

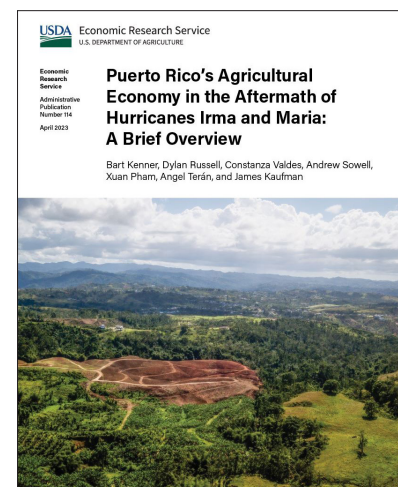


# Puerto Rico's Agricultural Economy in the Aftermath of Hurricanes Irma and Maria: A Brief Overview

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## What Is the Issue?

Relative to its other economic sectors, the agricultural sector of Puerto Rico—a U.S. territory—is comparatively small, making up only a fraction of 1 percent of the island's gross domestic product (GDP) in 2020. In the past, Puerto Rico's agricultural industry had more economic significance, surpassing 40 percent of the island's GDP in the mid-1930s. A limited amount of Puerto Rico's agricultural production is exported, with the European Union (EU) and Canada receiving the most exports. Since the early 2000s, the agricultural sector has received boosts from policy initiatives to decrease the island's reliance on food imports. Even with incentives to increase production, agriculture generally provides a small share of farm household income, and few Puerto Rican households are fully reliant on farming. In September 2017, Hurricanes Irma and Maria caused major disruptions, destroying Puerto Rico's agricultural harvest and infrastructure, with long-lasting effects on the makeup of its agricultural sector. This report examines the resulting changes in Puerto Rico's agricultural sector between 2012 and 2018, based on statistics collected under the 2017 *Census of Agriculture, Puerto Rico (2018)*.



## What Did the Study Find?

Puerto Rico's agricultural sector is adjusting to the devastation left by Hurricanes Irma and Maria in 2017 through production and business decisions consistent with the options and resources available to individuals and firms, including Government support.

Hurricane damages are reflected in the difference between 2012 and 2018 agricultural census data:

- Between 2012 and 2018, total farm sales fell \$170 million (26 percent), from \$655 million to \$485 million (adjusted for inflation), with large declines in bananas, coconuts and other fruits, coffee, and poultry.
- Crop sales decreased by \$82 million, falling in 8 of the 10 commodity groups for which crop sales are recorded.

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

- Poultry and poultry products suffered the greatest percentage decline in sales among livestock, poultry, and animal products (58 percent). The inflation-adjusted dollar value of reduced sales in poultry and poultry products was \$28 million.
- Sales of milk and other dairy products declined 24 percent to \$54 million (adjusted for inflation).
- Despite the decline in sales, net cash farm income increased from \$15 million in 2012 to \$21 million in 2018. However, much of the gain was due to increased Federal Government payments for participation in farm programs. Payments more than doubled, from \$42 million in 2012 to \$86 million in 2018.

Overall, between agricultural census years 2012 and 2018, the number of farms declined by 37.5 percent and acreage under cultivation by 16.6 percent, a loss of 4,929 farms and 97,213 acres. The losses were particularly felt by smaller farms of less than 10 acres, whose numbers decreased by more than half.

Agricultural exports were also affected. Traditionally, the bulk of Puerto Rico's agricultural exports are concentrated in a small group of high-value products. The most significant include food preparations, distilled spirits, and essential oils.

- Agricultural and related exports dropped in value from a high of \$352 million in 2016 to just \$191 million in 2020.
- The largest destination markets have been the European Union and Canada. The value of exports to Canada fell by 60 percent from 2011–20, while shipments to the European Union (EU-27) rose 66 percent.
- Tobacco exports, which had accounted for more than 85 percent of bulk exports fell by 99 percent from 2017 to 2018 and remained low in the years since.
- Exports of processed fruit nearly doubled (up 98 percent) from 2011–20.

Among more resilient crops, coffee farming has remained a dominant land use and an important source of economic activity for thousands of farmers in the central highlands of the island, providing employment to thousands of hired workers.

- Despite hurricane damage, coffee cultivation continued partly because it is mostly grown in the center of the island and was relatively less affected by the hurricanes. More important, however, is its transformation from shade-grown cultivation to sun-grown coffee.

Medium-sized farms accounted for the bulk of total coffee sales (41 percent) in 2018, while small-farm share of the value of coffee sales was 35 percent—up from 14 percent in the early 1980s.

## **How Was the Study Conducted?**

The primary source of detailed agricultural production data in Puerto Rico is the U.S. Department of Agriculture, National Agricultural Statistics Service (NASS), Census of Agriculture, conducted every 5 years. The Puerto Rico Department of Agriculture and NASS collect survey data directly from farmers. At the time this analysis was conducted, the most recent census data available was taken in 2018, delayed a year because of hurricane disruptions in 2017. Trade data for Puerto Rico was collected from the U.S. Department of Commerce, Bureau of the Census' State Data Series. Vital information providing historical and regional context was provided by members of Puerto Rico's Government and academic and private research institutions.