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Surplus Over Sustainability
The Effect of U.S. Agricultural Policy on Foreign Trade with Mexico

Executive Summary

United States agricultural policy has created a food system crisis in Mexico. From the first experiments of the Green Revolution to free trade policies under NAFTA, this paper explores the policies that have created import dependence in Mexico, to disastrous effect for Mexican and American producers and consumers. This paper also explores the ways that the US can lead the charge in creating equitable food systems that prioritize sustainability over surplus.

Introduction: Mexico's Foundational Crop

In Native Mexican tradition, the people of Latin America are known as the "children of the corn." Corn, or maize, has represented a staple, a symbol, and a commodity of utmost importance to Latin America for as long as crops have been cultivated there. Today, however, Mexico is heavily dependent on imported corn from one hegemonic producer: the United States. Although rural Meixco contains hundreds of thousands of small farms that could support self-sufficient corn production, decades of US influence and policy have displaced these family and "smallholder" farms in favor of monopolistic Mexican producers and American imports.[1] American development projects of the 1950s sparked the world's first Green Revolution, although they are more often remembered for abandoning rural development goals to support the profits of commercial farmers through synthetic seeds.[2] In the 1990s, the North American Free Trade Act (NAFTA), negotiated by the US to facilitate free trade with Mexico and Canada, created an influx of staple crops so great that most commercial farms abandoned corn in favor of highly profitable crops which represented a small percentage of the local population's calorie intake.[3] Small-scale farming has not been profitable in Mexico since NAFTA and most rural

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[1] Foreign Agricultural Service, *Mexico: Corn Production* in *International Production Assessment Division Country Summary Mexico*, (Washington DC: USDA, 2024).
[2] Jonathan Harwood, "Whatever happened to the Mexican Green Revolution?", *Agroecology and Sustainable Food Systems* 44, no. 9 (2020): 1243-1252. DOI: 10.1080/21683565.2020.1752350.
[3] Gonzalo Fanjul and Arabella Fraser, *Dumping Without Borders: How US agricultural policies are destroying the livelihoods of Mexican corn farmers* (Washington DC: Oxfam, 2003).

households struggle to afford a healthy diet. Many experts now tie Mexico's economic stagnation and accompanying social problems to chronic import dependence.[4]

This policy brief discusses the effect of US foreign policy and industrial agriculture on its trade partners through the example of corn exports to Mexico. Such relationships reveal a broken American food system and common goals among stakeholders, prompting several policy recommendations ranging from decentralization of domestic agriculture to equitable farm subsidies and World Trade Organization (WTO) reform.

Commercial Farming: The Rockefeller Foundation in Mexico

In the 1930s, President Lázaro Cárdenas launched a land redistribution campaign in Mexico that created ejidos: state-owned plots of land that were communally farmed. However, grants of land were not accompanied by the credit, irrigation, or machinery that farmers required to support themselves. During WWII, Mexico's "good neighbor", the United States, agreed to supply Mexican farmers with machinery in return for strategic crops that could not be grown in the US. As a result, Mexican federal land was overwhelmingly devoted to the production of guayule rubber and castor bean exports, exacerbating shortages of staple crops such as corn. By 1945, Mexico was importing 15 to 20% of its maize and wheat, much of it from the US.[5]

It was in this context that the Rockefeller Foundation first approached Mexico's agriculture secretary with an enticing proposal. The foundation sought to establish the "Mexican Agricultural Program" (MAP), a research and development program with the ultimate goal of raising the productivity of essential food crops, primarily corn and beans.[6] After its establishment in 1943, MAP's maize-breeding program demonstrated an impressive commitment toward smallholder farmers.[7] For a moment on the brink of the Green Revolution, it looked as though a partnership between American and Mexican scientists might provide a solution to feeding a growing and impoverished rural population.

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[4] Mark Weisbrot et al, *Did NAFTA Help Mexico?* (Washington DC: Center for Economic and Policy Research, 2017).

