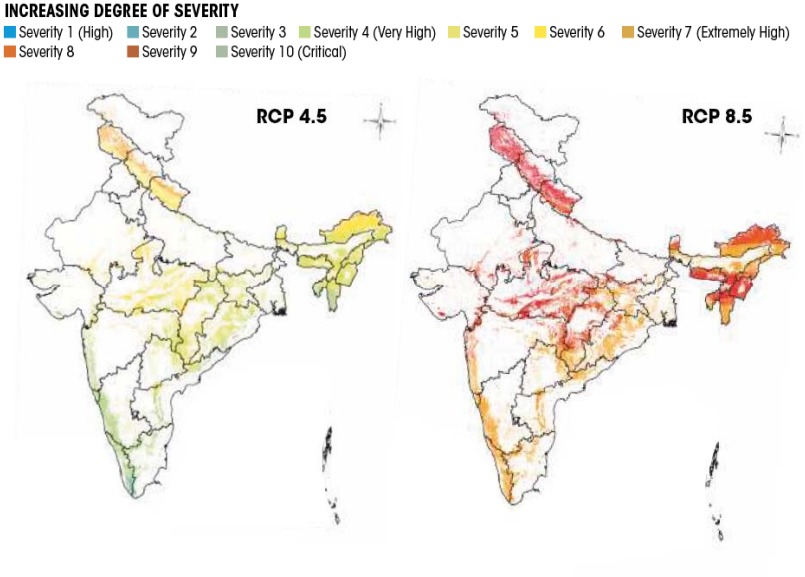


HOTSPOT EXPOSURE	AREA UNDER SEVERITY CLASS (KM²)
High	314,969
Very High	698
Extremely High	0
Critical	0
Total	**315,667**

HOTSPOT EXPOSURE	AREA UNDER SEVERITY CLASS (KM²)
High	448,367
Very High	1,552
Extremely High	0
Critical	0
Total	**449,919**

Source: India State of Forest Report 2021, Ministry of Environment, Forest and Climate Change

2085



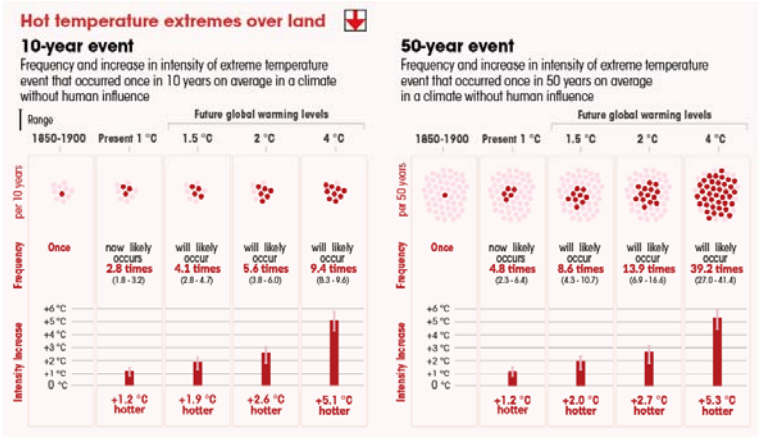
HOTSPOT EXPOSURE	AREA UNDER SEVERITY CLASS (KM²)
High	11,804
Very High	656,094
Extremely High	37,196
Critical	0
Total	**705,094**

