Medium

# Food, Climate Change, Syria & National Security

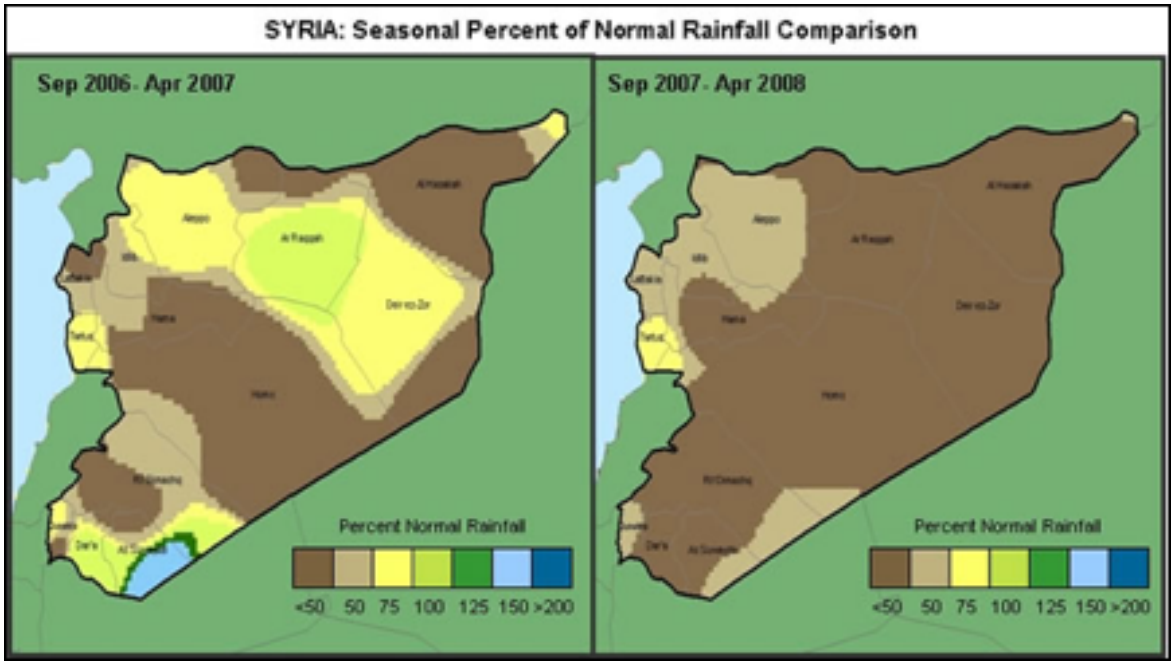
Daniel Baruch Jun 27 · 7 min read

The availability of food is a universal benchmark for the viability and success of a state. Nations with a volatile or insufficient supply are doomed to revolution and the eventual designation of a being a failed state. This has been demonstrated time and time again, in the Soviet Union, in Egypt, in Syria and throughout Africa. The average of estimates for the amount of food needed to stave off widespread discontent is about 1500 calories a day. The effects of Climate Change on the global food supply may reduce many countries consumption to below this critical level without widespread intervention. As the effects of Climate driven agricultural volatility progress, nations must safeguard their own food supplies and take steps to insulate themselves from the effects of the collapse of neighboring nations. Regions must decide now how they will handle refuge crises that will dwarf the Syrian exodus and Central American immigration by orders of magnitude. Syria can be used a case study to project the effects of a collapsing food supply and the ensuing effects on both the nation itself, and its environs.

*"There is no choice between being a communist on 1,500 calories a day and a believer in democracy on 1000 calories." — General Clay in regard to the plan for food aid to post war Europe*

