

Hunger, drought, disease: UN climate report reveals dire health threats

June 23 2021, by Patrick Galey



The dire findings in the draft report predict that up to 80 million more people could go hungry.

Hunger, drought and disease will afflict tens of millions more people within decades, according to a draft UN assessment that lays bare the

dire human health consequences of a warming planet.

After a pandemic year that saw the world turned on its head, a forthcoming report by the Intergovernmental Panel on Climate Change (IPCC), seen exclusively by AFP, offers a distressing vision of the decades to come: malnutrition, [water](#) insecurity, pestilence.

Policy choices made now, like promoting plant-based diets, can limit these [health consequences](#)—but many are simply unavoidable in the short term, the report says.

It warns of the cascading impacts that simultaneous crop failures, falling nutritional value of basic foods, and soaring inflation are likely to have on the world's most vulnerable people.

Depending on how well humans get a handle on carbon emissions and rising temperatures, a child born today could be confronted with multiple climate-related health threats before turning 30, the report shows.

The IPCC's 4,000-page draft report, scheduled for release next year, offers the most comprehensive rundown to date of the impacts of [climate change](#) on our planet and our species.

It predicts that up to 80 million more people than today will be at risk of hunger by 2050.



The frequency of sudden food production losses has already increased steadily over the past 50 years.

It projects disruptions to the [water cycle](#) that will see rain-fed staple crops decline across sub-Saharan Africa. Up to 40 percent of rice-producing regions in India could become less suitable for farming the grain.

Global maize production has already declined four percent since 1981 due to climate change, and human-induced warming in West Africa has reduced millet and sorghum yields by up to 20 and 15 percent respectively, it shows.

The frequency of sudden food production losses has already increased steadily over the past 50 years.

"The basis for our health is sustained by three pillars: the food we eat, access to water, and shelter," Maria Neira, director of Public Health, Environmental and Social Determinants of Health at the World Health Organization, told AFP.

"These pillars are totally vulnerable and about to collapse."

Emerging hotspots

Even as rising temperatures affect the availability of key crops, nutritional value is declining, according to the report.



The protein content of rice, wheat, barley and potatoes is expected to fall, putting close to 150 million more people at risk of protein deficiency.

The protein content of rice, wheat, barley and potatoes, for example, is expected to fall by between six and 14 percent, putting close to 150 million more people at risk of protein deficiency.

Essential micronutrients—already lacking in many diets in poorer nations—are also set to decline as temperatures rise.

Extreme weather events made more frequent by rising temperatures will see "multi-breadbasket failures" hit food production ever more regularly, the report predicts.

As climate change reduces yields, and demand for biofuel crops and CO₂-absorbing forests grows, food prices are projected to rise as much as a third at 2050, bringing an additional 183 million people in low-income households to the edge of chronic hunger.

Across Asia and Africa, 10 million more children than now will suffer from malnutrition and stunting by mid-century, saddling a new generation with life-long health problems—despite greater socioeconomic development.

As with most climate impacts, the effects on human health will not be felt equally: the draft suggests that 80 percent of the population at risk of hunger live in Africa and Southeast Asia.

"There are hotspots emerging," Elizabeth Robinson, professor of environmental economics at the University of Reading, told AFP.

"If you overlay where people are already hungry with where crops are going to be most harmed by climate you see that it's the same places that are already suffering from high malnutrition."



Just over half the world's population is already water insecure, and climate impacts will undoubtedly make that worse.

Water crisis looming

It doesn't end there.

The report outlines in the starkest terms so far the fate potentially awaiting millions whose access to safe water will be thrown into turmoil by climate change.

Just over half the world's population is already water insecure, and

climate impacts will undoubtedly make that worse.

Research looking at water supply, agriculture and rising sea levels shows that between 30 million and 140 million people will likely be internally displaced in Africa, Southeast Asia and Latin America by 2050, the report says.

Up to three quarters of heavily tapped groundwater supply—the main source of potable water for 2.5 billion people—could also be disrupted by mid-century.

The rapid melting of mountain glaciers has already "strongly affected the water cycle", an essential source for two billion people that could "create or exacerbate tensions over water resources", according to the report.



Half the world's population could be exposed to vector-borne pathogens, such as dengue, yellow fever and Zika.

And while the economic cost of climate's effect on water supply varies geographically, it is expected to shave half a percent off global GDP by 2050.

"Water is one of the issues that our generation is going to confront very soon," said Neira.

"There will be massive displacement, massive migration, and we need to treat all of that as a global issue."

