



USAID
FROM THE AMERICAN PEOPLE



USAID Bureau for Food Security
Renovation & Rehabilitation for Resilient Coffee Farms:
A Guidebook for Roasters, Traders and Supply Chain Partners
Executive Summary

November 2017



Disclaimer and acknowledgements

Disclaimer

This Guidebook, funded by USAID's Bureau for Food Security under Contract No. GS-10F-0188V, has been written by Dalberg Advisors on behalf of the Sustainable Coffee Challenge Collective Action Network on Renovation and Rehabilitation.

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Acknowledgements

Dalberg would like to thank the Technical Committee who provided input throughout the process: Conservation International, International Center for Tropical Agriculture (CIAT), Hanns R. Neumann Stiftung (HRNS), Root Capital, Starbucks, USAID and World Coffee Research.

November 2017



Foreword: The Sustainable Coffee Challenge

Dear reader,

A key tenet of the Sustainable Coffee Challenge is to encourage the industry to work collaboratively to find effective solutions that address the challenges facing coffee. One of those challenges is deteriorating tree stock, particularly on smallholder coffee farms. In fact, renovation and rehabilitation (R&R) best practices could benefit more than 50% of the 7 million hectares of smallholder coffee lands. Though there has been over USD 1.2 billion already invested in R&R efforts by governments and supply chain actors, we've still only scratched the surface in terms of the need.

So how will we meet this challenge? Over the past several months, partners in the Sustainable Coffee Challenge have set out to address the need for healthy, productive trees. As part of this effort, the network has established a collective target of sustainably renovating and rehabilitating 1 billion trees. In addition, with the generous support of USAID's Bureau for Food Security, Dalberg Advisors has developed the following Guidebook on behalf of the group.

The Guidebook is a rich resource for companies, governments, investors, and service providers alike. The document can help you partner up with an existing effort, start a new effort, or even refine your current program. If you are interested in learning the basics on R&R, then we suggest you review the Executive Summary. If you are a practitioner already familiar with R&R and are eager to dive into details, we suggest you start with Section 3: How to Make R&R work. In this Guidebook, you will find numbers behind the need, rich case studies with lessons from the field, decision trees to determine appropriate program structures and financial models, and much more!

Though there is still much to learn about R&R, we sincerely hope this Guidebook provides lessons and recommendations that help reduce the learning curve while aspiring new, bold commitments to supporting the sustainable renovation and rehabilitation of coffee farms around the globe.

Enjoy!

Bambi Semroc
Senior Director, Conservation International

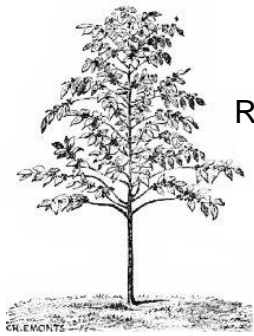
To find out more about the R&R Network or the Sustainable Coffee Challenge, visit www.sustaincoffee.org



'Renovation' and 'rehabilitation'- R&R – are methods to increase the productivity of coffee trees

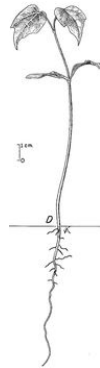
Renovation

Replanting

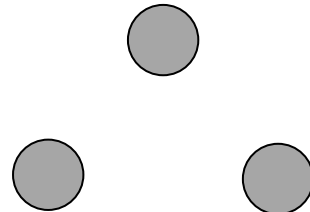


Remove old trees

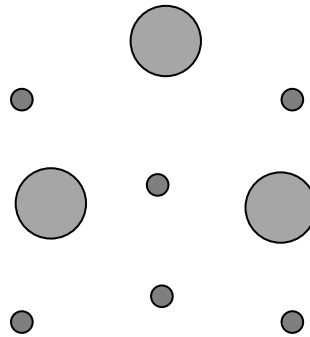
Replace with seedlings



Infill planting



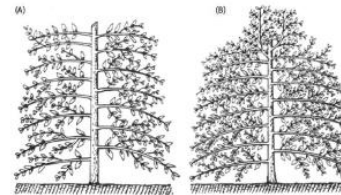
Existing plot



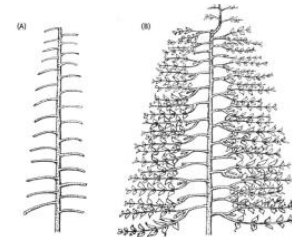
Add new seedlings and/or shading material in between current trees

Rehabilitation

Pruning

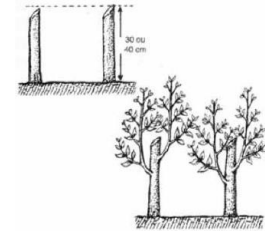


Top only

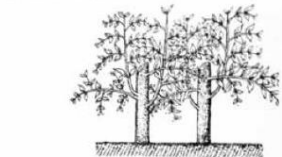
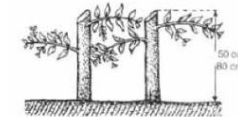