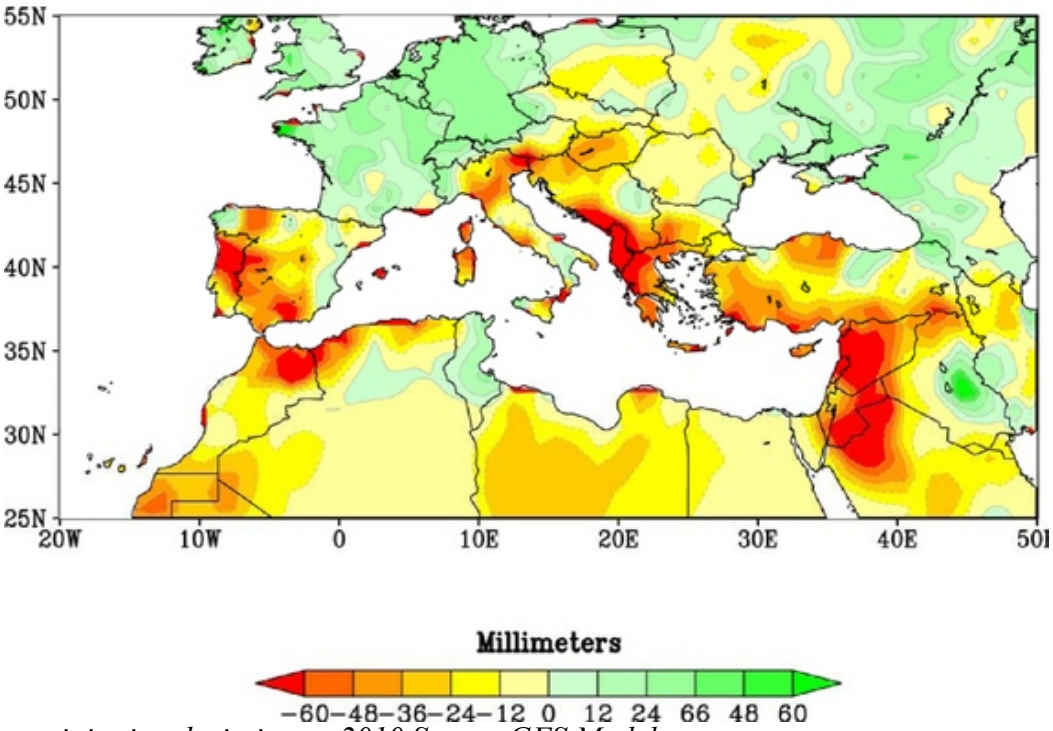
Syria was not the image of stable country before the drought hit, the United States had sanctioned its leaders and economy, it was routinely humiliated by Israeli attacks it could not respond to and had deep internal sectarian divides. However, none of these were cataclysmic enough to cause a civil war by themselves. The true force behind the war, the refugee crisis and arguably the rise of ISIS, is Climate Change.

Beginning in 2006, Syria began experiencing a drought of biblical proportions, akin in devastation to the American Dustbowl and the North Korean March of Suffering. According to the Center of Climate & Security hundreds of thousands of farmers had to abandon their land as it died. Crop failures reached 75%, herders lost 85% of their livestock and millions were left food insecure.




*U.S. DEPARTMENT OF AGRICULTURE FOREIGN AGRICULTURAL SERVICE*

Using language more often found in movies then in politics, the UN warned in 2008 that Syria faced "societal destruction" and "a perfect storm." The world did not intervene and so the stage was set for the Syrian civil war. The death and destruction that would follow the world's first climate war, in rivaled only by one other conflict in the 21st century.



