



**Foreign Agricultural Service**

Global Market Analysis

International Production Assessment Division

Web: <https://ipad.fas.usda.gov>

**August 21, 2020**

# Commodity Intelligence Report

## **CUBA RICE PRODUCTION EXPECTING LARGE DECREASES IN 2020**

USDA estimates Cuba's rice production for 2020/21 at 260,000 metric tons (MT) (milled basis), up 5 percent from last year, but down 41 percent from a recent high of 437,000 MT in 2013/14. Harvested area is forecast at 115,000 hectares (ha), up 8 percent from last year, but down 42 percent from the 198,000 ha in 2013/14. Yield is forecast at 3.48 metric tons per hectare (MT/ha), down 3 percent from last year and 4 percent from the 5-year average, and down 7 percent from a record yield of 3.73 MT/ha in 2015/16.

Cuba's main rice crop is planted in March through early July and harvested in late July through December. A smaller, second crop is planted in December through February and harvested from May through August. The primary rice-producing regions are in the provinces of Granma, Sancti Spíritus, Camagüey, Villa Clara, and Pinar del Río (see Figure 1).

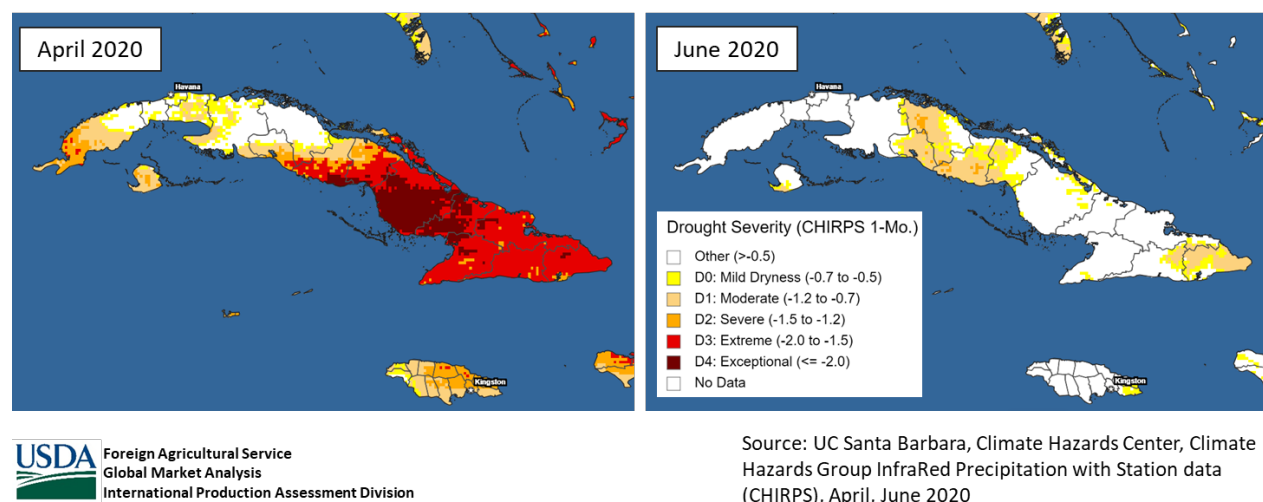
Official reports from Cuba indicate concern over a myriad of factors that have coalesced to create a difficult situation for Cuban agriculture, hampering rice production in 2020. The Ministry of Agriculture (MINAG) announced in May that due to limited supplies of fuel, fertilizers, and pesticides, planted area of the winter rice crop was below previous estimates by 22,000 ha; and the planned annual rice production of 190,000 MT was revised sharply downward to 80,000 MT (which would have represented only 11 percent of annual domestic consumption). Nationwide fuel shortages of up to 40 percent had been reported, leading the Cuban government to promote the use of animal traction in agricultural production, where possible.

MINAG, however, has more recently revised its milled rice production estimates to 162,000 MT due to an increase in planted area for the spring season. This represents a substantial increase over their May estimate, though it remains well below the current USDA production estimate. Concerns over agricultural input shortages are well-founded. However, at this stage in Cuba's rice cycle, and with improved weather conditions in late spring, USDA expects the rice yield and corresponding production to be consistent with recent trends.

