



## Climate Profiles : Climate Profile Uk

### China Climate Change Profile Part 3: Impact on Environment and Society

**China must already grapple with some of the worst environmental effects of climate change, including severe air pollution, desertification, water scarcity, and flooding. Is there more to come?**



A girl sits on a boat in flood waters in China's Anhui province in July 2007, when floods forced hundreds of thousands of villagers to evacuate. Some of China's biggest cities are also vulnerable to flooding (Photo: Reuters)

#### **Air Pollution and Public Health**

China's reliance on its abundant but dirty coal has produced a number of negative consequences; one of the biggest is air pollution. According to World Bank figures, 16 of the world's 20 most polluted cities are in China, while around 400,000 people die prematurely each year of respiratory problems related to air pollution.

Meanwhile the effects of climate change - also a result of carbon-intensive activities such as coal-fired energy production - can already be felt all over the country. Along with increasing cardio-respiratory problems, climate change could have other impacts on public health in China. Warming temperatures in the south of China are expected to fuel insect-borne diseases, such as malaria and dengue fever.

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#### **Desertification and Water Scarcity**

In the arid northern and northwestern reaches of the country, China must cope with the expansion of its deserts. Desertification and sandstorms cause billions of dollars in damages each year and affect millions of people, as fertile grasslands the size of Israel turn barren every year. Although unsustainable agricultural practices of the 20th century are partially to blame, scientists also see climate change as a major cause of droughts that propel desertification in the north.

According to the environmental think tank China Dialogue, warming also caused certain Himalayan glaciers to shrink by one hundred meters between 1986 and 1998. These glaciers are important sources for the huge rivers that run across China and supply the country's densely populated coastal plains with water. About 60 percent of China's 669 major cities face water scarcity, and of these, 110 face serious water shortages.

Further decreases in rainfall will heighten the pressure on China's large rivers, already under environmental stress from giant dams, irrigation projects, and overall pollution. According to a WWF study, pollution in the main stem of the Yangtze River has increased by more than 70 percent over the last 50 years. Almost half of the country's industrial waste and sewage is now discharged into the river.

### **Agriculture**

Climate change and pollution could have adverse affects on agriculture all over the country. The Chinese government said in January 2007 that the nation's production of staples such as corn, rice and wheat could drop by as much as 37 percent over the next 50 years as a result of climate change.

### **Flooding**

Meanwhile, the large cities on China's east coast are susceptible to the consequences of rising sea levels. The documentary film "An Inconvenient Truth," for example, depicted Shanghai in a 21st-century scenario where floods displaced many of the city's 18 million inhabitants. A 2006 study by Chinese think tank Civic Exchange illustrated the vulnerability of Hong Kong and the Pearl River Delta region - the manufacturing and trading hub of southern China - to flooding and increasingly severe storms resulting from projected rises in sea levels.

**Sources:** Reuters, Washington Post, WWF, China Dialogue, Civic Exchange, Worldwatch Institute

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