MODELING IMPACTS OF FOOD AND FERTILIZER TRADE DISRUPTIONS ON GLOBAL FOOD SECURITY

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11 CROPS

potato wheat maize cassava rice barley groundnut sorghum soybean sugarbeet sugarcane

3 FERTILIZERS N P K

4 DISRUPTIONS

military political economic disarmament

ECONOMIC SCENARIO*



POLITICAL SCENARIO





BRICS N 1.0 P 0.9 K 0.6 CAL 0.9

MILITARY SCENARIO



DISARMAMENT SCENARIO



1.0

1.0

1.0

Ν

Ρ

К

CAL 0.9

NUCLEAR N 1.0 1.1 Ρ 0.8 К CAL 1.0

CONCLUSIONS AND WAY FORWARD

Non-Aligned and Global South countries experience significant shortfalls in total kcal in all scenarios

Non-nuclear-weapon states cannot pressure nuclear-weapon states in food and fertilizer trade

Further research will refine the results through process-based crop modeling, simulations, and consideration of labor and energy supply interruptions This presentation participates in OSPP



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