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## **Report Highlights:**

FAS/Managua projects Nicaraguan Arabica coffee production to remain mostly flat in marketing year 2023/24 at 2.46 million 60-kilogram bags, reflecting successive years of sub-optimal fertilizer application dating back to 2020 when fertilizer prices rose amid global supply chain disruptions and new taxes on agricultural inputs. FAS/Managua expects lower fertilizer prices in 2023 will support increased fertilizer application in marketing year 2023/24 and increased production in marketing year 2024/25.

## **Executive Summary:**

FAS/Managua projects total marketing year (MY) 2023/24 coffee production (including Robusta type) largely unchanged at 2.62 million 60-kilogram (kg) bags, even as fertilizer prices have fallen by up to 25 percent in 2023. The possible return of El Niño conditions in the second half of 2023 could further reduce MY 2023/24 production if drier conditions during later developmental stages result in smaller beans. In addition to El Niño, climate change is a growing concern for the Nicaraguan coffee industry, as extreme weather events are more frequent and more severe. Outbound migration remains well above historical levels – an estimated 200,000 Nicaraguans, or 4 percent of the population, fled in 2022 – due to the continued deterioration of political conditions in Nicaragua, and producer organizations have expressed concerns that insufficient labor supplies could reduce MY 2023/24 harvest quality and quantity.

FAS/Managua estimates MY 2022/23 production was down 12 percent from MY 2021/22, as high fertilizer prices in 2022 limited application of necessary inputs and high financing costs limited expansion and renovation of coffee farms. FAS/Managua estimates lower MY 2022/23 production represented the cumulative effect of sub-optimal rates of coffee area renovation combined with lower fertilization rates. The Russian invasion of Ukraine in 2022, which drove fertilizer prices more than 100 percent higher than pre-war levels, exacerbated challenges for farmers, who have historically lacked access to competitive financing options, and resulted in substantially lower fertilizer application levels in 2022. Amid significant outbound migration in 2022, coffee producer organizations did not report significant challenges obtaining the necessary manual labor to bring in the MY 2022/23 harvest. Producers did not identify record-setting rainfall in 2022, more than double the previous record in some areas, as a major factor affecting MY 2022/23 production, though the rainy season extending later into the year resulted in quality concerns related to deterioration of coffee cherry skin condition in certain areas.

Despite challenges, Nicaragua has positioned itself as an exporter of high-quality coffee in international markets, obtaining price premiums of \$30 - \$50 per 60-kg bag above internationally quoted commodity prices. Companies such as Starbucks, J.M. Smucker, Peet's Coffee, and Dunkin' Donuts have increased purchases of Nicaraguan-origin coffee in recent years, and major coffee exporters have expressed optimism about the future export growth prospects. Exporters indicated that sustained prices above \$180 per 60-kg bag in 2023 – the average price for Nicaraguan coffee in April 2023 – could support improved farm management (principally, increased fertilizer application) and drive production back above 2.7 million 60-kg bags in MY 2024/25.

#### Area

FAS/Managua projects MY 2023/24 area planted at 143,000 hectares and area harvested at 140,000 hectares, based on new information regarding expansion of Robusta production in the Caribbean Coast region. Political turmoil continues to weigh on the economy, drive outbound migration, limit available credit, and stifle investment in productive industries, particularly those with a longer horizon for recouping investments – coffee plantation expansion and renovation require at least three years before income is generated. FAS/Managua expects area harvested in MY 2023/24 to remain flat, though

increased outbound migration could negatively affect labor availability during the MY 2023/24 coffee harvest.

