



Food and Agriculture Organization  
of the United Nations

# **SDGs: climate, biodiversity, water food and nutrition nexus**

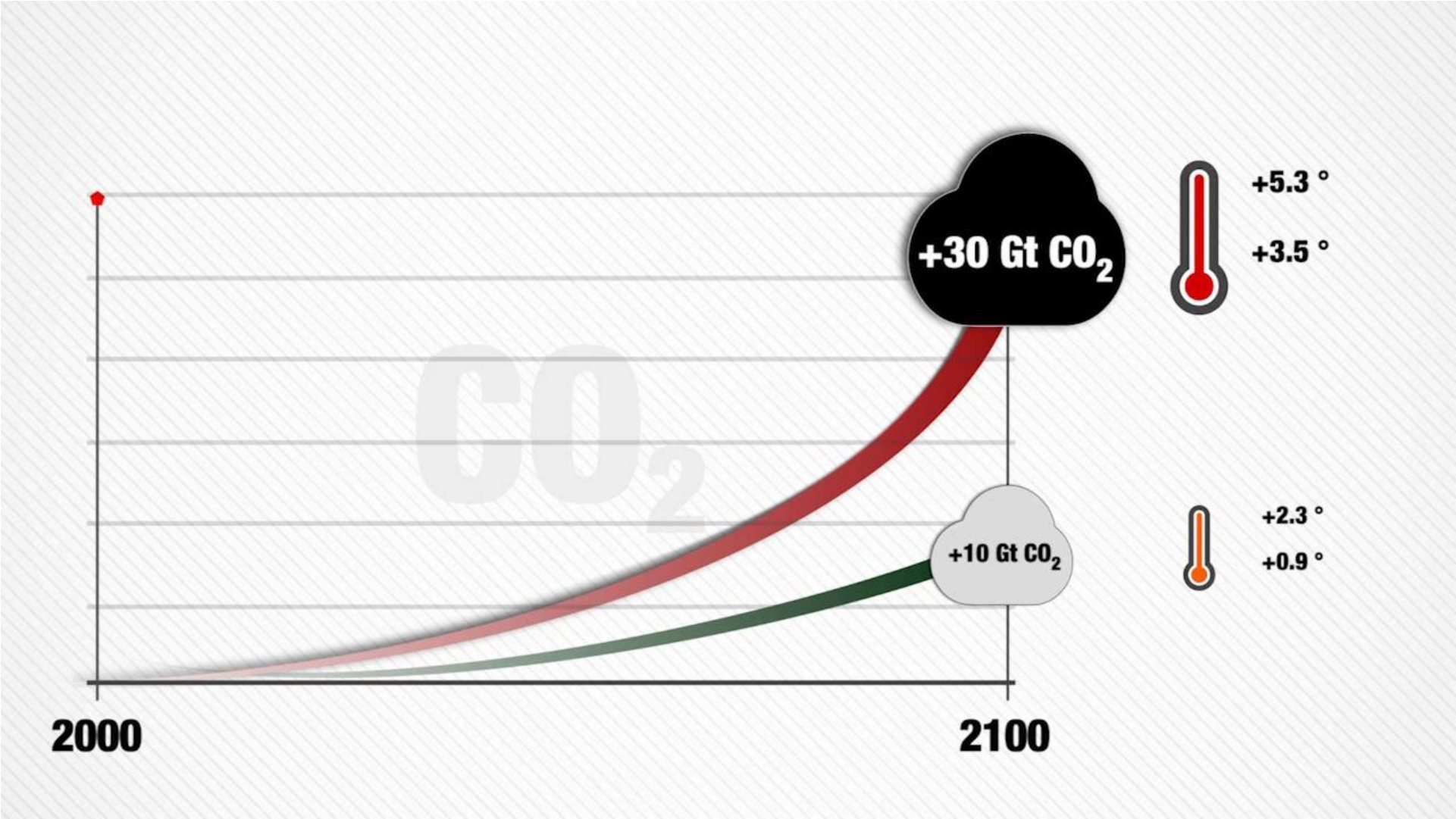
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March 7 2019, Vatican City  
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# **PART I: UNSUSTAINABLE USE OF THE PLANET?**