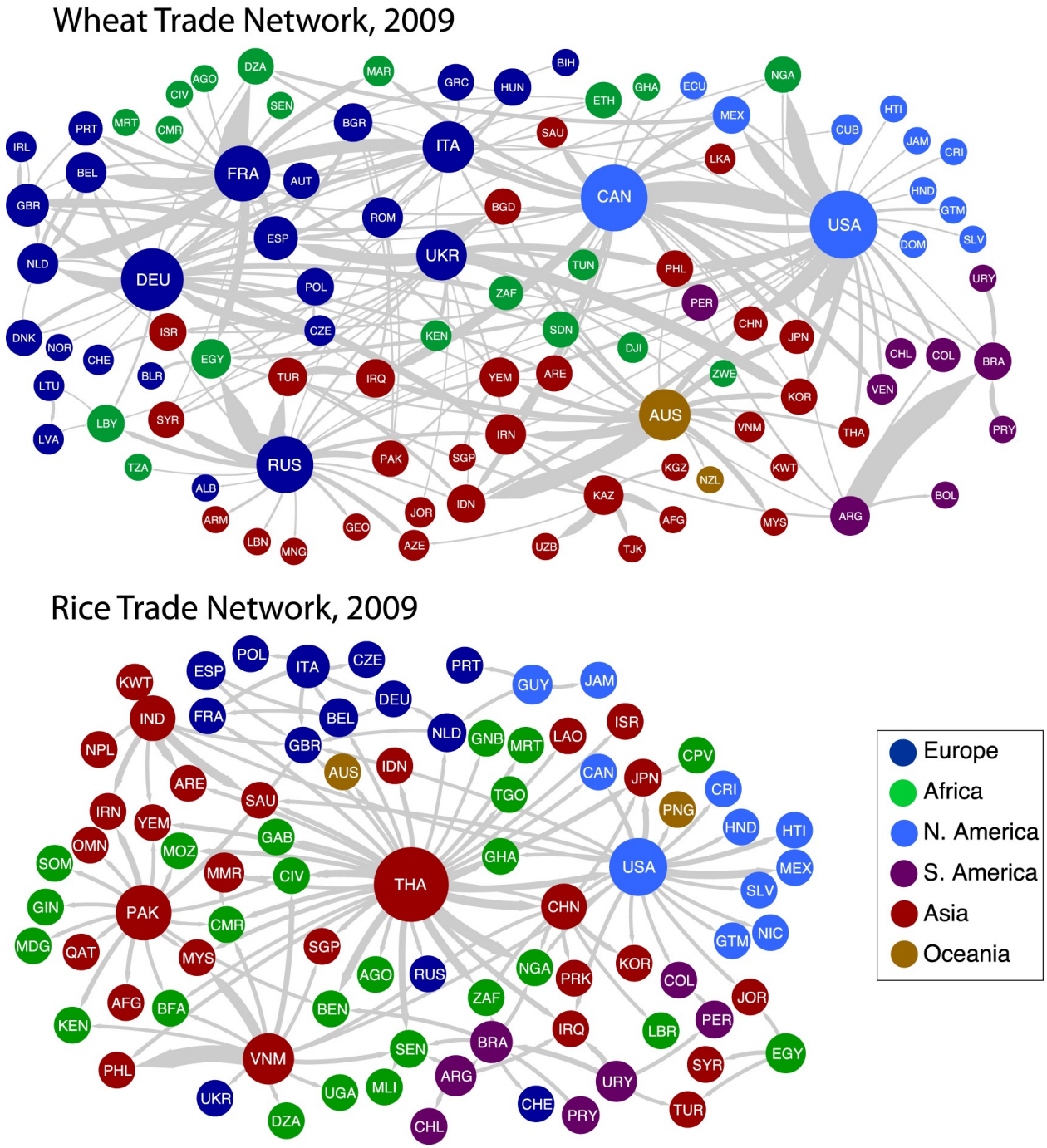

*precipitation deviation — 2010 Source GFS Model*

It did not need to happen this way, the Syrian government set themselves up for disaster and the world's governments need to learn from their mistakes. In 2006, the Syrian government made what would be one of the less outstanding moves in history. They, looking at the dramatic spike in wheat prices decided to sell the entire Syrian strategic reserve on the market.


