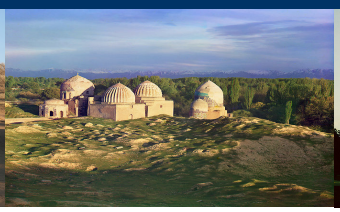
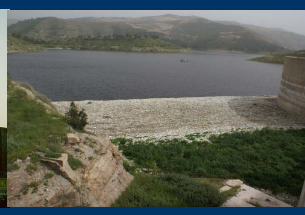
Climate Adaptation to Protect Human Health

UZBEKISTAN



A Global Pilot

The climate change and human health adaptation project is a unique global initiative jointly implemented by WHO and UNDP. This novel project, piloted in seven countries, seeks to identify and share solutions to address health risks caused and exacerbated by climate change and variability.

Uzbekistan Project Objective

To pilot adaptation measures in Tashkent and Syrdarya provinces that will increase the adaptative capacity of the health care system in these provinces to cope with climate-sensitive diseases.

Climate change in Uzbekistan

The climate of Uzbekistan is subtropical and sharply continental. The main climactic features are aridness, abundance of heat and sunlight, and sharp day-night and winter-summer temperature variations. Excessive solar radiation, atmosphere circulation and landscape features account for these specifics of climate.

Climate change is projected to increase temperatures and decrease water availability across Uzbekistan. In the absence of control and adaptive management, this is expected to increase the burden of waterborne diseases as well as health issues caused by dust storms and desertification.

Key Health Concerns and Vulnerability

Uzbekistan will have significant health affects caused by climate change and rising temperatures. Most of the health problems are related to water and its availability.

Water-borne diseases play a major role in Uzbekistan's health status. More than 30% of households nationwide lack quality drinking water and over 1000 settlements have no potable water at all. The water quality is poor with microbial and chemical pollution due to insufficient infrastructure to treat waste water and purify drinking water. Bacterial pollution increases in warmer temperatures and is reflected in an increased number of cases of intestinal diseases during summer. As an example, bacterial dysentery increases by a factor of 3 in the summer.

Dust storms are a particular problem for Uzbekistan and water shortages and increasing aridity caused by climate change coupled with land degradation problems have aggravated the desertification processes. As a major consequence, this has resulted in an increased number of dust storm events. Excessive exposure to dust constitutes an important health risk for many parts of the country already. For instance, Karakalpakstan exceeds the maximum safe threshold of the concentration of total suspension particles (TSP) by more than a factor of 2. Winds transport the sand particles for long distances, extending the geographic boundaries affected by this phenomenon, and over 5.5 million people have become increasingly affected by the dust storms.

Project Structure

Project activities will be executed following established UNDP national execution modality (NEX). The Ministry of Health will act as the Executing Agency (EA) for the project and will be executing the project in cooperation with WHO and UNDP-GEF. The project will establish a Project Implementation Unit (PIU) which will consist of the Project Manager (PM), and an administrative/finance assistant. National consultants will be recruited upon necessity according to an established plan of activities developed by the PM.

Uzbekistan is one of seven countries taking part in this Global Pilot. The seven countries, Barbados, Bhutan, China, Fiji, Jordan, Kenya and Uzbekistan, together represent four distinct environments (Highlands, Small Islands, Arid Countries and Urban environments,) and their related health risks. For more information visit the website at www.who.int/globalchange/projects/en

Project Facts

Donor: GEF Special Climate Change Fund (SCCF)

Funding: 550,000 USD

Time frame: 2010—2014

Location: The project is focused on piloting adaptation measures in two provinces:

- Tashkent
- Syr-Darya

Key Stakeholders:

- Uzbekistan Government Ministries
- UZhydromet
- Tashkent Province Government
- Syrdarya Province Government

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Project Scope

The project aims to reduce negative impacts of climatic drivers by equipping health care personnel and the wider population with essential tools and knowledge to prevent detrimental effects of climate on human health. Effective prevention will be monitored through the reduction of the risk of morbidity and mortality of acute intestinal, cardio-vascular and respiratory diseases induced by climatic factors. It will achieve this by addressing the following barriers:

- **Knowledge** - The level of knowledge and skills to prevent diseases connected with climatic factors are limited among the general population.
- **Capacity** - Health care system personnel are not fully aware of the relationship between climate change and variability and health impacts. There has been no specific training of the personnel in regard to adaptation to climate change and preventing its negative health impacts.
- **Monitoring and surveillance** - The climate and health monitoring and surveillance systems are not conducted at a geographical and temporal scale that would allow observations of trends and make advance forecasts to direct interventions against climate sensitive diseases.
- **Research** - No mechanisms currently exist to give early warning to the health system and undertake preventive measures. No research is currently conducted to observe the trends, and the health system does not have clearly developed indicators that would provide the opportunity to react. Thus no early warning system has been developed.

Expected Benefits

The most significant benefit expected from this project is the reduced number of acute intestinal, cardiovascular and respiratory diseases that are induced by climate change. Other benefits include:

- Improved general health of the national population and consequent contribution to human development in Uzbekistan.
- Increased knowledge and skills to monitor variations in climate and make preventive steps in order to minimize possible detrimental effects on human health.
- Enhanced knowledge among the general public on how to protect themselves against climate-sensitive diseases.
- Development of practical tools to cope with climate variability and change.
- A healthier and more economically active population, resulting in fewer social payments to sick people.

Outcome 1: An early warning system that provides reliable information on likely incidence of climate-sensitive health risks established.	Outcome 2: Skills and knowledge of health care personnel to cope with climate sensitive diseases enhanced and awareness of the population to take self-preventive measures for climate-induced diseases are increased.	Outcome 3: Action plans to address climate sensitive diseases successfully implemented within the 2 study provinces.
1.1: Cooperation agreement on information flow sharing between governmental agencies is reached.	2.1: Capacity building training programs for medical personnel and primary care workers on the relationship between diseases and climate developed and introduced.	3.1: Intervention plans for climate-sensitive health outcomes implemented within the study regions.
1.2: Computer-based information system established to share climate change and health information to Government decision makers in the two pilot states.	2.2: Increased awareness raising to the local population in the health risks associated with climate change and how to take self-preventive measures against climate sensitive diseases.	3.2: Effectiveness of interventions will be monitored.
1.3: An early warning system of potential health impacts of climate events on vulnerable groups will be designed and tested.		
1.4: Contingency plans for health care system developed in the event of adverse climate variation.		