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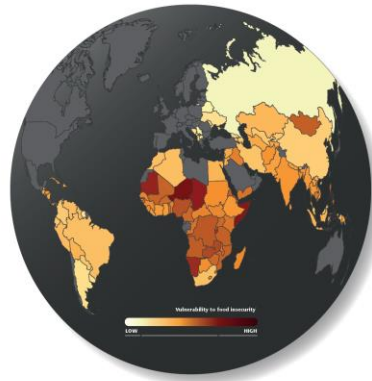
A global collapsed is still the reality. We stewards are failing!



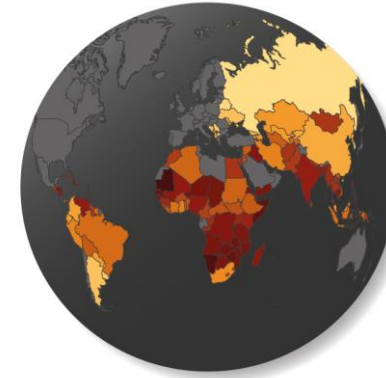


# Food insecurity and climate change vulnerability: present day, worst case and best case scenarios

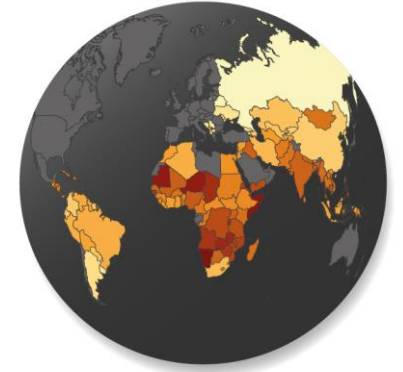
