



Case Report The Wood Foundation

RWANDA

Service Delivery Model
Assessment

2018



BLOC: 12
RWAMIKO

Foreword from IDH, The Sustainable Trade Initiative

Importance of Service Delivery

Agriculture plays a key role in the wellbeing of people and planet. 70% of the rural poor rely on the sector for income and employment. Agriculture also contributes to climate change, which threatens the long-term viability of global food supply. To earn adequate livelihoods without contributing to environmental degradation, farmers need access to affordable high-quality goods, services, and technologies.

Service Delivery Models (SDMs) are supply chain structures which provide farmers with services such as training, access to inputs, finance and information. SDMs can sustainably increase the performance of farms while providing a business opportunity for the service provider.

A solid understanding of the relation between impact on the farmer and impact on the service provider's business brings new strategies for operating and funding service delivery, making the model more sustainable, less dependent on external funding and more commercially viable.

About this study

To accelerate this process, IDH is leveraging its strength as a convener of key public-private partnerships to gain better insight into the effectiveness of SDMs. IDH developed a systematic, data-driven approach to understand and improve these models. The approach makes the business case for service delivery to investors, service providers, and farmers. By further prototyping efficiency improvements in service delivery, IDH aims to catalyze innovations in service delivery that positively impact people, planet, and profit.



Thanks

IDH would like to express its sincere thanks to The Wood Foundation (TWF) for their openness and willingness to partner through this study. By providing insight into their model and critical feedback on our approach, The Wood Foundation is helping to pave the way for service delivery that is beneficial and sustainable for farmers and providers.

Project background

- **The project aims at strengthening the tea value chain, for the Mulindi and Shagasha smallholder tea farmers through the following key interventions:**
 - Green leaf quality and yield enhancement;
 - Capacity development and training; and
 - Certification
- **Activities were implemented over a period of 3.5 years, in partnership with IDH, TWFA, and the respective factories (Mulindi & Shagasha) with targeted inputs from carefully selected experts**
- **Support from IDH ensured that the following sustainability issues were addressed:**
 - Farmer protection during market downturns due to enhanced green leaf yield and quality;
 - Revitalization of tea farming in line with the Government of Rwanda (“GoR”) Tea Strategy as farmer commitment to tea farming increases. Rwandan farmers, with a much better return on their tea plants, are now much likelier to re-invest in their farms and not uproot tea in favor of other crops, leading to the growth of the industry;
 - Enhanced management capacity at field, factory and sector level and development of professionally run Rwandan managed factories;
 - Enhanced access to end markets as the smallholder owned factory concept provides a very attractive platform for international buyers. Mulindi and Shagasha are in the unique position of becoming the first smallholder owned tea factories in Rwanda. There is strong consumer interest in buying teas that have a direct social benefit.
 - As Mulindi and Shagasha have become profitable enterprises, the economic returns to the farmer shareholders have had a catalytic or demonstrator effect on the Rwandan tea industry in general, creating market pressures to increase green leaf price and dividends at competitor factories.
 - Creation of a healthy and safe workplace and environment.
- **These improved and new business practices have resulted in more tea, higher quality tea, and more professionally run businesses.** This has ultimately resulted in better returns for farmers, resulting in additional investment by expanding the area of land under tea production, creating a virtuous cycle of higher incomes and investments in the sector.

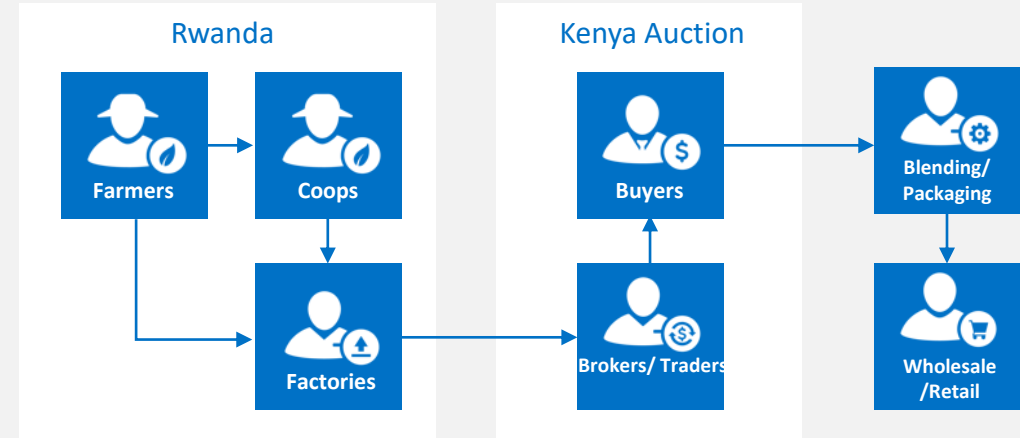
Context – Sector and Case Owner

Case Owner



- The Wood Foundation (TWF) is a Scottish registered charity which was established by Sir Ian Wood and his family.
- The Foundation takes a venture philanthropy approach, aiming to improve livelihoods by stimulating viable market opportunities that will in turn create jobs and generate wealth among the rural poor.
- For its tea programmes, TWF partners with Gatsby Africa, an English registered charity established by Lord Sainsbury that focuses on economic sector development programmes in East Africa. TWF take the management and operational lead on all activities.
- TWF and Gatsby have invested in a majority of the shares of Mulindi Factory Company Ltd (Mulindi) and Shagasha Tea Company (Shagasha) in Rwanda.
- The tea factories are further owned by smallholder cooperatives that collectively represent approximately 11.000 farmers and member shareholders.
- TWF and Gatsby intend to hand over all factory shares back to the local smallholders, once their investments are repaid and sustainable local governance of the factories is in place.

