

The planet in motion: climate and migration

Marc Helbling and Daniel Meierrieks

In late 2018, there were 3,026 kilometers separating two issues that are strongly connected and that will keep humanity busy far into the future. While the Polish city of Katowice hosted the most important climate conference since the conclusion of the 2015 Paris climate agreement, delegates from all over the world convened in Marrakesh, Morocco, to adopt the UN migration pact. Some economic studies have already established the link between the global climate and migration. In many regions of the world, global warming means less productive agriculture, more diseases, less economic growth, and more political unrest. People are leaving their countries to find better living conditions elsewhere.

We wanted to look into these connections in more detail. How strongly are individual countries affected? How important is people's level of education? What will the future bring? Are there adaptation strategies in the countries concerned to counteract the specter of emigration or a growing influence of climate change on worldwide migration?

To explore these questions, we used data on the migratory movements of people from 95 developing and transitional countries into 20 OECD (Organization for Economic Cooperation and Development) member states between 1976 and 2010. Our analysis shows that the direct effect of rising temperatures

on migration is relatively small in a global perspective. In poor countries, however, and for people with low levels of education, it does play an important role. This can be explained by the fact that poorer countries have few possibilities to compensate for crop failures or low yields by using more advanced technology. People with low levels of education living in these areas, mostly former farm workers, often find it much more difficult to obtain work in other sectors of the economy. In these countries, climate change reduces not only agricultural yields, but also overall economic development. It leads to greater urbanization and political instability. These trends, which are not short-lived in nature, illustrate the difficulties of adapting to climate change, especially among poorer countries.

What are the effects of climate change on people's health in the countries concerned? For a detailed analysis, we examined data from 170 countries for the period from 1960 to 2016. Our analyses show that climate change leads to more frequent heat waves and floods, which facilitates the spread of infectious diseases like dengue fever, likely creating a negative effect on life expectancy. Further, these trends may also slow down economic development in the countries concerned. This effect is particularly strong in poorer parts of the world, which are characterized by a lack of technology and func-

tioning institutions that might soften the effects of climate change. According to our estimates, a long-term increase in temperature by as little as 1 degree Celsius already leads to a three-and-a-half-year reduction in life expectancy in the world's poorer countries. Accordingly, global warming by multiple degrees Celsius – the scenario to be expected at this point – is expected to have major negative effects on human health in poorer nations.

A warmer planet leads to more migration towards richer countries. It is likely to be predominantly people with little education from high-poverty countries who will leave their home. This will create sweeping economic and political consequences affecting sending and receiving countries alike.

We are already observing a polarization in the political debates about migration. A survey experiment in Germany – a preferred destination among migrants – revealed that climate refugees are viewed in positive terms, much like political refugees, and hence are clearly more welcome than economic refugees. This may be linked to the fact that both groups are considered “real” refugees who had to leave their home countries for reasons they cannot be held personally responsible for. Economic refugees, by contrast, are often seen in a more negative light – a somewhat problematic finding given the fact that is often difficult to draw clear lines between the reasons that make people flee their countries.

Another reason why people's attitudes towards climate refugees are largely positive may be the fact that, unlike other refugee groups, climate refugees have hardly been the subject of public debates thus far. As climate change, unlike armed conflicts, is a continuous process, it does not lead to a short-term, major increase in refugee movements. Climate refugees are thought to be a rather small group. As our

experiment has shown, support for climate refugees declined sharply when respondents were informed that, according to some experts, the years ahead will see a relatively large number of people leaving their home countries because of changing environmental conditions.

Marc Helbling is a professor of political sociology at Bamberg University and a WZB fellow in the research unit Migration, Integration, Transnationalization.

Daniel Meierrieks is a research fellow in the research unit Migration, Integration, Transnationalization.