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August 27, 2024

CLIMATE CHANGE POSES RISKS TO GLOBAL CEREAL PRODUCTION AND TRADE

New report highlights threat of climate change for import dependent and major food producing countries

MINNEAPOLIS—Out today, a [new report](#) from the Institute for Agriculture and Trade Policy (IATP) sheds light on the pressing climate challenges facing global cereal production and trade, with a focus on maize (corn), rice and wheat, which together account for over 60% of global food calories. The analysis is timely as the U.N. confirmed 2023 as the hottest year in the past 150 years.

As the world grapples with the escalating impacts of climate change, the report, *Addressing Climate Change Risks in Import-Dependent and Major Food Producing Countries: An Analysis of Cereals Production and Trade Flows*, highlights the significant risks to food security posed by changing weather patterns, rising temperatures and shifting precipitation trends. These changes are already affecting major cereal producers and import-dependent countries, threatening to disrupt global food supplies and drive up prices.

The report reveals that climate change is already disrupting cereal production across all regions, with the most severe impacts in tropical and subtropical areas, such as Sub-Saharan Africa, South Asia and Southeast Asia. These regions face declining yields due to water stress and extreme weather events, while countries such as Canada, Finland, Ireland and Russia may benefit from changing conditions.

Rice production is particularly vulnerable to climate change, with significant declines expected in the coming decades. Wheat is also at risk, with production needing to shift to higher elevations, as well as alternative crops, as temperatures rise.

The report warns of the risks associated with the concentration of cereal production and exports in a few major producing countries. In 2022, the top three exporters accounted for 64% of maize, 57% of rice and 45% of wheat in global markets. Concentration increases the vulnerability of global food systems to both climate and human-made supply disruptions and price volatility.

Climate change's impact on agriculture is also contributing to increased hunger, inequality and poverty. Increasing regularity of severe weather is affecting farmers in developed countries but more especially those in developing and least developed countries who are the most impoverished farmers and vulnerable populations.

IATP advocates for a transition to agroecological practices that enhance resilience of food systems to climate change and support sustainable food production. **The report outlines five key recommendations**, that include improving domestic and regional food production, reducing food loss and waste, exploring agroecological strategies, incentivizing climate-adapted diets and conducting country-specific studies on climate impacts.

“As 2023 marks the hottest year on record, the need for urgent action is clear. By supporting diverse and sustainable food systems with investments in more localized food production, we can enhance food security and promote the well-being and livelihoods of farmers, consumers and ecosystems alike,” says report author Calvin Manduna, IATP senior trade policy analyst.

IATP urges governments, international organizations and the private sector to prioritize and increase urgency in climate adaptation and resilience in agriculture. For more information and to access the full report, visit: www.iatp.org/climate-change-risks-food-trade.

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Based in Minneapolis with offices in Washington, D.C., and Berlin, Germany, the Institute for Agriculture and Trade Policy works locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems. To learn more, visit: www.iatp.org.