*Wheat Prices — Shaded areas recessions*

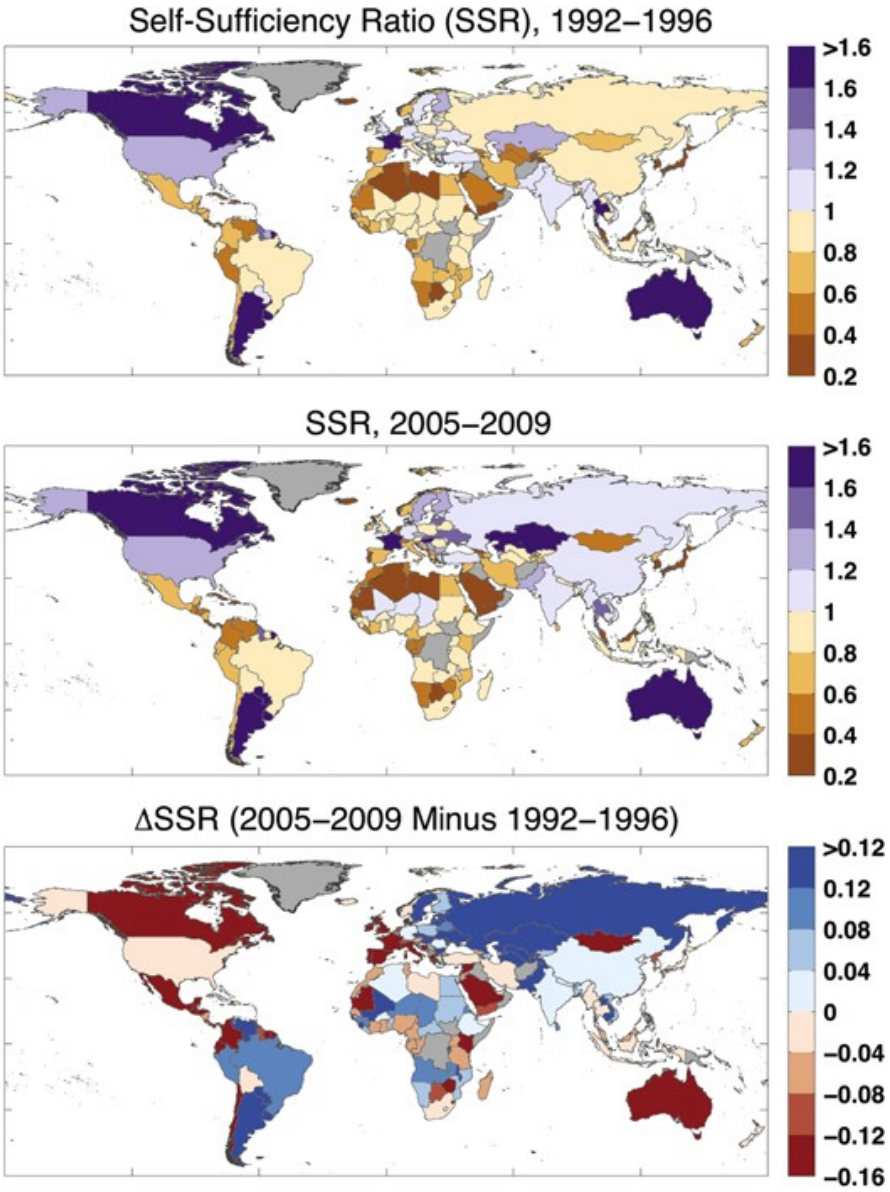
The reserves that were sold could have according the UN, fed the nation for the duration of the famine if rationed to the public. This was not the limit of poor Syrian policy; the government encouraged and subsidized the growth of water intensive crops such as wheat and cotton. These policies resulted in the groundwater level dropping so much that many taps went dry, and many began drinking contaminated supplies out of necessity. The impact of poor planning and government policy must be understood correctly, if the government was proactive in planning for what came to pass then the nation would have endured.

Syria is a lesson for the entire world. It demonstrated that the fragility of the global food supply is a greater threat to national security then international terrorism, state sponsored cyber-attacks, or nuclear proliferation. This is because the global food supply is a "fragile network," this means the system is vulnerable to self-propagating disruptions. One shock, such as Climate Change makes more likely have outsized and runaway effects on the global supply chain, such events have already happened in the past before the golden age of globalization, such as the Great Victorian Famine, which killed between 19 and 50 million people.