Top and sides

Stumping



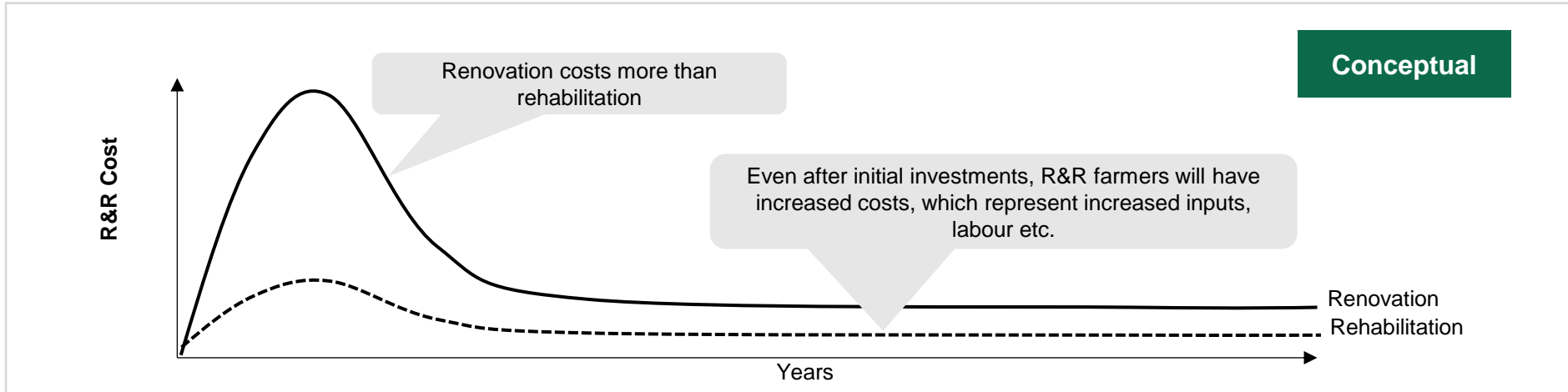
Down stumping



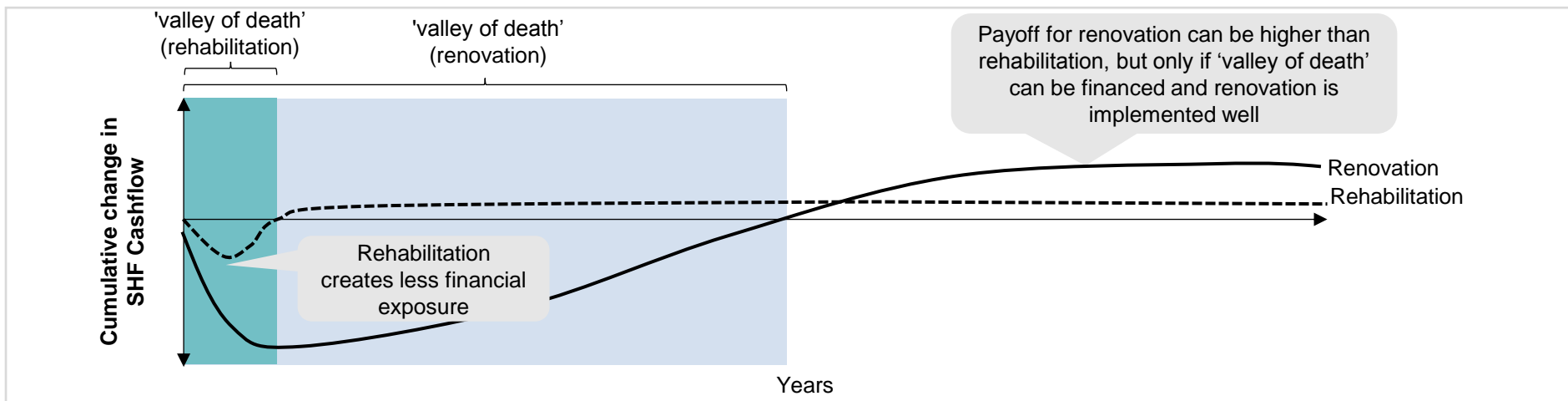
High stumping

Over time, R&R can deliver a net benefit to the farmer, despite a short term loss of yield and income

1 Rehabilitation and renovation require material upfront investments ...



2 ...but after the 'valley of death', cumulative cashflow for the farmer can be positive



At the farmer level, tree age, diseases and pests, poor agricultural practices, and climate change are the key drivers of R&R need



Old tree age: With time, trees produce less coffee. At some point they can no longer be rehabilitated back to profitable yields and therefore need to be replanted¹



