

THE WARNING IS OUT: WIND, WATER, OCEANS ARE SPINNING OUT OF CONTROL

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THERE'S something apocalyptic happening. After the flash floods in Germany that killed and displaced hundreds in July, and the heat wave in Canada that touched nearly 50° C, and took many lives, it is Greece now being consumed by wild fires. In India, cloud bursts over the Western Konkan coast in late July inundated dozens of towns like Chiplun leaving a trail of misery and death.

The Inter-governmental Panel on Climate Change (IPCC), a UN body that has just released its 6th report, has sent shockwaves on how close the world is to an irretrievable climate disaster. It has also predicted 12 coastal Indian cities may not survive till the end of this century.

Almost to prove the report's contents – worked on by 200 of the world's leading climate scientists – Greece in the first two weeks of August has been devastated by a series of fires that has burnt down 110,000 hectares (424 square miles) of woodlands and homes, an area little larger than Mumbai's municipal region.

Extreme weather conditions

In these times of extreme weather – of meltdowns and floods – the IPCC report has left a telling impact on all those who are listening. For the first time the UN body has stated unequivocally that it is the human race that is responsible for warming of the atmosphere, land and oceans. The report says that the earth's global surface has warmed 1.09°C between preindustrial times (1850-1900) and 2010;

and it finds 1.07 °C of the warming – almost the entire phenomenon – is due to greenhouse gas emissions caused by human activity.

It all happened in the last few decades. Global surface temperature has warmed faster since 1970 than in any other 50-year period over the last 2,000 years. This is reflected in increased precipitation – more intense and wetter monsoon; triggered by a warmer atmosphere that is able to hold more moisture – estimated at 7% more for each additional degree of temperature.

The report confirms that carbon dioxide in the atmosphere – the main greenhouse gas – has increased 10 times faster since the industrial revolution of 1750 than any other period during the last 800,000 years; and 85% of carbon-dioxide emissions are from humans burning fossil fuels.

Simultaneously, we are seeing ice packs and glaciers receding in the Arctic zone and the mean sea level increase 6 inches (0.2 meters) between 1901 and 2018. As oceans rise and cyclonic gales increase, coastal communities find homes and lives increas-

ingly at risk.

Besides carbon dioxide, the UN report has identified methane – an invisible and odorless gas – as having a far more insidious impact with an estimated 80 times more warming power in the near-term than carbon dioxide. Millions of tonnes of methane is leaking into the atmosphere from bovine livestock, and from natural gas and oil wells.

By the same measure, Charles Koven, one of the lead authors of the IPCC report, has identified controlling methane emissions as the immediate and more effective route to controlling global warming below a rise of 1.5°C.

What does it mean for India?

The IPCC report has warned that the longer and wetter monsoons, and the huge devastation by cyclones like the recent Cyclone Amphan are indicators of rising sea level that

threaten to submerge 12 coastal cities, perhaps by the end of the century. These include Mumbai, Chennai, Kochi, and Bhavnagar. Another lead author of the IPCC report, Subimal Ghosh, predicts India will also see intense heat waves in regional pockets, though their exact location may be difficult to predict.

The Indian government has welcomed the IPCC report and many of its recommendations; but in the same breath has held the developed world for being responsible for the problem of global warming. What its saying is the oldest polluters – the developed world – will have to do more to stem the tide.

The push back is clear: while the developed world expects India to do the heavy lifting in reducing green house gas (GHG) emissions and reduce the carbon footprint to zero, India and China have other plans. They may make the right political noises, but then what happens to development? Coal emits carbon dioxide, but it also provides over 90% of India's and China's energy needs. To stop its mining overnight, without developing alternative energy sources, would be suicidal.

The fact is work on alternative sources of energy – solar, wind, water, stored electricity – has been tardy and without commitment. We seem to be determined to traverse the course the polluting, industrial nations took. There is a problem here. We have to put on the brakes, here and now.

For the first time in two decades people are realizing climate disaster is real. Three months on, Glasgow will see the next UN Climate Change Conference.

Hopefully, more concrete targets to save the planet will emerge.