According to industry contacts, coffee farmers have replanted approximately 20,000 hectares of Arabica coffee area, 14 percent of total area, since the MY 2013/14 coffee leaf rust outbreak that decimated production. In theory, a coffee plantation should be replanting 5 percent of total area each year to ensure a complete turnover of the area every 20 years (coffee plant productivity typically tails off after 20-25 years). However, in practice, most plantations have failed to keep up with this ideal schedule, often replanting only when older plants become infected or die. Access to credit (especially on terms that account for coffee plant growth and harvest cycles) as well as to newer, rust-resistant varieties remain significant challenges to expansion and renovation in Nicaragua. Growers also face the dilemma of timing, reluctant to replace even less productive trees when prices are strong, as they were in early 2023.

According to industry sources, there were approximately 45,000 coffee farmers cultivating about 143,000 hectares of coffee in MY 2022/23, of which 7,000 hectares were planted with Robusta varieties. More than 85 percent of the Arabica coffee plantations are in North Central Nicaragua, in the departments of Jinotega, Matagalpa, and Nueva Segovia with a range of altitude from 365 to 1,500 meters above sea level. The remaining Arabica coffee is produced in the department of Carazo and on the outskirts of Managua. Robusta production area is concentrated in the Autonomous Southern Caribbean Coast region in the vicinity of a major Robusta mill in Nueva Guinea.

NICARAGUAN COFFEE GROWING REGIONS MATAGAIPA: Home to the National Coffee Museum Altitude: 3300-4600ft Varietals: Bourbon & Caturra NUEVA SEGOVIA: Altitude: 3600-5400ft Varietals: Bourbon & Caturra JINOTEGA: Primary coffee-growing region Altitude: 3600-5600ft Varietals: Bourbon & Caturra MADRI7 MANAGUA BOACO CARAZO HOME COFFEE

**Image 1. Arabica Coffee Growing Regions** 

Source: Home Coffee Expert.

Note: Robusta plantations are indicated by the hollow red circle on this map; added by FAS/Managua.

According to the 2011 Agricultural Census (the most recent data available), 71 percent of coffee farms were considered small, with less than 15 hectares of coffee area, and produced 37 percent of the total crop. Medium-sized farms (22 percent of farms) between 15 and 70 hectares produced 27 percent, while large farms (41 percent of farms) above 70 hectares produced 36 percent of the national harvest.

#### **Production**

FAS/Managua projects MY 2023/24 total coffee production flat at 2.62 million 60-kg bags on positive flowering reports from key growing regions, favorable weather conditions, and increased fertilization. With the expectation of an El Niño weather system returning to the region in the second half of 2023, insufficient moisture in later fruit development stages could place an upper limit MY 2023/24 production. Particularly dry El Niño-related conditions in MY 2015/16 caused up to 25 percent losses in some areas of Nicaragua. Although market conditions have improved, with coffee prices above \$180 per 60-kg bag (as of April 2023) and fertilizers prices falling from 2022 highs, industry contacts do not anticipate improvements in farm management practices in 2023 will substantially improve production in MY 2023/24. Industry sources project the benefits of improved fertilization in 2023 would promote higher production in MY 2024/25, as recommended coffee fertilization tends to produce a compounding positive effect in the second year, with sustained fertilization, through strong plant growth.

FAS/Managua estimates MY 2022/23 Arabica production fell 12 percent, while Robusta production remained constant. Farmers attributed the decline to a combination of historically poor coffee plantation management, characterized by insufficient replanting rates and inadequate access to higher-yielding, more disease-resistant varieties. Agricultural input prices rose up to 30 percent following a 2019 policy change that ended tax exemptions for a range of agricultural inputs. COVID-related supply chain disruptions drove shipping and fertilizer prices higher in 2020, compounding the effect of the tax policy change. Lower world coffee prices in 2022 undercut incentives to invest in coffee plantations, while a historical scarcity of reasonable credit terms for smaller agricultural producers, who regularly face annual interest rates of 40 percent, was exacerbated by the ongoing political crisis in Nicaragua that disincentivizes, particularly, longer term investments. However, it is an increasingly common practice for farmers to lock in prices on up to 20 percent of their production through forward contracts to reduce price volatility and facilitate more consistent business planning.

