

# India: on the frontline of climate change

July 25 2021, by Aishwarya Kumar

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Flooding is common during India's monsoon season but climate change is making the monsoon stronger, according to a report from the Potsdam Institute for Climate Impact Research.

Swathes of India are battling deadly floods and landslides after heavy monsoon rains, just the latest example of how the vast country is on the frontline of climate change.

In the first seven months of this year alone the impoverished nation of 1.3 billion people has experienced two cyclones, a deadly glacier collapse in the Himalayas, a sweltering heatwave and killer floods.

## **Melting glaciers**

In February, a ferocious flash flood hurtled down a remote Indian Himalayan valley, sweeping away homes, a hydro plant and around 200 people. Only 60 bodies have been found.

Experts believe the cause was a massive chunk of glacier—15 football fields long and five across—breaking off high in the mountains.

A glaciologist who investigated the site told AFP the catastrophe was "clearly a fallout of climate change and in itself a tell-tale of our future".

In the Indian Himalayas, about 10,000 glaciers are receding at a rate of 30 to 60 metres (100 to 200 feet) per decade as global temperatures rise.

In 2013, a flash flood in the same area killed 6,000 people.

## **More cyclones**

Cyclones are not a rare sight in the northern Indian Ocean but scientists say they are becoming more frequent and severe as sea temperatures rise.



People look at the remains of a dam in Tapovan in the Indian Himalayas that was swept away by a flash flood believed caused by a massive chunk of glacier breaking off high in the mountains.

In May Cyclone Tauktae claimed 155 lives in western India including dozens working on oil rigs off Mumbai. It was the fiercest storm to hit the area in several decades.

Barely a week later Yaas, with winds the equivalent of a category-two hurricane, killed at least nine people and forced the evacuation of more than 1.5 million in the east.

With waves the height of double-decker buses, hundreds of thousands lost their houses. "I have lost my home, everything," said one survivor.

## Hotter and hotter

India's average temperature rose around 0.7 degrees Celsius (1.3 degrees Fahrenheit) between the beginning of the 20th century and 2018. It will rise another 4.4 degrees by 2100, according to a recent government report.

In early July, tens of millions of people sizzled in just the latest heatwave across northern India.

India's weather department has declared a heatwave almost every year in the last decade with temperatures sometimes touching 50 degrees Celsius (122 degrees Fahrenheit).

The Hindustan Times newspaper reported that heatwaves had claimed more than 17,000 lives in India since 1971, according to top meteorologists.



In Churu, Rajasthan, temperatures have hit as high as 50 degrees Celsius (122 Fahrenheit).

Currently just five percent of Indian households have air conditioning compared with 90 percent in the United States and 60 percent in China.

But the market is forecast to boom in the coming years, driving up energy consumption in what is already the world's third-largest carbon emitter.

## **Monsoon floods**

Torrential rains have hit India's western coast in the past few days triggering landslides and a deluge of sludge, leaving more than 75 dead and dozens missing.

The hillside resort of Mahabaleshwar reportedly saw nearly 60 centimetres (23 inches) of rain in a 24-hour period, a record.

The neighbouring resort state of Goa is reeling under its worst floods in decades, its chief minister said.

Flooding and landslides are common during India's treacherous monsoon season, which also often sees poorly constructed buildings buckle after days of non-stop rain.

But climate change is making the monsoon stronger, according to a report from the Potsdam Institute for Climate Impact Research in April.

It warned of potentially severe consequences for food, farming and the economy affecting nearly a fifth of the world's population.



Climate change means even worse monsoon floods in India.

## **Lightning**

The monsoon from June to September also brings danger from the skies. In 2019, lightning strikes killed almost 3,000 people.

Earlier this month, 76 people perished including a dozen watching a storm and taking selfies at a historic fort in Rajasthan.

But scientists say climate change may be making lightning more frequent. A recent study said strikes rose 34 percent in the past year.

And it's not just people. In May, lightning was blamed for the deaths of at least 18 elephants in Assam.

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