

Population Movements Due To Climate Change and Their Political Consequences

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Abstract

The author discusses the current knowledge about global climate change and includes various estimates from the world on how our future is going to be. The paper argues how the people are going to be affected by the climate change and how the world policy will be a part of it.

Keywords: Global climate change, greenhouse gases, sea level rise, migration, future of politics

1. Introduction

First of all, global climate change affects the whole planet. Melting ice sheets and photographs of hopeless polar bears are the first images that come to our minds, though. There are ongoing changes in the climatic realities of Earth, in the lives and livelihoods of animals and plants, lastly, the human kind is also under threat. If our world goes under such a drastic change, then mankind would definitely need to alter its ways of living.

The current studies show various scenarios on how the plant and the population would be affected. Simulations of climate patterns, anthropological input to the problem and natural phenomena make up the current knowledge.

The number of people that are affected and going to be affected are not certain due to many variables. International attempts and agreements will be effective to a degree. The Paris Climate Agreement saw the withdrawal of the USA. Also, the Kyoto Protocol's impact can be discussed.

This paper discusses about current effects of global climate change, effects on people, and politics of migration problems.

2. Current Effects of Global Climate Change

It is common perception that glaciers and ice sheets are fast melting. Polar Regions feel the change more drastically. Penguins and polar bears especially are having difficult times of finding food and mating grounds. Some species, such as foxes, butterflies, and plants, migrated further north or to higher altitudes to live in cooler conditions.

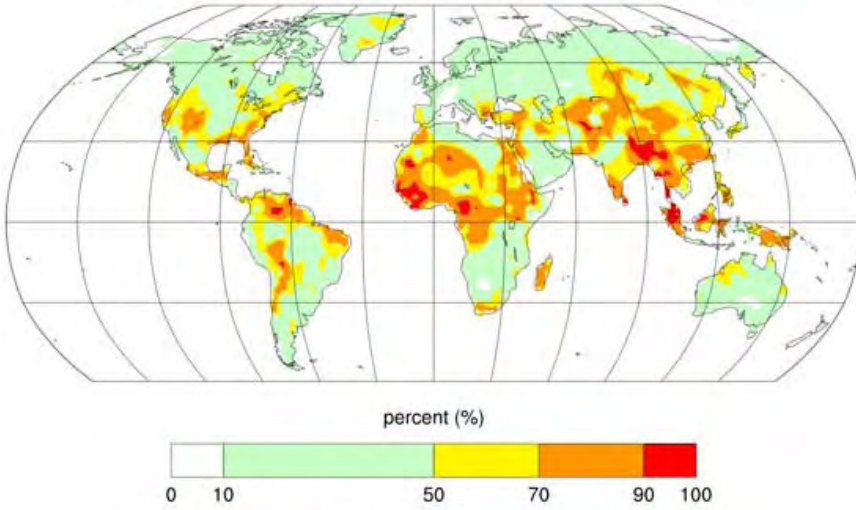
Sea level increase has speeded up in the 20th century and precipitation has increased globally. By 2100, there may be a 60 cm rise in sea water levels and polar ice melting could bring an extra 20 cm rise to this number.

Warmer conditions caused invasive species to thrive in places like Alaska destroying the flora. Some diseases will find it easier to spread. Extinctions will occur when some species fail to migrate to suitable places for them.

More extreme weather conditions are happening and will continue as the climate changes. Hurricanes, floods and droughts will be more regular (*Effects of Global Warming*, nationalgeographic.com).

Rise in sea levels worldwide, destroyer storms, crop failures, extinctions, Greenland and the Arctic ice melting, glaciers worldwide start crumbling, growing deserts, death of coral life, carbon dioxide in air starts producing a weak carbonic acid in the oceans, a saltier and less lively Mediterranean Sea, disappearing of rivers and lakes, hotter temperatures causing more fires, dustier air, deaths of people due to extreme weather, more pests and pest related diseases are some of the effects of global climate change mentioned in various newspapers, magazines and studies (americanprogress.org, 2007). Frankly, humans consider these challenges to be problems when they are directly affected. Some of the issues only concern developing countries, so they are seen as distant problems or even worse, not important. However, the dusty air problem occurs in the USA as it occurred in the last century, this may bring a positive outcome proving the point that climate change is really happening.

