

World warned: change now or endanger food and climate

August 8 2019, by Patrick Galey



Agriculture and its supply lines account for as much as 37 percent of all man-made emissions

Humanity faces increasingly painful trade-offs between food security and rising temperatures within decades unless emissions are curbed and

unsustainable farming and deforestation halted, a landmark climate assessment said Thursday.

The UN's Intergovernmental Panel on Climate Change (IPCC) warned that efforts to limit global warming while feeding a booming population could be wrecked without swift and sweeping changes to how we use the land we live off.

The report on land use and climate change highlighted the need to protect remaining tropical forests as a bulkhead against future warming.

But it offered a sobering take on the hope that reforestation and biofuel schemes alone can offset mankind's environmental damage, underlining that reducing emissions will be central to averting disaster.

"Land is a source of emissions as well as a sink," IPCC chair Hoesung Lee told AFP.

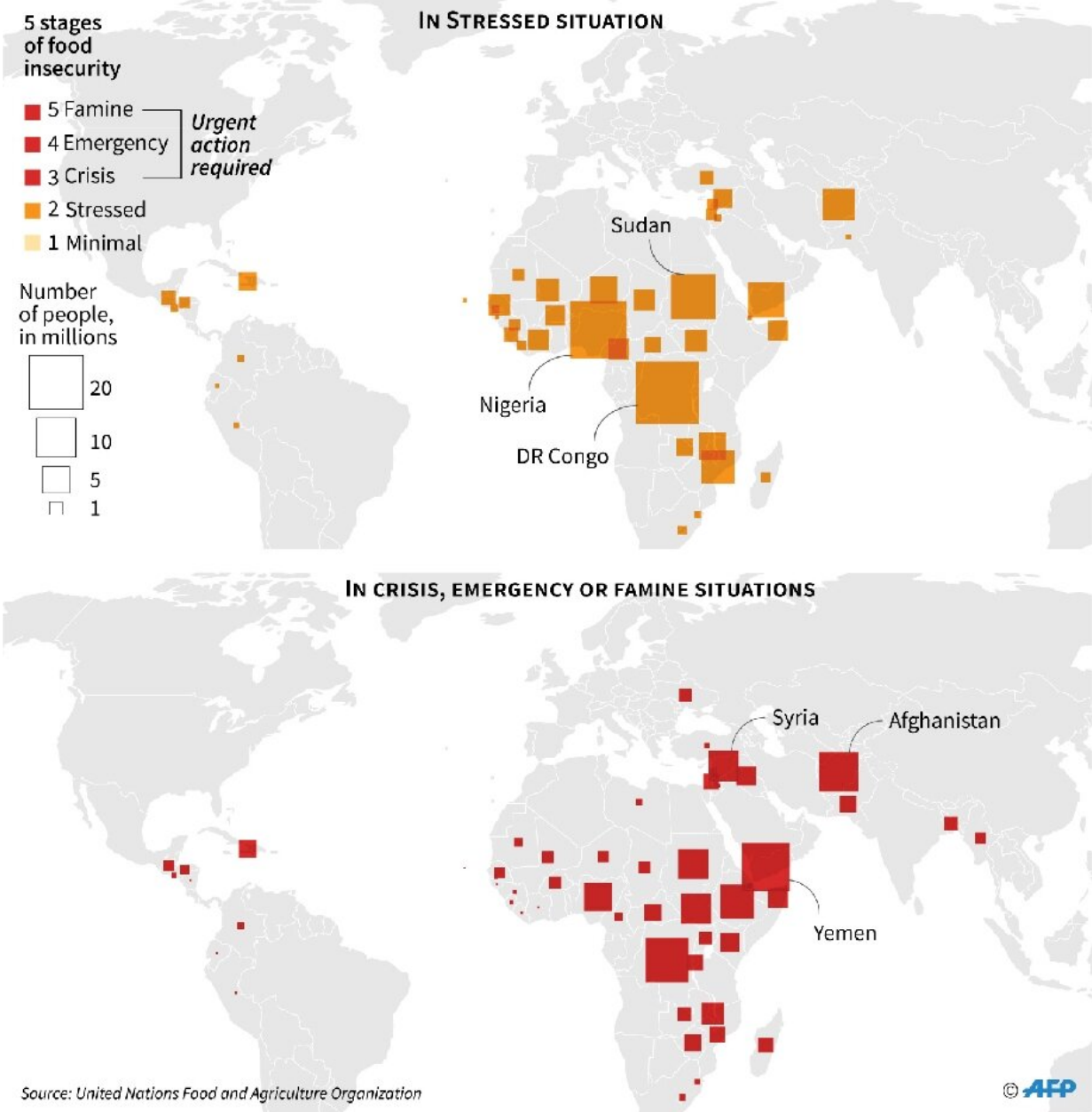
"Obviously you want to reduce emissions from land as much as possible. But that has a lot to do with what's happening to the other side of the equation: greenhouse gas emissions, mainly from the energy sector."