Present day



2050: worst case scenario

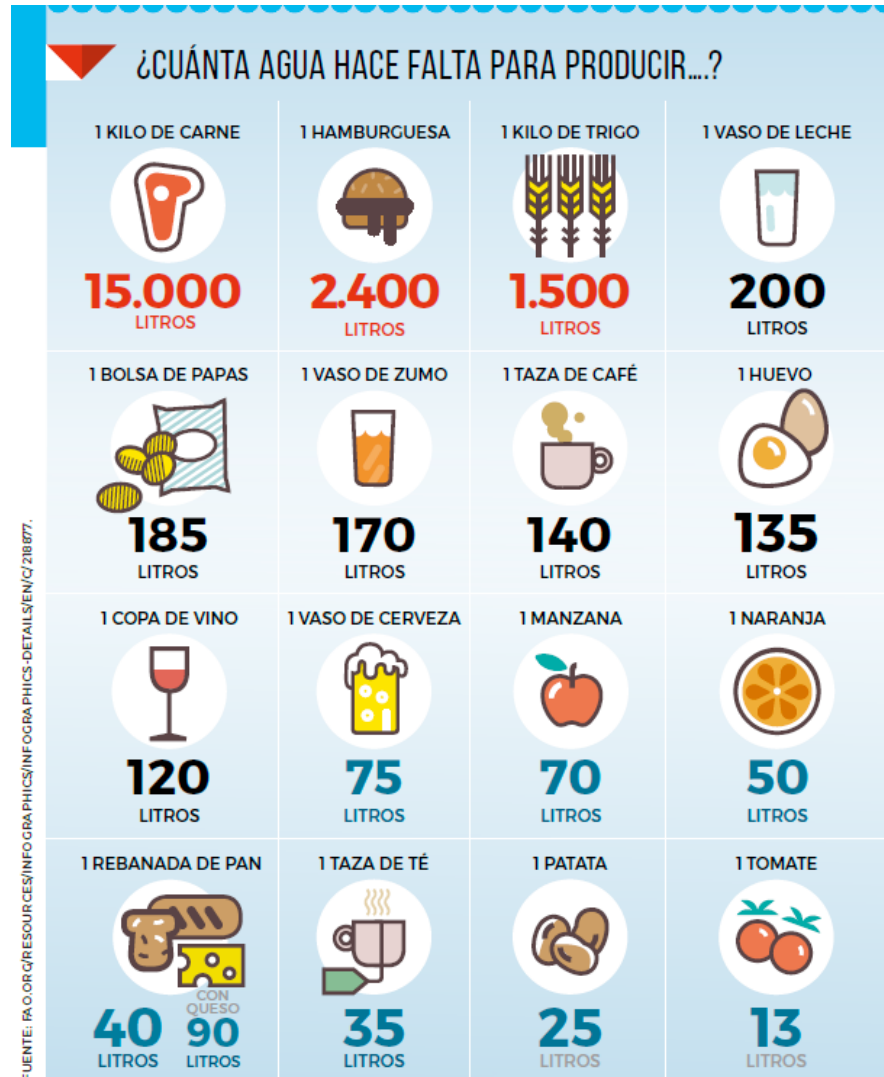


2050: best case scenario



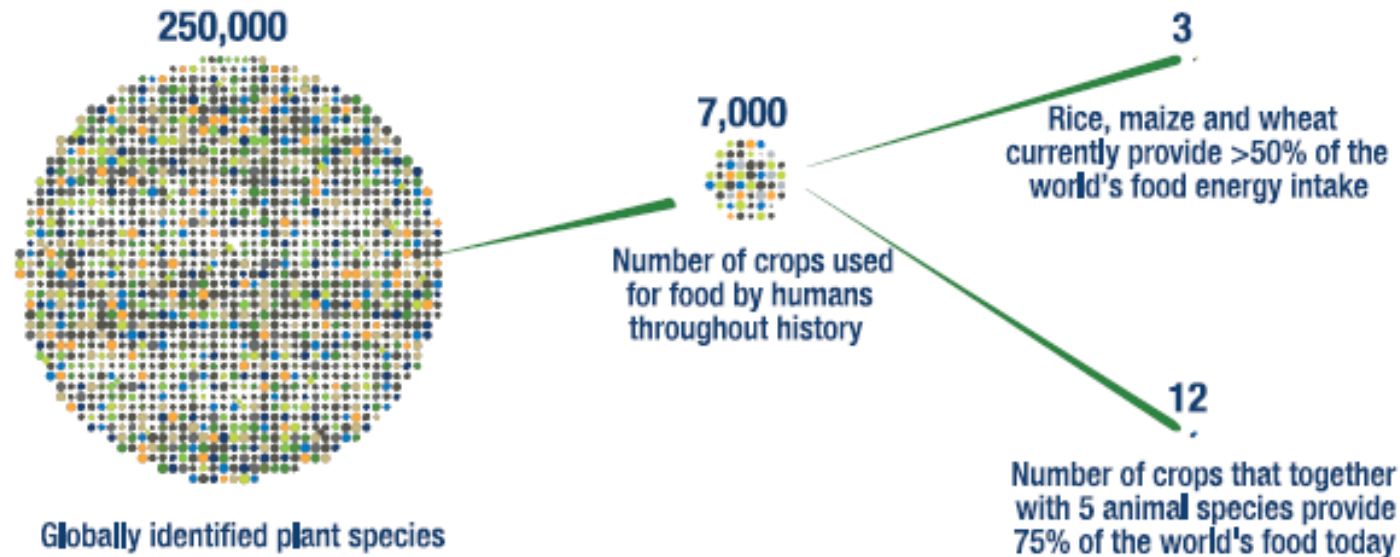
Source: Met Office Hadley Centre and WFP, 2015. Cited by SOFA, FAO 2016

# Water intensity: Liters per product



# Very little diversity in the way we eat now:

## Shrinking diversity



Source: FAO, 1997.