Summers in 2040-2060 Warmer than Warmest on Record



Summers in 2080-2100 Warmer than Warmest on Record

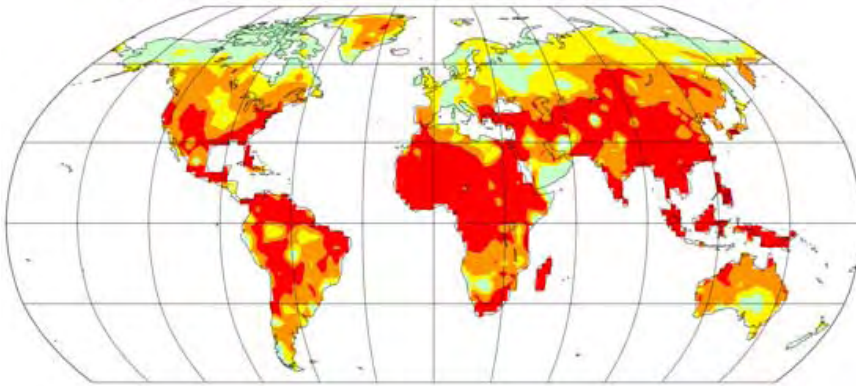


Image: Maps showing the possibility of summer temperatures to be higher than the average of between 1900 and 2006 (newscientist.com, 2009)

The maps above demonstrate the simulation results that show the coming decades are going to be warmer than the warmest that has ever been in the last 120 years. Greenland is going to see major changes on its ice sheets as its climate gets hotter. The water level on the world's oceans depend on how plentiful the Greenlandic ice would melt and how much sea water would expand as it warms up. We may need to switch to more heat resistant crops if we do not want to starve (newscientist.com, 2009).

3. Effects on People

Looking at the settlements across the globe it is observed that humans prefer temperate areas. Deserts and extreme northern lands are scarcely populated. Geography and climate together bring the outcome of human preferences in this sense.

Since the last known ice age, populations shifted their positions. Humans switched from hunter gathering communities to farming villages as climate became more stable and more temperate. The key word here is “stable” since it is vital to be able to predict the seasons and precipitation patterns in order to grow grass, fruits, and vegetables. Ancient Egyptians set their calendar according to the Nile’s behavior, the farmers knew when it was going to flood, and it was the predictable and fertile lands of the Nile delta which drew ancient people of the dry Arabian Peninsula to a more prosperous life.

Less than a century ago, in the 1930s, the American Dust Bowl events caused thousands of families to move to California from Kansas, Oklahoma, Texas, New Mexico, and Colorado. Also, the famine in Sahel in Africa between 1969 and 1974 caused millions of people to move to different areas (*Population*, what-when-how.com).

All species have a certain degree of adaptability towards change in their habitat. Each specific species may have a greater tolerance, however, if their preys have already left the area or died out then this limits their survival chances equally. Then, the hunter needs to look for a new location with more ample food. Also, creatures that require host species as their abode depend on those beings. If nut bearing trees disappear then squirrels need to move elsewhere, or if birds do not have any trees in the vicinity to set their nests on then they will not be able to reproduce. Failing of one or more species in the habitat generates a domino effect. When humans cannot find anything to eat, plant or animal, then it is time to look for a new dwelling; therefore, it is important to note that change of climate itself does not automatically mean migration. Fail of foods, failing economy, collapsing political conditions, social problems, and war calamities are to be considered.

The islands that will sink, areas to be devastated by floods or hurricanes will bring local collapses and the populations of these specific areas will be displaced. The question is still unanswered though – will this trigger massive migrations or stay local?

International efforts and treaties such as the Paris Climate Agreement can lessen the wound to come. Levees and channels can be built to avoid flooding of areas under threat. Developed countries are responsible for the current greenhouse gas levels. Developing nations are trying to catch up with the developed nations and it is the developed countries’ responsibility to subsidize and help the other countries so that the effects of climate change are not as drastic as we fear.