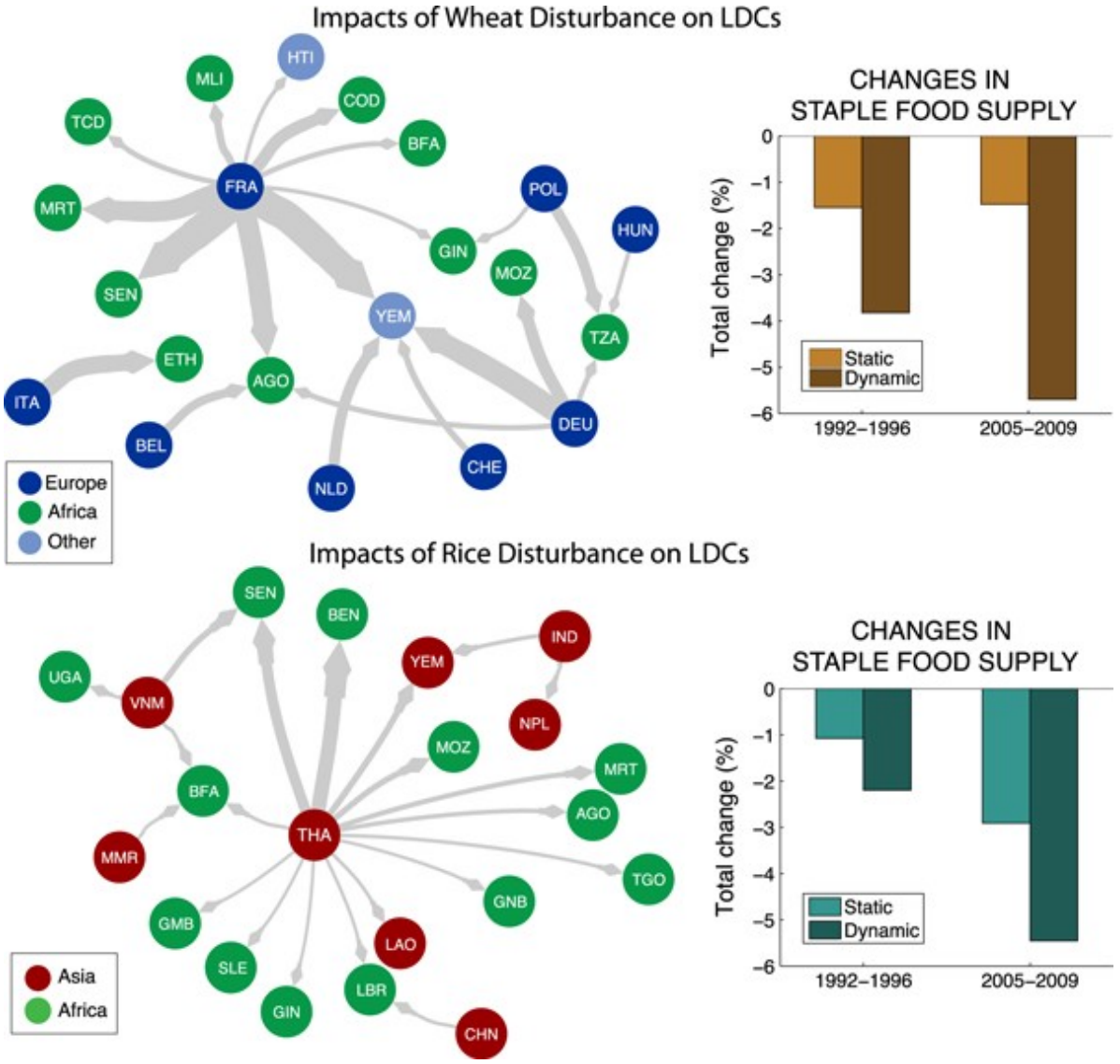

*Food Trade Networks*

In the event of a shock, some regions are much better off than others. The primary producers can restrict exports to stockpile food, something that the United States has done many times in the past.



