



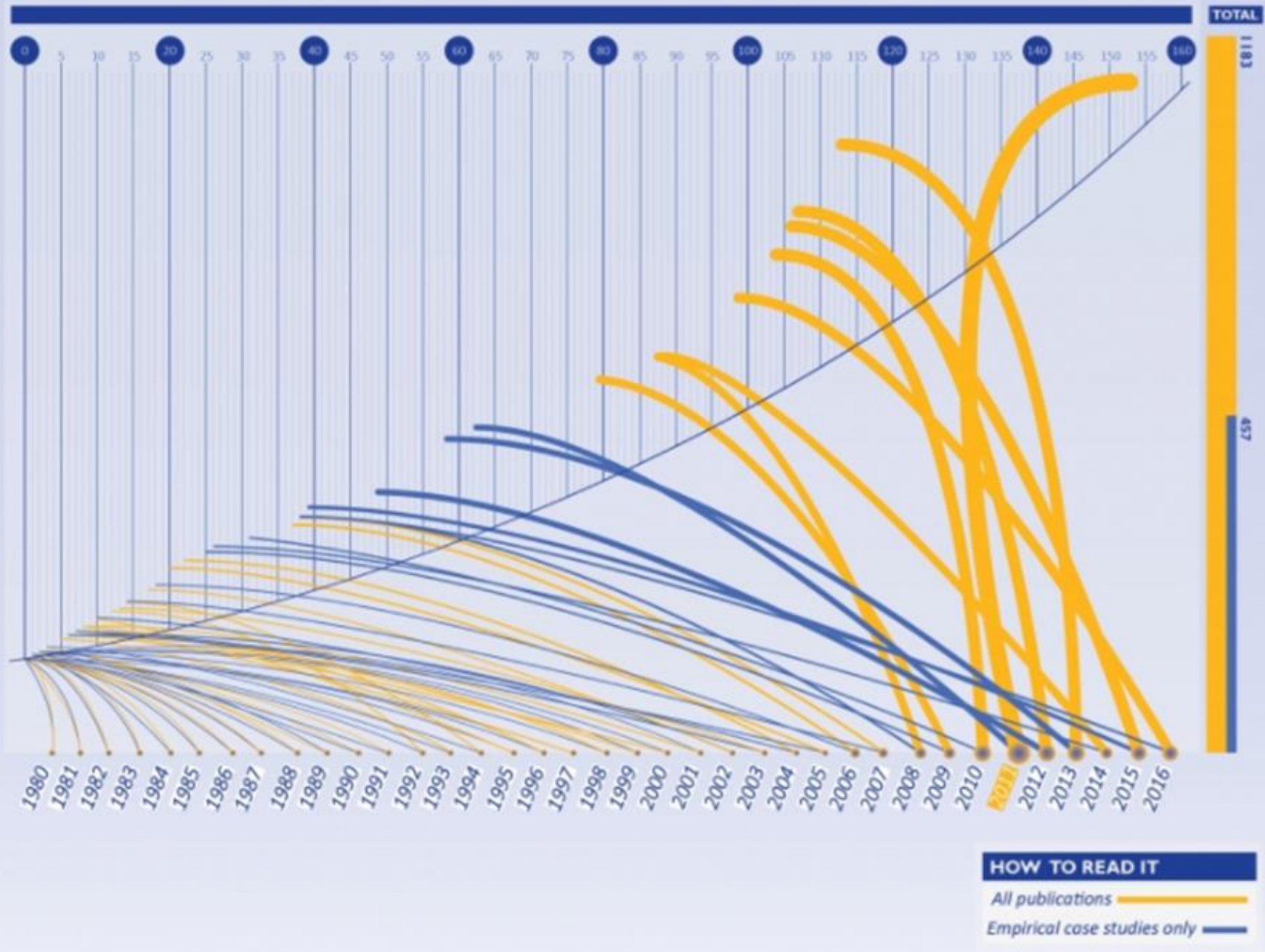
Understanding the Relationship Between Climate Change and Migration: Experiences, Projections and Concerns

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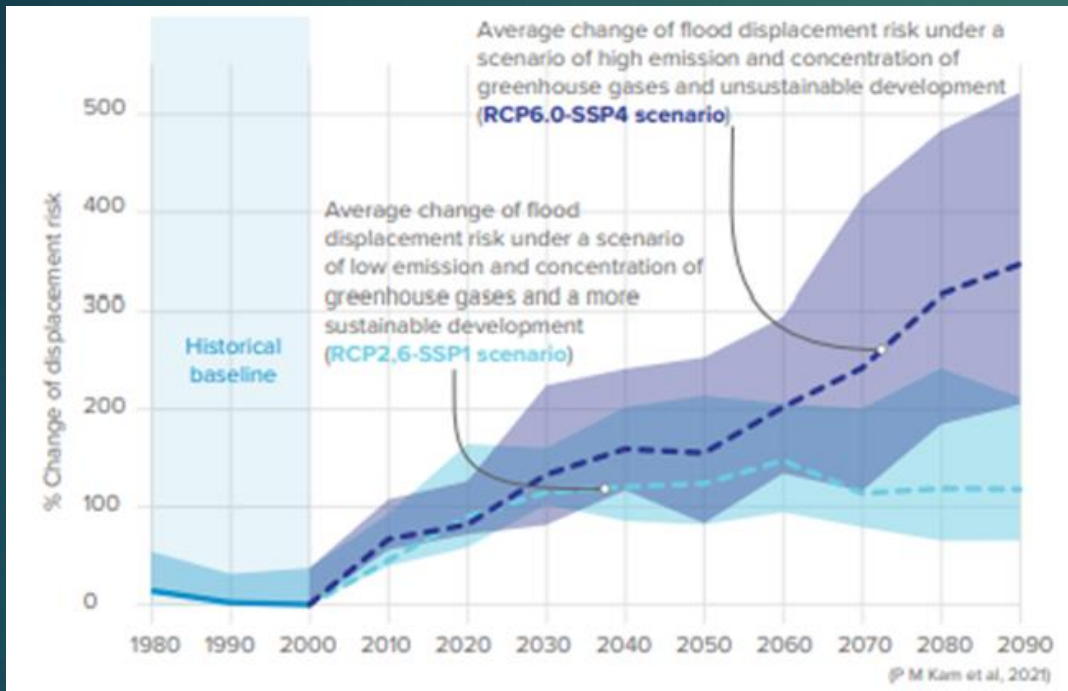
Anthropogenic Climate Change as a Trigger of Human Mobility