Once more, the history may give us ideas about what climate change can do to whole civilizations. The Mayan Empire that was the superpower of its era in Central America collapsed and failed to survive. For many years this was a mystery. Between 9th and mid-10th centuries is the Mayan collapse era. Lake deposits show similar findings showing effective drought in the region (*Drought and the Ancient Maya Civilization*, NOAA). The Mayans cleared up forested areas to open up space for agriculture and they cut down trees for their lime plaster to build cities. When this pattern met with drought in the Yucatan area, cities were abandoned (Stromberg, 2012). Mass deforestation of the Mayan resulted in droughts, crop failures and hunger. Their descendants still live in the area yet their civilization is long gone. The future generations may talk the same about us how our current civilization failed and how we perished.

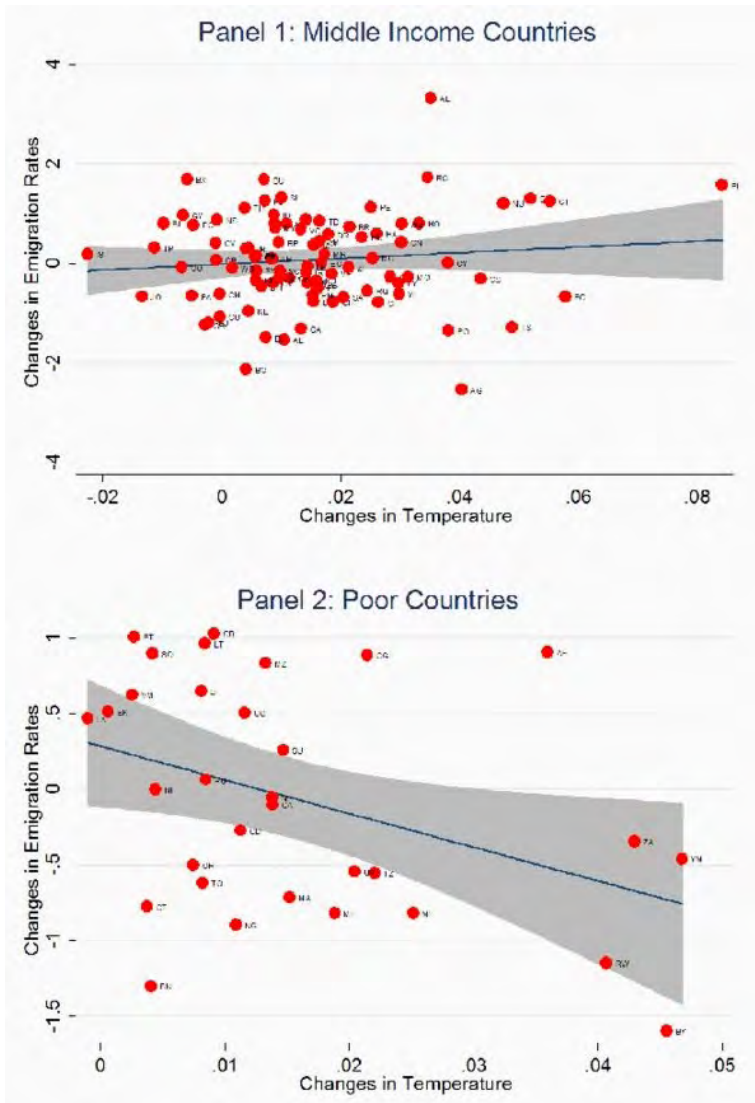


Image: Changes in emigration rates versus changes in temperature (weforum.org, 2015)

Migration is possible when it is available as well. The graphs above display immigration rates changing as the temperature varies. The poorer portion of the world cannot access means of transportation (just like people in Yemen or Somalia) and necessary means to immigrate to safer countries. Whereas, citizens of middle income countries have a higher chance of making their way to their destination goal. People often immigrate to countries within 1,000 km from where they currently live (weforum.org, 2015).

4. Politics of Migration Problems

Human social balance may get the biggest hit from the ongoing changes we experience as a result of global climate change. Altered precipitation patterns, severe weather condi-

tions, unlike or even worse pest problems and similar issues will cause food production and meat scarcity. According to a study by North Carolina State University the buildup of carbon dioxide can make plants less nutritive (Bradford and Pappas, 2017). Additionally, after the 2016 epidemic of Zika virus which is a cursed gift of climate change, people consider living in higher altitudes to escape from virus carrying mosquitos. People living in lowlands will move uphill looking for safer conditions.

