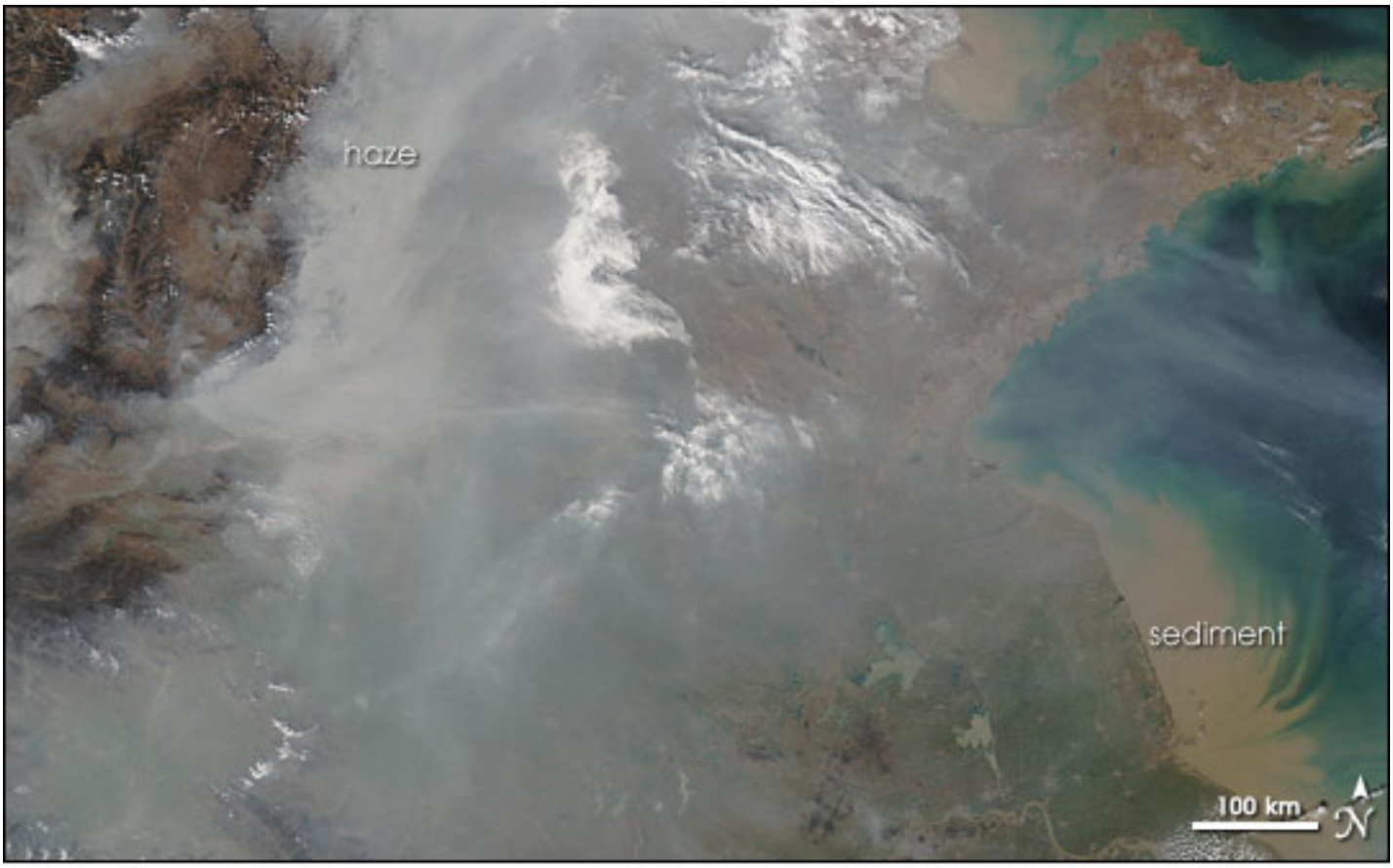
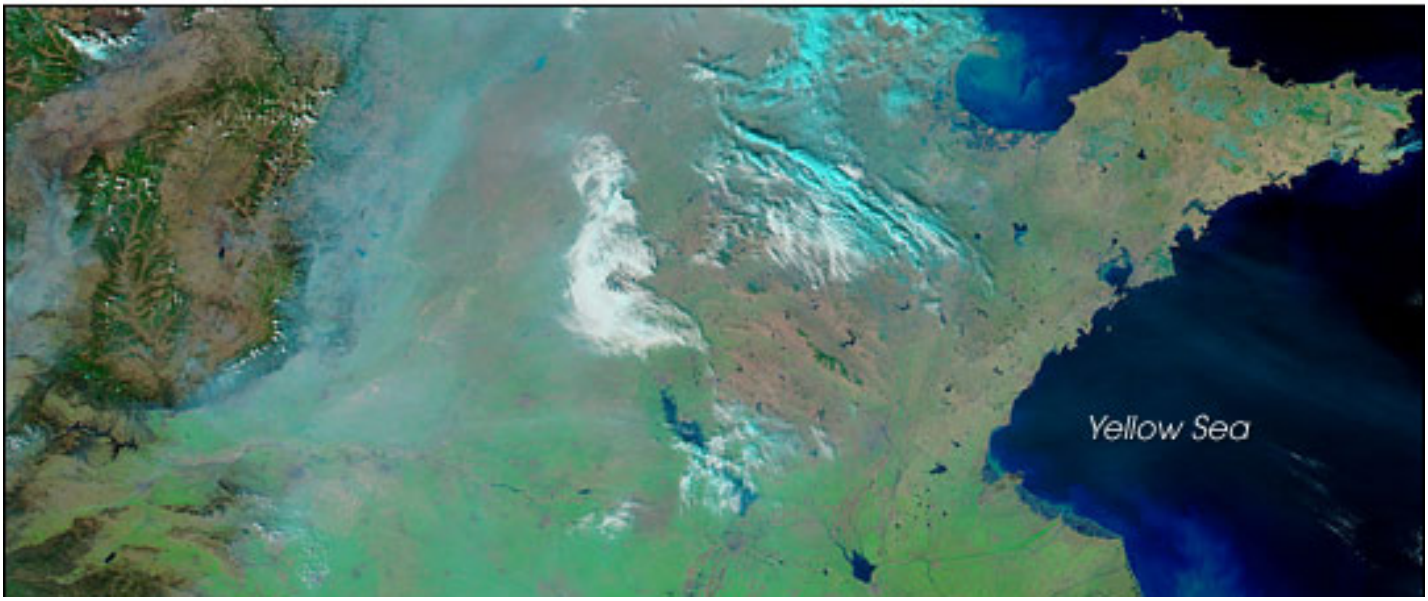
New Images