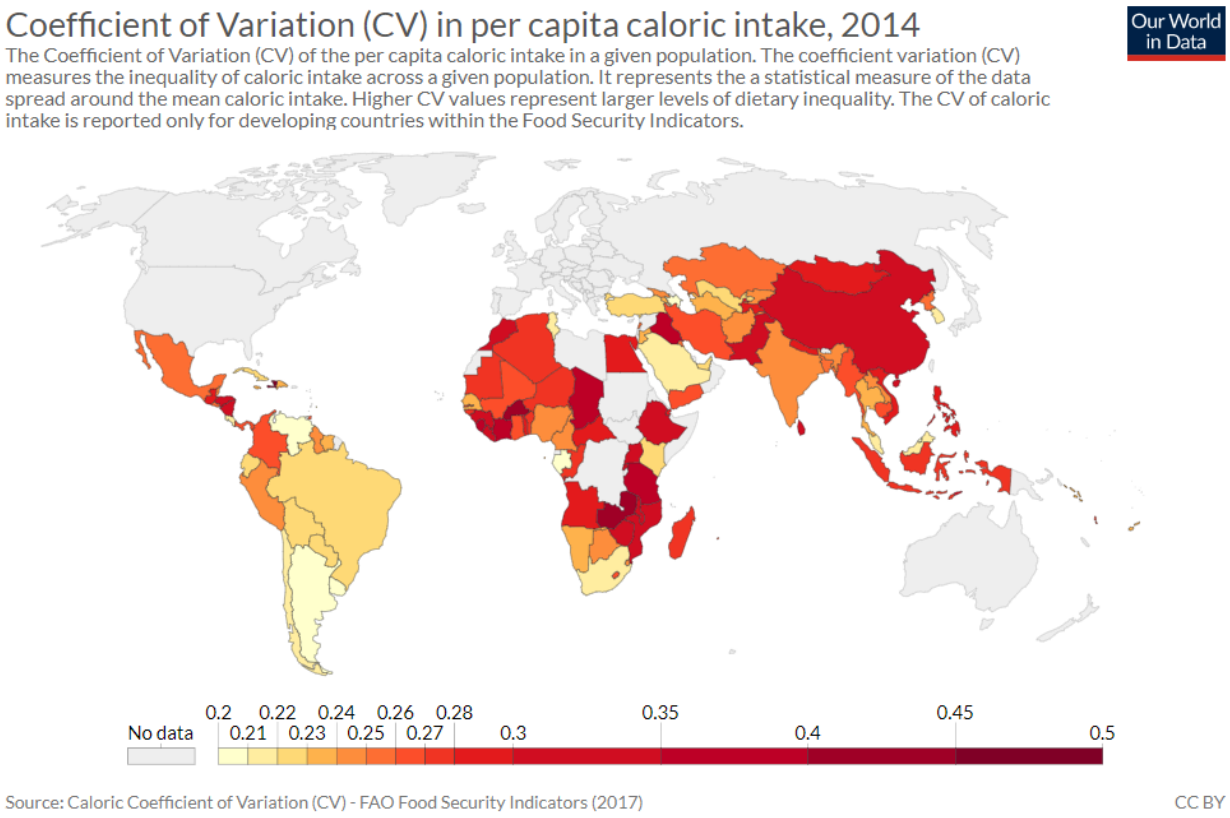

Homogeneity of the global food system from a self-sufficiency perspective. (Top) self-sufficiency ratio (SSR) by country averaged for the period 1992–1996 based on cereals and starchy roots data from FAOSTAT's food balance sheet data. (Middle) SSR by country averaged for the period 2005–2009. (Bottom) changes in mean SSR between the periods 2005–2009 and 1992–1996.

Wealthy countries will also be better off than the average nation as they will be able to buy food at the extreme prices of the global market if existent, or invest in expensive urban farming. On the other hand, LDC's (Least Developed Countries) are in for an extreme situation.