- ▶ NUMBER OF PUBLICATIONS AND CASE STUDIES ON MIGRATION, ENVIRONMENT AND CLIMATE CHANGE (1980-2016)

The Relationship Between Climate Change and Migration: Experiences, Forecasts

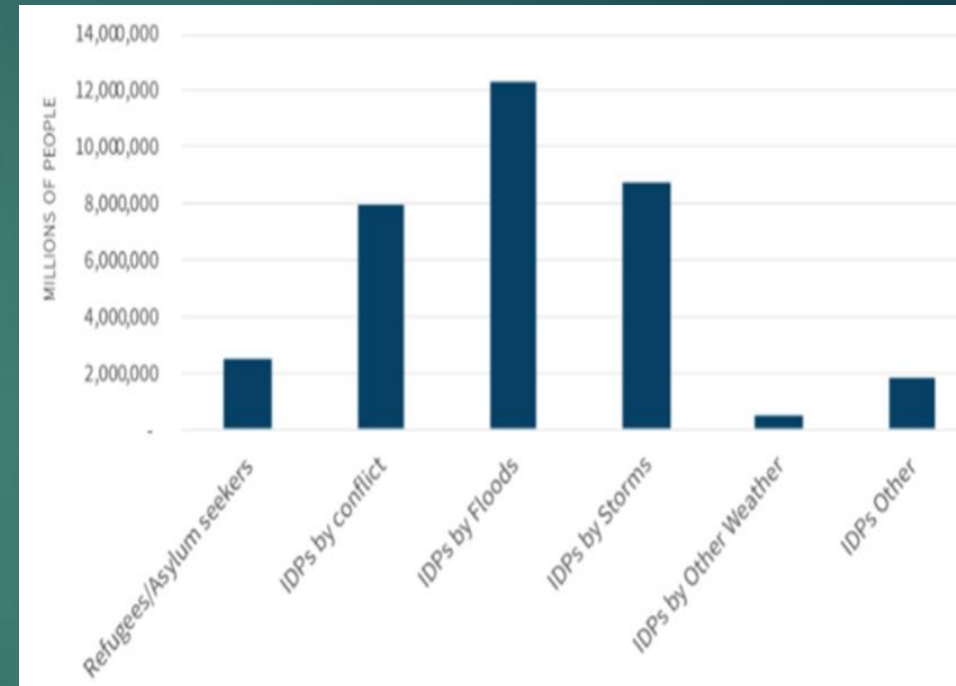
- ▶ One billion people by 2050 (Christian Aid, 2007) (?)
- ▶ 150-200 million people in the next 30 years (Jakobeit and Methmann, 2007) (?)
- ▶ 1.4 billion people by 2060, two billion people by 2100 due to rising ocean and sea levels (Faber and Schlegel, 2017: 5; Scotti, 2017) (?)
- ▶ 143 million people may be forced to internally migrate until 2050 only in Sub-Saharan Africa, South Asia and Latin America (Rigaud et al., 2018) (?)

Disaster displacement and the role of climate change



IDMC-GRID, 2021

Average Annual Forced Displacement by Category, 2010-2019



UNHCR Global Trend reports from 2010-2019

In 2020, conflict and disasters triggered 40.5 million new internal displacements across 149 countries and territories (GRID, 2021). At least seven million people were internally displaced by disasters across 104 countries and territories as of 31 December 2020. 'This is only the second time we have compiled such a global figure, and it should be considered a significant underestimate' (IDMC, 2021).

What we learn from the cases

- ▶ 1. Migration Due to Rapid and Sudden-onset Climate Change Effects
- ▶ -Migration Movements Associated with Flood
- ▶ -Migration Movements Associated with Storms and Hurricanes
- ▶ 2. Migration Due to Slow-onset and Gradual Effects of Climate Change
- ▶ -Migration Movements Associated with Sea Level Rise
- ▶ -Migration Movements Associated with Increasing Temperatures, Drought and Desertification

What we learn from the cases

Migration Movements Associated with Flood

- ▶ A large number of displacements occurred throughout the continent in Argentina, Bolivia, Canada, Guatemala, Nicaragua, Paraguay, Peru, Uruguay and the USA, which were the most affected countries by the large number of floods that occurred in the Americas during 2017. The flood in Peru, which is called the worst in the last 20 years, displaced around 295,000 people (IDMC, 2018a).
- ▶ Flood events that occurred between 1995 and 2016 affected 2.3 billion people in total (CRED 2016).
- ▶ Of the 1.1 million displacements caused by sudden-onset disasters in Africa in 2016, 97% were due to weather-related disasters, which is consistent with what has been recorded since 2008. Floods accounted for 90% of the disasters and displaced 977,000 people in total (IDMC, 2017).
- ▶ As a result of the changing rainfall regime in Ethiopia, between 2004 and 2008, 170,000 people were displaced, 2750 animals perished, and over 6500 hectares of land were lost (IOM, 2009).
- ▶ Floods in the Zambezi river as a result of heavy rainfall in Mozambique caused the migration of 220,000 people in 2001, 110,000 people in 2007, and 80,000 people in 2008 (Schade, 2013).
- ▶ In 2017 the Hunan floods disaster that occurred in Southern China between June and July 2017 triggered the region's largest displacement; more than 1,620,000 people have been displaced (IDMC, 2018a).
- ▶ Mozambique and Zimbabwe were the two countries hardest-hit by extreme weather in 2019 (Thomson Reuters Foundation, 2020).
- ▶ Storms triggered more than 5.8 million new displacements as they hit densely populated areas in China, the Philippines, Japan, Myanmar, Indonesia and Viet Nam (IDMC, 2021).