MINAG has reported that the drought conditions over the winter and early spring have eased and will have less effect on production than more persistent droughts in previous years. Changes to the Drought Severity Index (see Figure 2) and satellite-derived Normalized Difference Vegetation Index (NDVI) analysis confirms this. Figure 3

highlights the alleviation of drought that occurred with early-May 2020 rainfall, while Figure 4 provides a field-level example of the greenup that occurred with these rains in a rice producing area near Río Cauto in southeast Cuba. The Landsat-8 satellite-derived NDVI analysis shows individual fields, both irrigated and non-irrigated.

### 1-Month Drought Severity in Cuba, Spring 2020



**Figure 2. Drought conditions in the Spring of 2020 have been alleviated by early-May rains.**  
Source: UCSB CHIRPS.

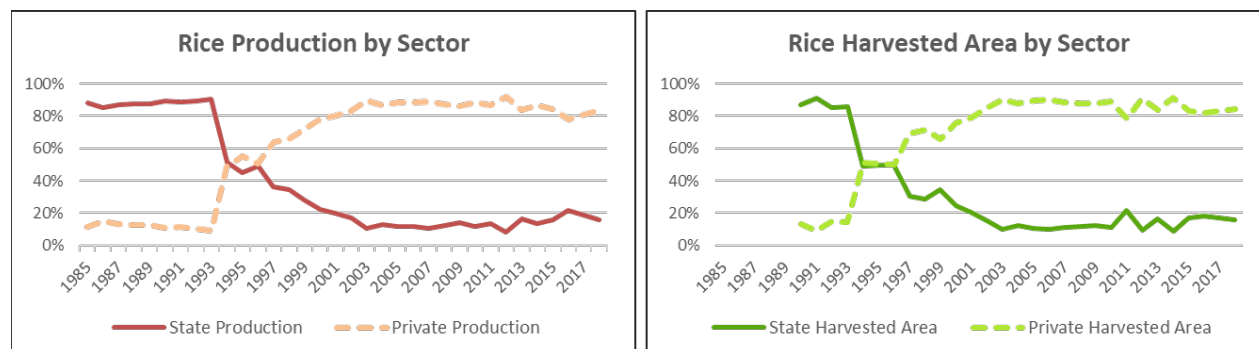
Efforts to become more self-sufficient have marked significant changes to Cuban agriculture since the fall of the Soviet Union. Beginning in 1991 following the dissolution of the USSR, Cuba could no longer rely upon the Council for Mutual Economic Assistance (Comecon<sup>1</sup>, forcing Cuban leaders to institute deep austerity measures. These measures served to decapitalize the agricultural sector, with deleterious effects on agricultural production. By 2007, Cuba was importing 80 percent of its food, a critical situation only exacerbated in 2008 due to the global financial crisis.

Reduced government support during the 1990s, in what is known as the *Special Period in Time of Peace*<sup>2</sup>, resulted in a rapid shift toward private production of rice. In 1993, 91 percent of the rice crop was produced by the state. Just two years later, private producers outpaced their state counterparts for the first time, accounting for nearly 55 percent of the total rice crop in 1995. The stage was set a year earlier in 1994, when private entities harvested more area for rice (51 percent) than the state for the first time (see Figure 5).

<sup>1</sup> The Council for Mutual Economic Assistance was an economic organization from 1949 to 1991 under the leadership of the Soviet Union that comprised the countries of the Eastern Bloc along with a number of socialist states elsewhere in the world.

<sup>2</sup> The Special Period was an economic depression in Cuba from 1991 to 2000 that resulted largely from the dissolution of the Soviet Union and Comecon.

### Cuba's Annual Change in Rice Production by Sector



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Source: La Oficina Nacional de Estadísticas e Información (ONEI), República de Cuba, Statistics Series: Agriculture, Livestock, Forestry and Fisheries 1985-2018

**Figure 5. The annual change in rice production and harvested area by sector**  
Since the mid-1990s, the majority of Cuban rice has been produced by the private sector. Source: ONEI.

The Cuban government engaged in a series of reforms to revitalize agriculture, beginning in 2007. These reforms were part of a larger effort to modernize Cuba's economic and social systems and precursors to the passage of the 2011 Economic and Social Policy Guidelines of the Party and the Revolution (known as "*Los Lineamientos*"). For agriculture, Cuba sought to increase production to replace food imports, produce surpluses for export, and to develop and use renewable energy products. Key to this strategy were policy shifts towards privatization and putting more land into agricultural production. The 2007 and 2011 reforms focused on granting usufruct rights of unused land to private farms and cooperatives. Usufruct is a temporary agreement that grants the right to use and profit from property owned by another party. In this way, the Cuban government enabled private farmers to profit from the agricultural production on previously unused state-owned land, while the state retains ownership. Please see Figure 6 for a timeline of selected events.