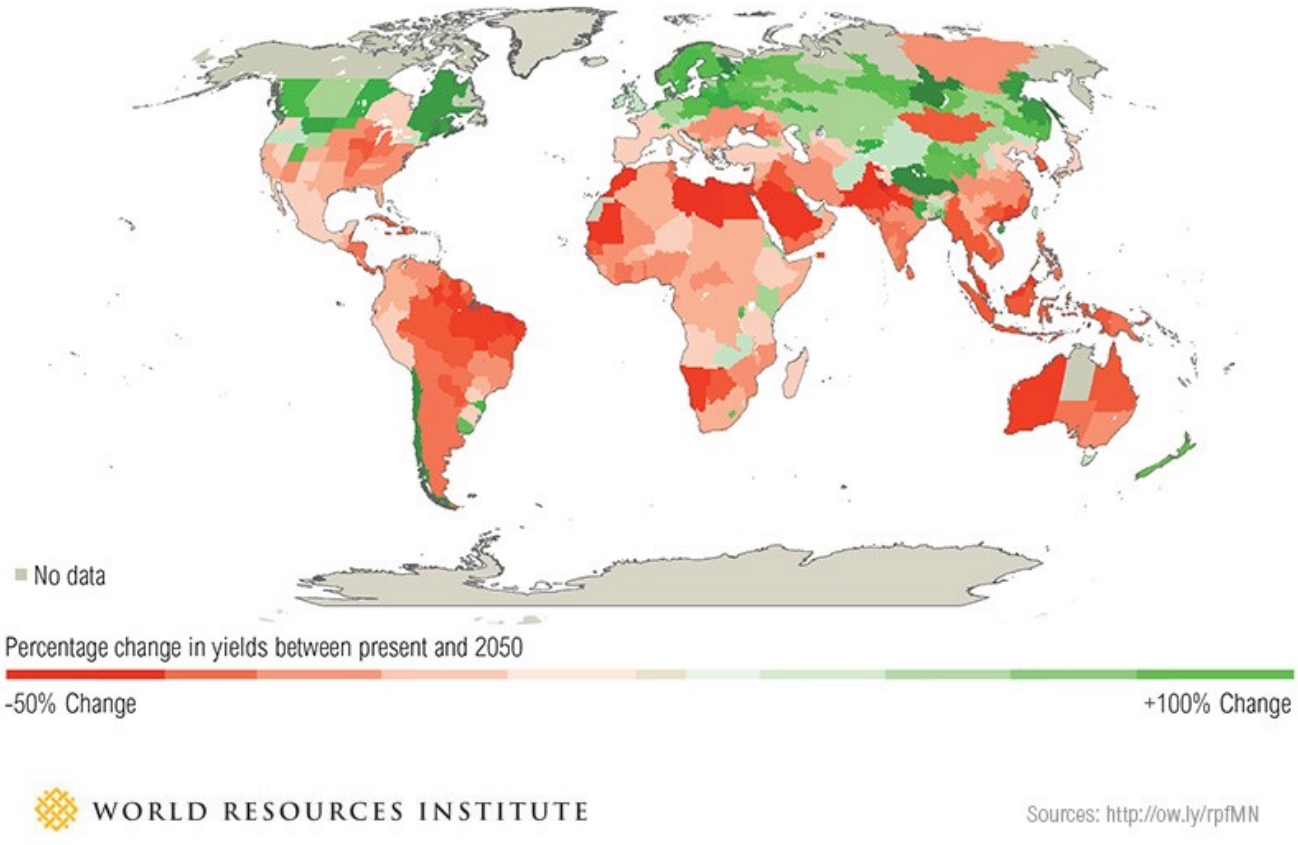



With just a small drop in total food supply, many poorer nations will see their caloric intake drop by over 50% due to the dynamics of the system. This will result in level of hunger far in excess of what is needed to create social instability.

Nations with a deep internal variation of nutrition and caloric intake will see the divides exacerbated, likely resulting in extreme tensions.




Climate Change will further drive the gap between have and have not nations. Europe, North America, and Russia will affected but remain sufficient. The rest of world will not. Western China will see some increase in precipitation but the rise in yields will not offset the loss of its most productive regions. Africa, the Middle East and the Pacific Rim will be left in an untenable position.




The refugee crisis that this will create, if the scenario comes to pass, will dwarf any in history. Using Syria and other failed states as a base we can estimate that at least 10–30% of these regions populations will attempt to move to greener pastures. Many of the nations that they would be attempting to enter would be less than welcoming on two fronts. First, it is questionable if the "have" nations will have the resources to absorb the populations ignoring political concerns, second given the current reaction to refugees and migrants in times of plenty and generationally low unemployment, one wonders how welcoming people will be when the receiving nation is on the brink.

Nation states will not just have to worry about their own borders as the food situation deteriorates. India is already running out of water in several cities. What will happen in the Kashmir when the shoe drops? When speaking about Climate Change many miss entirely the threat of global war, and advocate reducing defense spending in coming years to help reduce emissions. To do so would be a miscalculation of epic proportions. Russia must be on guard against Chinese designs on Siberia, as a Chinese invasion of steppe would guarantee their food supply. MAD will not apply when the alternative is national starvation, nations will have nothing to lose through escalation.

North America must be wary of the coming refugee crisis, and the EU must remake its asylum laws sooner rather than later in order to prevent chaos. Policy must be decided now to give time to prepare defenses and stockpiles. Would the United States help Russia in the case

of Chinese aggression? These are questions that must be answered and made into law. These are not questions for tomorrow, they are questions for today.

Climate Change is the greatest threat that human civilization has ever faced. If even the moderate scenarios play out the way they are currently projected, there is not yet a single nation that is prepared. Nations continue to talk but take little action, the United States is making the same policy errors in California growing alfalfa that Syria did in growing wheat and cotton. As nations around the world continue to fail to meet emissions targets, governments that are able should add proactive defense and resilience programs to their current climate change policy. Failure to do so will ensure a stressed future.

Image Sources:

Assessing the evolving fragility of the global food system
Michael J Puma1,5, Satyajit Bose2, So Young Chon3 and Benjamin I Cook4

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