Diseases and pests: Some mild diseases and pests can be overcome without replanting (e.g. by having well-managed trees), whereas more severe outbreaks can necessitate replanting (with new resistant varieties)



Climate change: Increasing temperatures can demand replanting with drought/disease-resistant varieties, or varieties that are particularly suited to yield in certain climatic conditions

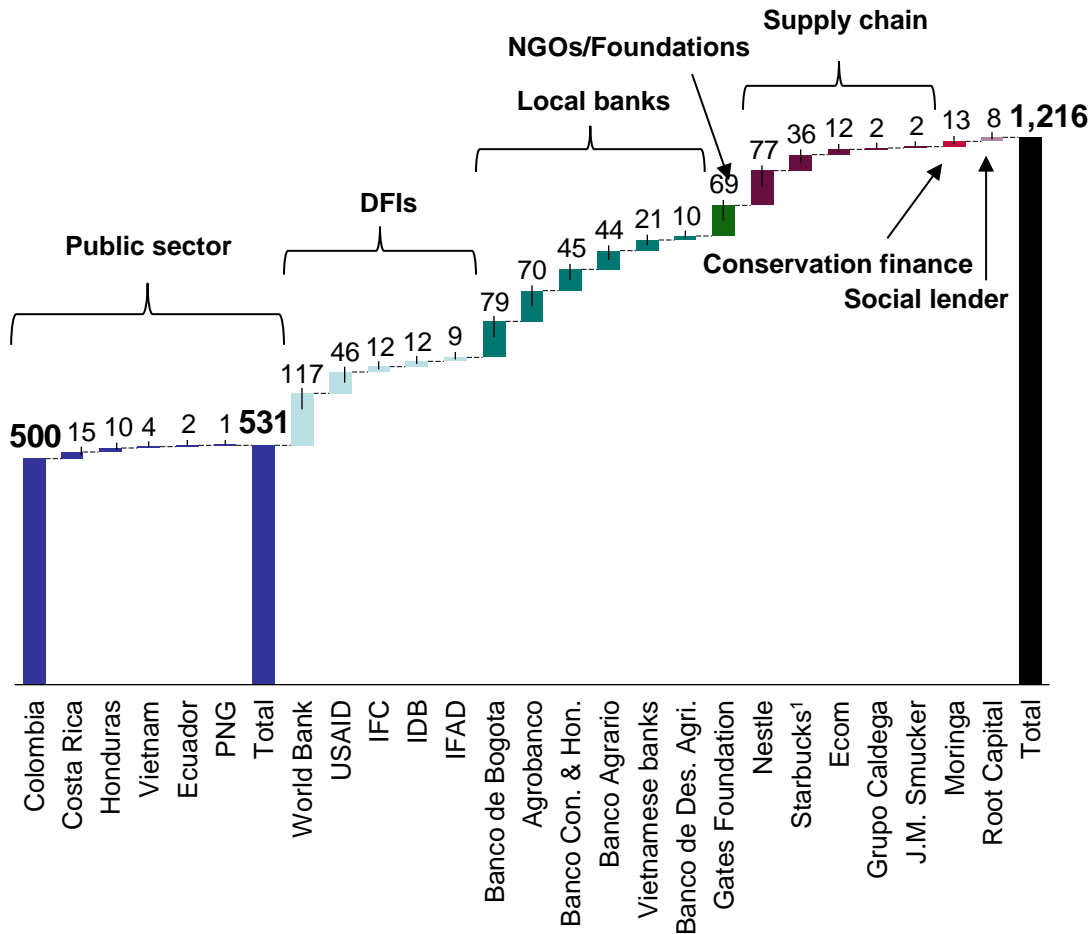


Poor agricultural practices: Poor agricultural practices can lead to the deterioration of trees to the point where they require R&R. It is important that R&R is *always* accompanied by GAP to prevent the same decline from happening again

Global need for smallholder R&R is 4 million hectares: equivalent to the entire harvested area of Brazil, Vietnam, Colombia and Ethiopia.

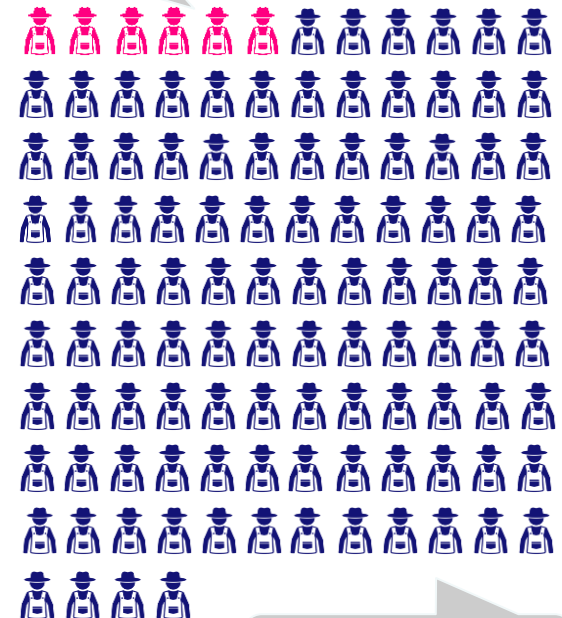
Governments and actors in coffee value chains have invested USD 1.2 billion in R&R so far, but this has only met around 5% of the smallholder farmers in need