Functionally, the agricultural reforms sought to increase the area in production and to liberalize product sales at the market. Additionally, determining which crops and livestock to produce was modestly decentralized, re-delegating authority away from MINAG to Cuba's municipalities. MINAG, however, largely retains control over agricultural inputs, marketing, and transportation. In response to these mixed approaches, state producers can often charge less at the market than their private counterparts. Prior to 2013, the State Procurement and Distribution Agency heavily subsidised most of the production and marketing costs for state producers, while leaving private producers and marketers to cover these costs on their own. Several additional reforms were passed in 2012 and 2013 to reduce these subsidies for state producers.

Following the passage of *Los Lineamientos*, rice production saw large increases in 2012 and 2013, and remained high in 2014 (see Figure 7). This was due to sharp year-over-year increases in harvested area in 2011 (+25 percent), 2012 (+13 percent) and 2013 (+5

percent), followed by a decline in area of 13 percent in 2014. Additionally, private sector yields increased each year over this time period, coinciding with a high proportion of private production of the rice crop.

State producers have generally seen higher rice yields than their private counterparts (see Figure 8). Legacy advantages that lie with state producers, including the subsidization of certain production costs discussed previously, may explain some of this difference. While these advantages have lessened in recent years, they still remain in some form, which may be reflected in better crop performance for the state.

A long-term view shows that Cuba's overall rice yields have increased at a rate comparable to the global trend (see Figure 9). However, yields remain below the global average and well below the United States and its Caribbean neighbor, the Dominican Republic. Input shortages, poor infrastructure and seed quality, and shifts to small-scale agricultural production are common explanations for lagging rice yields. In addition, a reduction in harvested area in recent years has resulted in limited rice production growth.

The Cuban government has continually stated its long-term goal of increasing rice production to offset food imports and boost self-reliance. The most recent MINAG goal is to produce 600,000 MT annually by 2030. This goal, however, is likely limited by short term fiscal constraints and other immediate national concerns. Currently, Cuba has low-cost rice suppliers in its South American and Southeast Asian trading partners, allowing the government to prioritize other agricultural products and economic activities in the national agenda, including increasing support for biofuel production and small-scale urban agriculture.

