

# FOOD RESERVES, CLIMATE ADAPTATION AND THE WORLD TRADE ORGANIZATION

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At the global climate talks in Bonn, Germany last month, countries agreed for the first time on an agriculture work program designed to identify the best strategies to respond to climate change and protect food security. Nearly 80 percent of countries included agriculture in their Intended Nationally Determined Contributions (INDCs) as part of the Paris Climate Agreement. National strategies are crucial but cannot work in isolation; food systems cross borders, where they are governed by international trade and investment regulations, especially the rules of the World Trade Organization (WTO). It is long past time for a dedicated effort to reconcile trade and climate policies, not least in agriculture which simultaneously is one of the major sources of greenhouse gas emissions and one of the sectors most vulnerable to climate change.

If the links are many, new, and unusually complex, there are nonetheless tried and tested tools that can be put to work to this end. Prominent among those tools are public food stocks. Food stocks tick a lot of boxes: 1.) The treatment of stocks is already the topic of heated trade negotiations and overdue for resolution at the WTO. 2.) Public stocks are widely understood to provide a useful buffer against volatile prices and sometimes constrained supply in international markets. Countries as varied as Switzerland and Senegal make use of them. 3.) Climate-related risks are as old as agriculture (while climate change raises that risk to new levels of unpredictability), concentrating the most extreme effects in a band

around the equator that includes many of the world's poorest, and most agriculture-dependent, countries.

The WTO members headed to Buenos Aires for the WTO's 11th Ministerial Conference have the chance to make a difference—indeed, they committed themselves four years ago to finalizing a trade agreement on public food stocks by the end of 2017, though there is little sign from the preparations for the conference that an agreement is imminent. This is a missed opportunity. Countries should support efforts at the WTO to clarify the rules that support the establishment and sound management of food reserves, not least as a climate adaptation strategy for food security.

## THE URGENCY FOR CLIMATE ADAPTATION

The FAO recently announced that the number of people living with food insecurity in the world has risen for the first time in a decade and that climate change has played a role in that spike, particularly in the drought that has plagued parts of Africa. The IPCC estimates that climate change could increase the number of people facing hunger and malnutrition by 20 percent by 2050. Increasingly, food insecure countries, particularly in Africa, are becoming more food import dependent according to UNCTAD, making them more dependent on international markets. On the one hand, international trade increases the



Institute for  
Agriculture &  
Trade Policy

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potential food supply available to these countries and mitigates the risks of a poor domestic harvest or inadequate domestic storage and distribution systems. On the other hand, as the food price spikes of 2007-2008 and in several subsequent years exposed, a dependence on international trade without buffer stocks also leaves the poorest countries vulnerable to their inadequate purchasing power if anything disrupts international supplies. Public stocks can work with trade to protect poor consumers and poor producers from the disruption that high levels of price volatility, including from increased climate disruptions.

There is little question that climate change is already affecting global food production and food security, and that the effects will only grow in the years ahead. Consider these magnifiers: 1.) Climate change affects production by disrupting the timing and intensity of rainfall, wind patterns and storm activity; 2.) This disruption is expected to be greatest in some of the world's most impoverished regions, particularly in the countries that sit around the equator; 3.) The disruption of food production exacerbates the inherently volatile nature of commodity markets; and 4.) Climate change coincides with other disrupters of agricultural production, including actual and anticipated crises related to the depletion of freshwater, oil, and soil fertility.

In this context, climate change negotiators need to be talking to their counterparts in the world of food and agriculture—not just agriculture ministries, but also ministries of trade, health, rural development and, where they exist, ministries of food. Where governments are also donors, they need to talk to all the agencies involved in investing in agriculture as well. Agricultural investments that ignore climate change, whether domestic or abroad, are a waste of money and could exacerbate the climate crisis (agriculture is responsible for between 19 and 29 percent of global greenhouse gas emissions). Climate change policies and projects that do not understand the economic challenges of food and agriculture are unlikely to thrive, nor to be of much interest to food producers.