Land is intimately linked to climate. With its forests, plants and soil it sucks up and stores around one third of all man-made emissions.

Intensive exploitation of these resources also produces huge amounts of planet-warming CO₂, methane and nitrous oxide, while agriculture guzzles up 70 percent of Earth's freshwater supply.

Food insecurity in the world

More than 113 million people experienced "acute hunger" in 2018, according to the UN



Food insecurity in the world

As the global population balloons towards 10 billion by mid-century,

how land is managed by governments, industry and farmers will play a key role in limiting or accelerating the worst excesses of climate change.

Teenage climate campaigner Greta Thunberg, who along with a group of activists presented IPCC co-chairs with a thank you letter in Geneva, said she hoped governments would act on the report's findings.

"Of course if you are a very powerful person in a very powerful position then I think you should definitely read it," the 16-year-old told AFP.

"I just hope that the conclusion of this report becomes in a way common knowledge, so everyone knows the importance of those numbers and facts within a bigger perspective."

Trade-offs

The IPCC is the world's leading authority on climate change. Last year it warned that limiting global warming to 1.5 degrees Celsius—the optimal level aimed for in the Paris climate deal—would be impossible without a drastic drawdown in greenhouse gas emissions.



Reforestation efforts, like this one in Niger, can only be one part of the solution

Its land use report presented a string of looming trade-offs in using land for climate change mitigation.

Forests, an enormous carbon sink, can be regenerated to cool the planet. But with industrial farming covering a third of land today, there's limited space.

Bioenergy in the form of vegetation used to sequester carbon also has potential. But room for that must be carved from crop land, pastures or existing forests.

The report said that a "limited" allocation of land for bioenergy schemes could indeed benefit the climate.

It warned however that deployment at a scale needed to draw down billions of tonnes of CO₂ from the atmosphere each year "could increase risks for desertification, land degradation, food security and sustainable development."



Forests, plants and soil absorb and store around a third of all man-made emissions

Devastating impacts

The 1,000-page report takes a deep dive into the systems we use to feed ourselves and the devastating impacts they are wreaking.

Not only does agriculture and its supply lines account for as much as 37 percent of all man-made emissions, current industrialised production and global food chains contribute to vast food inequality.

The report noted that while there are currently two billion overweight or obese adults, 820 million people still don't get enough calories.

In addition, a third of all food produced is currently either lost or wasted, adding to mankind's carbon footprint.

The IPCC summary paper mostly steered clear of the controversial call to limit meat consumption, but did burnish the credentials of "plant-based foods" and their ability to mitigate global emissions.



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"There's a wide range of food systems that rely on meat, and many people rely on meat for protein," Cynthia Rosenzweig, a NASA climatologist and report author, told AFP.

"But we do need to develop low greenhouse gas meat-producing systems."

Temperature matters

The report considers a quintet of human development projections, from

a low-consumption global society that feeds itself sustainably, to a resource-intensive future where arable land is squeezed out by huge-scale bioenergy projects.

But under all scenarios, one axiom held true: the higher the temperature, the higher the risk.

"New knowledge shows an increase in risks from dryland water scarcity, fire damage, permafrost degradation and food system instability, even for global warming of around 1.5C," said Valerie Masson-Delmotte, an IPCC co-chair.



Under all scenarios, the report said the higher the temperature, the higher the risk

At 2C the risk of food insecurity ticks over to "very high".

"It's not only about reducing emissions," said Thunberg.

"The science says that to stay below 1.5C of global temperature rise we need to make unprecedented changes in all aspects of society.

"Those are not my words. Those are their words."

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