Climate Justice

Student Reading 4

Just as climate change does not affect all places in the same way, it does not affect all people in the same way either. Many environmental hazards, such as water pollution and drought, impact the lives of poorer people to a greater degree. Climate change is no exception. The world's poorest people are likely to be the ones most affected by climate change.

Poor communities are disproportionately affected because they often rely heavily on resources such as local water and food, which are vulnerable to the impacts of climate change. They tend to have less access to resources from elsewhere and a reduced ability to cope with or adapt to climate change. Climate change can intensify existing stresses on low-income populations, such as population growth, poverty, improper land use, and pollution.

The irony of the disproportionately large effect of climate change on **developing countries** is that they contribute the least to climate change on a per person basis. Low-income populations typically have smaller carbon footprints than wealthier populations. They consume fewer manufactured goods and use less energy for home and travel.[1]

Health Effects

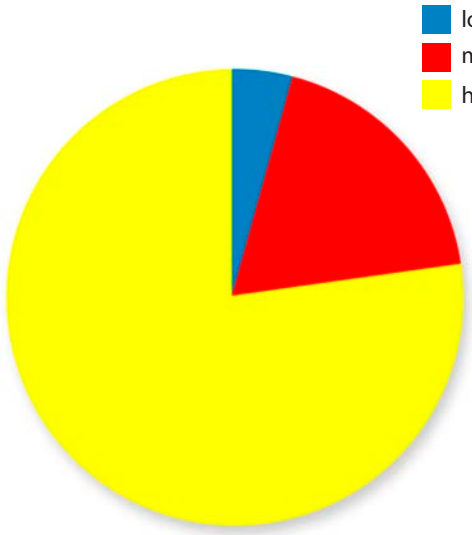
According to the Intergovernmental Panel on Climate Change (IPCC), climate change is already contributing to diseases and premature deaths. Negative effects of climate change on human health disproportionately affect low-income countries. Certain subsets of low-income populations, such as children and elderly persons, are most susceptible to climate change impacts.[3] The World Health Organization estimates that the 150,000 deaths per year currently attributed to climate change will double by 2030.[4]

Malnutrition poses a major risk to health. The primary cause of malnutrition is lack of availability of staple foods.[5] Climate change may affect food production by causing water scarcity, salinization of soils, increased frequency and/or intensity of storms and floods, and increased numbers of pests and plant diseases.[6] Climate change may exacerbate difficult crop growing conditions in arid regions of Africa and other environmentally sensitive areas. Small farmers and fishermen and the urban poor will be most impacted.

Diarrheal diseases, which can cause dehydration and death, are especially common in developing countries. (Developing countries are defined as those with a per person annual income of $6000 or less.) Diarrhea is often caused by bacteria and protozoans, which can thrive in warmer temperatures. Temperature increases in Peru and Fiji have led to reported increases in diarrhea.[7]

There are many other ways that climate change may impact human health. For

World Carbon Dioxide Emissions from Fossil Fuels



High-income countries contribute most to the world's CO_2 emissions from fossil fuel use.[2]

Hurricane Katrina flooded New Orleans, forcing thousands of people to leave their homes

Poor communities are often greatly impacted by environmental changes. *Photo by Kim Rakow Bernier*

example, an increase in infectious and vector-borne diseases, such as malaria, has been observed in countries such as Panama, Bolivia, and India. Injury and death due to heat waves and droughts have also been observed in many places.[8]

Human Migration

In addition to health effects, some people are becoming "environmental refugees," displaced from their homes due to environmental changes. Many gradual environmental changes have been linked to climate change. **Desertification**, reduced freshwater availability, and rising sea levels can all force people to leave their homes.[9]

Some island nations have experienced internal migrations due to environmental factors. People in Kiribati, the Maldives, Tuvalu, and the Solomon Islands have moved from low-lying islands to neighboring islands that are farther above sea level. As sea levels rise, further migration to higher lands may occur.[10]

"Climate refugees," as they are sometimes called, are not always people from developing or small island nations. During the last 35 years, hurricane frequency and intensity has increased, possibly due to warmer global temperatures.[11] It is estimated that 250,000 people in the United States became climate refugees in 2005 after Hurricane Katrina forced them from their homes.[12] Now that approximately half of the world's population lives in coastal areas, more people may become climate refugees as hurricane activity increases.

Adaptation Strategies

Many strategies have been suggested, and some have already been implemented, to adapt to climate change. Slowing population growth can mitigate effects of climate change. Changes in cropping patterns, such as planting earlier in the season and planting crops better adapted to new climate conditions, is another adaptation strategy.[13] Some communities, especially those in low-lying areas, may adapt by migrating to a more favorable environment.[14] Numerous other adaptation strategies will emerge as populations face the diverse effects of climate change.

Vocabulary

desertification—the onset of desert-like conditions, including reduced groundwater and vegetation

developing countries—countries with a low per person income

justice—the fair and moral treatment of all persons

malnutrition—the condition of lacking proper nutrients for normal body functioning

Checking for Understanding

1. Why do you think malnutrition is considered by the World Health Organization (WHO) to be the most important factor affecting human health? What additional problems could result from large numbers of people becoming malnourished?
2. Name some consequences (including economic, social, or environmental consequences) that might result from increased migration due to rising sea levels and changing environmental conditions.
3. Why do you think slowing population growth has been suggested as one way to reduce the impacts of climate change on human populations? What are some humane ways to reduce population growth?
4. While many communities are finding ways to adapt to climate change, we can all be proactive in preventing future climate change. In what ways can populations especially vulnerable to climate change prepare for increasing temperatures, rising sea levels, and other effects of climate change?

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