Haze Shadows Winter Crops in China



Natural Color



False Color (Visible + Short-wave and Near Infrared)

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For the most populous country in the world, maximizing agricultural production is a high priority. With nearly 1.3 billion people (United Nation estimates for 2001) to feed, China faces numerous challenges to food security, including rapid conversion of agricultural lands to development and severe water shortages. This pair of images from the Moderate Resolution Imaging Spectroradiometer (MODIS) on NASA's Aqua satellite reveals another threat to agricultural productivity: regional haze.

The top image shows a natural-color view of thick haze over the crop-growing areas north of the Yangtze River in eastern China on February 28, 2005. Similar to a digital photograph, the image shows how a blanket of air pollution shadows some of China's most important winter crop-growing regions so completely that the surface is hidden from the satellite's view. The image on the bottom of the pair uses short-wave and near-infrared observations from MODIS to better reveal the landscape underneath the haze. Bright green winter crops, mostly wheat and (close to the Yangtze River) rice, stretch across the plain between the mountains to the west (left) and the Yellow Sea (right). Water is deep blue or brighter blue when sediment levels are high.

In 1999, NASA-funded scientists announced the results of a study on how haze affects crop production in China. The scientists discovered that the year-round haze may be directly shielding sunlight from crops strongly enough to reduce productivity by 30 percent or more over as much as 70 percent of the country's crops. The research suggests that China could reap agricultural as well as human health rewards by reducing air pollution.

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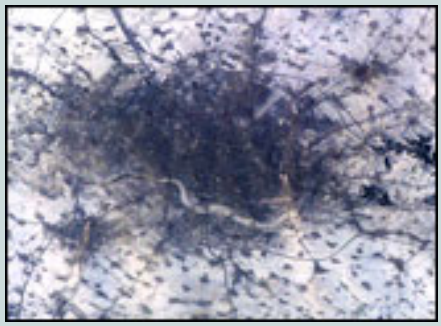
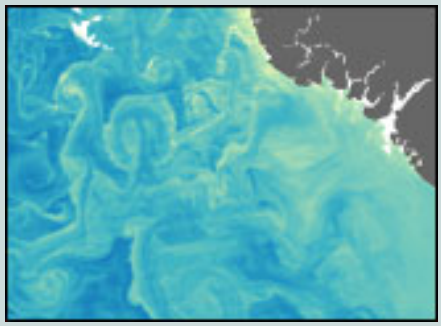

Shenyang, China


Klyuchevskaya Volcano Erupts


Phytoplankton in the Arabian Sea

The large image provided has a spatial resolution of 1 kilometer per pixel. The MODIS Rapid Response System provides this image at additional resolutions.

Image courtesy the MODIS Rapid Response Team, NASA-Goddard Space Flight Center

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