



KAZAKHSTAN

Kazakhstan is a central Asian country extending over an area of almost 3 million km², with a population of more than 15 million.

During 1936–2005, the average annual air temperature increased by 0.31 °C every decade. Most parts of the country have seen a doubling of the frequency of heat-waves, and a decrease in the duration of cold waves. Aridity in desert areas is growing, jeopardizing water availability and agriculture productivity, which is expected to decrease up to 30%. Kazakhstan already depends on neighbouring countries for almost 50% of water provision.¹ The Government has declared the Aral Sea region, the Semipalatinsk former nuclear region and the heavily polluted industrial eastern area ecological disaster sites; this also refers to the heavy contamination of water sources, which makes climate change-related water scarcity more of concern.

CLIMATE CHANGE AND HEALTH

Climate change affects health in Kazakhstan directly and indirectly.

- People are already dying as a result of extremely high temperatures, floods, mudflows, and landslides. With a temperature increase of 2–3 °C, mudflow occurrence is estimated to increase tenfold.¹
- Changes in the distribution of infection-carrying insects (such as mosquitoes and mites) have been observed; the Crimean Congo haemorrhagic fever outbreak being a recent example (see box).

- Reduced water availability and sanitation failures increase the risk of waterborne diseases; while reduced crops can affect nutrition.

The most vulnerable live in rural areas, where families depend on agriculture. Children, the elderly and socially underprivileged people may suffer most, as they have scarce capacity to adapt through such means as drinking enough potable water, promptly getting qualified medical aid and moving to towns. Populations in deprived and polluted areas live in unfavourable weather, environmental, social and economic conditions, resulting in poor public health. A major increase in migration for environmental reasons is expected.

PROTECTING HEALTH FROM CLIMATE CHANGE IN KAZAKHSTAN

A review identified health adaptation measures that need to be strengthened, such as

- enforcement of the control and treatment of infectious and cardio vascular diseases;
- improvement of the sanitary and hygienic culture of the population, with a special focus on water intake facilities, water collectors, distribution and prompt disinfection;
- support of the establishment of early warning mechanisms;
- provision of guidance and support of pilot tests for adaptation of housing and public structures to extreme conditions;
- emergency management and disaster response.

¹ Kazakhstan's second national communication, to the Conference of the Parties to the United Nations Framework Convention on Climate Change. Astana, Ministry of Environment Protection, 2009.

Building national capacity help improve control and treatment of vector-borne disease related to climate change.



Photo: WHO/B. Muenne

To prevent and address potential health threats from climate change, the project *Protecting health from climate change in Kazakhstan* assesses the health effects of, and vulnerability and adaptation to climate change, as a basis for the development of a national health adaptation strategy.

Capacity-building activities are carried out at the national and subnational levels to help improve the early identification of potential risks and outbreaks of infectious disease and disease surveillance systems.

Specific national action aims to improve emergency preparedness and contribute to WHO information platforms by sharing data, tools, results and lessons learnt.

Given the special character of the various regions in Kazakhstan, adaptation measures for climate change can be efficient only if they are comprehensive.

TRAINING YOUNG JOURNALISTS TO IMPROVE COVERAGE ON CLIMATE CHANGE AND HEALTH

Climate change and health deserve more attention in Kazakhstan and the quality and quantity of coverage need improvement. This project aims at the creation of a web portal to teach young journalists online about effective ways to write on environment and health, with special focus on climate change in the countries of Caucasus and central Asia.

The web site would use the newest technologies, providing journalists with an innovative tool for learning and networking. It would contain reviewed information on climate change and health and selected articles, radio spots and videos.

EARLY INFECTIOUS DISEASE IDENTIFICATION: A TOOL FOR HEALTH ADAPTATION

Kazakhstan faced an outbreak of Crimean Congo haemorrhagic fever (CCHF) in 2009. This tickborne disease is highly climate sensitive. Thirty people died and the outbreak illustrated the weaknesses in infectious disease management and control, and highlighted what could happen in the future with increased climate change impacts.

In the framework of the project, a two-day interactive workshop was organized on CCHF in Almaty in September 2009 to identify needs and train health care specialists in disease identification and treatment. The participants recommended activating policy and practice for tick surveillance and control, and exploring options to maximize their impact on public health practice, thus revising the national CCHF control strategy.