R&R investments to date - channeled by finance providers (non exhaustive estimate)
USD millions



Estimated number of farmers reached by past and current R&R programs

Around 600,000 farmers have been reached by programs to date



We estimate that around 11.5 million coffee farmers are in need of R&R globally

Legend

Farmers reached by R&R programs

Farmers in need of R&R

100,000 farmers

Notes: (1) USD 4 million of Starbucks' commitment overlaps with Root Capital. Source: Dalberg analysis. See full Guidebook for notes and methodology

If we did reach the farmers in need of R&R, benefits would include more coffee, higher incomes for farmers, and reduction in future deforestation

There is a significant need for R&R across smallholder farmers (SHF) ...

50%

More than 50% of the seven million hectares of global SHF coffee land could benefit from R&R

...entailing that global production could grow significantly...

5-20%

Global production could increase between 5-20% if R&R is applied to all land in need

...which would mean more value to farmers...

1-3B

Farmers could accrue between USD ~1-3 billion at farmgate prices through increased coffee sales per year

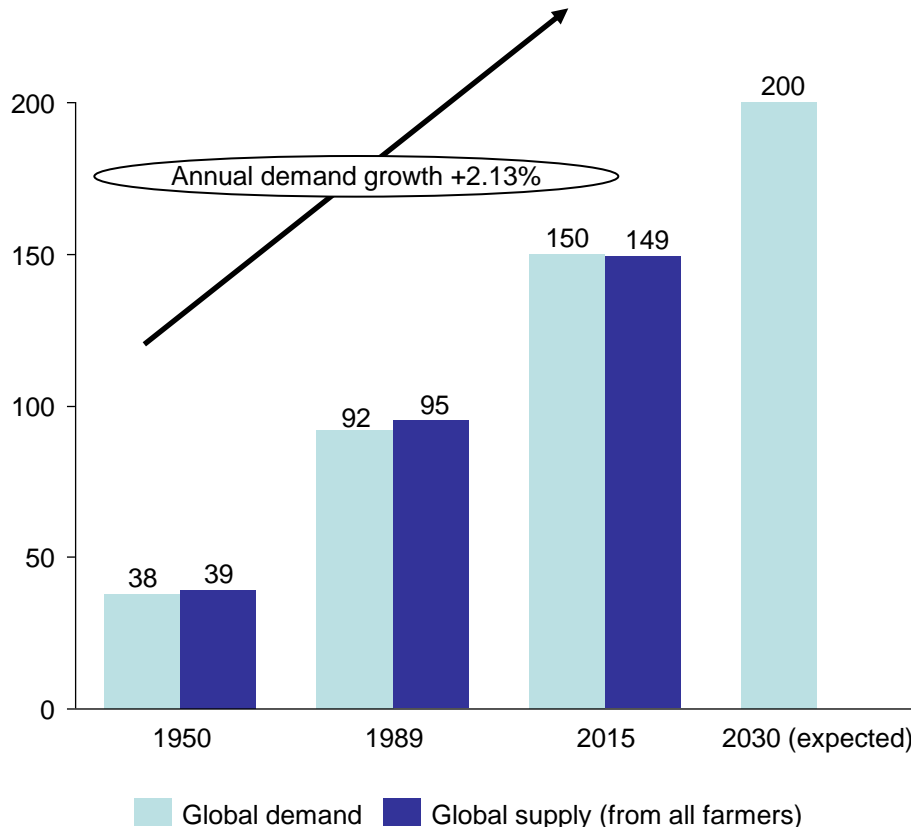
...and fewer trees cut down for otherwise new, expanded, plantations