[5] Harwood, "Whatever happened to the Mexican Green Revolution?", 1245.

[6] Tore C. Olsson, "Green Revolutions: US Regionalism and the Mexican Agricultural Program," In *Agrarian Crossings: Reformers and the Remaking of the US and Mexican Countryside*, 129–58. Princeton University Press, 2017. https://doi.org/10.2307/j.ctt1vwmgrq.10.

[7] Olsson, "Green Revolutions: US Regionalism and the Mexican Agricultural Program", 145.

However, in 1947 history took a different course. When President Miguel Alemán came into office, he created a competing agricultural commission tasked with cross-breeding a high-yield corn variety opposite MAP. The Rockefeller Foundation was instructed to shift its focus toward wheat, a crop consumed by a small minority of urban elites and primarily grown by larger commercial farmers in northern regions of the country. The Mexican government sought to shift American funding away from maize as a source of nutrition, and toward wheat as a source of profit and surplus. The project was relocated from the ejido farms in Central Mexico to the state of Sonora for the explicit purpose of partnering with commercial farmers.[8] This shift marked the beginning of the end for agricultural self-sufficiency in Mexico.

In the end, the project did succeed in increasing corn production by a factor of three and wheat production by ten. However, the American foundation had set out to achieve much more than increased agricultural production– they had promised an end to rural poverty and a living for smallholder farmers.[9] Instead, the rewards of the MAP project were concentrated in commercial agribusiness. 1% of farms represented 80% of the total increase in food production while innovation overlooked the vast majority of subsistence farms.[10] By 1967, both MAP leadership and Mexican critics were beginning to identify an emerging food crisis created by the commercialization of Mexico's corn production.

Import Dependence: NAFTA and Agricultural Dumping

During the 1970s-2000s, the new liberal economic order cemented Mexican dependence on US imports. In 1994, the North Atlantic Free Trade Agreement (NAFTA) opened up Mexican markets to US goods, including corn. The agreement liberalized most of Mexico's agricultural sectors, encouraging the newly powerful commercial farms to move out of unprofitable staple crops and into export crops like fruit and vegetables.[11] Such a shift was the last straw for Mexico's sovereign food system. Even though commercial farms were no longer producing for local consumers, government policies continued to prioritize their support over support for smallholder farmers. 13 percent of farms produced nearly 60 percent of farm output– mostly fresh produce for export and feed crops for livestock to meet the growing urban demand for

[8] Olsson, "Green Revolutions: US Regionalism and the Mexican Agricultural Program", 152.
[9] Harwood, "Whatever happened to the Mexican Green Revolution?", 1245.
[10] Harwood, "Whatever happened to the Mexican Green Revolution?", 1246.
[11] Fanjul and Fraser, *Dumping Without Borders,* 15.

meat. Meanwhile, half of the farms did not even make subsistence income.[12] To make up for low domestic production, US corn imports to Mexico increased threefold. Today, imported corn from the US accounts for almost 40% of the domestic market.[13]

North of the border, US agricultural policy was ensuring the displacement of Mexican-produced staples by creating conditions of chronic overproduction. Starting in the Great Depression, when producers were suffering from oversupply due to record low demand, farm bills have helped to support American agricultural producers and consumers. The 1996 Farm Bill, however, represented a complete reversal of 20th-century agricultural policy. Instead of controlling the natural tendency toward overproduction in industrial agriculture, contemporary policy creates subsidies and credits that *encourage* surplus as a part of the food system.[14] Chronic overproduction of staple crops (producing more wheat, soy, and corn than the American people consume) has led to a phenomenon known as "agricultural dumping", where crops are exported at a price lower than production cost. Except for a period from 2007-2013, the U.S. has been exporting corn to Mexico at a deficit to production costs since 1990.[15] Corn imported at artificially cheap prices makes business impossible for the small-scale corn producers who remain and restricts Mexican commercial producers from meaningful competition in global markets.