Moreover, the U.S Department of Defense, the Center for American Progress and the Woodrow Wilson International Center for Scholars suggest as food becomes less accessible riots may occur, political volatility may rise and civil turmoil may start (Bradford and Pappas, 2017). This may bring border tensions and with the flow of people around diseases will spread further.

Former UN Secretary General Ban Ki-Moon stated that climate change possesses a threat as great as a war. He counselled the USA to take the leading role to reduce greenhouse emissions. Ki-Moon continued with the fact that island nations and rural African communities would take the biggest hit in the future although they are the last ones who were responsible (*UN chief warns on climate change*, bbc.co.uk). It was also stated by the former UN Secretary General that the Darfur crisis in Sudan began as an ecological problem which later on became a political calamity resulting in a terrifying genocide killing hundreds of thousands people and moving millions of people away from their homes (Ki-Moon, 2007). This unforgettable event is perhaps one of the most severe examples of what ecological problems can lead to.

Furthermore, the Somalian havoc also is a result of climate change. The drought, the famine, the failed economy and the government are the consequences.

Asian Development Bank reports that the Asia Pacific region is going under drastic changes as the climate change intensifies. There are no confirmed plans about handling the situation if mass migrations start in the region from sinking lands to other areas. Agriculture, biodiversity, fish population are already disturbed. Heat waves and unseasonal rain make the soil less fertile adding to the scarcity of food when the fisheries are already under threat. Besides, governments may suggest constructing new dams to control floodings which would cause even more people to leave their livelihoods (Political Reform Australia, 2018).

Even a developed country like USA suffers from drastic changes. The state of Louisiana experienced several mass floodings in the past few decades. People's homes were submerged under water, they went off the grid, and there were food shortages and many other problems. The infrastructure to keep the area safe from flooding failed to save the cities as it was out of date and lacked renewals. Moreover, in the same country, forest fires caused even more people to leave their abodes looking for new places to build their lives. The USA is only one country suffering from climate change. Now if we consider scores of other nations that will go under similar changes then we can have an educated guess about the catastrophe awaiting us.

During the Neolithic Revolution, people moved to more suitable areas to live. Then, this lead communities to defend the little amount of resources they had. Consider Neolithic weaponry and compare it to the modern ones. The dire consequences are yet to

come. Crime rates will be soared and high density settlements will be heavily polluted (LakeShow T., 2010).

The Pentagon declared climate change an “immediate risk” to national security. Its report lists precautions for how to protect US bases, handling humanitarian calamities, and positioning against global struggles. US Defense Secretary Chuck Hagel added that defense responsibilities and armies need to be alert about climate change. International skirmishes might become more brutal as resource-poor countries might seek ways of armed conflict to reach resources in their resource-rich neighbors. Accordingly, terrorism might rise once again (Friedman, 2014).

The Maldives government evacuated minor islands and replaced its citizens to some of the slightly higher islands. This is a temporary solution. Papua New Guinea emptied the island of Carteret and made the people move to a larger island called Bougainville. Pacific islanders are looking forward to more stable settlements in Australia and New Zealand where they have labor agreements. However, 4/5 of Australians live in coastal areas and the government is seeking to limit further coastal development (Fritz, 2010).

5. Conclusion

Mass migrations occurred throughout the history may it be because of wars, diseases, or droughts. If we take the Great Migrations during the Roman Empire times, we see that the host nation that accepted the incomers collapsed as its system and infrastructure could not carry the burden. Also, if the settled nation closed their borders to the incomers that led to war and other atrocities. All in all, mass migrations bring pure chaos to both the travelers and settlers (scienceheaven.com, 2015).

The UN should encourage all countries to work together on handling the issues about climate change and mass migrations to come. “Climate refugees” may in fact become a real term in order to find social and political base for movement of people across borders. International aid should be channelized to climate refugees, preferably, before it is too late mitigation of climate change’s effects.

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