

This landlocked central Asian republic has an area of almost 450 000 km² and a population of nearly 27 million. Intensive warming is observed in the whole territory, with an average annual temperature increase of 0.29 °C since 1951, especially during the last decade. By 2050, the water flow may decrease by 2–5% in the Syrdarya River Basin and by 10–15% in the Amudarya River Basin and crop production drop up to 13% and up to 23% respectively in the two areas.

The North-western part of the country, the Republic of Karakalpakstan, is known because of the Aral Sea crisis. The Aral Sea desiccation has resulted in several damages to the territory, including reduction of agriculture production and animal husbandry. From the salt desert formed on the bare sea bottom, winds blow over 100 000 tonnes of salt and dust to surrounding territories annually.

CLIMATE CHANGE AND HEALTH

Climate change can increase heat stress and waterborne infections, the latter expected to raise by 8–10% by 2050 compared to 1990. There are concerns that vectorborne diseases such as malaria could spread, especially in Surkhandarya, Tashkent, Syrdarya provinces and the Ferghana Valley.

The socioeconomic situation in Karakalpakstan is one of the worst in the country, with gross domestic product per capita less than half the country average. The vast extension of this area hampers access to various services and especially health services.

Dust storms are a common phenomenon here, caused by water shortages and increasing aridity coupled with land degradation problems. Exposure to dust, which contains particulate matter (PM) at very high concentrations, is one of the main health risks. It can be assumed that the PM10 levels are not less than 100 μ g/m³, thus largely exceeding the WHO guidelines. This dust is contaminated by pesticides, the levels of which rise with proximity to the Aral Sea.

Lung disease rates are the highest in this region, with mortality from respiratory diseases three times higher than in the rest of the country. Deaths from acute and chronic respiratory infections in children under five also register the highest rates.

PROTECTING HEALTH FROM CLIMATE CHANGE IN UZBEKISTAN

To address and prevent potential health threats from climate change, the project *Protecting health from climate change in Uzbekistan* undertakes an assessment of the health impact, vulnerability and adaptation to climate change, as a basis for the development of a national health adaptation strategy.

Specific action aims at addressing early warning and early respiratory disease case detection, and at assessing the effects of climate change on nutrition through a pilot survey, as part of the implementation of the WHO European Action Plan for Food and Nutrition Policy.

Activities also include a contribution to WHO information platforms by sharing data, tools, results and lessons learnt.



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