

Acid rain in China threatening the food chain

Agence France-Presse

BEIJING, 7 August 2006 – China's sharp rise in sulphur dioxide emissions, the main component of acid rain, is ruining the nation's croplands and threatening the food chain in rivers and lakes, experts said on Sunday.

The emissions, largely caused by burning coal to sate China's booming appetite for electricity and by vehicle exhaust, are further exacerbating severe ecological degradation in the world's most populous nation, they said.

China announced this week that it emitted nearly 26 million tonnes of sulphur dioxide last year, a 27 percent increase since 2000, making the nation the world's biggest polluter of acid rain-causing substances.

"The sulphur dioxide acidifies the soil, hurting the roots of the crops that farmers are growing and reducing total yields," said Edwin Lau, assistant director of the Hong Kong branch of Friends of the Earth. "Acidity of rivers and lakes also affects the growth of marine organisms, killing the lower-level species needed by bigger organisms to survive and disrupting the food chain."

Such negative impacts on the environment could lead to social instability in acid rain-hit areas as Chinese crop growers and fish farmers increasingly struggle to earn a living in face of a worsening environment, Lau said.

Each tonne of sulphur dioxide causes US\$2,500 in economic losses, according to Li Xinmin, deputy director general of the State Environmental Protection Administration's pollution control department.

This means China suffered nearly US\$65 billion in economic losses last year from sulphur dioxide emissions, he told journalists on Thursday.

Over half of the 696 cities and counties under a national monitoring program experienced acid rain last year due to sulphur dioxide pollution, the administration said in a report.

"The effects of acid rain on China is going to be much worse than in the United States and Europe when they had acid rain problems in the 1970s," said Paul Harris, a China expert monitoring the nation's environment from Lingnan University in Hong Kong.

“China’s soils are already in bad shape after being depleted following centuries of farming. Soil scientists will tell you that things are already on the edge in China,” he added.

Deteriorating soils will mean the loss of the protective vegetative cover over croplands, which eventually could lead to desertification as winds and rains further erode planting areas, he said.

“What acid rain means is that chemical reactions are taking place. These reactions are having different effects on different types of soil. Although you may have an unsure outcome, it is going to make things more difficult for farmers,” Harris said. “Forests could also be impacted and China is already having problems with forests and have banned logging.”

China’s farmlands are already shrinking due to rapid urbanisation – a phenomenon that is threatening the nation’s capacity to grow food, Yang Jian, a senior official at the Ministry of Agriculture told the China Daily newspaper on Friday.

“The amount of land dedicated to grain production is expected to continue shrinking in the years ahead, but [farmlands] will still have to produce a minimum of 500 million tonnes to feed China in 2010,” the China Daily said.

With shrinking acreage, falling water tables, environmental degradation and a growing population, some grain experts have predicted that China will remain a net food importer for the coming decades.

“If China does not take effective measures to curb rising coal use, then the acid rain will get worse as the economy grows and people get richer and buy even more electric appliances and vehicles,” Friend of the Earth’s Lau said. “China needs to move into alternative energies like wind power, use more natural gas which is cleaner than coal and implement desulphurization technology at energy plants.”

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