

# Climate Smart Investment Pathways *for smallholder coffee farmers*

## Introduction

IITA Uganda and partners under the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) (<https://ccaafs.cgiar.org/>) is promoting increased smallholder coffee farmer adoption of Climate Smart Agriculture (CSA) practices in Uganda.

Initial IITA research on coffee in Uganda began in 2006 and has spread across 30-districts, with 58 field trials, and 178 demonstration plots established and more than 4,000 participating farmers. IITA supports the Uganda Government relevant agricultural and coffee research policies, working closely with the Uganda Coffee Development Authority (UCDA) and the National Coffee Research Institute (NaCORI). Working with private sector impact partners such as Olam, Kawacom, Great Lakes Coffee, and Hanns R. Neumann Stiftung, IITA research activities include: land-use mapping; farmer segmentation surveys, and the development of climate smart investment pathways to increase smallholder coffee farmer adoption of good agricultural and climate smart practices. IITA has published almost 30-scientific articles on coffee.

## Description of the Approach

The Stepwise Climate Smart Investment Pathway (Stepwise) is an approach developed by the IITA research team in collaboration with partners. Stepwise breaks down the recommended best practices that many farmers cannot afford to implement into smaller, more affordable packages that can be implemented in phases. Stepwise considers specific agro-ecological variables and farmer needs and aspirations to guide incremental investment by the farmer in specific sets of, and timing of practices. This incremental investment is expected to subsequently increase coffee yields in a stepwise manner.

## The Stepwise Methodology

### Stepwise Investment Pathway (SIP)

The first step in the Stepwise journey was the creation of a national level investment pathway for both Arabica and Robusta coffee in 2016. Conceptualization of the study was shared with key sector stakeholders. An expert group consisting of government representatives, researchers and academia and implementing partners worked together to identify small sets of priority coffee management practices for both mature coffee before first harvest and old coffee.

### Site Specific Climate Smart Investment Pathway (CSIP)

Taking the stepwise investment pathways to a local context, workshops with key stakeholders at the district level were conducted. Stakeholders were divided into four groups to develop a CSIP for both coffee types. The four CSIPs are then compiled into a hybrid CSIP (with expected yields estimated



for each). Subsequent establishment of demonstration plots with impact partner participating farmers provide the testing ground for each site-specific stepwise climate smart investment pathway. IITA researchers deliver a Training of Trainers to the impact partner extension officers. Regular monitoring and data collection is done jointly by IITA and its partners.

Site-specific Stepwise in coffee have been developed for Luweero, Nakasongola and Rakai districts in the Central region, and Ntungamo in the South West for Robusta coffee, and Sironko district in Eastern Uganda for Arabica coffee.

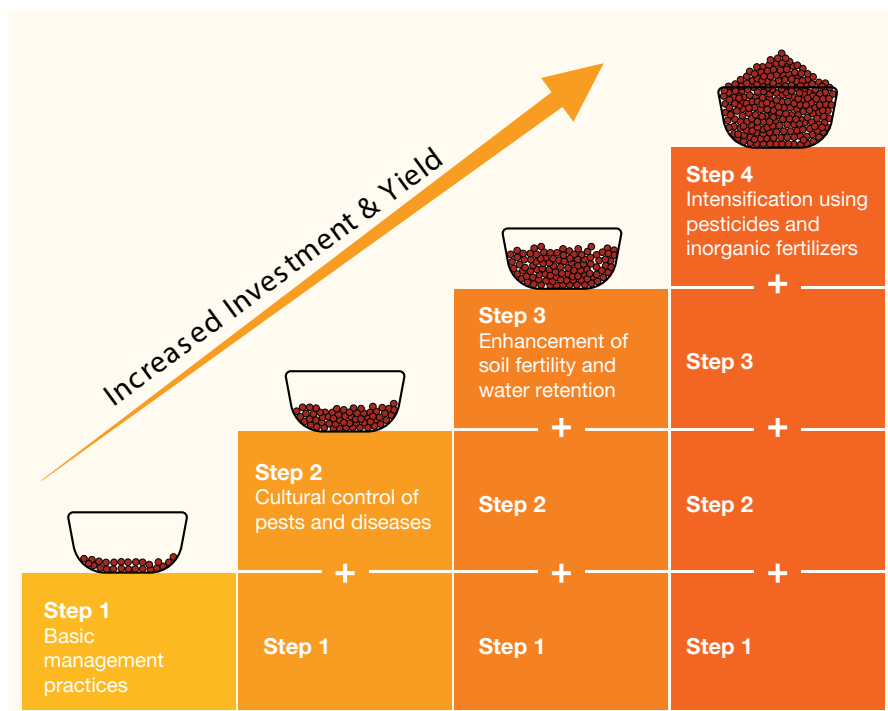
### Overall Benefits of the Approach

- Informs smallholder farmers on the most efficient incremental investments needed to increase coffee yields and promote improved farmer livelihoods
- Increases awareness and knowledge of climate smart agricultural practices thus contributing to increased smallholder farmer resilience
- Informs public and private sector on more effective targeting of extension support to smallholder coffee farmers

### Preliminary feedback

Initial Stepwise participating farmers' feedback from the central Uganda demonstration sites is promising. Stepwise is noted as one of the novel approaches to increasing investment in coffee farming systems by the Uganda National Coffee Platform Financial Viability of Coffee Farming Study Report, October 2018. The report states that initial observations from Stepwise demonstration plots in Central Uganda managed by IITA impact Partner Hanns R. Neumann Stiftung (HRNS) "show high yields in step 4." Preliminary data analysis suggests a decreased incidence of Black Coffee Twig Borer. Local Government partners are encouraging further expansion of Stepwise pilots. Another key impact partner of IITA, Olam Uganda, is also reporting early signs of success from demonstration sites in Mount Elgon. Olam is expanding the testing of the Stepwise approach beyond coffee and Uganda. *"The Stepwise methodology is not only influencing the way Olam staff provide technical advice to coffee smallholder in Uganda, but it's also being used to guide technical support to smallholders in other regions and for other products (e.g. cocoa West Africa)". Piet Van Asten, Vice President, Olam Uganda.*

Formal results from the existing coffee pilots in Uganda will be available mid-end 2019.



**“ Stepwise is a great addition to the Coffee and Climate toolbox especially for smallholders because it is typical that smallholders do not have enough finances to implement all of the CSA practices.”**

**STEFAN COGNINI**  
General Manager HRNS

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