



# Population and Sustainability Network

## Population and Climate Change: Is there a link? If so, what are the priorities for action?

### Population

According to the 2008 UN Population Prospects, published in March 2009, the world population is projected to reach 7 billion early in 2012, up from the current 6.8 billion, and surpass 9 billion people by 2050. Most of the additional 2.3 billion people will enlarge the population of developing countries, which is projected to rise from 5.6 billion in 2009 to 7.9 billion in 2050. Currently the population of the less developed regions is still young, with children under age 15 accounting for 30 per cent of the population and young persons aged 15 to 24 accounting for a further 19 per cent. In fact, the numbers of children and young people in the less developed regions are at an all time high (1.7 billion children and 1.1 billion young people), posing a major challenge for their countries, which are faced with the necessity of providing education or employment to large cohorts of children and youth even as the current economic and financial crisis unfolds. The situation in the least developed countries is even more pressing because children under 15 constitute 40 per cent of their population and young people account for a further 20 per cent.

### Projected trends are contingent on fertility declines in developing countries

According to the *2008 Revision*, fertility in the less developed regions as a whole is expected to drop from 2.73 children per woman in 2005-2010 to 2.05 in 2045-2050. The reduction projected for the group of 49 least developed countries is even steeper: from 4.39 children per woman to 2.41 children per woman. To achieve such reductions, it is essential that access to family planning expands, particularly in the least developed countries. Around 2005, the use of modern contraceptive methods in the least developed countries was a low 24 per cent among women of reproductive age who were married or in union and a further 23 per cent of those women had an unmet need for family planning. The urgency of realizing the projected reductions of fertility is brought into focus by considering that, if fertility were to remain constant at the levels estimated for 2005-2010, the population of the less developed regions would increase to 9.8 billion in 2050 instead of the 7.9 billion projected by assuming that fertility declines. That is, without further reductions of fertility, the world population could increase by nearly twice as much as currently expected.

### Climate Change

According to the United Nations Framework Convention on Climate Change: -

- Climate change is already happening, and this change can now be firmly attributed to human activity.
- Warming during the past 100 years was 0.74C, with most of the warming occurring in the past 50 years. The warming for the next 20 years is projected to be 0.2C per decade.
- The world faces an average temperature rise of around 3°C this century if greenhouse gas emissions continue to rise at their current pace and are allowed to double from their pre-industrial level.
  - ▶ The increase in Greenhouse Gas Emissions over the last 150 years has already significantly changed climate. We have seen a sea level rise of over 40 mm, significant retreat of Arctic sea ice and nearly all continental glaciers.
  - ▶ The twelve warmest years on record have all occurred in the last thirteen years.
  - ▶ IPCC reports best estimate temperature rises of 1.8° to 4°. However, global carbon dioxide emissions are already rising faster than the most dire of the IPCC emission scenarios
  - ▶ Sustained temperature rises of 5-6° could lead to the loss of both Greenland and the Western Antarctic ice sheets by the middle of next century, raising sea levels by up to 13m
  - ▶ At the moment, one third of the world's population lives within 60 miles of a shoreline and thirteen of the world's twenty largest cities are located on a coast.
  - ▶ Billions could be displaced in environmental mass migration
  - ▶ The Intergovernmental Panel on Climate Change (IPCC) recognizes that less developed regions are most vulnerable to the early and harmful effects





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The connection between Population Growth and Climate change is: -

**Complex:** Increased research over the past decade shows that increased investment in access to voluntary family planning programmes could make a positive impact on mitigation and adaptation strategies, there is also no doubt that the key driver of climate change is the relatively high level of carbon emission in the developed world, where population growth is not a major issue. Demographic variables such as household size, age and sex composition and population density intensify the complexity of the relationship between population growth and climate change.

**Controversial:** While developing countries themselves are increasingly identifying population growth as a factor that compounds national efforts to adapt to climate change, it is not easy to position increased investment in family planning as an important strategy in the face of climate change. For as long as the industrialized North is not radically reducing its carbon emissions, advocating reduced population growth in the South risks appearing to blame climate change on that growth, instead of recognizing that it is precisely those countries which will suffer the most as a result of climate change. It is also important to advocate family planning programmes that respect and protect human rights; historically those which have been oriented towards reducing fertility have not always reflected these values in the ways that services have been offered; coercive family planning programmes have no place in international development programmes of any kind.

**Critical:** While regional differences in per capita carbon emissions must be recognized, alongside the legitimate economic aspirations of developing countries, and it is plainly wrong to seek to blame the South for causing climate change, which has been driven by the actions of the North, it is also important to recognize that the populations in the developing world are far more vulnerable to the effects of climate change, and are growing.

## National Adaptation Programmes of Action (NAPA) UNFCCC

National Adaptation Programmes of Action outline top priorities for adaptation and specific localized vulnerabilities to climate change. Well over half of them refer to population growth/density as a factor that makes coping with the changes that climate change will bring much harder.

## Five most frequently mentioned factors that will be made worse by population growth and climate change

- Population pressure on fresh water availability
- Shortage of land per capita/over grazing
- Deforestation
- Population affecting soil degradation/erosion – implications for agriculture
- High population density/migration to coastal areas, thereby increasing vulnerability

## Priorities for Action

More research is needed to clarify the relationship between population growth and climate change.

Increasing access to voluntary family planning services can play a role in both mitigation and adaptation strategies, and would respond to needs identified by developing countries themselves.

According to the UN: -

- The least developed countries are lagging behind in the transition to low fertility and have rapidly growing populations.
- Lack of access to family planning and, in particular, to modern methods of contraception is a major cause of the persistence of high fertility as indicated by the high levels of unmet need for family planning prevalent in least developed countries.
- Investments in family planning are cost effective because of the strong synergistic effects of longer inter-birth intervals and lower fertility with other development goals. For every dollar spent in family planning, between 2 and 6 dollars can be saved in interventions aimed at achieving other development goals
- International co-operation will be vital in reducing carbon emission, and devising mitigation and adaptation strategies that will help the world's population to adapt to climate change.

