

MANAGING THE HEALTH EFFECTS OF CLIMATE CHANGE

6 Population and Migration

Climate change is not just an environmental issue—it is also a health issue. The major health threats due to climate change are caused by changing patterns of disease, water and food insecurity, vulnerable shelter and human settlements, extreme climatic events, and population growth and migration.

The UCL Lancet Commission on Managing the Health Effects of Climate Change

London's leading multidisciplinary university, UCL, has teamed up with the *Lancet*, one of the world's leading medical journals, to launch a joint commission to study and report on managing the human-health effects of climate change. Chaired by Professor Anthony Costello of the UCL Institute for Global Health, the commission's membership includes 24 academics from a wide range of disciplines varying from anthropology to mathematics.

For detail and references, please see 'The UCL Lancet Commission on Managing the Health Effects of Climate Change' published in the *Lancet*, Issue 373, May 2009 (Costello *et al*).

Population growth will interface with climate change to exacerbate other wide-scale problems, particularly scarcity of shelter, food, and water. Increased population will also place additional stress on already weak health systems and increase vulnerability to the adverse health effects of climate change.

World population is likely to increase from the current 6.7 billion to 9.2 billion by 2050, according to UN projections which assume a continuing fall in fertility rates. The less developed regions will absorb most of this increase, whereas the population of the more developed regions is expected to remain largely unchanged. Since modest changes in fertility have huge effects on population growth, the assumption in the UN projections that fertility will continue to decline is threatened by the reduction in funding over recent years for family planning services.

Population growth will increase pressure and competition for increasingly scarce resources. To compensate, production will increase, resulting in even greater environmental degradation of arable land. Increasing levels of land loss, a result of industrialisation, urbanisation, sea level rises and intensified flooding will complicate this process. Furthermore, an expansion of global population will eventually create a substantial rise in CO₂ emissions, complicating efforts to reduce carbon emissions.

Large-scale population movement is likely to increase as changing climate leads to the abandonment of inhospitable environments. The resulting mass migration will lead to many serious health problems both directly and indirectly, from the various stresses of the migration process as well as the possible civil strife that could ensue.

Rising sea levels are a major contributing factor to population displacement. One third of the world's population lives within 60 miles of a shoreline, and a significant number of these live at low altitudes. In these regions the population densities tend to increase towards lower altitudes, further increasing their vulnerability.

Drought and desertification frequency and intensity will rise, causing health impacts and encouraging migration. Droughts, especially in rural areas, tend to influence migration into cities, stressing the socio-economic conditions already exacerbated by high levels of city population growth. As a result of such movement, for example, it is estimated that 72 per cent of dwellers in African cities live in slums, which are especially prone to flooding and ill health because of poor drainage facilities.

Climate change migration can also influence violence where conflict occurs between migrant and host groups as a result

of national identity clashes. This link has been observed in Darfur, where the United Nations Environment Programme (UNEP) recognises that climate change and desertification have been an additional stressor to the population, influencing migration south and thus contributing to the initiation of the conflict.

Box 1: Family Planning/Contraception Statistics

Demands

- Roughly 1 in 6 women worldwide cannot access effective contraceptive methods. Worldwide, around 200 million women wish to delay or prevent pregnancy, but are not using effective contraception. Meeting their needs would cost about US\$3.9 billion a year, and could prevent 23 million unplanned births, 22 million induced abortions, 142,000 pregnancy-related deaths (including 53,000 from unsafe abortions) and 1.4 million infant deaths. Demand for family planning is expected to increase significantly in the next 15 years, as more of the world's population reaches reproductive age.

Requirements

- Family planning programmes require political commitment, clear management and supervision, sound logistics, and competent staff. Beyond these basic requirements, success in family planning depends on dismantling institutional and social barriers to contraception. Policy should be evidence-based, and services should take a life-span approach, aiming to meet the needs of women throughout their reproductive lives.

Family planning should be seen as a mitigation strategy essential to achieving a sustainable population. Most of the increase in the Earth's population will be in the developing world, particularly cities. This is unsustainable and will severely exacerbate the problems of developing world urbanisation. Consequently, provision of family planning services should be seen as a low cost, safe and acceptable intervention, with proven benefits for health, education and reduction of poverty and environmental degradation.

Extreme events drive migration patterns. Such patterns often defy national boundaries by concentrating people in resettlement camps and makeshift communities. These patterns are not limited to political borders so individual nations are limited in what they can do to mobilise adequate disaster responses. Migrants may also become vulnerable to the sentiments of uncertain hosts.

Conclusions

- Climate change adaptation and mitigation are central to overall development policy across government departments and should be taken into consideration for all governance actions.
- Population growth will interface with climate change to exacerbate other social problems, particularly scarcity in regard to shelter, food, and water.
- Family planning should be seen as a mitigation strategy essential to achieving a sustainable population.
- Accountability mechanisms are crucial. New funding and networks are required to monitor what is happening in government, civil society, academia, local government and communities, especially in the most vulnerable populations.
- Large-scale population movement is likely to increase as changing climate leads to the abandonment of inhospitable environments.

Extreme events drive migration patterns, which often defy national boundaries.

- Climate change migration can also trigger major conflict.
- Individuals, organisations and governments all have a vital role to play in advocating for and implementing change at a variety of levels.
- Global task forces, research and advocacy groups need to adequately represent and involve those who will be most affected by climate change.
- Drought and desertification frequency and intensity will rise, causing health impacts and encouraging migration.
- Rising sea levels are a major contributing factor to population displacement.
- Health issues can play a crucial role in strengthening carbon mitigation debates and targets.
- A comprehensive solution to the health problems associated with climate change will need to move beyond responses internal to health systems. Health systems must not simply act as a platform for the delivery of clinical services, but also provide the foundation for an effective public health response to the many climate-induced threats to health.

Published by the Commonwealth Secretariat

Editor: Joan Ross Frankson Designer: Rob Norridge

© Commonwealth Secretariat 2009

This summary paper is one of a series prepared by the Commonwealth Secretariat based on the report of the UCL Lancet Commission on Managing the Health Effects of Climate Change. The full list of summary papers is as follows:

Managing the health effects of climate change: Changing patterns of disease and mortality

Managing the health effects of climate change: Food

Managing the health effects of climate change: Water and sanitation

Managing the health effects of climate change: Shelter and human settlements

Managing the health effects of climate change: Extreme events

Managing the health effects of climate change: Population and migration

Views and opinions expressed in this publication are the responsibility of the authors and should in no way be attributed to the institutions they are affiliated with or to the Commonwealth Secretariat.

ISBN: 978-0-85092-909-6 (print) ISBN: 978-1-84859-051-9 (electronic)

Publications Section, Commonwealth Secretariat, Marlborough House, Pall Mall, London SW1Y 5H, United Kingdom