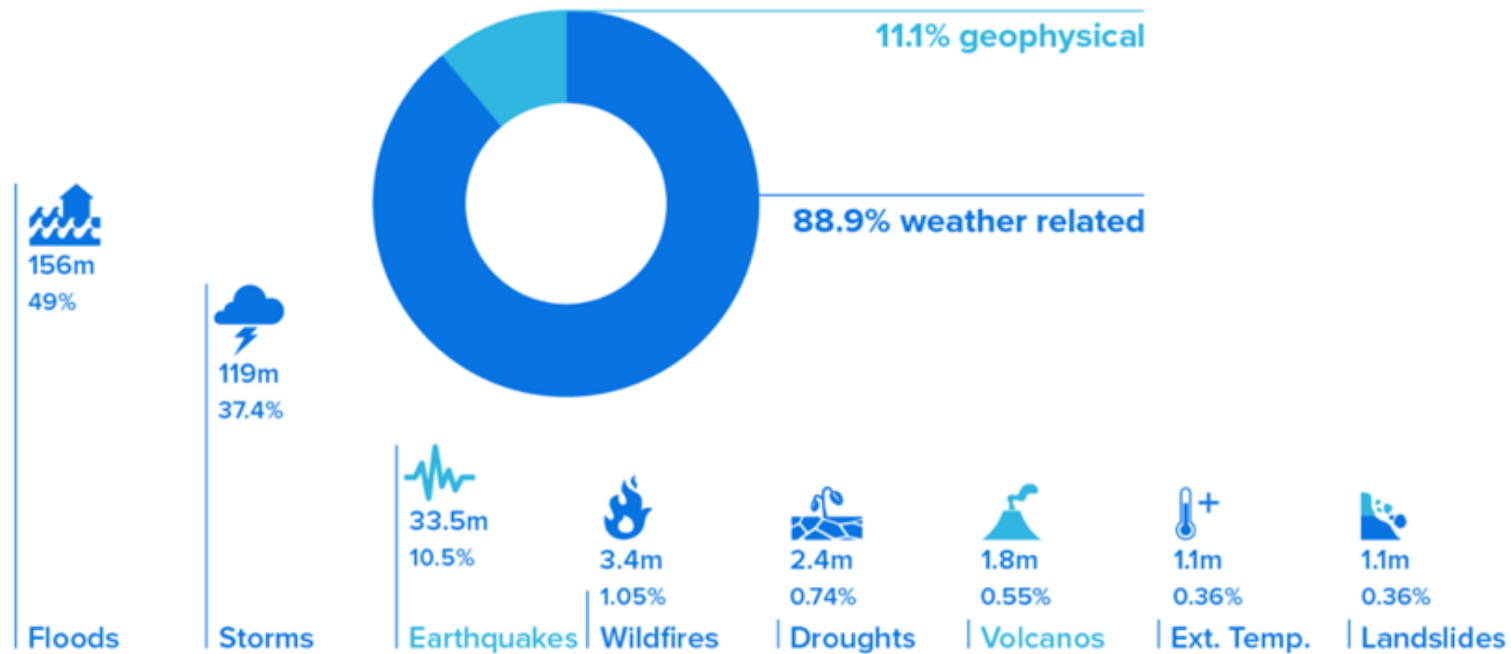


A neighbourhood in Honduras flooded by hurricanes Eta and Iota, which destroyed houses and harvests, and increased food insecurity. NRC/Christian Jepsen, December 2020.

What we learn from the cases

Migration Movements Associated with Flood

New Displacement by Disasters: breakdown by hazards (2008-2020)



What we learn from the cases

Migration Movements Associated with Storms and Hurricanes

- ▶ In Bangladesh-Sidr Cyclone displaced 650,000 people in 2007, Bijli and Aila Cyclone 862,000 people in 2009 (Mortreux and Adams, 2015).
- ▶ In 2015, Cyclone Pam displaced 55% of the population of Vanuatu and 25% of the population of Tuvalu (Steffens, 2019).
- ▶ In the same year, Cyclone Komen displaced more than 1.6 million people in Myanmar in July and August, (IDMC, 2016).
- ▶ In 2013-Hurricane Haiyan displaced approximately 4.1 million people in different parts of the Philippines and the number of people leaving Tacloban reached 10,000 daily (Gemenne et al., 2014).
- ▶ In 2015-Philippines-three strongest storms displaced two million people. Typhoon Koppu in October displaced approximately 938,000 people in Luzon.
- ▶ Typhoon Melor caused 743,000 people to leave their homes in Bicol Peninsula and Romblan Islands in December, Typhoon Goni in August caused the displacement of more than 318,000 people in the north of the country (IDMC, 2016).
- ▶ Three large-scale typhoons and one flood triggered 75% of displacements in China in the same year. Typhoons Chan-Hom, Soudelor and Dujan penetrated the four eastern provinces between July and September, demolished homes, caused landslides and flooding, and displaced more than 2.2 million people (IDMC, 2016).
- ▶ Number of people displaced due to sudden air disasters reached 6.3 million in 2015 (IDMC, 2016).



Residents of Barangay Baybay, Malinao, in the Albay Province of the Philippines rummage through what was left of their destroyed homes, a week after Typhoon Goni destroyed most of their village. © OCHA/Martin San Diego, November 2009. (GRID, 2021)

What we learn from the cases

Migration Movements Associated with Storms and Hurricanes

- ▶ Cyclone Morea displaced people in South Asia, Bangladesh, India and Myanmar, as well as people in the Rohingya refugee camp in Bangladesh (IDMC, 2018a).
- ▶ Same year, tropical storm Tembin displaced 765,000 people in the Philippines and Malaysia (IDMC, 2018).
- ▶ In Vietnam, which is very risky and vulnerable to sudden weather events, a total of 633,000 people were displaced in 2017 as a result of 10 weather events, including Typhoon Doksuri and Typhoon Damrey (IDMC, 2018).
- ▶ Hurricanes Harvey, Irma and Maria in 2017 had unprecedented effects in the Atlantic and Caribbean (IDMC, 2018a). Because of Hurricane Irma, Florida governor asked millions of people in Miami to evacuate the city; Hurricane Harvey caused unprecedented flooding in Texas and displaced tens of thousands of people in Texas and 848,000 people across the USA (IDMC, 2018).
- ▶ Hurricane Maria, which especially hit the island of Puerto Rico, destroyed the city centers and displaced tens of thousands of people (IDMC, 2018).
- ▶ In 2019 The Caribbean island nation of the Bahamas was the third worst-hit, due to devastation from Hurricane Dorian (Thomson Reuters Foundation, 2020).
- ▶ Typhoons Goni and Vamco triggered more than three million displacements in the Philippines and Viet Nam in 2020 (IDMC, 2021).