1-3M

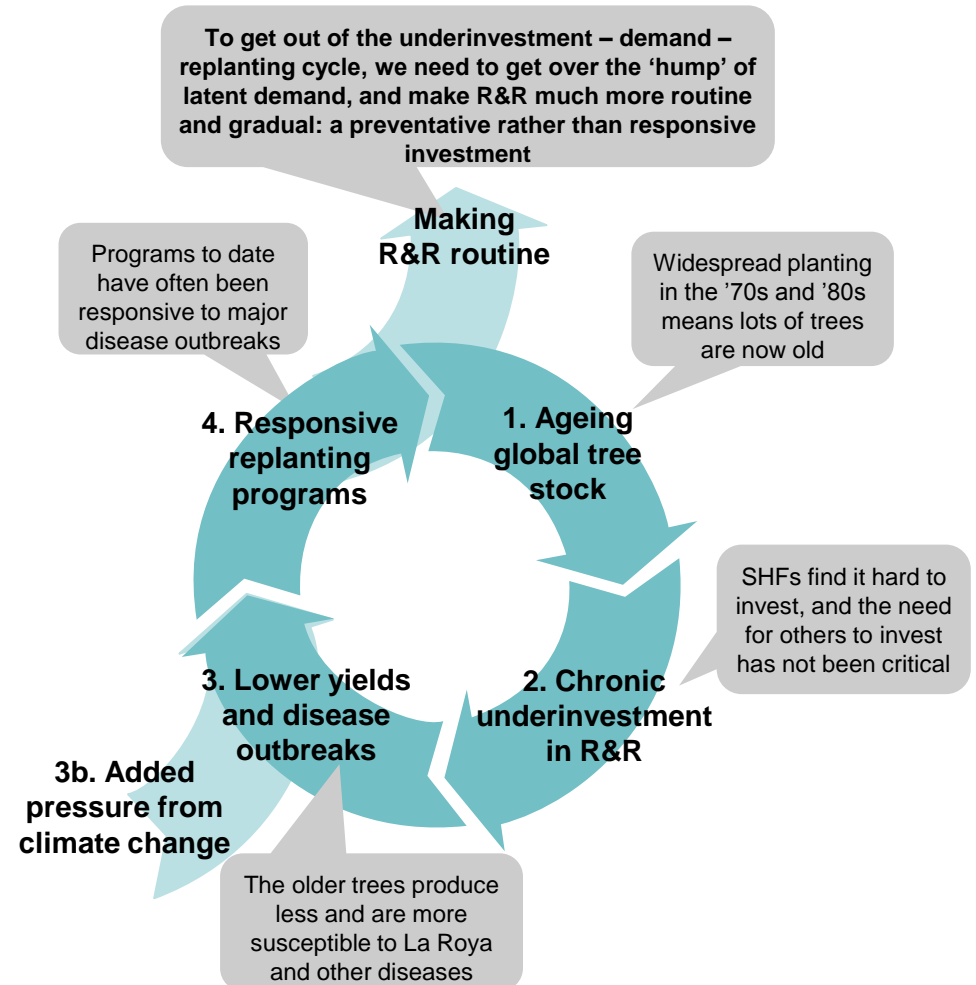
Without R&R, a similar increase in yields and value would require an expansion of coffee land onto ~1-3 million hectares of new land under current yields

Meeting this R&R need will be crucial to securing coffee supply for 2050 and beyond – especially in the light of increasing global temperatures

Global supply has met demand to date



But a real push on R&R will be needed to meet coffee demand for 2050, given an aging tree stock and additional pressure from climate change



But there are no current 'quick fixes' to R&R– not for farmers, nor for actors who implement R&R programs

For R&R to work, you have to align the **farmer-level perspective**

Viability for farmers



“How can I afford to take on a loan when I have school fees, and other commitments?”

“Can I afford to be without that much income for 2-3 years?”

“If the price of coffee changes, will I actually earn more than I do now?”

Attractiveness of R&R vs. alternatives



“Should I risk the increased cost and risk of R&R for potential additional benefits, or simply avoid the risk and rely on my current yields?”

“Should I focus more on coffee and do R&R, or are other crops/economic activities better for me currently and in the future?”

With **strategic and operational considerations from other stakeholders** in the value chain and beyond

Operational feasibility

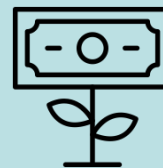


“How do I reach these farmers? Is there a cooperative I can work through?”

“And can the nurseries provide seedlings at the quality and volume I need?”

“Who can I partner with to make this work?”