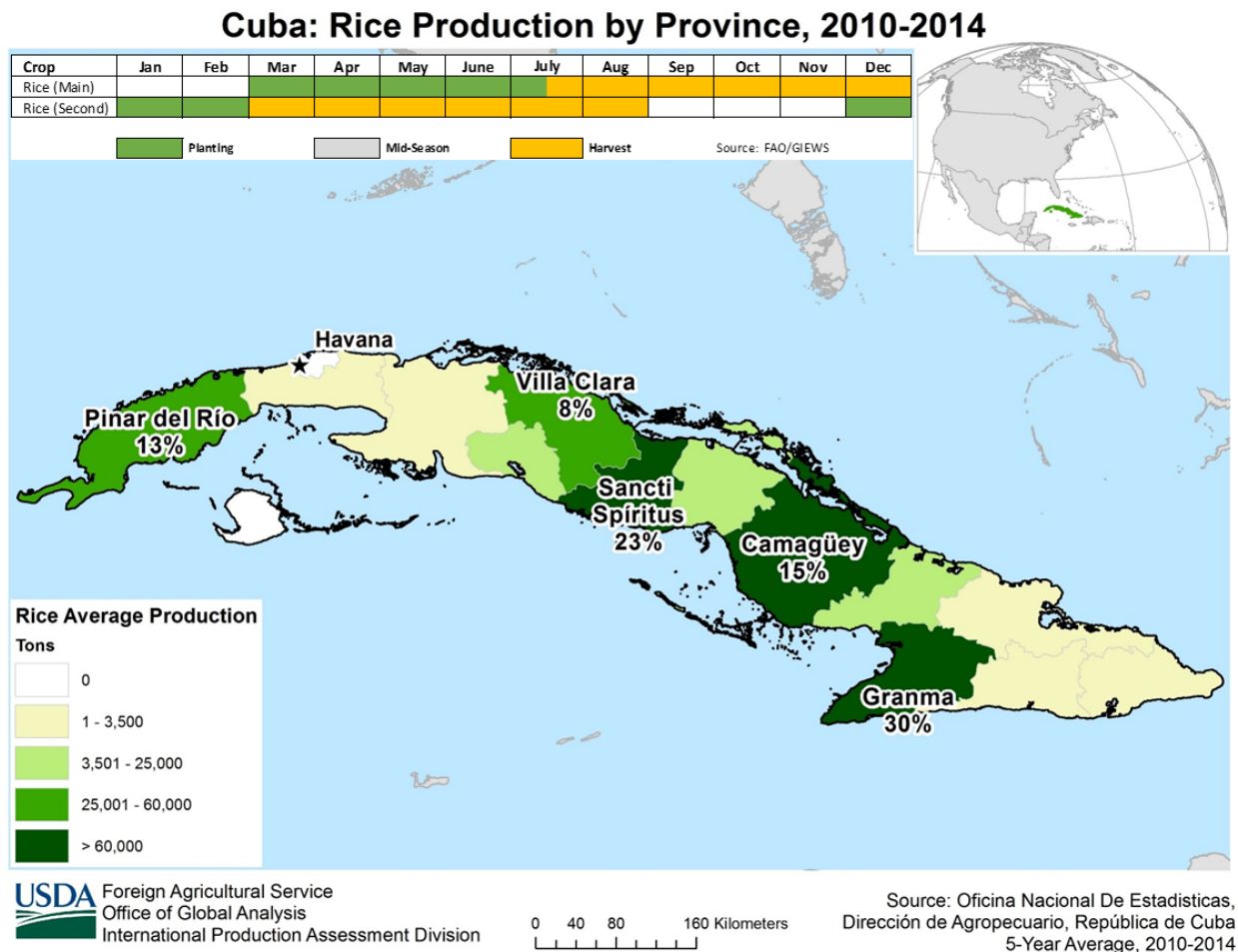
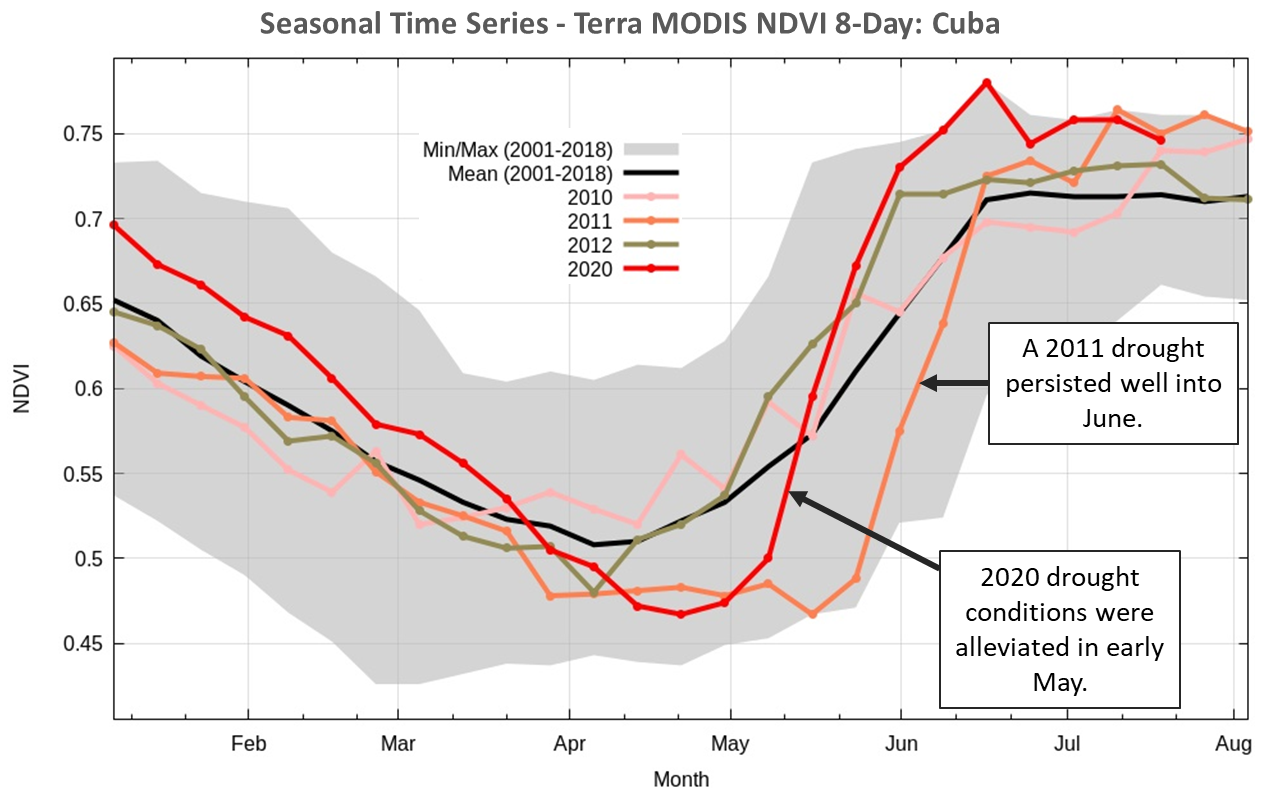