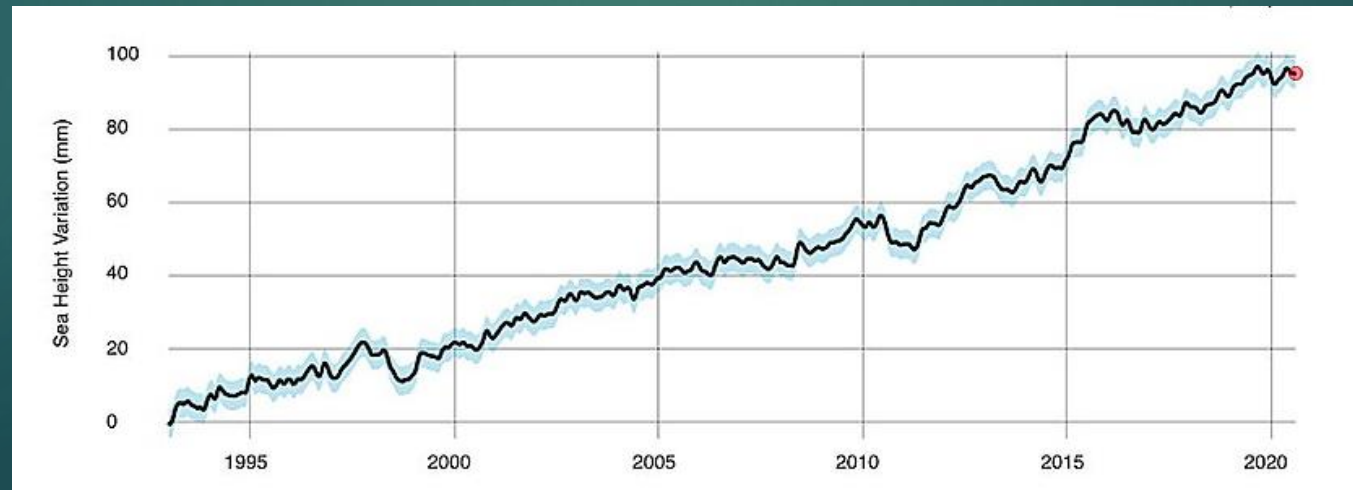


Cyclone Amphan left a trail of destruction in its wake over Satkhira, Bangladesh. The cyclone triggered nearly 5 million evacuations across Bangladesh, India, Myanmar and Bhutan in May, making it the largest disaster displacement event in 2020 globally. © NurPhoto/Kazi Salahuddin via Getty Images, August 2020.

What we learn from the cases

Migration Movements Associated with Sea Level Rise

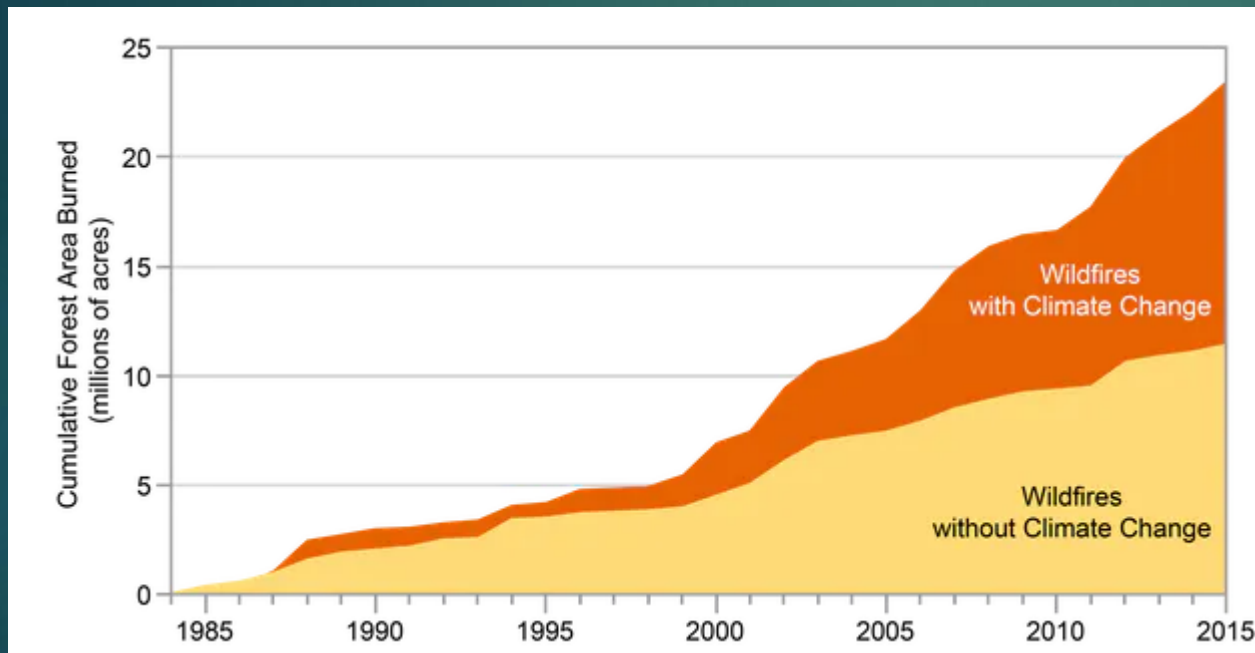
- ▶ Small Island States (Stojanov et al., 2018; Locke, 2009; Kelpsaite & Mach, 2015; Cameron, 2018; Allgood, 2017; ADB, 2012; Ni, 2015).
- ▶ Nile Delta in Egypt-a 50-centimeter increase in sea level by 2025 will displace 2 million people, flood 1800 square meters of agricultural land, negatively affecting the tourism sector (IOM, 2009).
- ▶ Migration in Bangladesh (Hillmann et al. 2015; Islam et al. 2014).
- ▶ The USA - 13 million climate refugees in the United States by the end of this century - at least 414 towns, villages and cities in the US are expected to be resettled (Strauss et al., 2015).
- ▶ 37.2 million people in India, 27 million in Bangladesh, 22.3 million in China, 20.9 million in Indonesia, 13.6 million in the Philippines, 9.5 million in Vietnam, and 9.1 million in Japan are at risk due to sea-level rise by 2050 (ADB 2012, 25).
- ▶ Carbon emissions causing 4 degrees Celsius of warming could lock in enough eventual sea-level rise to submerge land currently home to 470 to 760 million people globally. Carbon cuts resulting in the proposed international target of 2 °C warmings (3.6 °F) would reduce the rise locked in so that it would threaten areas now occupied by as few as 130 million people (Climate Central Report, 2015).