Industry sources attributed the longer than average 2022 rainy season – which started earlier, ended later, and shattered regional precipitation records – to climate change, though impacts on coffee crop quality appear to have been limited and do not appear to have had a significant impact on MY 2022/23 yields. In some high-altitude areas of Nueva Segovia, farmers reported the presence of less common fungi on coffee skins at harvest due to excess moisture late in the calendar year. However, industry sources have noted that advances in post-harvest handling and processing of coffee cherries and beans have reduced the percentage of unexportable coffee from a historical average of 11 percent to just 7 percent in MY 2022/23.

Due to the unusually rainy conditions in MY 2022/23, farmers noted there was not a distinct national peak harvest period. Rather, the harvest progressed relatively gradually from lower to higher altitude

areas, allowing farmers to largely secure required labor throughout the season. Some companies did, however, report difficulty securing enough coffee pickers, despite increasing salary and benefits, which resulted in a higher percentage of overripe coffee beans. Although access to harvest labor has not yet had a significant impact on production, industry sources identify labor availability as the top near-term threat to the sector.

Though adoption of rust-resistant coffee varieties continues to lag, Nicaraguan coffee farmers continue to introduce higher-yielding varieties like Marsellesa, Parainema, Costa Rica 95, IH Cafe 90, and Lempira, among other varieties. Ongoing research with World Coffee Research (WCR) to improve coffee breeding and agronomic research in Nicaragua along with the FAS-funded Maximizing Opportunities in Coffee and Cacao in the Americas (MOCCA) project are improving the genetic diversity, quality, and consistency of nursery stock available to coffee farmers throughout Nicaragua.

Employing more than 330,000 people along the value chain, coffee is one of the most important agricultural products in Nicaragua. Caturra is the most common variety of Arabica bean grown (72 percent of total Arabica area), with other common varieties including: Borbons, Paca, Catuai, Catimore, Maragogype, and Pacamara. The coffee marketing year in Nicaragua starts in October and ends in September.

#### Yield

FAS/Managua estimates the MY 2023/24 Arabica coffee crop yields to remain at 18 60-kg bags per hectare, consistent with MY 2022/23 and previous years. Although several coffee associations noted that little improvement has been made in improving Arabica yields, there are ongoing research efforts to increase productivity in Nicaragua. As part of the MOCCA project, WCR is leading actions to improve coffee breeding and agronomic research in collaboration with the Regional Cooperative Program for the Development and Modernization of the Coffee Sector (PROMECAFE) and the Nicaraguan Institute of Agricultural Technology (INTA). WCR is also engaged in evaluating and improving seed lots, certifying large coffee tree nurseries, and developing training materials for small nurseries in the country. Nicaragua hosts two WCR International Multilocation Variety trial sites. In collaboration with the coffee exporters MERCON and ECOM, there were another 18 on-farm trials in Nicaragua in 2022 testing improved varieties, including Marsellesa, H1, Centroamericano, Parainema, Obata and Starmaya, which are resistant to coffee rust.

Despite ongoing efforts, FAS/Managua projects limited average Arabica yield growth in the near-and mid-term, as access to financing – a function of international coffee price volatility, political and economic turmoil in Nicaragua, and an underdeveloped agricultural financial system – will continue to hinder investments in plantation renovation and in the adoption of good agricultural practices.

#### Robusta

FAS/Managua estimates MY 2023/24 Robusta production flat at 160,000 60-kg. In 2021, the International Finance Corporation provided a \$15 million loan to a regional coffee company to improve the productivity and quality of Robusta production in Central America. As that investment 'crowds in'

production from farmers in the region, FAS/Managua expects annual growth of 5-10 percent over the next few years, with annual production topping 200,000 60-kg bags by 2030. At approximately \$2,400 per hectare, annual costs of Robusta production are higher than traditional crops in the Caribbean Coast region, but Robusta profits per hectare – nearly \$1,600 per hectare per year – are three-times greater than yucca, four-times higher than corn, and ten-times greater than cattle.

