



Dealing with climate change

Kirk R. Smith, Professor of Global Environmental Health, University of California, Berkeley, USA and Director, Collaborative Clean Air Policy Centre, Delhi, has been working on environmental and health issues in developing countries, particularly those related to health-damaging and climate-changing air pollution. BE's Ellora De spoke to him regarding the impact of climate change.

Q. India has a large coastline. How will rising sea levels impact India?

A. Future impacts can be expected to act mostly through enhancement of current vulnerabilities which involve salt water intrusion, storm surges, erosion, and loss of dry land. Vulnerabilities, however, are highly variable by particular conditions along the sea coast, including population density.

Q. The change in climate due to global warming has a huge impact on the yield of food crops. How should a country like India cope with such a problem?

A. Food shortage is mostly a matter of poverty, but climate change combined with enhanced weather variability is likely to lead to greater variation in supplies. India needs to enhance food security for the poor, which will assist in normal times and provide more resilience for the future. As part of this, sophisticated understanding of the impacts of food and fertiliser prices, imports, exports, and trade policy will be needed to protect both farmers and consumers.

Q. According to the Environmental Outlook, 2019, of the UN, health is the one most affected issues due to climate change. How should an overpopulated developing country like India face this challenge?

From the health side, enhancement of basic public health protection in terms of food security, good water and sanitation, effective warning systems, basic insurance against weather events, disaster response, and primary health care should be the top priorities.

A. The most certain impact of climate change is heat, in all its forms – longer hot spells, hotter nights, higher averages, etc. There are two main health impacts, those on the public, which are mediated by physiological, behavioural, and structural adaptation. As areas in the north become more like the south in terms of heat, changes in these factors can reduce health impacts, but the question is how much and how fast. The other effect is more pernicious, that on outdoor workers. I use the term pernicious, because it is a trade-off between health and productivity. As heat and humidity rise, it

becomes more and more risky to conduct heavy work in hot seasons and about 60% of workers in India work outdoors, mainly in construction and farming. An increasing number of months will become unsafe, but if work practices do not change, health impacts can rise substantially.

Q. In face of rising temperatures, what should be the priority for India?

A. From the health side, enhancement of basic public health protection in terms of food security, good water and sanitation, effective warning systems, basic insurance against weather events, disaster response, and primary health care should be the top priorities. ■