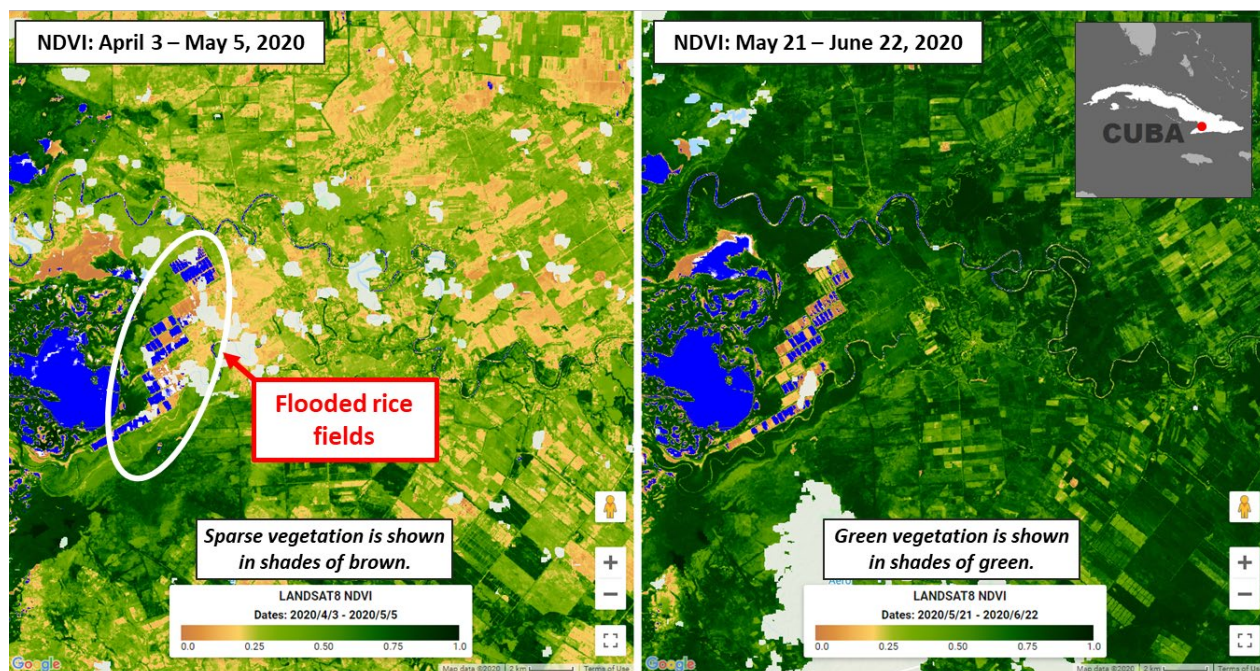
Figure 1. The spatial distribution and seasonal calendar of Cuban rice production, Source: ONE.



**Figure 3. NDVI time series analysis shows the alleviation of drought conditions that came with the early-May 2020 rainfall. Also noted for reference is the delayed greenup of crops in 2011, due to drought that persisted through the end of May of that year, along with comparison years of 2010 and 2012 which reflect relatively normal conditions. Source: NASA-USDA GLAM.**



