



Impacts of Climate Change: Human Population Displacement



Introduction

Human displacement may be the biggest short term effect of climate change on human settlements. People may be forced to migrate because of:

- Loss of housing (*due to natural disasters, shoreline erosion, coastal flooding, etc*)
- Loss of social and cultural resources (*cultural properties, community networks, etc*)
- Loss of living resources (*food insecurity due to agricultural disruption, water scarcity, loss of energy resources*)

How Current Global Change is Making This Worse

Simply, climate change will cause mass population movement by making certain areas unviable to live.

As a result of the changing climate, food and water supplies become unreliable and natural disasters like floods and storms become more severe.

Large areas are expected to become drier, and according to the the Journal of Environmental Hazards, the proportion of land in constant drought will increase from 2 to 10 percent by 2050 [1]. Meanwhile, as the hydrological cycle becomes more intense, increased rainfall may wash away topsoil and cause mass flooding on a regular basis [2].

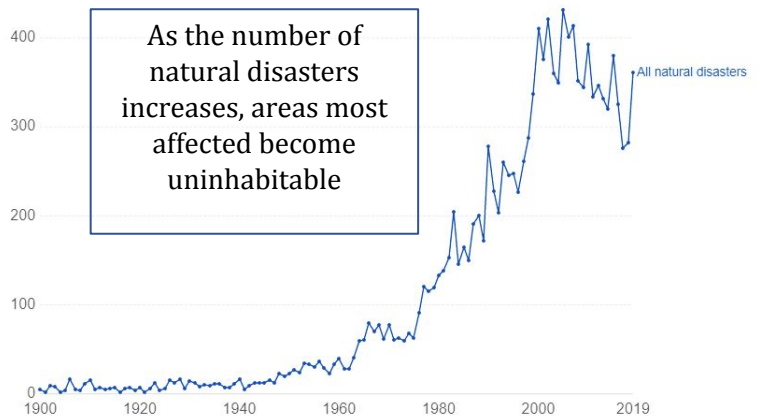
Climate Processes and Climate Events

Climate processes are slow changes that may incentivize a population to migrate over time, such as sea level rise, salinization of agricultural land, etc.

Climate events are sudden hazards like floods, storms, hurricanes that force people to move quickly.

Number of recorded natural disaster events, All natural disasters

The number of global reported natural disaster events in any given year. This includes those from drought, floods, extreme weather, extreme temperature, landslides, dry mass movements, wildfires, volcanic activity and earthquakes.



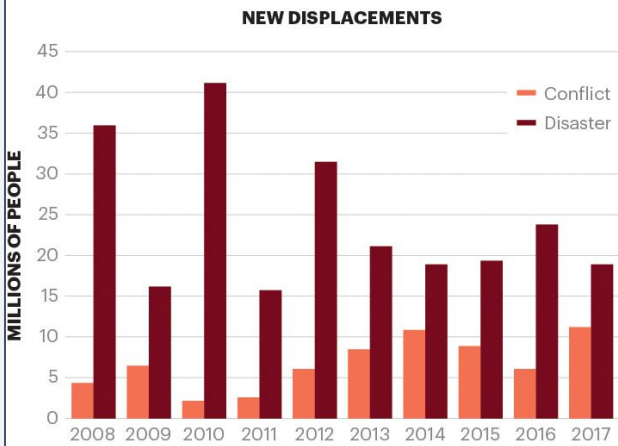
Source: EMDAT (2020): OFDA/CRED International Disaster Database, Université catholique de Louvain – Brussels – Belgium OurWorldInData.org/natural-disasters • CC BY

Source: [4]

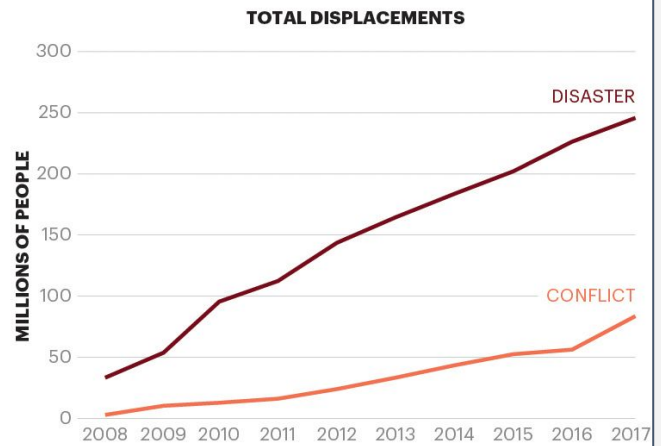


Displacements due to conflict and natural disasters, 2008–2017

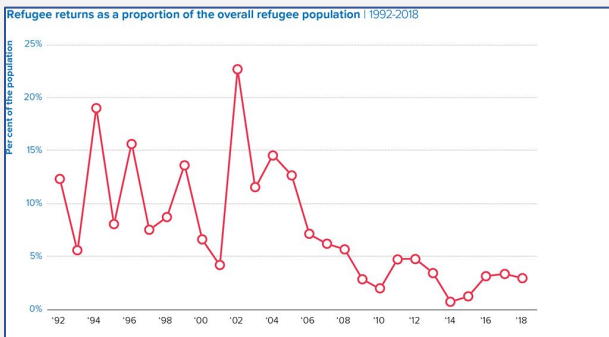
New disaster displacements reached 18.8 million in 2017, while conflict and violence accounted for 11.7 million new displacements.



Source: IDMC

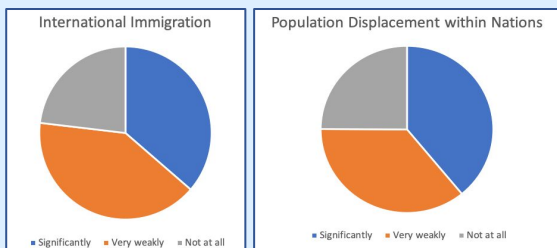


Population displacement of this large a scale, with disaster displacements reaching 18.8 million in 2017, put pressure for resources on countries receiving migrants and can trigger or worsen instability, be it political, economical, and/or cultural. Source: [5].



Source: [6]

Public Perception on Human Displacement



As shown in the graphs, roughly a third of people surveyed identified displacement and immigration as a significant issue from Climate Change. This perception is not proportional to the true severity of the problem.

Solutions to the Issue

- Supporting government to increase funding
- Job opportunities for refugees
- Support countries to reduce natural disaster/climate damage
- Strengthen services to help people with needs

References

1. Krishnamurthy, Prasanna Krishna. "Disaster-Induced Migration: Assessing the Impact of Extreme Weather Events on Livelihoods." *Environmental Hazards*, vol. 11, no. 2, 2012, pp. 96–111., doi:10.1080/17477891.2011.609879.
2. Krajewski, W.f., and J.a. Smith. "Radar Hydrology: Rainfall Estimation." *Advances in Water Resources*, vol. 25, no. 8-12, 2002, pp. 1387–1394., doi:10.1016/s0309-1708(02)00062-3.
3. Brown, Oli. "Climate Change and Forced Migration." 2008, doi:10.18356/6552bc14-en.
4. Hannah Ritchie and Max Roser (2020) - "Natural Disasters". Published online at OurWorldInData.org. Retrieved from: <https://ourworldindata.org/natural-disasters>
5. "Global Internal Displacement Database." IDMC, www.internal-displacement.org/database/displacement-data.
6. Angelica, et al. "Global Trends - Forced Displacement in 2018 - UNHCR." UNHCR Global Trends 2018, www.unhcr.org/globaltrends2018/.