



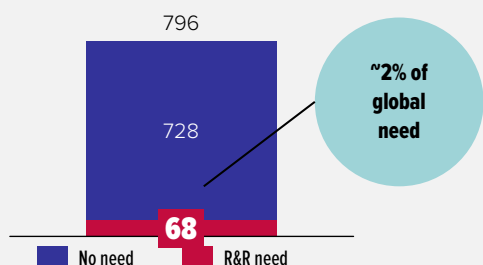
## R&R need in Colombia is low, since national replanting programs have already revitalized the tree stock, and current yields are high

Quick facts: Colombia is the world's 2<sup>nd</sup> largest producer

Production '000 tons	Production share Global & region	Coffee land '000 hectares	Varieties Arabica-Robusta
<b>728</b>	<b>3<sup>rd</sup> in world 2<sup>nd</sup> in LA</b>	<b>796</b>	<b>100% A 0% R</b>

R&R need: <10% 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:

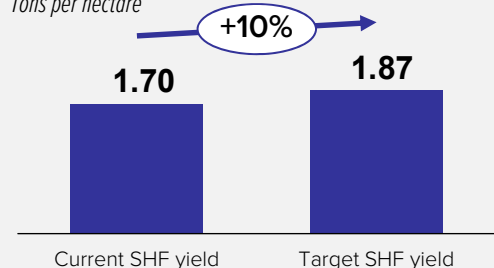


Most of the diseased and aged trees were successfully renovated. There is not a strong case for R&R in Colombia

Uplift potential: Low uplift potential given high current SHF yields

Current SHF yield & potential uplift<sup>1</sup>

Tons per hectare



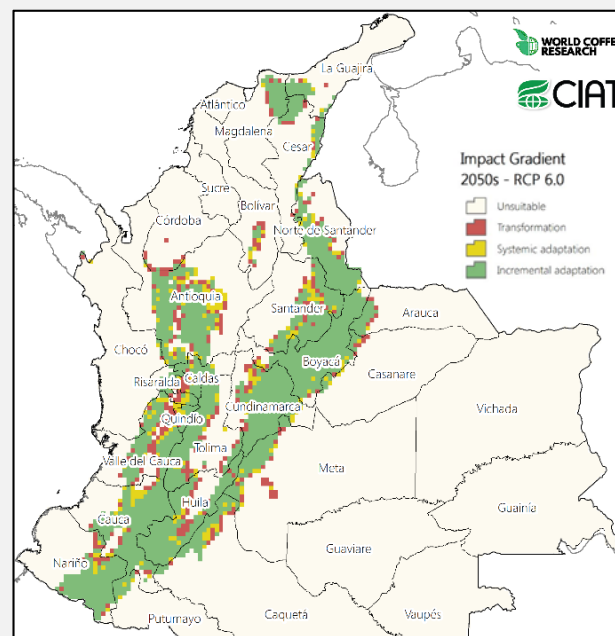
Potential increase in supply

**~0-1%**

Total national supply could increase ~0-0.5% if R&R and GAP is implemented on all SHF land in need of R&R2

Viability: Relatively minor impact from climate change

Suitability map



- Climate change is forecast to have minor impact on Colombia
- Given its topography, there may be opportunities to move coffee plantations to higher altitudes if needed
- The lowest lying areas are the ones forecast to be hardest hit by climate change

Other viability considerations

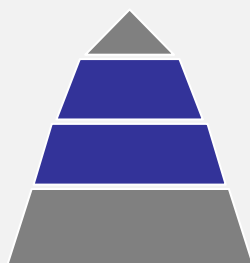
- Farmer share of export price is high at 85-90%
- Colombia coffee production performs at record levels not seen since the 1990's, creating overall confidence in the sector. This high level of production could be maintained given that 74% of production is planted with rust resistant varieties, compared to 35% in 2010
- The Colombian specialty coffee market is booming, increasing the value added for producers