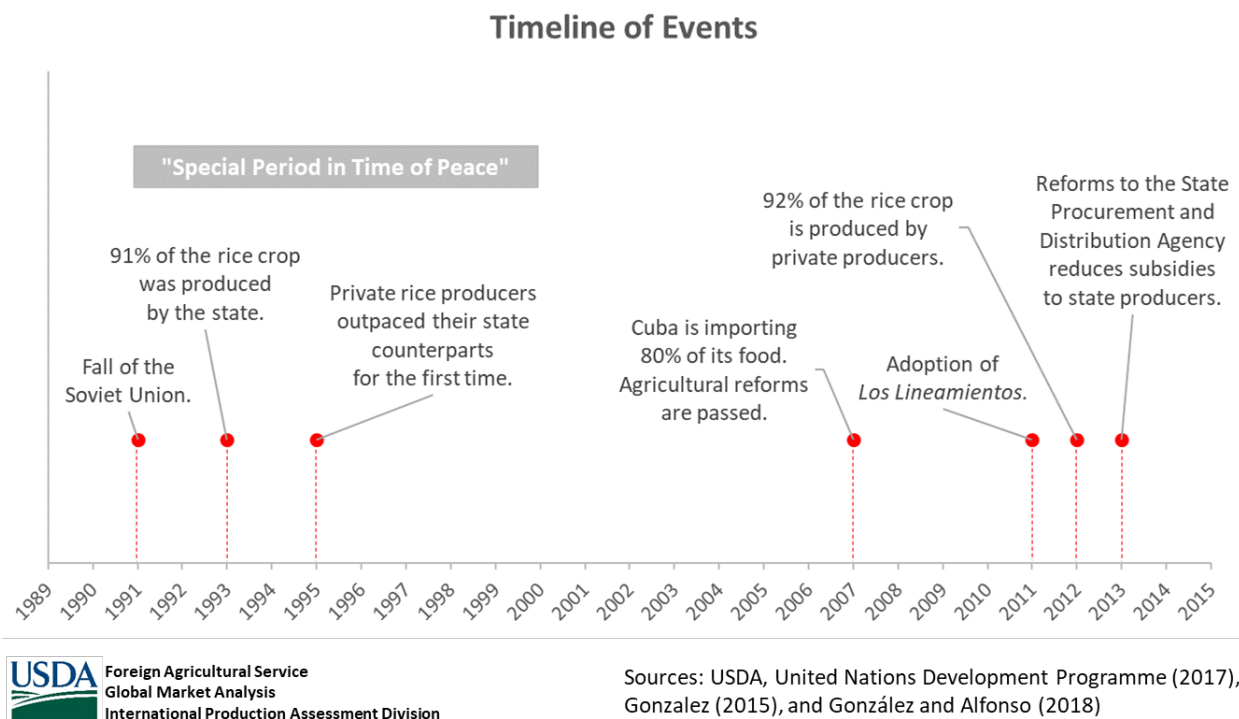
## Abnormally Dry Conditions near Río Cauto, Cuba during the Spring 2020



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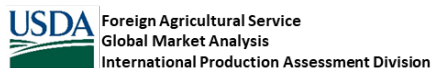
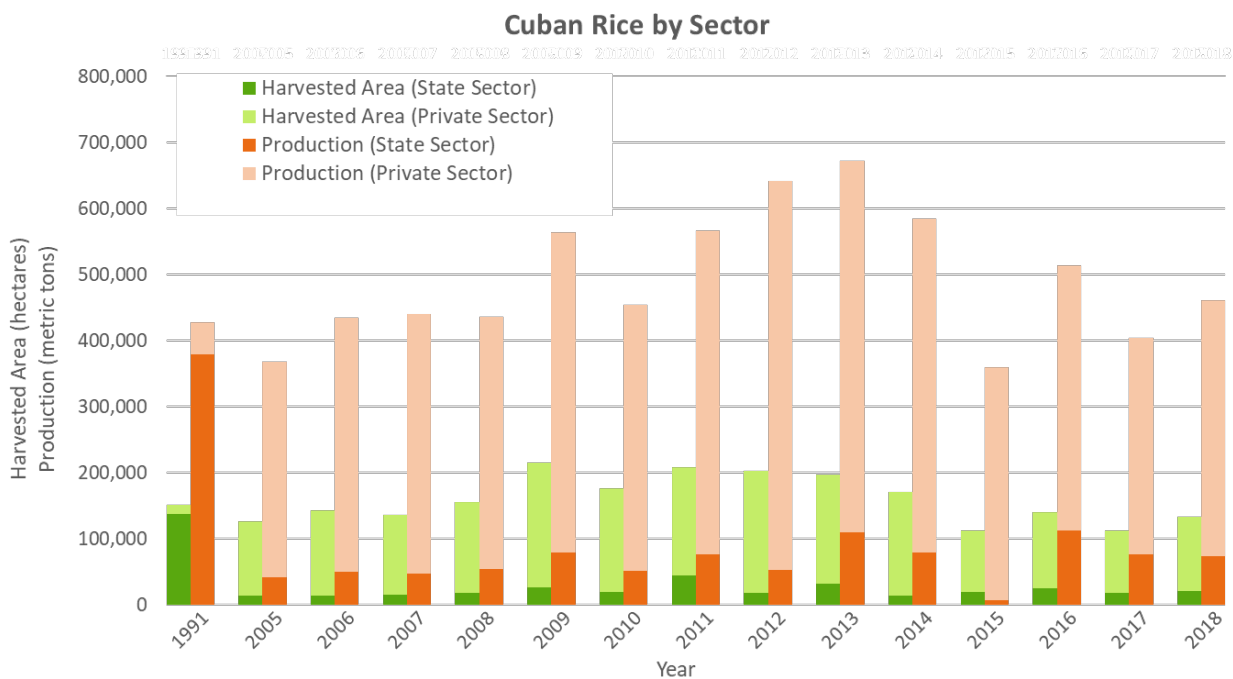
Source: USGS, Landsat 8 Imagery with 30-meter resolution