Investor Feasibility

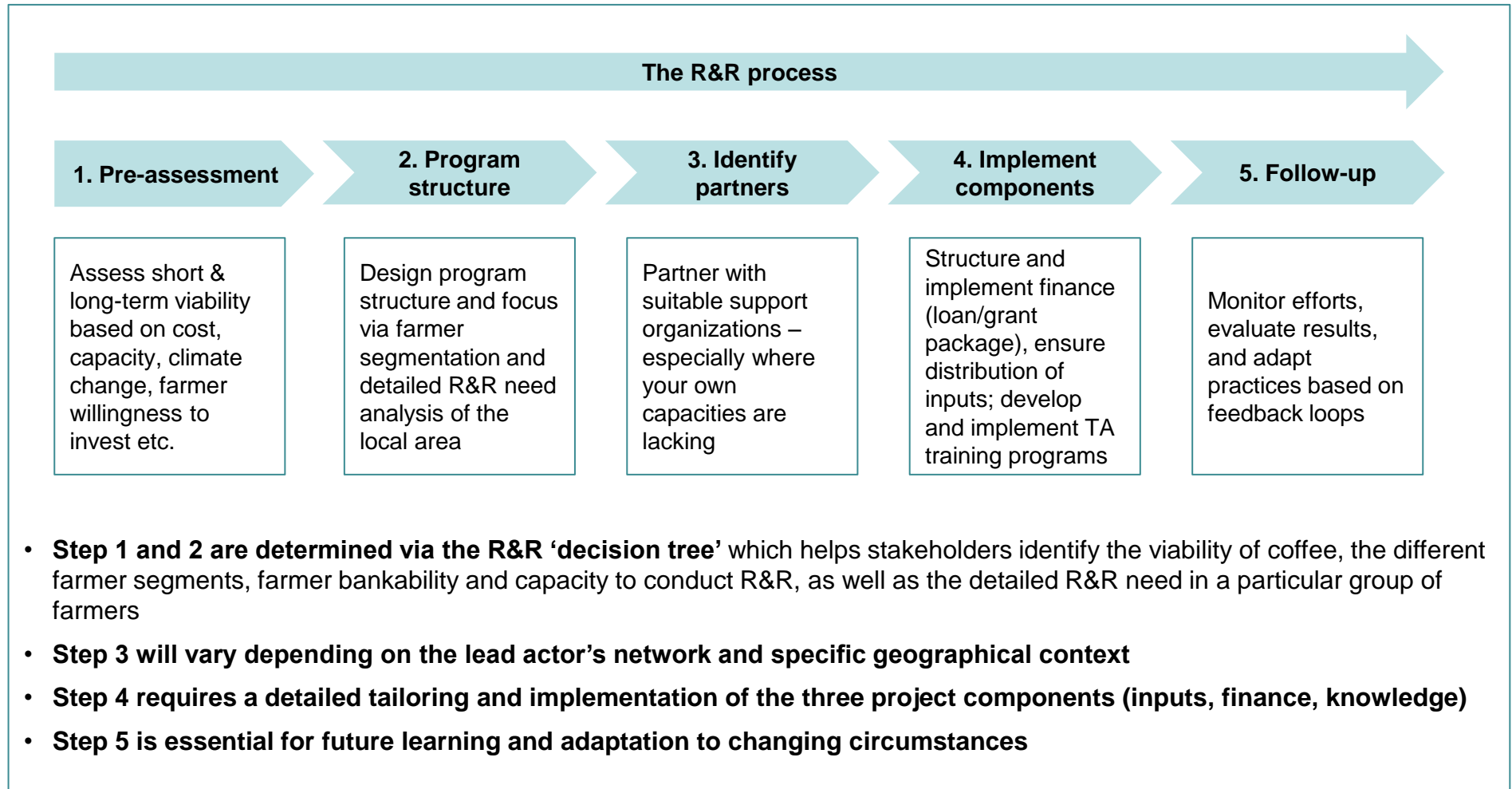


“Is a return on my capital desirable? Feasible?”

“How do I assess risk, when there's so little track record of long term lending to these farmers?”

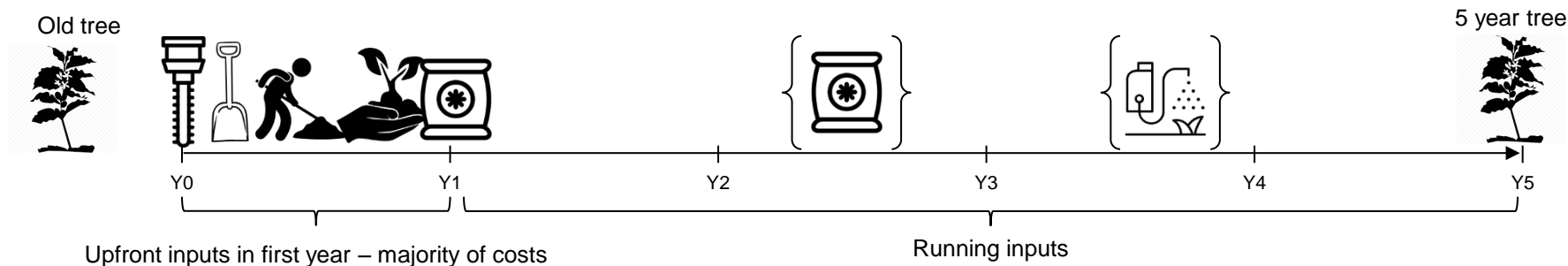
“How do I reconcile that those with the most need, are also the hardest to reach and riskiest to lend to?”

Looking at the issue top-down, there are five central steps to a successful R&R program



And we are getting much better at knowing how to do R&R well (and what not to do!)

