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Biofuels Plans May Cause Water Shortages

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Biofuels Plans May Cause Water Shortages
By MICHAEL CASEY – Oct 10, 2007

BANGKOK, Thailand (AP) — China's and India's plans to produce more biofuels could cause shortages of water, which is needed for crops to feed their growing populations, according to study results released Thursday.

The International Water Management Institute or IWMI study said both countries are counting on maize and sugarcane, which need large amounts of water, for much of their biofuels.

"Crop production for biofuels in China and India would likely jeopardize sustainable water use and thus affect irrigated production of food crops, including cereals and vegetables, which would then need to be imported in larger quantities," Charlotte de Fraiture, the study's lead author, said in a statement.

"Are these countries, particularly India which has devoted so much effort to achieving food security, adequately considering the trade-offs involved, especially the prospect of importing food to free up sufficient water and land for production of biofuel crops?"

Neither an Indian nor a Chinese government spokesman could immediately be reached for comment on the study results.

The study follows one released earlier this week by the National Research Council, which warned that increased production of these crops for ethanol could threaten water supplies in the United States.

The IWMI study is also the latest to warn that growing demand for biofuels could shortchange poorer countries that depend on staples like maize to feed their populations. Setting aside more land for biofuels could also raise prices for everything from eggs to beef, as feed would become more expensive.

"For the 2 billion poorest people in the world, many of whom spend half or more of their income on food, rising grain prices can quickly become life-threatening," Lester Brown, the founder of the Washington-based Earth Policy Institute think tank, wrote in 2006.

"The broader risk is that rising food prices could spread hunger and generate political instability in low-income countries that import grain," Brown wrote.

The IWMI study said China aims to increase biofuels production fourfold to around 4 billion gallons of ethanol — 9 percent of its projected gasoline demand — by 2020,

from a 2002 level of 950 million gallons.

India is pursuing a similarly aggressive strategy. Last month it announced plans to double the requirement for ethanol-blend gasoline to 10 percent in the next year.

To meet their biofuels targets, China would need to produce 26 percent more maize and India 16 percent more sugarcane, the study found. It said doing so would require an extra 20 gallons of irrigation water per person per day in China, and an additional 18.5 gallons per day in India, beyond what is needed for food.

The IWMI's David Molden said in a statement that the situation could worsen already dire water shortages in parts of China and India.

"Without major changes in water management, how are we going to feed a growing population, satisfy increasing demand for meat, and, on top of that, use crops as a major source of fuel?"

The study suggested that the two countries could focus on crops that need less water, such as sweet sorghum for ethanol, and species including the jatropha bush and pongamia trees for biodiesel.

India has already announced plans to plant about 7.7 million acres of jatropha plantations by 2009, and to have identified another 98.8 million acres of wasteland by then to grow the plant.

Jatropha seeds are crushed and mixed with fuel to produce biodiesel.

IWMI is a Sri Lanka-based nonprofit scientific institute that focuses on sustainable use of water and land resources. It has 100 scientists from 16 countries and works on research projects in 21 countries.

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For Discussion

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1. What are biofuels? How would producing more biofuels cause water shortages? How would this affect food production?

2. Besides the impact on water use, what other adverse effects does increasing demand for biofuels have on food supplies in poor countries? What are some possible consequences?

3. Why are China and India trying to increase biofuels production?

4. Do you think the governments took into account what would happen to food prices as they started using more and more food as fuel?

5. In a world where people are starving, does it make sense to burn food for fuel?