The implications for agriculture are consistently sobering, not to say alarming, even allowing for the uncertainty that inevitably accompanies numbers generated from models and probabilities. An article from *Environmental Research Letters* by Wolfram Schlenker, a professor at Columbia, and David Lobell from Stanford, suggests climate change will cause medium-term production drops in sub-Saharan Africa of, on average, 22 percent for maize (corn), 17 percent for sorghum, 17 percent

for millet, 18 percent for groundnuts and 8 percent for cassava. These crops are all vital to the region's food security, as a source of both food and income.

Such numbers in any context would demand urgent attention. But in the context of sub-Saharan Africa, where agriculture in some countries is upwards of 40 percent of GDP, the implications are very serious indeed. Agriculture accounts for 80 percent of employment in some of these countries, leaving most of the population either directly or indirectly dependent on agriculture for their survival.

This is how analysts at the World Food Program summarized the situation in a background paper written for the FAO's Committee on Food Security: By 2050 the risk of hunger is expected to increase by 10 to 20 percent while the number of malnourished children is expected to increase by 21 percent (or 24 million children) more than without climate change.

## FOOD RESERVES HELP STABILIZE SUPPLY

Given the challenges posed to food security by climate change, food reserves make a lot of sense. Food reserves are a public insurance policy in the face of uncertainty, when the risks of failure include starvation. Governments can use a reserves policy to invest in storage and transportation infrastructure; to work with the private sector to cover gaps and market failures; to provide farmers with more stable markets, which encourage investment in productivity and food processing; and to increase market transparency to discourage hoarding and speculation, both of which destabilize prices and exacerbate hunger.

Confronted with the reality of climate change, governments must take a smarter approach towards managing our food supply. Food reserves have an impressive pedigree. For thousands of years, households and governments have stored some of each harvest as an insurance against the uncertainties of the next. Food reserves respond to inherent characteristics of agriculture, particularly the presence of relatively constant, inelastic demand (especially in the poorest countries) coupled with much more variable short-term supply. Unregulated agricultural markets tend to over-react to price changes, leading to an underlying pattern of many years of declining prices when a price spike prompts an expansion in production, interrupted by short, sharp, upward price

spikes when the neglect of agriculture in the face of depressed prices culminates in supply shortfalls in an adverse season. Food reserves are proven insurance against these unwanted consequences of unstable agricultural markets.

There are many models to choose from—indeed, most governments have some form of reserve in place—though most have been scaled back considerably since the days when food reserves were the norm. In the past, some of the major exporting countries (notably Canada and the U.S., in the case of wheat) held reserves that effectively both established a price floor for their growers and gave wheat importers confidence that the grain supply was safe, even if one year’s harvest was poor.

In other cases, national governments have operated domestic-focused reserves. Many such national reserves in sub-Saharan Africa were troubled by inadequate financing and mismanagement. Even those that worked relatively well were dismantled over the 1990s, not least because they did not fit with the model of economic liberalization that dominated donor thinking at the time. But there are compelling reasons to consider their re-establishment given the importance of food security, the destabilizing effect of climate change on agricultural production, and the failure of purely market-based approaches to protect an adequate and appropriate food supply and distribution. Countries can learn from their experiences in establishing independent and accountable central banks, which in the past were similarly crippled by poor governance and a lack of accountability. They can also benefit from the dramatic changes in information technology, communications, and transportation to build reserves that are smaller, more flexible, and more responsive to changes in market conditions.

After the last food price crisis in 2007-08, governments and civil society networks engaged in food policy began to reconsider grain reserves. Reserves were referenced in the 2009 L’Aquila G-8 declaration, and then the U.N.-led Comprehensive Framework for Action on the Global Food Crisis. In March 2010, Brazil, Russia, India and China (the BRIC nations) agreed to support the establishment of a system of national grain reserves. The Association of South East Asian Nations (ASEAN) (plus S. Korea, Japan and China) has established an Emergency Rice Reserve. UNCTAD reports that the Economic Community of West African States has begun construction of a regional food security reserve managed by the Regional Agency for Agriculture and Food, based in Lomé, Togo.