**Figure 4. Abnormally-dry conditions developed in the early 2020 main rice crop planting season, and were alleviated by early-May rainfall. The imagery shows improving vegetative conditions in agricultural fields, including flooded rice fields near Río Cauto in southeast Cuba, from dry conditions in April, to more healthy conditions in mid-May to mid-June. Source: USGS.**



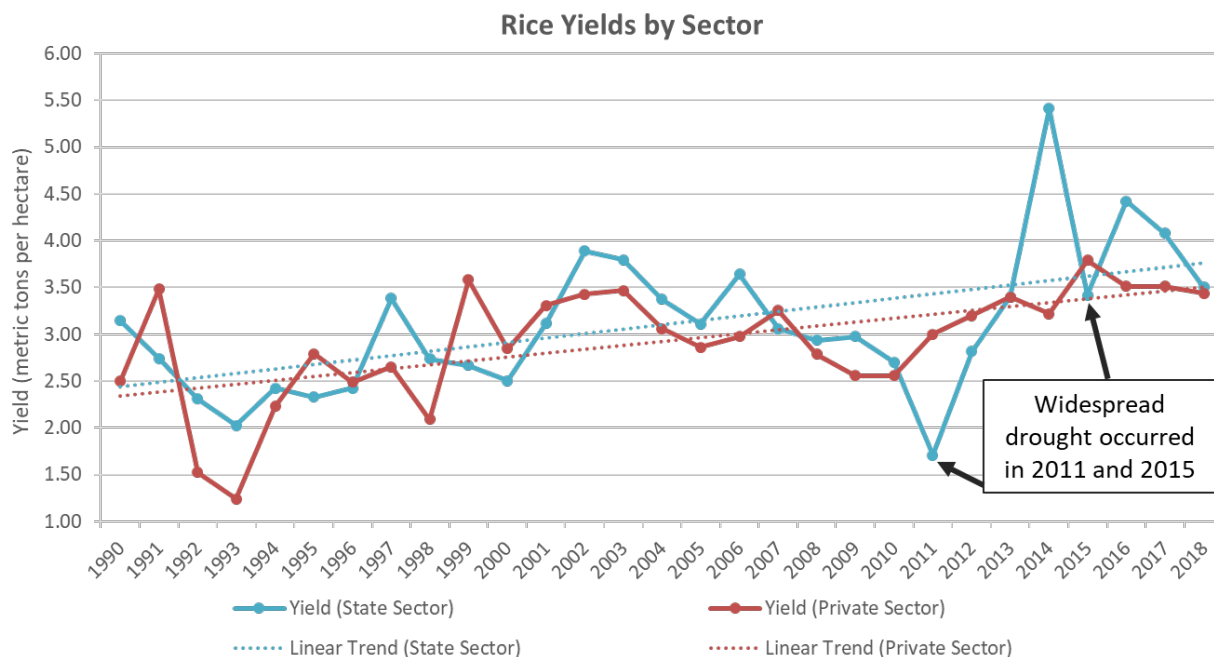
**Figure 6. Timeline of selected events: 1989 – 2015. The “Special Period in Time of Peace” marks an era of economic crisis in Cuba following the fall of the Soviet Union and Comecon (1991 – 2000). In response, the Cuban government enacted severe austerity measures, including rationing. Sources: USDA, UNDP, Gonzalez et al.**



