

Water shortages to hit food supply

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John Vidal London

LEADING water scientists have issued one of the sternest warnings yet about global food supplies, saying the world's population may have to switch almost completely to a vegetarian diet over the next 40 years to avoid catastrophic shortages.

Humans derive about 20 per cent of their protein from animal-based products now, but this may need to drop to just 5 per cent to feed the extra 2 billion people expected by 2050, according to research by leading water scientists.

"There will not be enough water available on current croplands to produce food for the expected 9 billion population in 2050 if we follow current trends and changes towards diets common in Western nations," the report by Malin Falkenmark and colleagues at the Stockholm International Water Institute said.

"There will be just enough water if the proportion of animal-based foods is limited to 5 per cent of total calories and considerable regional water deficits can be met by a ... reliable system of food trade."

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Dire warnings of water scarcity limiting food production come as Oxfam and the UN prepare for a possible second global food crisis in five years. Prices for staples such as corn and wheat have risen nearly 50 per cent on international markets since June, triggered by droughts in the US and Russia, and weak monsoon rain in Asia.

Oxfam has forecast the price spike will have a devastating impact in developing nations that rely heavily on food imports.

Adopting a vegetarian diet is one option to increase the amount of water available to grow more food in a climate-erratic world, the scientists said. Animal protein-rich food consumes five to 10 times more water than a vegetarian diet.

One-third of the world's arable land is used to grow crops to feed animals. Other options include eliminating waste and boosting trade between countries with surpluses and deficits.

"Nine hundred million people already go hungry and 2 billion people are malnourished in spite of the fact that per capita food production continues to increase," they said. "With 70 per cent of all available water being in agriculture, growing more food to feed an additional 2 billion people by 2050 will place greater pressure on available water and land."

The report's release coincides with the start of the annual world water conference in Stockholm where 2500 politicians, UN bodies, non-governmental groups and researchers from 120 countries meet to tackle supply problems.

Competition for water between food production and other uses will intensify pressure on essential resources, the scientists said. "The UN predicts that we must increase food production by 70 per cent by mid-century," the report said. "This will place additional pressure on our already stressed water resources."

A report from the International Water Management Institute said the best way to protect farmers from food insecurity in sub-Saharan Africa and south Asia was to help them invest in small pumps and simple technology.

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