'Fault lines'

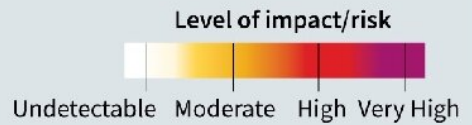
As the warming planet expands habitable zones for mosquitoes and other disease-carrying species, the draft warns that half the world's population could be exposed to vector-borne pathogens such as dengue, yellow fever and Zika virus by mid-century.

Risks posed by malaria and Lyme disease are set to rise, and child deaths from diarrhoea are on track to increase until at least mid-century, despite greater socioeconomic development in high-incidence countries.

The report also shows how climate change will increase the burden of non-communicable illnesses.

Risk levels for climate-sensitive health outcomes

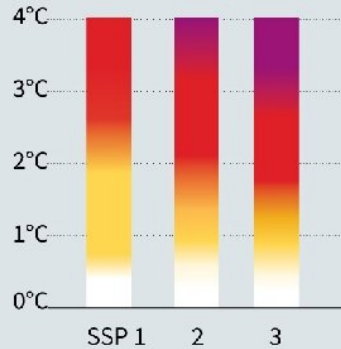
Based on different emissions and adaptation scenarios*
 *called Shared Socioeconomic Pathways



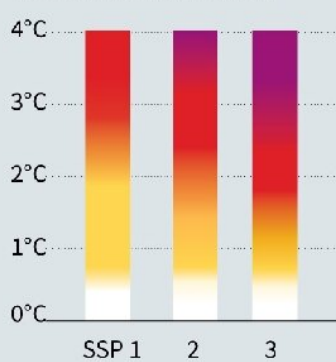
- SSP 1 Taking the green road (low challenges)
- SSP 2 Middle of the road (intermediate challenges)
- SSP 3 Rocky road of regional rivalries (high challenges)

Temperature increases above pre-industrial levels

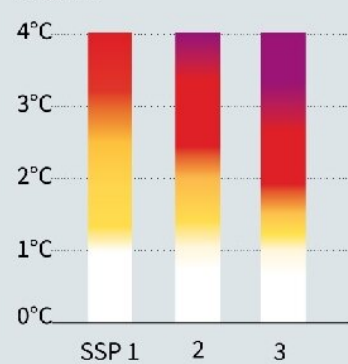
Heat-related morbidity and mortality



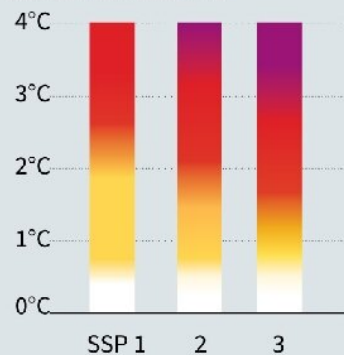
Ozone-related mortality



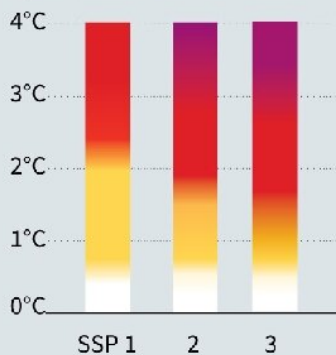
Malaria



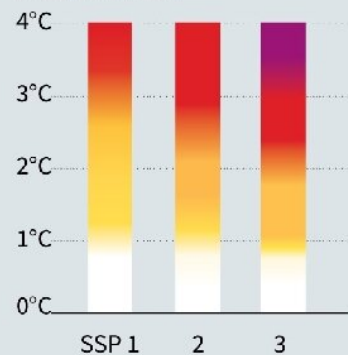
Dengue and other diseases carried by Aedes sp.



Lyme disease



West Nile fever



Source: IPCC WGII Sixth Assessment Report



Climate-sensitive health outcomes.

Diseases associated with poor air quality and exposure to ozone, such as lung and heart conditions, will "rise substantially", it says.

"There will also be increased risks of food and water-related contamination" by marine toxins, it adds.

As with most climate-related impacts, these diseases will ravage the world's most vulnerable.

The COVID-19 pandemic has already exposed that reality.

The report shows how the pandemic, while boosting international cooperation, has revealed many nations' vulnerability to future shocks, including those made inevitable by climate change.

"COVID has made the fault lines in our health systems extremely visible," said Stefanie Tye, research associate at the World Resources Institute's Climate Resilience Practice, who was not involved in the IPCC report.

"The effects and shocks of [climate](#) change will strain [health](#) systems even more, for a much longer period, and in ways that we are still trying to fully grasp."

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