Industry sources estimate there are approximately 7,000 hectares of Robusta plantations (5 percent of total coffee planted area), with 4,000 hectares harvested in MY 2022/23. Far-sighted investors are planting Robusta area to support mechanized harvesting that will drastically reduce labor dependence and substantially increase per hectare profitability. Industry sources estimated Robusta yields as high as 70 60-kg bags per hectare in MY 2022/23, though most farms are expected to produce around 40 60-kg bags per hectare.

Images 2 and 3. Robusta coffee near Nueva Guinea





Source: FAS/Managua, November 2022.

In 2013, the Government of Nicaragua allowed the cultivation of Robusta coffee in non-traditional coffee-growing regions, including the Atlantic Coast and other lowland areas on the Pacific Coast. Nicaragua produces predominantly Arabica types of coffee; more than 95 percent of total production in MY 2022/23 was Arabica.

## **Policy**

The overall business climate in Nicaragua is very uncertain due to the weak rule of law and the associated political crisis. On March 7, 2023, the Nicaraguan Government canceled the legal status of the Private Sector Superior Council (COSEP) along with 19 individual industry associations, including

the Nicaraguan Association of Coffee Exporters (EXCAN), which will hinder the ability of coffee exporters to collaborate and advocate as a sector. Nicaragua lacks a comprehensive national coffee development strategy, and independent analysts note the loss of EXCAN as one less institutional pillar supporting an industry with significant growth potential across a wider range of production areas.

One of the Government's main policies to support coffee farmers is Law 853, the Law for the Transformation and Development of the Coffee Sector, which was passed in 2013 to renovate and transform the Nicaraguan coffee sector through a fund to renovate older coffee plantations. Law 853 levies a fee on every 60-kg bag of coffee exported; the average fee was \$4 per 60-kg bag in MY 2022/23 when international coffee prices were above \$200 per 60-kg bag. Industry sources estimate Law 853 has collected more than \$40 million since 2013, but farmers have expressed mixed opinions on the impact of the law and its effectiveness in driving investment and innovation in the sector.

Law 368, the Coffee Law, was published in December 2000 and provided several tax exonerations for coffee growers. However, in 2019, the Nicaraguan Government passed legislation taxing fertilizers and agrochemicals for the first time, with import duties of up to 30 percent for some products, reducing the competitiveness of coffee farmers.

## Consumption

FAS/Managua estimates MY 2023/24 per capita coffee consumption at about 1.5 kg, divided roughly evenly between soluble and roasted products. This is relatively low compared to other coffee producing countries in the region, such as Costa Rica and Guatemala. However, coffee is still an important part of the Nicaraguan culture, and many people consume it daily. One of the market trends in Nicaragua is the increased demand for high-quality coffee, particularly among younger consumers. Coffee shops where consumers can find a wide variety of coffee drinks, including cappuccinos, frappuccinos, cold brews, espressos, and lattes, are increasingly common in larger Nicaraguan cities. Though the local purchase of roasted coffee has grown over time, industry sources do not anticipate significant increases in consumption in MY 2023/24, as high levels of outbound migration, increased costs of basic food commodities, and continued economic headwinds work against expanded consumption.

### Stocks

Industry sources estimate coffee exporters typically hold year-end stocks of 120,000 - 140,000 60-kg bags, roughly equivalent to the volume of exports in the final quarter of the calendar year before new crop beans are available for export. There are years when stocks could be a bit higher or lower due to international market forces.

