



**INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE**  
*sustainable solutions for ending hunger and poverty*

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## **PRESS RELEASE**

**Embargoed until  
September 30, 3:30 GMT  
(11:30 pm, September 29  
in Washington, DC)**

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### **New report on climate change projects 25 million more malnourished children in 2050**

*The impact of climate change on poor people can be averted  
with \$7 billion additional annual investments in rural development*

Washington, DC— Twenty five million more children will be malnourished in 2050 due to effects of climate change, according to a report by the International Food Policy Research Institute (IFPRI). This study, the most comprehensive assessment of the impact of climate change on agriculture to date, compares the number of malnourished children in 2050 with and without climate change.

“This outcome could be averted with seven billion U.S. dollars per year of additional investments in agricultural productivity to help farmers to adapt to the effects of climate change. Investments are needed in agricultural research, improved irrigation, and rural roads to increase market access for poor farmers. Access to safe drinking water and education for girls is also essential,” said Gerald Nelson, IFPRI senior research fellow and report lead author.

The study, “Climate Change: Impact on Agriculture and Costs of Adaptation,” was prepared by IFPRI for inclusion in two separate reports from the Asian Development Bank and

the World Bank, both released today in conjunction with international climate change meetings in Bangkok.

Without new technology and adjustments by farmers, climate change will reduce irrigated wheat yields in 2050 by around 30 percent in developing countries compared to a no-climate change scenario. Irrigated rice yields will fall by 15 percent.

Even without climate change, food prices will rise, but climate change makes the problem worse. Without climate change, 2050 wheat prices will increase globally by almost 40 percent. With climate change, wheat prices will increase by 170 – 194 percent. Rice is projected to increase 60 percent without climate change, but it will go up 113 – 121 percent with climate change. 2050 maize prices will be more than 60 percent higher without climate change, but they will be 148 – 153 percent higher with climate change.

The first of its kind, this study combines climate models that project changes in rainfall and temperature and a crop model to capture biophysical effects with IFPRI's economic model of world agriculture. The latter projects changes in the production, consumption and trade of major agricultural commodities.

The modeling does not include:

- the effects of increased variability in weather due to climate change
- the loss of agricultural lands due to rising sea levels
- climate change-induced increases in pests and diseases
- increased variability in river flow as glaciers melt

All these factors could increase the damage of climate change to agriculture.

Developing countries will be hit hardest by climate change and will face bigger declines in crop yields and production than industrialized countries, the study finds. The negative effects of climate change are especially pronounced in Sub-Saharan Africa and South Asia. Compared

to the average biophysical effects of climate change on yields in the industrialized world, the developing countries fare worse for almost all crops.

“Agriculture is extremely vulnerable to climate change, because farming is so weather-dependent. Small-scale farmers in developing countries will suffer the most,” noted Mark Rosegrant, director of IFPRI’s Environment and Production Technology Division and report co-author. “However, our study finds that this scenario of lower yields, higher prices, and increased child malnutrition can be avoided.”

In addition to increased funding for rural development, IFPRI recommends more open agricultural trade to ensure that food will reach the poorest populations in times of crises.

“If governments and donors begin now to invest seriously in adaptation for poor farmers, we can avert this bleak future,” said Rosegrant.

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*The International Food Policy Research Institute (IFPRI) seeks sustainable solutions for ending hunger and poverty. IFPRI is one of 15 centers supported by the Consultative Group on International Agricultural Research (CGIAR), an alliance of 64 governments, private foundations, and international and regional organizations. Please visit our website at [www.ifpri.org](http://www.ifpri.org)*