# Growing (Mal)nutrition...and food waste

821 million  
**hungry**

1.9 billion  
**overweight**



# **PART II: IS THERE HOPE?**

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Yes a coalition of the willing acting together with faith and hope!





### **Utin lap Banana**

B-carotene content= 8508 mcg/100g

Banana intake (g/d/p) = 93

RDI for Vit A covered = 220%  
by banana intake (%)



### **Cavendish Banana**

B-carotene content= 26 mcg/100g

Banana intake (g/d/p) = 93

RDI for Vit A covered = 0.7%  
by banana intake (%)

# Even CO2 neutral coffee is an option





# Brazilian CO2 neutral Beef



# Loving ugly fruits and vegies



Follow



Why loving 'ugly' fruit and vegetables does more than just reduce your [#foodwaste](#)   
[bit.ly/2yNmIGc](https://bit.ly/2yNmIGc)  

[#ZeroHunger](#)





# What role does DSI have for the planet's and peoples 'challenges?

Digital Sequencing Information underpins many large scale investments in biotechnology and biological research.

more products will  
emerge from DSI separate  
from biological material of  
origin







more products will  
emerge from DSI analysis




design and manufacture  
of:  
medicines  
biofuels  
enzymes  
materials

disease diagnosis  
pathogen detection  
nutritional advice

SDG Targets and Indicators relevant to biodiversity

SDG	SDG Title	Relevant SDG Targets	Indicators
	End poverty in all its forms everywhere	1.2 / 1.4 / 1.5	1.2.2 / 1.4.2 / 1.5.2
	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	2.1 / 2.2 / 2.3 / 2.4 / 2.5	2.1.1 / 2.1.2 2.2.1 / 2.2.2 / 2.3.2 2.4.1 / 2.5.1 / 2.5.2
	Ensure availability and sustainable management of water and sanitation for all	6.3 / 6.6	6.3.2 / 6.6.1
	Take urgent action to combat climate change and its impacts	13.1 / 13.2 / 13.3	13.1.1 / 13.2.1 / 13.3.2
	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	14.1 / 14.2 / 14.4 / 14.5 14.6 / 14.7 / 14.b / 14.c	14.1.1 / 14.2.1 / 14.4.1 14.5.1 / 14.6.1 / 14.7.1 14.b.1 / 14.c.1
	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	15.1 / 15.2 / 15.3 / 15.4 15.5 / 15.6 / 15.8 / 15.9 15.a / 15.b / 15.c	15.1.1 / 15.2.1 / 15.3.1 15.4.1 / 15.4.2 / 15.5.1 15.6.1 / 15.8.1 / 15.9.1 15.a.1 / 15.b.1 / 15.c.1

SDG	SDG Title	Relevant SDG Targets	Indicators
	End poverty in all its forms everywhere	1.2 / 1.4 / 1.5	1.2.2 / 1.4.2 / 1.5.2

