Climate change will affect, in profoundly adverse ways, some of the most fundamental pillars of health: food, air and water. The warming of the planet will be gradual, but the frequency and severity of extreme weather events, such as intense storms, heat waves, droughts and floods could be abrupt and the consequences will be dramatically felt. The most severe threats are to developing countries, with direct negative implications for the achievement of the health-related Millennium Development Goals, and for health equity.

The health risks posed by climate change are global, and difficult to reverse. Recent changes in climate in the South-East Asia (SEA) Region have had diverse impacts on health.

According to IPCC, eighteen heatwaves were reported in India between 1980 and 1998. A heatwave in 1988 caused 1300 deaths, while another one in 2003 caused more than 3000 deaths. Heatwaves in South-East Asia cause high mortality in rural populations, and among the elderly and outdoor workers. Examples are the reported cases of heatstroke in metal workers and in rickshaw pullers in Bangladesh.

In 2006, Bhutan reported increased loss of life from frequent flash floods, glacier lake outburst floods and landslides. Rises in flood-related diarrhoeal disease have been reported in India and Bangladesh. In 2007, four monsoon depressions—double the normal number—caused severe floods in Bangladesh, India and Nepal, but also in the Democratic People’s Republic of Korea causing death, loss of livelihood and displacement of millions.

In November 2008, tropical cyclone Sidr made landfall in Bangladesh, generating winds of up to 240 km/h and torrential rains. More than 8.5 million people were affected and over 3300 died. Nearly 4.7 million people saw their houses damaged or destroyed, most of them belonging to the poorest of the poor.

Many risk factors and illnesses that are currently among the most important contributors to the global burden of disease are sensitive to climate, notably to temperature changes. These include malnutrition (estimated to kill 3.7 million people per year, globally), diarrhoea (1.9 million) and malaria (0.9 million). Warmer temperatures will have adverse effects on food production, water availability and the spread of disease vectors.

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2 Op. cit
The main health outcomes threatened by climate change are summarized below:

- Meeting increasing energy demands by greater use of fossil fuels will add to the number of respiratory disorders; such as asthma.
- Human-induced climate change significantly amplifies the likelihood of heat waves, increasing the possibility of heat strokes, cardiovascular and respiratory disorders.
- More variable precipitation patterns are likely to compromise the supply of freshwater, increasing risks of water-borne diseases like cholera, and outbreaks of diarrhoeal diseases.
- Rising temperatures and variable precipitation are likely to decrease the production of staple foods in many of the poorest regions, increasing risks of malnutrition.
- The increase in frequency and intensity of extreme weather events will translate into loss of life, injuries and disability.
- Changes in climate are likely to lengthen the transmission season of important vector-borne diseases (like dengue and malaria) and to alter their geographic range, potentially reaching regions that lack either population immunity or a strong public health infrastructure.
- Rising sea levels increase the risk of coastal flooding, and may lead to displacements of population. The most vulnerable areas in SEA are the Ganges-Brahmaputra delta in Bangladesh, and the small islands—for example in the Maldives and in Indonesia—as well as the entire coastline of the Indian Ocean. Loss of livelihood will increase psychosocial stress in the affected populations.

The measurement of the impact of climate change on health can only be very approximate. A WHO quantitative assessment concluded that the effects of climate change since the mid-1970s may have caused at least 160 000 additional deaths annually by the year 2000.

Globally, people at greatest risk include the very young, the elderly, and the medically frail. Low income countries and areas where malnutrition is widespread, the level of education is poor and with weak infrastructures will have the most difficulty adapting to climate change and related health hazards. The populations considered to be at greatest risk are those living in small islands, mountainous regions, water-stressed areas, mega-cities and coastal areas, particularly the large urban and periurban agglomerations in delta regions in the SEA Region, as well as poor people and those unprotected by health services.

Many people in SEA countries have a high burden of climate-sensitive diseases but poor public health capability to respond. The effects of climate change on socioeconomic development will seriously undermine the health and the well being of communities in those countries. It is the high consumption lifestyles of wealthy people that drive climate change. But it is the low-income groups in low-income nations, with almost negligible contributions to climate change, which are most at risk from its impacts.