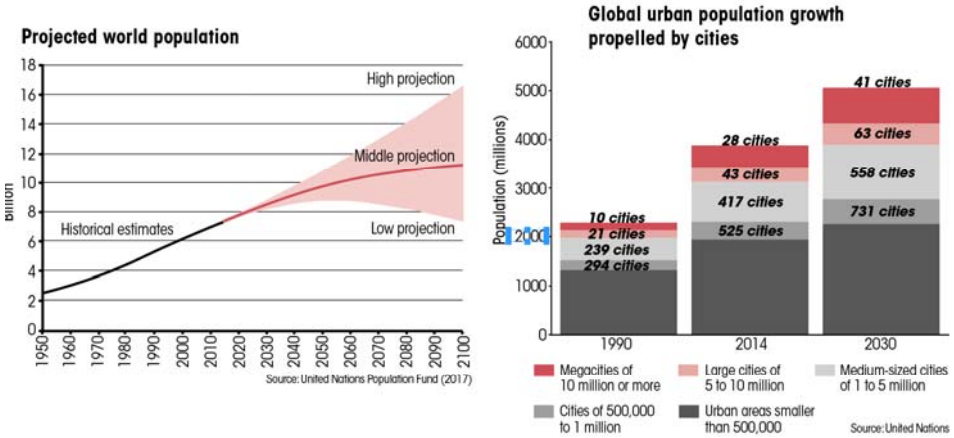
HOTSPOT EXPOSURE	AREA UNDER SEVERITY CLASS (KM²)
High	0
Very High	0
Extremely High	566,442
Critical	138,736
Total	**705,178**

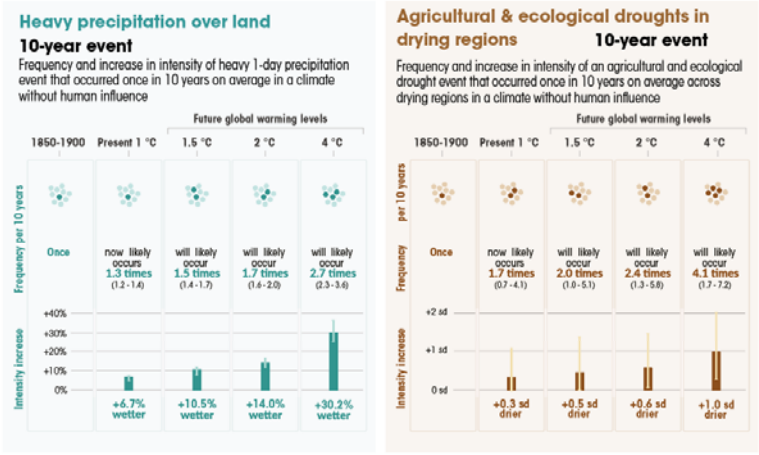
Source: India State of Forest Report 2021, Ministry of Environment, Forest and Climate Change

Global challenges

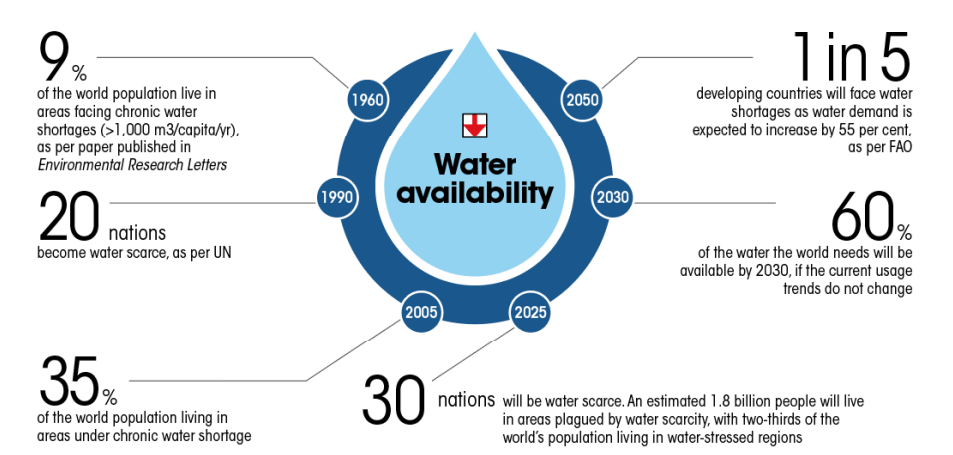
The severity and frequency of extreme events will increase in a warming world. The world will also need to produce at least 50% more food to feed the projected 10 billion population by 2050, most of which will be urban. Need more sustainable food systems and planned urbanisation







Source: *Climate Change 2021: The Physical Science Basis*, the Sixth Assessment Report of the Intergovernmental Panel on Climate Change



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