1.2 - By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

1.2.2 - Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

# **PART III: IF WE FAIL?**

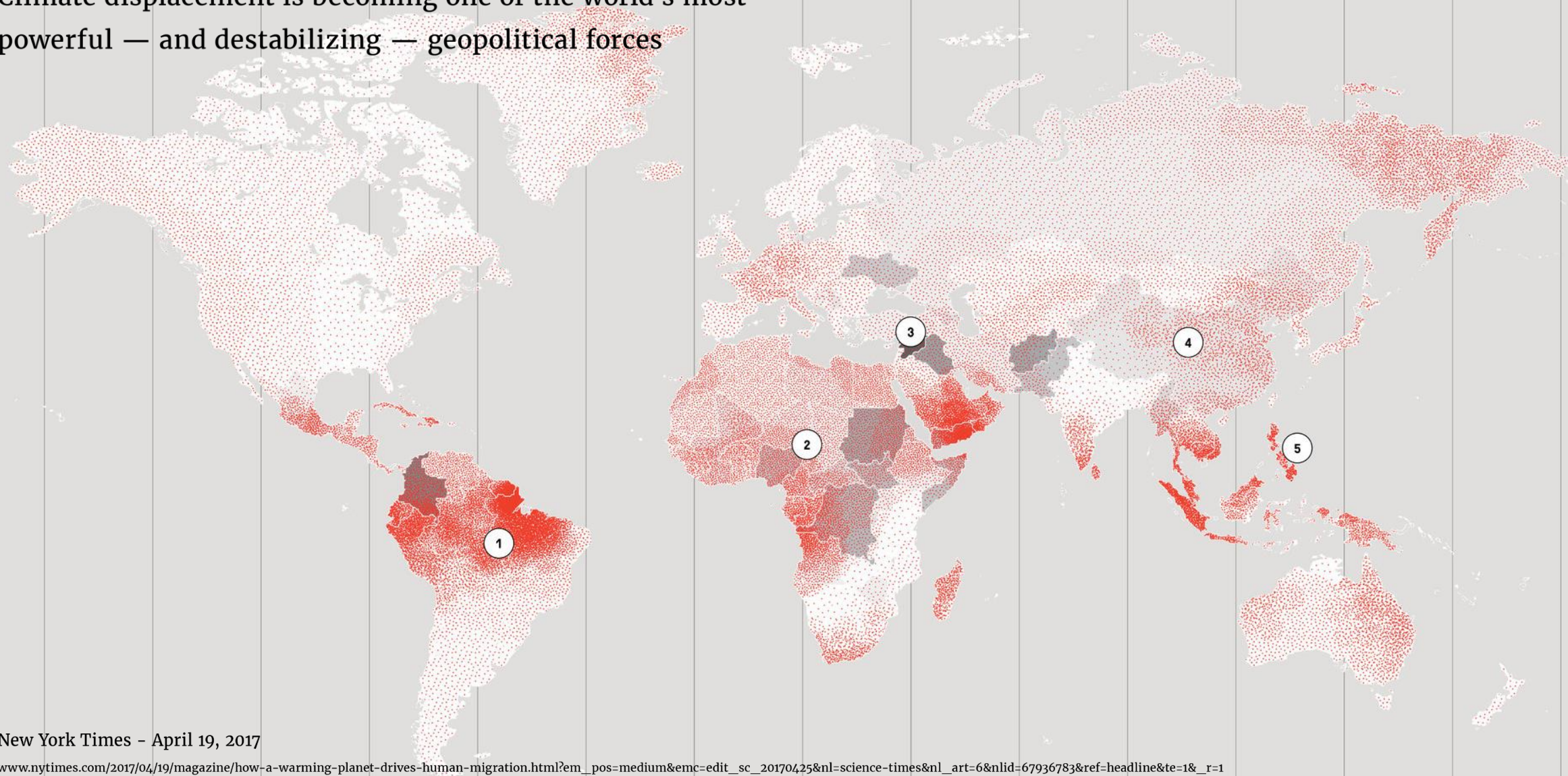
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Our planet and our people in danger.



# How a Warming Planet Drives Human Migration

Climate displacement is becoming one of the world's most powerful — and destabilizing — geopolitical forces



New York Times - April 19, 2017

[www.nytimes.com/2017/04/19/magazine/how-a-warming-planet-drives-human-migration.html?em\\_pos=medium&emc=edit\\_sc\\_20170425&nl=science-times&nl\\_art=6&nid=67936783&ref=headline&te=1&r=1](http://www.nytimes.com/2017/04/19/magazine/how-a-warming-planet-drives-human-migration.html?em_pos=medium&emc=edit_sc_20170425&nl=science-times&nl_art=6&nid=67936783&ref=headline&te=1&r=1)