#### **Trade**

FAS/Managua estimates Nicaragua's coffee exports to reach 2.5 million 60-kg bags in MY 2023/2024. The United States was the largest market for Nicaraguan coffee in 2022, accounting for approximately 45 percent of all Nicaraguan coffee exports. The majority of Nicaraguan coffee exports to the United

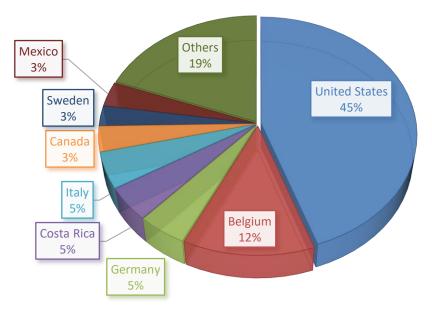
States are high-quality Arabica beans, which are in high demand among specialty coffee roasters and cafes. Some of the top importers of Nicaraguan coffee in the United States include Starbucks, Peet's Coffee, and Dunkin' Donuts. Europe is another significant market for Nicaraguan coffee, accounting for approximately 22 percent of all Nicaraguan coffee exports. European coffee buyers are particularly interested in organic and fair-trade coffees, which are in high demand among consumers.

Table 1. MY 2021/22 Coffee Exports in 60kg bags

Country	2019/2020	2020/2021	2021/2022	
United States	1,250,407	1,051,962	1,181,614	
Belgium	278,495	327,726	329,059	
Germany	186,128	187,997	122,361	
Costa Rica	98,289	47,858	121,614	
Italy	109,158	144,264	130,203	
Canada	115,108	103,493	90,793	
Sweden	77,274	81,263	72,754	
Mexico	21,452	28,935	88,958	
Others	491,401	760,241	508,179	
Total	2,627,712	2,443,739	2,645,535	

Source: Trade Data Monitoring (TDM)

Figure 1. MY 2021/22 Top Export Markets



Source: Trade Data Monitoring.

# **Production, Supply and Demand Table:**

Coffee, Green	2021/2	2022	2022/2	2023	2023/2	024
Market Year Begins	Oct 2021		Oct 2022		Oct 2024	
Nicaragua	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (1000 HA)	0	140	0	143	0	143
Area Harvested (1000 HA)	0	140	0	140	0	140
Bearing Trees (MILLION TREES)	0	0	0	0	0	C
Non-Bearing Trees (MILLION TREES)	0	0	0	0	0	C
Total Tree Population (MILLION TREES)	0	0	0	0	0	C
Beginning Stocks (1000 60 KG BAGS)	37	37	57	120	0	140
Arabica Production (1000 60 KG BAGS)	2680	2768	2680	2440	0	2460
Robusta Production (1000 60 KG BAGS)	100	120	100	160	0	160
Other Production (1000 60 KG BAGS)	0	0	0	0	0	0
Total Production (1000 60 KG BAGS)	2780	2888	2780	2600	0	2620
Bean Imports (1000 60 KG BAGS)	5	0	5	0	0	5
Roast & Ground Imports (1000 60 KG BAGS)	0	0	0	0	0	0
Soluble Imports (1000 60 KG BAGS)	25	0	25	0	0	0
Total Imports (1000 60 KG BAGS)	30	0	30	0	0	5
Total Supply (1000 60 KG BAGS)	2847	2925	2867	2720	0	2765
Bean Exports (1000 60 KG BAGS)	2540	2645	2520	2420	0	2500
Rst-Grnd Exp. (1000 60 KG BAGS)	5	0	5	0	0	0
Soluble Exports (1000 60 KG BAGS)	75	0	75	0	0	C
Total Exports (1000 60 KG BAGS)	2620	2645	2600	2420	0	2500
Rst,Ground Dom. Consum (1000 60 KG BAGS)	90	80	90	80	0	80
Soluble Dom. Cons. (1000 60 KG BAGS)	80	80	80	80	0	80
<b>Domestic Consumption</b> (1000 60 KG BAGS)	170	160	170	160	0	160
Ending Stocks (1000 60 KG BAGS)	57	120	97	140	0	105
Total Distribution (1000 60 KG BAGS)	2847	2925	2867	2720	0	2765
(1000 HA), (MILLION TREES), (1000 6	0 KG BAGS)					

# **Attachments:**

No Attachments