Effects on Health and Livelihood

Mexico's 2019-2024 National Development Plan identifies food self-sufficiency as a fundamental challenge, recognizing the dramatic effect that import dependence has had on its economy and public health.[16, 17] Mexican corn farmers lost an estimated $3.8 billion to US

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[12] Kirsten Appendini, "Tracing the Maize-Tortilla Chain," United Nations Chronicle, June 27, 2013. https://www.un.org/en/chronicle/article/tracing-maize-tortilla-chain (accessed December 1, 2023).
[13] Krista Swanson, *Mexico: An Important Trade Destination for U.S. Corn* (Chesterfield: National Corn Growers Association, 2023).

[14] Timothy Wise, *Swimming against the tide* (Minneapolis: Institute for Agricultural and Trade Policy, 2023) 15.
[15] Wise, *Swimming against the tide,* 7.
[16] State of Mexico, *2019-2024 National Development Plan* (Cuauhtémoc: Federal Official Gazette, 2019).
[17] Timothy Wise, "Stop cheapening Mexico's white and native corn," Institute for Agricultural and Trade Policy, September 28, 2023. https://www.iatp.org/stop-cheapening-mexicos-white-native-corn (accessed December 1, 2023).

agricultural dumping from 2014 to 2020.[18] At an average dumping margin of 10%, imported corn sells for 10% less in Mexico than it otherwise would in US markets.[19] Furthermore, Mexico lost over 2.3 million jobs in agriculture during the first fifteen years of NAFTA.[20] According to the Center for Economic and Policy Research, if Mexico had returned to its pre-liberalization growth rate, Mexico today would be a high-income country, "with income per person significantly higher than that of Portugal or Greece."[21] With policies that supported the rural poor and equitable income growth, mass migration across the US border may not have ballooned into a contentious social issue.

Import dependence is also fueling a growing public health crisis. Despite promises from the US government and the International Monetary Fund that free trade policies under NAFTA would guarantee affordable prices to Mexican consumers, the price of corn and tortillas rose from 1995 to 2000.[22] (Some economists believe this was a result of American corporations such as Cargill selling to Mexican firms such as Grumasa, who mark up prices to consumers). Combined with low household incomes, high prices have led to food insecurity and a taste for low-cost foods high in calories and fat. A 2022 study found a positive association between exposure to U.S. imports in Mexico and the prevalence of obesity,[23] likely because American subsidies on wheat, soy, and corn (the ingredients that make up most junk food) make them the most affordable products available to consumers. On average, US-imported products make up 8% of household spending. As a result, Mexico now ranks among the top thirty most obese countries in the world.[24]

Ending Inefficiency and Overproduction in the Americas

The effects of agricultural dumping can be viewed as symptomatic of a broader system that has served American consumers just as poorly as it has Mexican consumers. As geographer

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[18] Wise, *Swimming against the tide,* 8.
[19] Wise, *Swimming against the tide,* 7.
[20] Jean-Baptiste Velut. "NAFTA's Developmental Impact on Mexico: Assessment and prospects," *IdeAs,* 1 (2011). DOI: 10.4000/ideas.71.
[21] Weisbrot et al, *Did NAFTA Help Mexico?* 8.
[22] Martha Menchaca, "Agricultural Workers and the Effects of NAFTA: Uncivil Government Mentalities" (NACCS Annual Conference Proceedings, San Jose State University, April 17, 2015) 7.
[23] Osea Giuntella, Matthias Rieger, and Lorenzo Rotunno. *Weight Gains from Trade in Foods: Evidence from Mexico*. (Cambridge, Mass: National Bureau of Economic Research, 2018).
[24] Giuntella et al, *Weight Gains from Trade in Foods: Evidence from Mexico,* 4.