Similar reserves also exist in other countries, including Egypt and Ethiopia.

The discussion on agriculture in the context of climate change is relatively new and still not well developed. The focus has been almost entirely on what happens in the field, and how to minimize the practices that are most closely associated with greenhouse gas emissions. But climate change is not just about mitigation—with the effects already making themselves felt, it must be about adaptation as well. Food reserves are an important policy tool for governments facing the adaptation challenges ahead.

## A WTO DECISION ON PUBLIC STOCKHOLDING IS NEEDED

How and whether to revise rules under the WTO’s Agreement on Agriculture for public stockholding has been contentious since the negotiations that led to the December 2013 WTO Ministerial in Bali. Prior to that Ministerial, the G-33 (a group of developing countries that are primarily focused on policies for food importing countries that want to protect and promote domestic food production as well) proposed that the rules be clarified to ensure developing countries be exempt from WTO spending limits when purchasing food for public stocks. The current rules allow such purchases so long as any difference between the price paid by government and the “external reference price” (an open market price) is counted in the restricted spending. The problems with the wording of the text include the difficulty in some contexts of establishing what a meaningful external reference price is; the WTO’s decision to assume that any purchase of food at an administered price that is higher than the reference price should be assumed to be a subsidy for all production (making the subsidy calculation appear much more significant than it likely is in practice); and, the failure of the WTO rules to either update its baselines for counting support (from 1986-1988) or to allow for inflation, which, especially in the fast-growing developing countries, has been significant over the last 20 years. (Inflation has generally been markedly lower in OECD countries).

As the Bali Ministerial approached, India emerged from the G33 with its own, more specific, proposal, pushing for greater freedom to use stocks, in support of its government program to improve food security by buying more rice and wheat from Indian farmers. The concern raised

by other countries, including neighbor Pakistan, was how India proposed to deal with unused stocks. The anxiety was that the sale of stocks on international markets would depress prices for other growers, especially if the export price did not match the price paid to farmers.

But the strongest opposition came from the U.S. government. The Obama Administration opposed a permanent change to the rules that would relax constraints on public stockholding (a position that was opposed by many U.S. food and agriculture groups at the time). The U.S. government position eventually led to an agreement to allow existing programs to continue until the WTO finalized new rules. (The compromise was referred to as a Peace Clause). Negotiations have not advanced since 2013, despite the commitment to find a permanent solution before now.

The promised permanent solution to the stockholding problem is important. It should apply to all developing and least developed country members, not just those with stockholding programs that need to be grandfathered in. Safeguards are needed to ensure that public stocks aren't dumped on international markets, where they could undermine farmers and food production in other countries. The baseline reference prices need to be updated, and a way to account for inflation needs to be developed. A permanent solution would provide legal certainty, mitigate price instability, and support governments' efforts to address climate change.

## ALIGNMENT ON CLIMATE, FOOD SECURITY AND TRADE

In Bonn, countries were vocal on the connection between the 2030 Sustainable Development Goals and the importance more climate resilient agricultural and food systems. As the International Fund for Agricultural Development pointed out in Bonn, "Investing in climate resilient agriculture thus responds to the challenge of the Sustainable Development Goals," not only in terms of climate action (SDG13), but also supporting the goals to end poverty (SDG1) and hunger (SDG2), empower women to better manage natural resources (SDG5), enable climate-proofing of key rural infrastructure (SDG 9), and promote sustainable production and reduce food loss (SDG12).

Governments agreed in Bonn to set up a technical scientific body in recognition of the critical importance of agriculture and food security to addressing climate

change. WTO rules need to support, not hinder, these efforts. Setting permanent rules that support governments wanting to establish food reserves and other public stockholding programs to strengthen food security in this age of climate change would be a major step forward in building confidence that the WTO has an important role to play in meeting the social and environmental challenges ahead.

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