Data source: Satellite sea level observations.
Credit: NASA Goddard Space Flight Center

What we learn from the cases

Migration Movements Associated with Increasing Temperatures, Drought and Desertification



The cumulative forest area burned by wildfires has greatly increased between 1984 and 2015, with analyses estimating that the area burned by wildfire across the western United States over that period was twice what would have burned had climate change not occurred. USGCRP, NCA4, Vol. 2

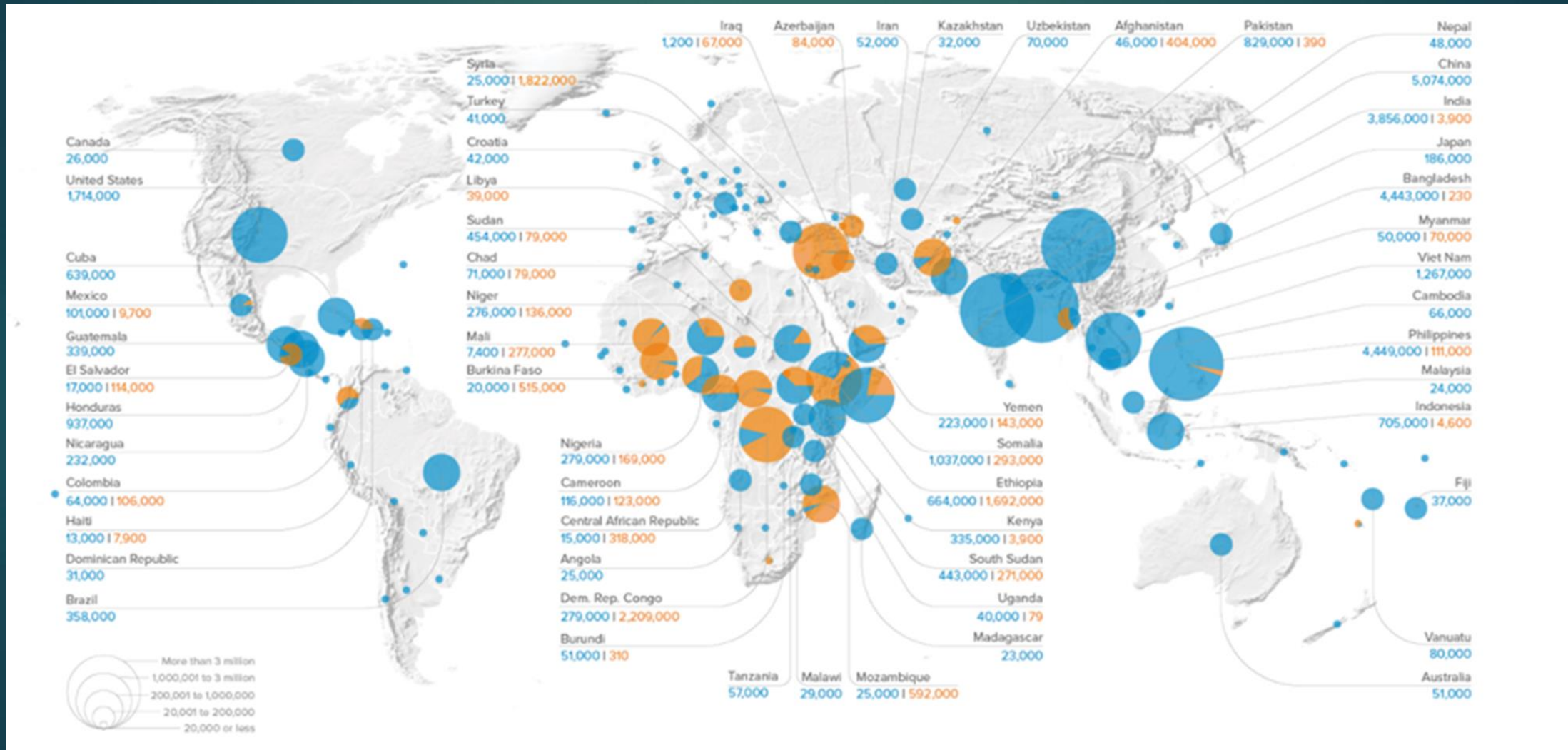


Wildfires spreading in the San Francisco Bay area of California, United States. © China New Service/Liu Guanguan via Getty Images, August 2020.