Carl O. Sauer advised the Rockefeller Foundation in the planning stages of the Mexican Agricultural Program, "agriculture cannot be pointed toward standardization on a few commercial types without upsetting native economy and culture hopelessly. The example of Iowa is about the most dangerous of all for Mexico."[25]

American policy and farm subsidies have been specifically designed to generate a surplus of crops for export through highly consolidated and commercialized farming– a reality that has not only injured foreign markets through agricultural dumping, but left small US producers struggling to compete. Government support for producers of wheat, soy, and corn has stocked America's shelves with processed and low-nutritional foods, increasingly attractive to households burdened with rising grocery bills. Mexican commercial farmers, Mexican and American consumers, and Mexican and American small-scale farmers are all losers under this system. The sole winners are a handful of agricultural corporations, such as Cargill and Archer Daniels Midland, which produce 70 percent of all of the US's corn exports.[26]

Some have called for total elimination of intensive agriculture in favor of a system based on resilient local food supply chains.[27] Such a model would be based on economic viability for small-scale producers, which studies show yield just as much per acre as large-scale farms.[28] The local food movement also sees such a model as ending dependence on synthetic fertilizers and non-renewable energy, meeting local and regional demand, and recycling compost to create healthy soil. Such a system would allow our food system to adapt to crises such as COVID-19 more effectively and be resistant to the effects of climate change. More importantly to global markets, a decentralized and deindustrialized food system would limit overproduction by allowing prices to reflect the cost of production.

Short of radical change, however, there are incremental steps that can be taken to ensure that American overproduction does not influence foreign markets as it has in Mexico. The US can start by rolling back subsidies that fund export surpluses at the expense of healthy food for Americans. The most recent farm bill, passed in 2018, looks no different from its 1996 ancestor. Its policies dedicated an extra 16 billion dollars of agricultural subsidies between 2016 and 2019

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[25] Olsson, "Green Revolutions: US Regionalism and the Mexican Agricultural Program," 129.
[26] Gonzalo Fanjul and Arabella Fraser, *Dumping Without Borders*, 13.
[27] Ben Hewitt, *The Town That Food Saved: How One Community Found Vitality in Local Food* (Emmaus: Rodale Books, 2011).
[28] Nigel Key, "Farm Size and Productivity Growth in the United States Corn Belt," *Food Policy* 84 (2019): 186–95. https://doi.org/10.1016/j.foodpol.2018.03.017.

and increased the share of subsidies that went to the top 1 percent of farms from 17% to almost a quarter of total funding.

American policymakers can be held accountable to reform by ensuring that government support is accurately reflected in WTO subsidy restrictions. Currently, the WTO's free trade regulations do not restrict many domestic supports contained in the "Green Box", such as direct payments to farmers and government service programs, provided that these programs do not have trade-distorting effects or effects on production.[29] However, the reality is that these programs do have trade-distorting effects. There is no better evidence than the history of Mexico's domestic corn production. It is difficult for developing countries that suffer the brunt of these effects to fund investigations into their national outcomes and seek redress from actors like the US. Currently the WTO's "Amber Box" even allows domestic support policies which are known to disport trade under the pretext that developed countries are restricted in their use. Green and Amber Box exceptions were claimed to be implemented to allow governments to control food prices for the urban and rural poor.[30] However, in the US, the EU, and other developed economies, subsidies consistently favor a small number of powerful producers. The WTO must eliminate such allowances and require that states be held equally accountable for their trade-distorting practices.

Considering the Future

Mexico illustrates the devastating impact of policies that promote excess and inequality in our food systems. Observing trends of malnutrition and economic hardship from the past 20 years, policymakers must consider the burden that 20 more years of commercial subsidies could have on health and livelihoods. After playing a primary role in creating the crisis, it is time for the US to take a primary role in reversing it. Ensuring food sovereignty for Mexico not only means a more peaceful and prosperous future for Mexicans, but a happier and healthier one for Americans as well.

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[29] World Trade Organization, "The Uruguay Round reform programme for trade in agriculture," World Trade Organization, n.d. https://www.wto.org/english/tratop_e/agric_e/ag_intro00_contents_e.htm (accessed December 1, 2023).

[30] World Trade Organization, "The Uruguay Round reform programme for trade in agriculture."

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