

# Climate change and the increasing burden of non-communicable diseases (NCDs)

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One Pager

Human health depends heavily on a healthy environment. It is therefore not surprising that climate change in particular poses a major health risk. In addition to the spread of infectious diseases, which are often the focus in connection with climate change, this also contributes significantly to the increase in non-communicable diseases. In the following, the concrete correlations are shown and solutions are presented.

## Growing significance of NCDs in poorer countries

Non-communicable diseases (NCDs), which are often chronic, are on the rise worldwide. Today, they are responsible for almost three quarters of all premature deaths. The most common NCDs include cardiovascular diseases, cancer, chronic respiratory diseases and diabetes, as well as mental and neurological diseases. NCDs are by no means a primary problem for industrialised countries: 86% of all premature NCD deaths occur in low- and middle-income countries, with a negative trend. In Africa, an increase of 27% is expected in the next ten years, while the highest number of deaths expected in absolute terms in the Western Pacific and Southeast Asia.

Non-communicable diseases are caused by a combination of social, environmental and genetic factors. The increase in NCD-related disease burden is due to the increasing exposure to risk factors (in particular tobacco and alcohol consumption), the consumption of highly processed food, increasing air pollution and a growing lack of exercise, especially in densely populated urban areas of poorer countries. The impact is also exacerbated in low-income countries by weak healthcare systems and a lack of social security systems. NCDs' typically lengthy (often lifelong) complex and costly treatment places considerable strain on individuals, healthcare systems and economies.

## Climate change is a key driver for NCDs

Experts attribute the sharp rise in NCDs in particular to changes that are directly or indirectly connected with climate change. These changes also exacerbate the above-mentioned risk factors.

- Pollutants in the air greatly increase the risk of strokes, diseases of the coronary vessels and respiratory tracts as well as many other diseases. According to the WHO, 99% of the world's population breathes polluted air. The main reason for this is the use of fossil energy sources. Low- and middle-income countries have the highest pollution levels in the air, especially in the metropolitan areas of Southeast Asia.
- The increased occurrence of heat waves due to the climate also promotes the rise of NCDs. Heat cramps, heat syncope, heat exhaustion and heat stroke put stress on the heart, brain and lungs and, in the worst case, can lead to death. Heat waves and moist heat stress will be more intense and frequent this century, especially in South Asia.
- Climate change is also endangering the world's food supply. Crop failures and the decline of (marine) animals as a source of protein contribute to malnutrition and undernutrition. Unhealthy substitutes encourage the spread of obesity. Furthermore, climate change reduces the nutrient content of agricultural products. The population in Sub-Saharan Africa is particularly affected. In addition to acute hunger, the lack of vitamins and minerals is a major problem. Less well known: since 1990, the number of overweight children in Africa has almost doubled.
- Climate change also increases the risk of UV-radiation-related diseases.

According to WHO estimates, an additional 300,000 non-melanoma carcinomas, 4,500 melanomas and up to 1.75 million cataracts per year are anticipated with a 10% decrease in stratospheric ozone globally.

The climate-related increase in the NCD disease burden primarily affects vulnerable sections of the population. These people often live and work in a particularly exposed environment or lack the knowledge and resources to adequately protect themselves from the effects. Poorer and older people, people with disabilities and pre-existing conditions, children and pregnant women are particularly at risk.

## Counteracting the increasing NCD burden

Non-communicable diseases and climate change are inextricably linked and must be addressed together. This process takes place gradually and is therefore often ignored. An estimated 80% of non-communicable diseases are preventable. It is therefore important to provide information about health risks and cross-sectoral measures to reduce exposure to risk factors. In addition to the critical measure of reducing greenhouse gas emissions, healthcare and social security systems must be sustainably strengthened and adapted to the changing disease burden. ■