

Global Climate Risk Index 2021

The Global Climate Risk Index analyses to what extent countries and regions have been affected by impacts of weather-related loss events (storms, floods, heat waves etc.). The report is annually released by Germanwatch, an environmental think tank and sustainable development lobbyist.

The 16th edition of the Global Climate Risk Index was released on January 25, 2021. The Global CRI 2021 displayed data based on human impacts (fatalities) and direct economic losses due to extreme weather events in 2019 and between 2000 and 2019.

Global Climate Risk Index 2021 - Highlights

The Global Climate Risk Index analyses quantified impacts of extreme weather events, in terms of fatalities and impact of extreme weather events. The index is based on the data from the Munich Re NatCatSERVICE, which is considered worldwide as one of the most reliable and complete databases on this matter.

The Index aims at contextualising ongoing climate policy debates, especially the International climate negotiations - looking at the near world impacts in 2019 and the past two decades.

Given below are the key findings and highlights based on the data from 180 countries:

- Mozambique, Zimbabwe and the Bahamas were the countries most affected by the impact of extreme weather events in 2019
- Puerto Rico, Myanmar and Haiti were the most affected countries by the impact of extreme weather events during 2000 and 2019
- Between 2000 and 2019, altogether, 475000 people lost their lives as a direct result of more than 11000 extreme weather events globally and losses amounted to around US\$2.56 trillion (in purchasing power parties)
- Storms and cyclones were one of the major causes of damages in 2019. Of the ten most affected countries, six were hit by tropical cyclones
- Climate change and extreme weather events cause the most distress to the countries which are still developing and have a lower coping capacity. Eight out of the ten most affected by the quantified effects of weather events in 2019 belong to the low to lower-middle-income category
- The table given below shows the most affected countries in 2019 and India ranks at the 7th position as per the 2021 report:

Ranking 2019 (2018)	Country	CRI score	Fatalities	Fatalities per 100 000 inhabitants	Absolute losses (in million US\$ PPP)	Losses per unit GDP in %	Human Development Index 2020 Ranking ¹⁴
1 (54)	Mozambique	2.67	700	2.25	4 930.08	12.16	181
2 (132)	Zimbabwe	6.17	347	2.33	1 836.82	4.26	150
3 (135)	The Bahamas	6.50	56	14.70	4 758.21	31.59	58
4 (1)	Japan	14.50	290	0.23	28 899.79	0.53	19
5 (93)	Malawi	15.17	95	0.47	452.14	2.22	174
6 (24)	Islamic Republic of Afghanistan	16.00	191	0.51	548.73	0.67	169
7 (5)	India	16.67	2 267	0.17	68 812.35	0.72	131
8 (133)	South Sudan	17.33	185	1.38	85.86	0.74	185
9 (27)	Niger	18.17	117	0.50	219.58	0.74	189
10 (59)	Bolivia	19.67	33	0.29	798.91	0.76	107

PPP = Purchasing Power Parities. GDP = Gross Domestic Product.

- The table given below shows the results as per the long-term Global Climate Risk Index, i.e., the most affected countries between 2000 and 2019:

CRI 2000-2019 (1999-2018)	Country	CRI score	Fatalities	Fatalities per 100 000 inhabitants	Losses in million US\$ PPP	Losses per unit GDP in %	Number of events (2000-2019)
1 (1)	Puerto Rico	7.17	149.85	4.12	4 149.98	3.66	24
2 (2)	Myanmar	10.00	7 056.45	14.35	1 512.11	0.80	57
3 (3)	Haiti	13.67	274.05	2.78	392.54	2.30	80
4 (4)	Philippines	18.17	859.35	0.93	3 179.12	0.54	317
5 (14)	Mozambique	25.83	125.40	0.52	303.03	1.33	57
6 (20)	The Bahamas	27.67	5.35	1.56	426.88	3.81	13
7 (7)	Bangladesh	28.33	572.50	0.38	1 860.04	0.41	185
8 (5)	Pakistan	29.00	502.45	0.30	3 771.91	0.52	173
9 (8)	Thailand	29.83	137.75	0.21	7 719.15	0.82	146
10 (9)	Nepal	31.33	217.15	0.82	233.06	0.39	191

The end of 2019 marked the beginning of one of the widest spread pandemic which had hit the world and severely affected the economy, climate and livelihoods of the people globally. This global COVID-19 pandemic has reiterated the fact that both risk and vulnerability are systematic and interconnected. It is therefore important to strengthen the resilience of the most vulnerable against different types of risk (climatic, geophysical, economic or health-related).

India and Climate Risk Index

- India ranked at the 7th position in the Global CRI 2021 with a CRI score of 16.67. The score and position improvised in comparison to the 2020 report, where India ranked at the 5th position with a CRI score of 18.17
- In 2019, monsoons lasted for an extra month and 110% of the normal rainfall occurred, which is most since 1994. The floods caused by these heavy and excessive rains were responsible for the death of over 1800 people across 14 states and led to the displacement of 1.8 million people
- Overall, the economic damage of US\$10 billion was caused by the intense monsoons in 2019 and affected around 11.8 million people
- Eight tropical cyclones hit the country in the year 2019. The worst of which was “*Cyclone Fani*” which affected a total of 28 million people, killing nearly 90 people in India and Bangladesh and causing economic losses of US\$8.1 billion

Tropical Cyclones - One of the Biggest weather-related loss events in 2019

What is Tropical Cyclones?

A tropical cyclone is a rapidly rotating storm system characterized by a low-pressure centre, a closed low-level atmospheric circulation, strong winds, and a spiral arrangement of thunderstorms that produce heavy rain and/or squalls.

In the Climate Risk Index 2021 tropical cyclones led to six countries being listed among the bottom ten:

- Mozambique, Zimbabwe and Malawi were struck by Cyclone Idai
- The Bahamas were hit by Hurricane Dorian
- Japan was hit by Typhoon Haibis
- Various cyclones in India