



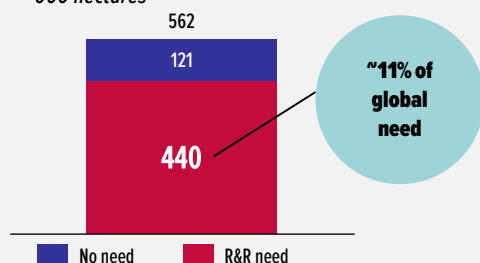
Ethiopia is Africa's biggest producer and has significant R&R need, and potential to increase SHF yields and total national output

Quick facts: Ethiopia is the biggest African producer

Production '000 tons, 2014	Production share Global & region	Coffee land ¹ '000 hectares, 2014	Varieties Arabica-Robusta
420	5th in world 1st in Africa	562	100% A 0% R

R&R need: ~80% of total land is in need of R&R

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



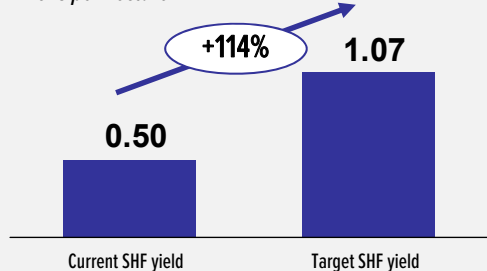
Drivers of R&R need:



Need is primarily driven by old trees (50-70 years in some places) and suboptimal current practices. Climate change is looking to have minimal impact on Ethiopia

Uplift potential: Significant uplift potential given low current SHF yields

Current SHF yield & potential uplift¹
Tons per hectare



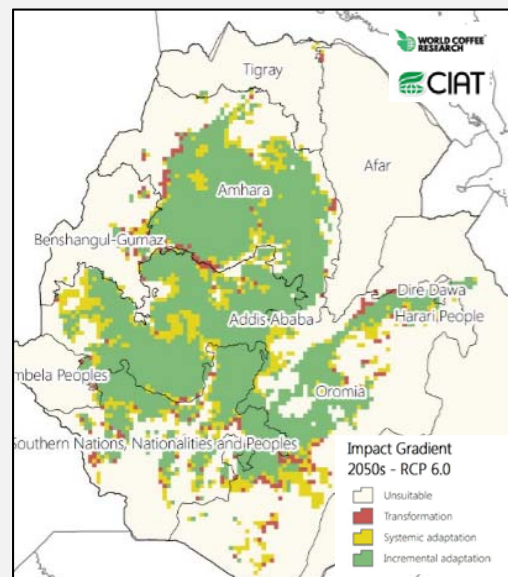
Potential increase in supply

~20-80%

Total national supply could increase ~20-80% if R&R and GAP is implemented on all SHF land in need of R&R2

Viability: Ethiopia has favorable viability compared to other countries

Suitability map



- Most of Ethiopia's land area for Arabica is in incremental change sites and therefore suitable for future production
- Some areas – scattered throughout the country – are systemic change sites

Other viability considerations

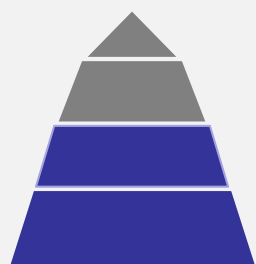
- Farmer share of the export price is around 60% which is lower than other countries. There is potential to increase supply chain efficiency
- Production costs equal ~ USD 190 / ha, compared to ~ USD 500 / ha in Kenya
- *Khat* production (plant chewed by humans for its stimulating effects) is competing with coffee production in many traditional coffee growing areas.
- *Khat* is more drought, disease, and pest resilient than coffee, and can often generate higher income than coffee

Notes: (1) Average yield is calculated as the total SHF production divided by the total SHF land. The potential yield improvement is estimated by GCP and Technoserve, *Economic Viability of Coffee Farming*, 2017; (2) Rounded to the nearest 5%, estimate assumes that R&R and GAP increase yields with 114%, 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; Government of Ethiopia, *Global Transformation Plan II*, 2015; The world Bank, *Credit constraints and farm productivity: Micro-level evidence from smallholder farmers in Ethiopia*, 2017; Ethiopian Agricultural Transformation Agency, *Annual Report*, 2016; Dalberg interviews



Ethiopia has the largest SHF population in the world, which is largely unorganized, and faces a relatively weak enabling environment

Farmer segmentation: Most SHFs are at the bottom of the pyramid



National production is dominated by SHFs

The majority of SHFs are either in loose value chains or weakly connected value chains, with unstable links to market. SHF organizations are generally mismanaged and lack capacity

SHFs
'000

2,000- 2,500- 10% - 12.5% of global SHFs¹

SHF land
'000 hectares

550 (~98% of national land) – average farm size ~0.5-2 hectares

SHF production
'000 tons

380 (~90% of national production)

Assessment of SHF
orgs.

Nascent coop sector that gradually improves – ~10% of SHFs are linked to coops

Links to market

A majority of SHFs have loose and weak links to market

Enabling environment for R&R: Relatively weak enabling environment

Political environment



Availability of inputs



Availability of finance



Knowledge availability



- Coffee share of GDP: 1.1% (2011)
- Sector institutionalization is improving (re-establishment of the Coffee and Tea Marketing Authority in 2016, implementation of the Coffee & Tea Research Institute)
- Several encouraging reforms under implementation, including the Growth and Transformation Plan II to increase coffee productivity and double coffee production by 2020², and the reform of the Ethiopian Coffee Exchange to boost exports of specialty coffee
- Coffee research stations provide certified seeds, but not at commercial volumes, and distribution is limited to areas nearby
- Privately produced seeds are not controlled and registered and producers complain about high mortality rates of seeds
- SHFs are highly credit constrained. Roughly 70% of SHFs complain about their inability to access credit, and 14% complain about the high cost of credit
- Few SHFs receive TA. Cooperatives usually do not have the financial capacity to finance TA, and public extension services are limited
- Adoption of GAP is extremely low. The Coffee Initiative found a baseline adoption of GAP at 6%, compared to 34% in Kenya and 40% in Rwanda

Examples of R&R programs: Past R&R programs have focused on increasing adoption of GAP and building SHF org. capacity

- **TechnoServe - The Coffee Initiative** (2008-2017): Technoserve trained (via Farmer Field Schools) roughly 80,000 Ethiopian SHFs on GAP and rehabilitation practices

Notes: (1) Assuming a global SHF population of 20 million – estimates for Ethiopian SHFs vary widely; (2) This would bring Ethiopian production at the level of the Brazilian production. This objective is unlikely to be met in such a short timeframe, but it gives positive signals to the coffee sector. Sources: FAO Statistics database; ICO statistics; GCP and Technoserve, Economic Viability of Coffee Farming, 2017; Government of Ethiopia, Global Transformation Plan II, 2015; The World Bank, Credit constraints and farm productivity: Micro-level evidence from smallholder farmers in Ethiopia, 2017; Ethiopian Agricultural Transformation Agency, Annual Report, 2016; Dalberg interviews