

# CRISIS MANAGEMENT

IAIN ORR EXPLORES HOW CHINA IS FACING UP TO HER THREE MAJOR ENVIRONMENTAL CHALLENGES

CHINA AND THE world face three environmental crises, based on three of the traditional elements: earth, air and water. Too many people on the land, too much carbon dioxide in the air and too little fresh water. All three problems flow from the unconstrained success of human social, agricultural and industrial skills in transforming land, extracting resources and populating the earth more densely than any other creature. But only the latest crisis

- climate change - has shocked us into full awareness of what we have been doing. None of these problems can be solved without China.

## Population

With post-Liberation confidence, in 1949 Mao used a traditional Chinese saying to express his population policy: "Of all things in the world people are the most precious". Together with greatly improved public health, this supported the surge in China's population from 542 million in 1949 to 969 million in 1979. Then the brakes went on: now China's target is a ceiling population of 1.37 billion by 2010.

Carbon emissions rise (million tonnes extra per year estimated) 1980-2000: Territory size illustrates the proportional increase in emissions.

## Carbon Emissions

But how China's post-Mao economy has grown! Until recently China had a relatively light environmental footprint in respect of carbon emissions (developed industrial countries doing the damage). The future threatens to be different, especially as China's energy needs will largely be met by coal. Here there is, however, a technical and economic solution that would be of global significance. Carbon Capture and Storage (CCS) technologies offer the prospect of coal-based power with 85-90% reductions in greenhouse gas emissions. The hope is that, in cooperation with other countries, China can develop, apply and export these and other green technologies. The world needs that to replace China's plastic toy exports.

## Water Crisis

China's freshwater crisis flows from inefficient use of water, huge demands by agriculture for irrigation, and by

cities for industry and domestic use (30 of China's 32 largest cities suffer from water shortages), disappearing groundwater resources and polluted rivers. There is also the double threat (to much of the rest of Asia as well as China) from melting Himalayan glaciers - first increased flows, causing floods (and temporarily disguising the loss of freshwater resources), later the effects of the loss of the water from these glaciers. Above all, water needs

to be recycled, pollution reduced, losses stemmed and water tables allowed to recharge. For some experts there is concern that one planned solution - massive transfer of water from the Yangtze basin to the dry North China plain - carries social, environmental

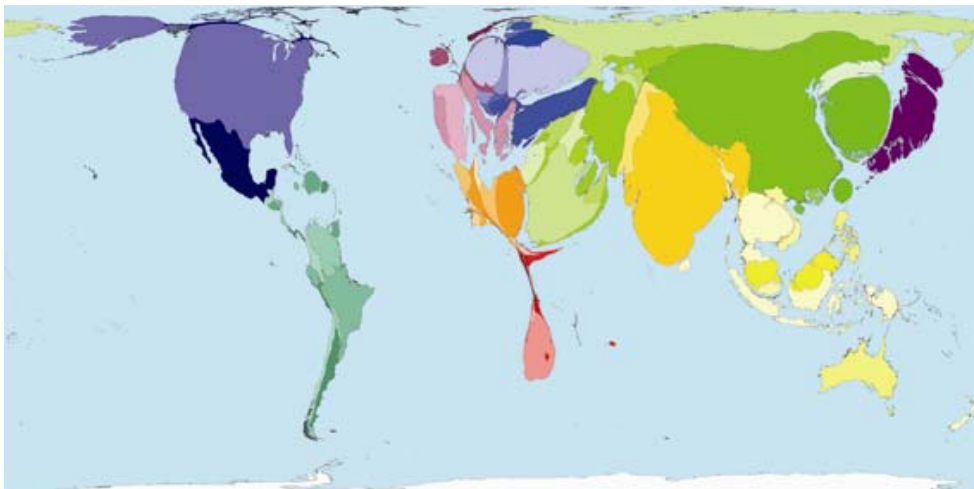
and economic risks as great as those of the Three Gorges project. Water is probably China's most intractable problem.

The newest issue, however, is not how China tackles environmental problems within her own borders but her overseas impact. The greening of the domestic agenda is exemplified by China's gaining 181,000 km<sup>2</sup> of forest cover (the area of Cambodia) between 1990 and 2000. But against that has to be set the huge loss of forest cover in Burma, Indonesia, Malaysia and South America, part of it to support Chinese imports of timber, palm oil and soybeans. How China secures her essential resources, including energy, will determine whether her huge and enterprising population can help the world to live peacefully within the constraints imposed by earth, air and water.

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## Websites:

- [www.chinadialogue.net](http://www.chinadialogue.net) bilingual environment site
- [www.worldmapper.org](http://www.worldmapper.org) - China's global impacts graphically displayed in multiple maps
- <http://www.defra.gov.uk/environment/climatechange/internat/devcountry/china.htm> - UK-China Environmental cooperation



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