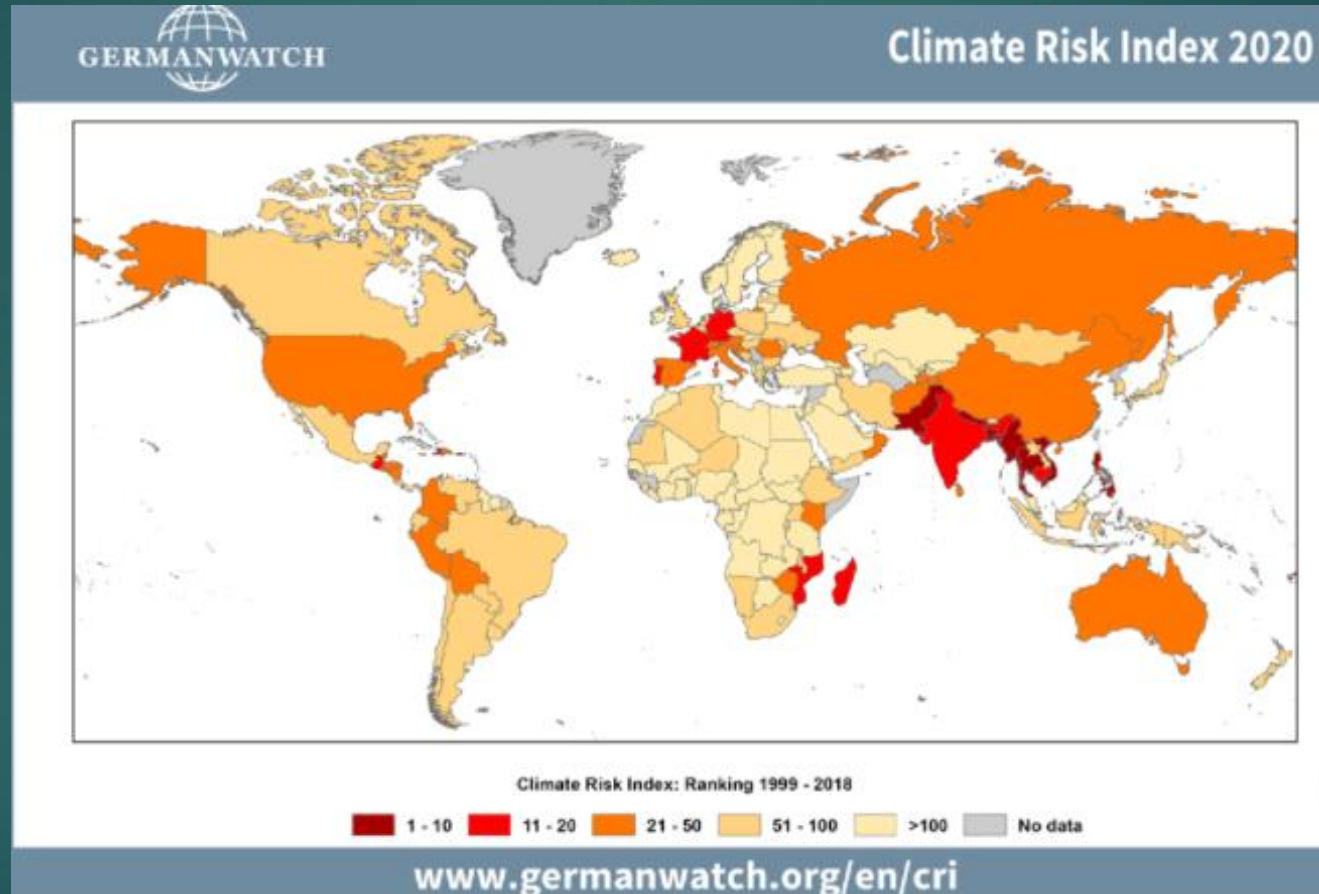
What we learn from the cases

Migration Movements Associated with Increasing Temperatures, Drought and Desertification

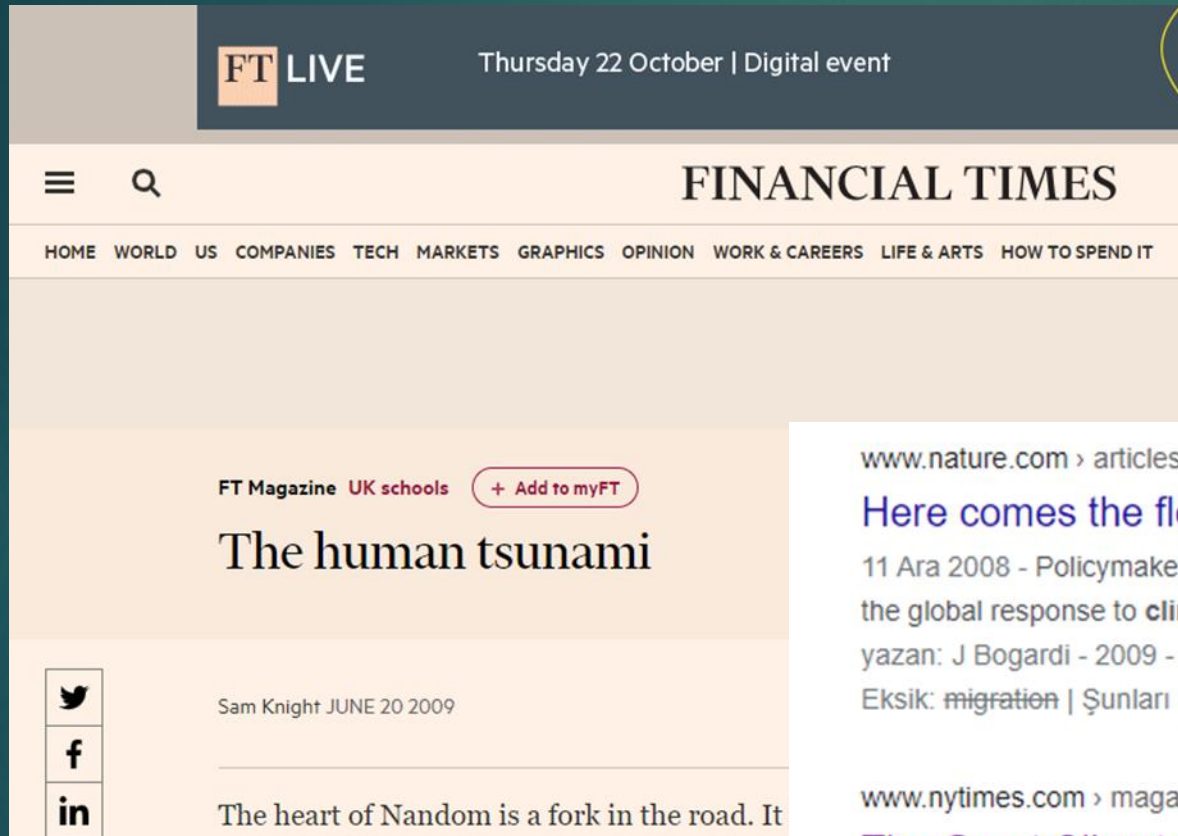
- New Displacement by conflict and disasters in 2020, IDMC.