Indicative renovation project timeline



Inputs



Tools, labour, planting material, and nutrition are crucial

Knowledge



Technical assistance is a continuous process that is relevant for SHFs and R&R supporting organizations such as cooperatives, nurseries, and local banks

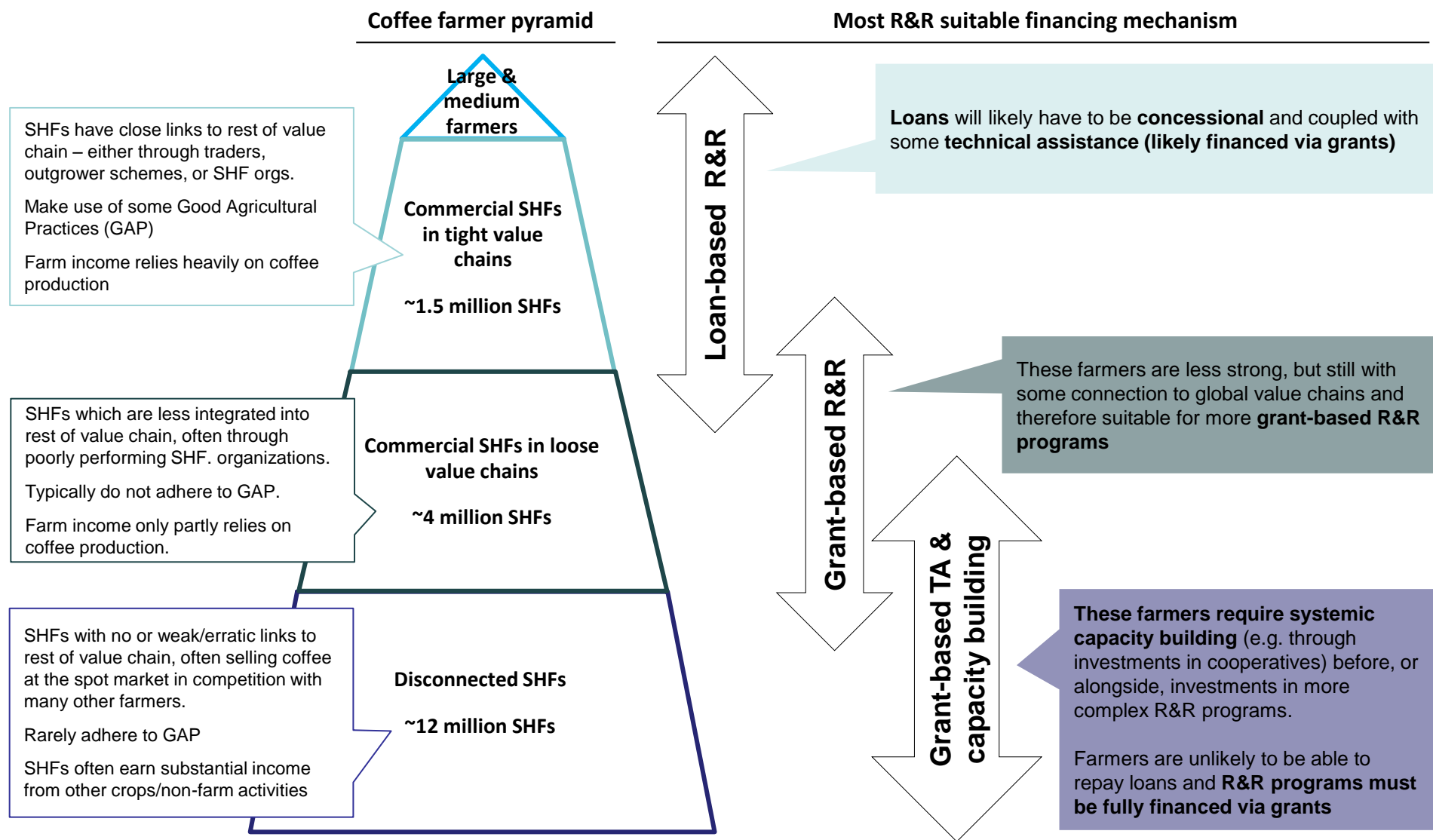
Finance



Often grants, but sometimes loans too, depending on whether the R&R investment is 'bankable', and whether mitigation measures can decrease risks and operational costs sufficiently

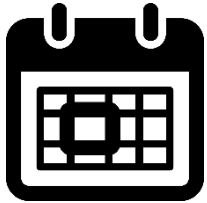
Conceptually, these program components are very simple to outline. However, they can be very complicated to deliver effectively: there is a growing body of evidence on exactly how each should be delivered, and what partnerships support success

For example, concessional loan R&R programs are better suited to the top of the farmer 'pyramid', while grants are better suited to the bottom and middle



But business as usual will not meet the more than 10 million smallholder farmers in need across the globe