Notes: (1) The current yield is calculated on the basis of SHF production divided by SHF land area, the potential yield uplift comes from the GCP study on Colombia: GCP, *Colombia: GCP: Economic Viability of Coffee farming*, 2017 - The study estimates a potential 20% yield uplift reached through fertilization, pest and shade management and targeted rejuvenation. We use a 10% yield estimate for this study since we do not account for irrigation; (2) Rounded to the nearest 5%, estimate assumes that R&R and GAP increase yields with 10%, and the range reflects a 25-100% R&R success rate. Sources: FAO Statistics database; ICO statistics; GCP and Technoserve, *Economic Viability of Coffee Farming*, 2017; Root Capital, *Learning Report: the CFIR*, 2016; USDA, *Annual Coffee Report*, 2017; IHCAFE, *Programa de Asistencia al Pequeño Productor*, 2017; IHCAFE, *El sector café de Honduras: avances, institucionalidades and desafíos*, 2017; Dalberg Interview



## Colombia's successful renovation programs were supported by strong coffee institutions

### Farmer segmentation: Most SHFs are in tight and loose value chains



#### National production is dominated by SHFs

The majority of SHFs are either in tight or loose value chains. The national coffee federation (FNC) has strong linkages with SHFs

**# SHFs**  
'000 **535** – ~3% of global SHFs<sup>1</sup>

**SHF land**  
'000 hectares **676** (~85% of national land) – average farm size ~1-2 hectares

**SHF production**  
'000 tons **503** (~70% of national production)

**Assessment of SHF orgs.** The FNC has a network of 34 cooperatives that deliver TA to their members

**Links to market** Many SHFs are linked to market through the FNC's network of 530 buying stations

### Enabling environment for R&R: Well organized sector and supportive policies

#### Political environment



#### Availability of inputs



#### Availability of finance



#### Knowledge availability



- Coffee share of GDP: N/A [Coffee share of exports: 7.2% (2015)]
- Coffee institutions (FNC, Coffee Fund) are strong and well organized
- Strong involvement of the Colombian government in renovation programs since the late 1990s. The Government and the FNC signed the “Coffee Prosperity Accord 2010-15” in 2009 and established an ambitious renovation program
- Cenicafe<sup>1</sup> leads research on varietal development, and has developed several rust-resistant varieties
- Since 2011, Cenicafe has been providing seeds at commercial volumes<sup>2</sup>. Cenicafe also established a network of private nurseries to ensure a sufficient supply
- SHFs have access to long term loans for R&R
- Public actors and local financial institutions such as the Colombian Ministry of Agriculture, Finagro, Banco de Bogotá, the National Coffee Fund (FoNC) provide finance to SHFs for renovation
- Coffee institutions provide extension services at national, regional and district level. However, these public extension services do not meet the demand and need of the SHFs
- Some cooperatives provide TA

### Examples of R&R programs: Past R&R programs successfully met most of the R&R need

- **FNC and the Colombian Government – Competitiveness<sup>3</sup> and Permanency, Sustainability and Future (PSF) programs** (late 1990s and 2009 – 2013): Through these two programs, more than 300,000 ha of land were renovated, both for SHFs and medium farmers.

Notes: (1) The Centre of Coffee Research was established in 1937 by the FNC, and has since remained under the management of the FNC; (2) Variety *Castillo*, rust resistant. (3) The Competitiveness Program (*Competitividad*) targeted large and medium scale producers. Source: FAO Statistics database; ICO statistics; GCP and Technoserve, *Economic Viability of Coffee Farming*, 2017; USDA, *Annual Coffee Report*, 2017; FNC, *Sostenibilidad en Accion*, 2013; Santiago Silva Restrepo; *Evaluacion de impacto de los progresos de renovacion de cafetales 2007-11*, 2012; *Risk and Finance in the Coffee Sector*, The world Bank, February 2015; Dalberg Interview