

## **CLIMATE CHANGE, WATER AND HEALTH**

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The climate change inevitably leads to changes in weather conditions in affected regions. Extreme weather events, that are manifested with severe droughts and floods represent risks that may adversely affect public health through impact on water quality, availability and efficiency of water supply and sanitation system.

Water shortage due to droughts is already noticed in the Mediterranean, involving mostly the northern African countries, the eastern Mediterranean and the southern regions of the European countries. The increased demand for water, of about 20% in 2025, due to population growth, according to Blue Plan Centre coupled by the decreased amount of affordable water will lead to the deterioration of the water quality. The health impacts, are related to increase of lake and river surface water temperatures, reduced water flows, heavy effects on drinking-water quality as a consequence of decrease of pollutants dilution and unsuitability of water for drinking and agriculture purposes as a consequence of saline intrusion. In addition, extremely intense rainfall and river flooding that affect the sanitation system efficiency are characterized by a primary risk for public safety. Uncontrolled surcharges may introduce microbial and chemical pollutants to water resources that are difficult to handle through the usual treatment systems. It is undoubtedly significant to decrease the effects of extreme weather effects by applying precautionary measures and especially to implement adaptation activities to climate change.

The Mediterranean Countries, Contracting Parties to the Barcelona Convention, in their five year programme, 2009-2014, included a number of activities that underpin the adaptation to climate change, including water and health. Furthermore the European countries, including the Mediterranean ones, signatories to the Protocol on Water and Health, address the water and health issues related to climate change in a very distinctive way.