The climate of Kazakhstan: an examination of current conditions and future needs

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Environmental Health is an essential aspect of any successful society; indeed, it was recognised as a cornerstone of the UN's Agenda 21 action plan for sustainable development. Clean air and water, safe food, minimal exposure to toxic materials, disaster preparedness, planning for climate change and effective waste management are all fundamental to a healthy population and socio-economic progress.

In recent years, particularly since 2000, Kazakhstan's economic development has been exceptional. However, health indicators such as life expectancy are lagging behind nations with similar economies. It is likely that this "health lag" is, to a large extent, caused or aggravated by the poor state of Kazakhstan's natural environment.

In this paper, we focus on the role of recent and future climate change in Kazakhstan. We examine ECMWF re-analysis data, data derived directly from observations and CMIP5 climate projections for the region to understand how climate may impact environmental health in the country.

This analysis is part of a larger project that aims to take a more holistic approach to the analysis of environmental health in a developing nation.