NICARAGUA

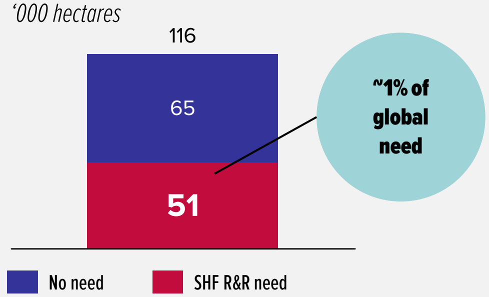
Nicaragua has recovered relatively well from a recent *La Roya* outbreak, though climate change and insufficient practices drive further R&R need

Quick facts: Nicaragua is a relatively small producer

Production *'000 tons, 2014*	Production share *Global & region*	Coffee land *'000 hectares, 2014*	Varieties *Arabica-Robusta*
90	**12th in world** **6th in LA**	**116**	**~100% A** **~0% R**

R&R need: ~45% of total land is in need of R&R

SHF land in R&R need out of all land
'000 hectares

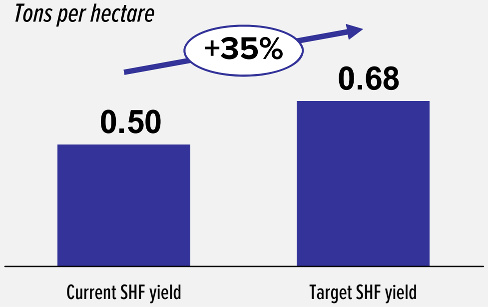


Drivers of R&R need:

The main drivers are disease (Nicaragua was hit by *La Roya*), bad current practices and old trees in some areas. Climate change could potentially also affect Nicaragua severely

Uplift potential: Though yields are low, SHFs are too few to drive total supply

Current SHF yield & potential uplift[1]
Tons per hectare



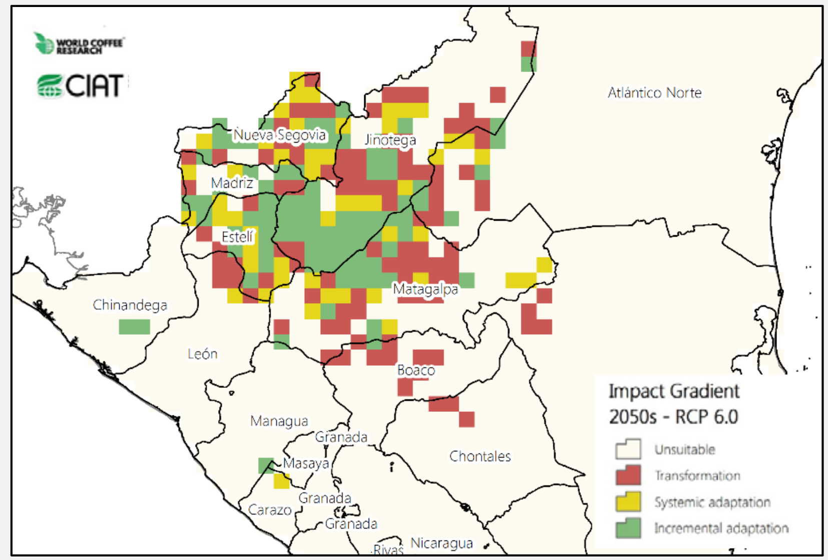
Potential increase in supply

~5-10%

Total national supply could increase ~5-10% if R&R and GAP is implemented on all SHF land in need of R&R[2]

Viability: Climate change could be a risk – potential for Robusta?

Suitability map: Climate change could severely impact Nicaragua



- Several areas of Nicaragua could be severely affected by climate change, requiring transformative investments
- The forecast indicates that impact is spread throughout the country

Other viability considerations (from GCP viability study)

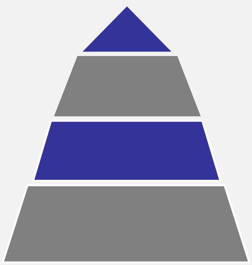
- Less than 2% of the production is currently in Robusta, but private sector investments expect to increase production of Robusta by 30% in 2017/18
- Farmers receive ~68% of the export price and the supply chain involves a number of intermediaries – there is room for increasing supply chain efficiency and SHF share of export price
- Nicaraguan coffee is well placed to qualify as specialty coffee. However, farmers are not currently incentivized to invest in quality improvements as they are unable to capture the associated premium

Notes: (1) The current yield is calculated on the basis of SHF production divided by SHF land area in 2014, the potential yield uplift comes from the GCP study on Nicaragua: GCP, *Nicaragua: GCP: Economic Viability of Coffee farming,* 2017 – this study cites an average SHF yield of 10.2qq/mz; (2) Rounded to the nearest 5%, estimate assumes that R&R and GAP increase yields with 35%, and the range reflects a 25A-100% R&R success rate. Sources: FAOstat, *Coffee production and land under coffee,* 2014; ICO production statistics

NICARAGUA

Nicaragua is less dominated by SHFs than other countries, and SHFs are therefore less likely to drive future supply uplifts

Farmer segmentation: SHFs represent ~40% of total production



National production is dominated by larger farms (>14 hectares)

SHFs[1] are predominately in loose value chains, relying on several middlemen to get to market

# SHFs *'000*	**30-45** (<1% of global SHFs[2])
SHF land *'000 hectares*	**70** (~60% of national land) – average farm size ~1.5-2.5 ha)
SHF production *'000 tons*	**36** (~40% of national production)
Assessment of SHF orgs.	Coops are not dominant – export around 20% of coffee in 2012/2013
Links to market	SHFs most often rely on middlemen to sell their coffee. ECOM is dominant in the country and has close links to SHFs

Enabling environment for R&R: Relatively weak environment for R&R

Political environment	• Coffee share of GDP: N/A [Coffee share of exports: 8.3% (2015)] • Liberal coffee economy: no coffee institute or board, 3 traders dominate the market (ECOM, Olam, Mercom) • Tax income for coffee has been left in a fund because there is no disbursement rules
Availability of inputs	• Nicaragua has good seedling facilities that provide seeds for the whole region (Honduras, Guatemala, El Salvador) for the 1T1B program (Starbucks). Nicaragua has the 1st private lab for seedlings (CIRAT and ECOM)
Availability of finance	• Low availability of finance and limited presence of local banks in the R&R market (long term debt) • Farmers connected to ECOM has relied on financing via their replanting programs (not just SHFs)
Knowledge availability	• SHFs lack access to training programs and there is a lack of public extension service officers

Examples of R&R programs: Past R&R programs have largely focused on renovation in response to La Roya

- **Root Capital, USAID, Keurig, Starbucks – Coffee Farmer Resilience Initiative (2013-2016):** USD 3.5 million in loans to a local coop for SHF renovation
- **ECOM, Starbucks, IDB, IFC – ECOM Renovation (2013-ongoing):** ECOM, in a innovative partnership with Starbucks, IFC, and IDB provided renovation loans to Nicaraguan farmers
- **Catholic Service Relief, CIAT – Rust to Resilience (2014-2016):** Renovation program to help farmers overcome *La Roya*

Notes: (1) SHFs in Nicaragua are sometimes referred to as farms up to 14 hectares – we focus on SHFs with <3 hectares in farm size. (2) Assuming a global SHF population of 20 million – estimates of farmers are high-level only and vary significantly. Source: GCP, *Nicaragua: GCP: Economic Viability of Coffee farming,* 2017; FAOstat, *Coffee production and land under coffee,* 2014; ICO production statistics; USDA, *Nicaragua Coffee Annual Report,* 2017;