What we learn from the cases



Seeking for a Suitable Terminology in the Light of Climate Justice Demand



www.nature.com > articles > c... - [Bu sayfanın çevirisini yap](#)

[Here comes the flood | Nature Climate Change](#)

11 Ara 2008 - Policymakers must start to view mass **migration** as a form of adaptation so that the global response to **climate**-induced **migration is** one of ...

yazan: J Bogardi - 2009 - Alıntılanma sayısı: 61 - [İlgili makaleler](#)

Eksik: ~~migration~~ | Şunları içermelidir: [migration](#)

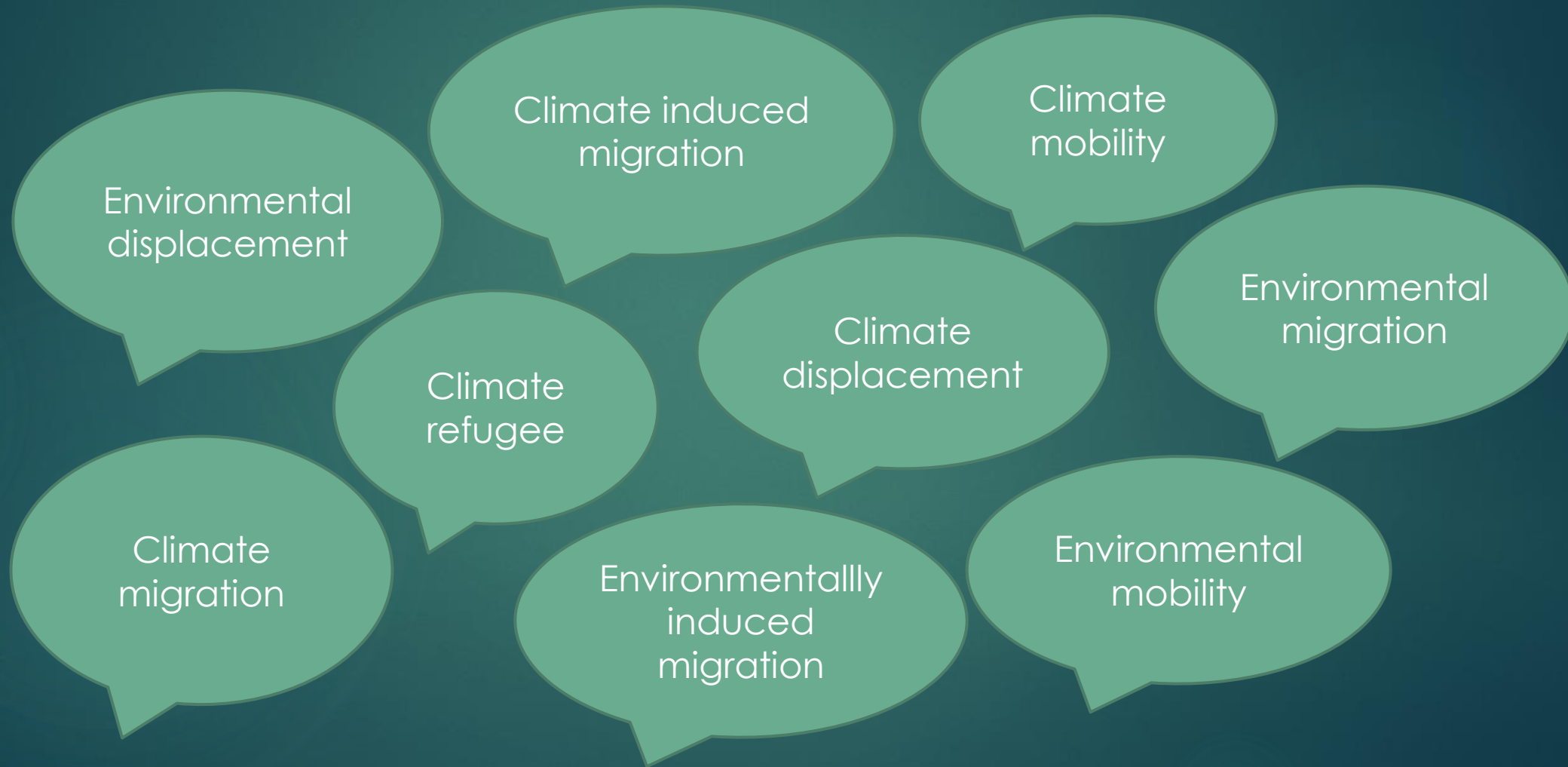
www.nytimes.com > magazine - [Bu sayfanın çevirisini yap](#)

[The Great Climate Migration Has Begun - The New York Times](#)

23 Tem 2020 - This article, the first in a series on global **climate migration**, is a partnership ...

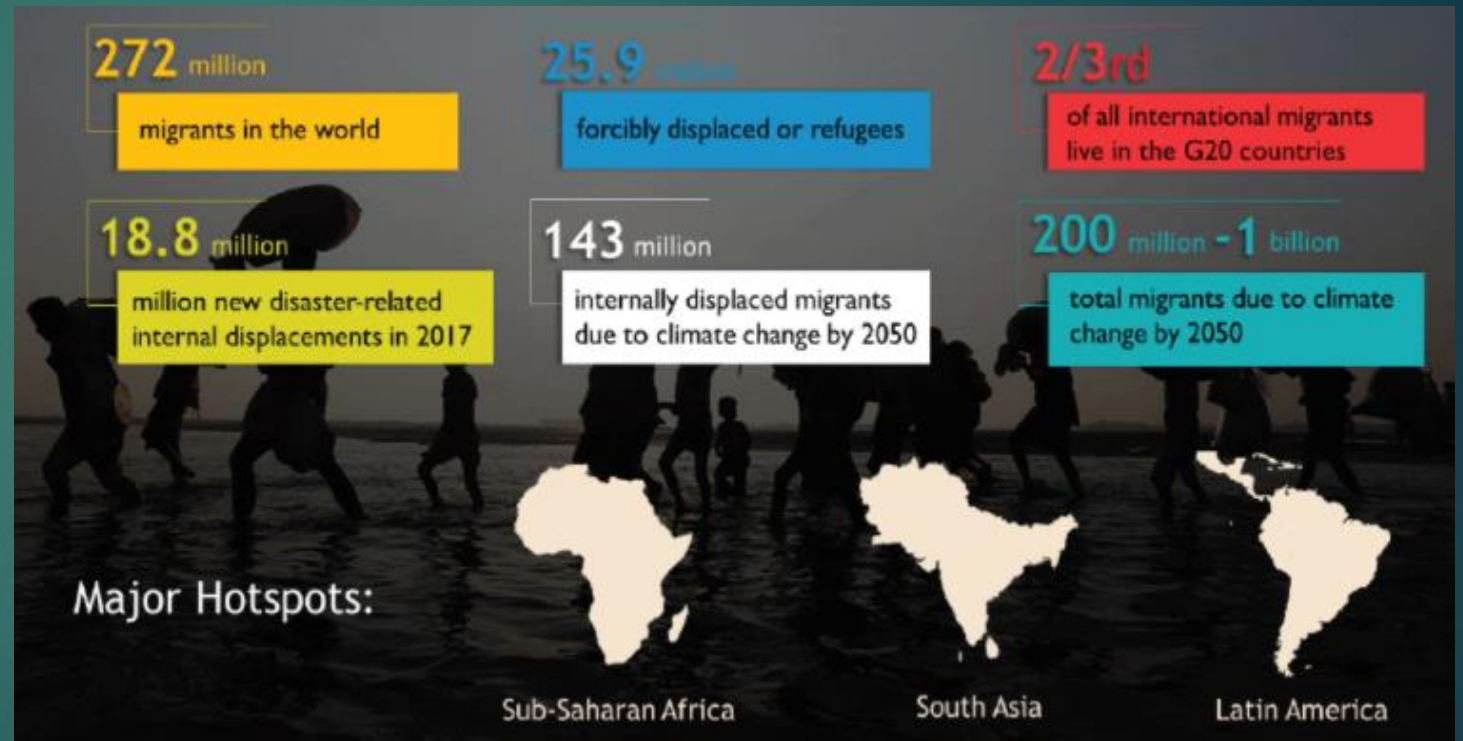
Now, though, under a relentless confluence of drought, **flood**, ... Almost everyone **here** experiences some degree of uncertainty about where their ...