Current efforts have fallen short and not targeted the farmers most in need

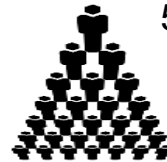


1. 40 R&R projects focused on SHFs to date have only met 5% of the farmers in need
2. These projects have all have been concessional in financing; many have been philanthropic
3. Most programs have targeted the slightly less risky, bigger and better connected farmers

This is not enough



4. There is a limit to how much concessional or philanthropic finance is available. It will not get us to all the farmers in need



5. Those farmers at the 'bottom of the pyramid' who have been less reached, have the greatest need for R&R, and the most to gain

The future must be both 'more', and 'different'



More effort is needed: more investors, more delivery organizations; more study of what works, more sharing of lessons learned



Innovations in finance and delivery are needed to significantly de-risk R&R to the point where it is much more appealing for farmers themselves, and for more commercial capital

A natural starting point is for value chain players to start (or expand) R&R activities with their own farmers

Value chain actors are well positioned to start/expand their engagement in R&R...

...There are a number of benefits for those that take action...

...and this Guidebook can help you get started (or adjust your approach if you are already investing)



- Increased security of supply
- Closer links with farmers
- Social impact – improving farmer livelihoods
- Environmental impact: decreasing deforestation
- Increased licence to operate in a given country
- Brand value/PR/reputational risk management

- Section 3.1 outlines a number of questions on coffee viability, farmer segmentation and detailed R&R need that will help you engage with your own farmer supply base
- These questions can also help refocus and adjust your approach if you are already engaged in R&R
- Depending on your size, you may need to partner with actors in your supply chain, as well as R&R support organizations

Further, this Guidebook identifies seven major needs for the R&R sector, from scaling up existing approaches, to laying the foundations for future R&R



Expand current programming models.

Current programs work well at reaching certain types of SHFs and with 90% of the R&R need unmet, there is a clear and important need to scale up existing programs



Fill data gaps on R&R need, and farmer segmentation

Data on R&R need is scarce globally, often based on expert estimates of how many SHFs there are, and what their links to markets are. Implementers must share lessons learned more widely



Innovate in delivery to dramatically reduce costs

R&R costs vary significantly across countries, but will need to be dramatically reduced for R&R to become feasible for farmers at the 'bottom of the pyramid', including:

- Re-think how inputs are delivered
- Explore if there are lower cost options of delivering the technical assistance at scale



Innovate in finance to leverage commercial capital, and to reach farmers further down the pyramid

- Blended finance models are needed to bring in commercial capital – essential for scale
- Innovations in de-risking lending are needed for the sector to provide returnable capital to farmers who are now only reached through grants



Better understand possible rehabilitation outcomes

The choice between renovation and rehabilitation is not always clear, but renovation has received the majority of the attention, with more projects/investment, and more data on outcomes. Rehabilitation has lower costs and risks, and the sector should seek to better understand what outcomes can be driven through rehabilitation and how often this is 'enough'.



Build R&R support systems by strengthening coops, nurseries, local banks, research institutes etc.

For many countries, the constellation of actors needed for successful R&R is not present and/or capable. These longer term, system-building investments are not glamorous, and hard to justify for value chain partners, but they are nonetheless essential for future R&R efforts










Join others in advocating to governments for the value of R&R

And for best practice in delivering R&R. Governments' budgets and inclusive focus mean their R&R investments can target those farmers that others struggle to reach

For some combinations of actor and need, the business case is clear: the text boxes below represent great places to start

Areas for increased R&R action – by type of actor and R&R need

R&R need	Roaster/trader/retailer	Financial institution	Donor	SHF support organization/NGO	R&D Center/University	Government
	Clear need to expand programming using existing models – almost always in partnership with other actors Should use decision tree-type analysis to target programming					Yes – where coffee is a key part of the economy
	Scale up sharing of lessons learned and data from programs for the benefit of entire sector				Continue to do research and experimentation	
	Larger players could devote some resources to experimental programming		Ability to focus on non-financial definitions of success is a strength here			
		Key role here, for donors, DFIs, social lenders, and local banks to innovate in financing structures				
	Should use decision tree analysis to understand where rehabilitation might be the right choice				Do more research on benefits of rehabilitation versus renovation	
	Relevant for larger actors who can justify programming without tangible benefits back to the business		Focus on public goods that is not always feasible for the private sector	Relevant where there are specialist skills e.g. cooperative strengthening		Focus on public goods that is not always feasible for the private sector
	Significant opportunity – governments are the biggest investors in R&R and can reach the whole pyramid: catalyzing government action would be excellent leverage on others actors' resources					

1

Read this Guidebook to find out much more about R&R: More than 130 pages packed with details on how to choose between renovation and rehabilitation, what lessons we have learned on delivery, how to finance R&R, and more....

2

Share your ambitions, and plans. Find partners. Share what worked and why? Share what did not.

3

Join the Sustainable Coffee Challenge: join the Collective Action Network on R&R