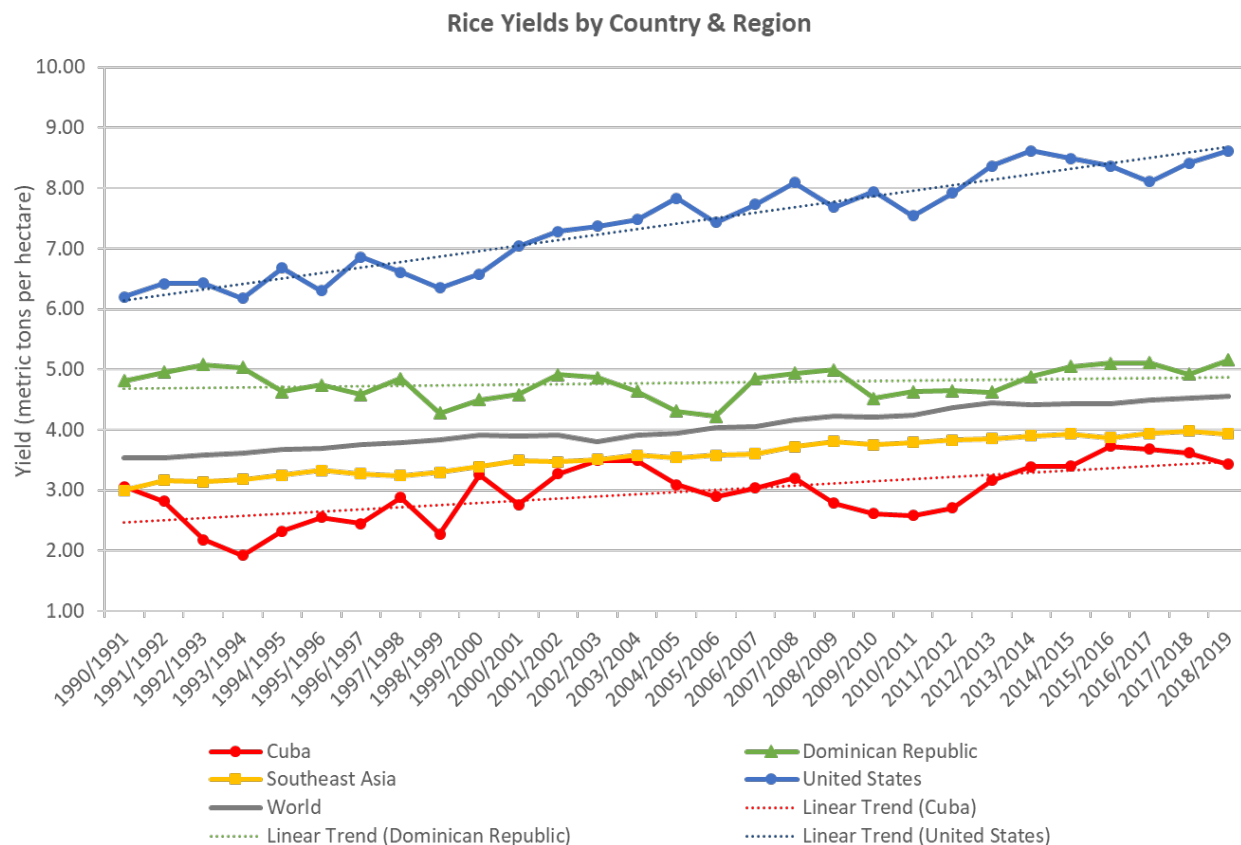


Source: La Oficina Nacional de Estadísticas e Información (ONEI), República de Cuba, Statistical Yearbook 2018, Tables 9.7-9.15

**Figure 7. Cuban rice production and harvested area by year and sector: 2005 – 2018. Values for 1991 are included and represent the distribution of area and production at the dissolution of the USSR. Source: ONEI.**



**Figure 8. Rice yields over time, by sector. State sector yields are generally higher than their private sector counterparts. Source: ONEI.**



**Figure 9. Rice yields over time, by country and select regions. Source: USDA.**

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