Seeking for a Suitable Terminology in the Light of Climate Justice Demand



Seeking for a Suitable Terminology in the Light of Climate Justice Demand

- ▶ IPCC Reports
- ▶ The Cancun Adaptation Framework
- ▶ The National Adaptation Plans

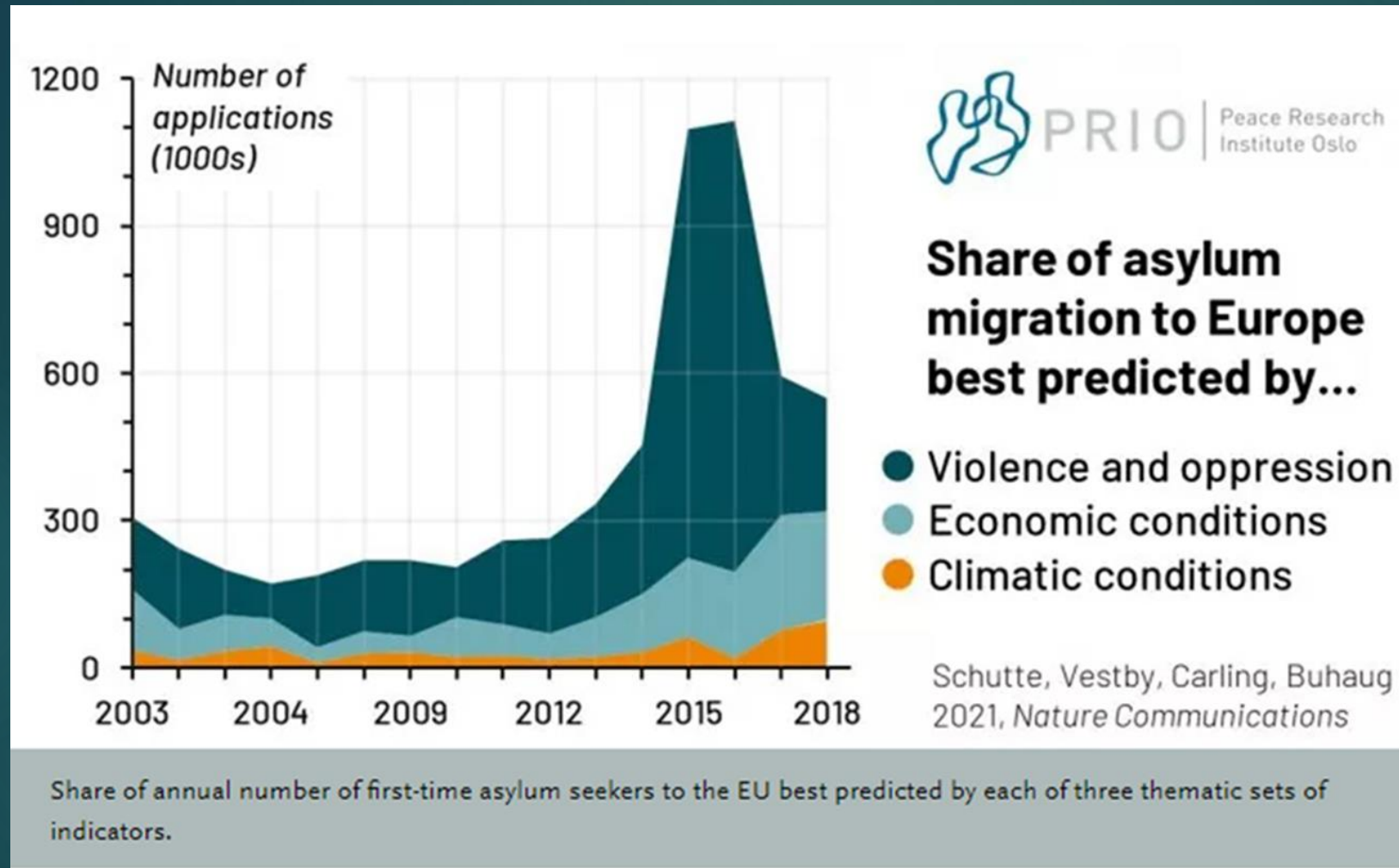


Sources: IOM (2019b), Internal Displacement Monitoring Centre (2018), and OECD (2017)

Seeking for a Suitable Terminology in the Light of Climate Justice Demand



Conclusion



<https://blogs.prio.org/2021/04/can-the-effects-of-climatic-change-predict-asylum-migration-to-europe/>