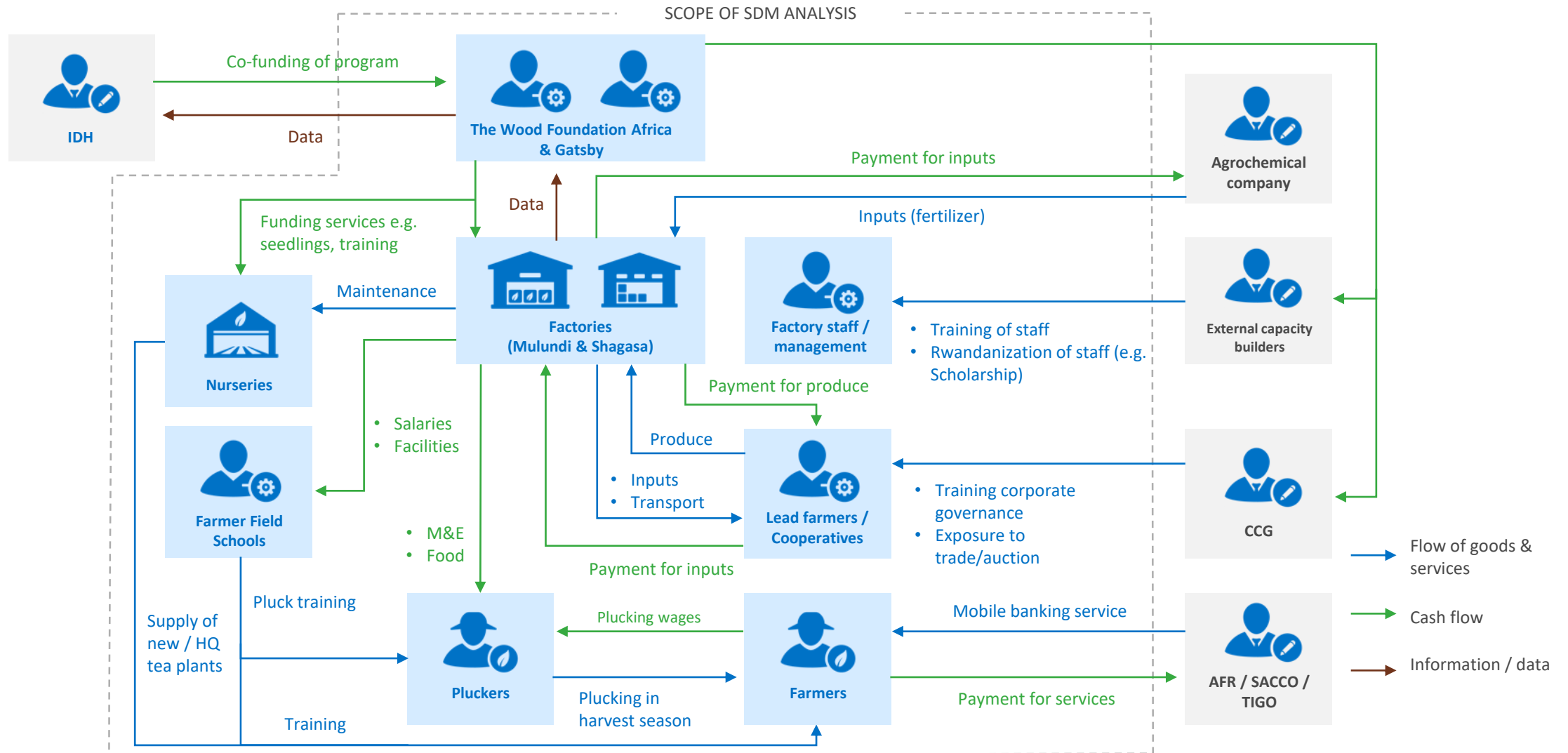
Overview of the tea value chain in Rwanda



- Tea is one of Rwanda's largest export product. Latest annual exports consist of 28 million kg of made tea, corresponding to USD 84 million of product value.¹
- 23% of all Rwandese tea comes from the Mulindi and Shagasha factories (factories in this study).²
- From the factories (~15 nationwide), tea is mainly exported via Mombasa auction in Kenya.³
- After auction, tea is more finely processed (blended/ packaged) where the most value creation takes place.³

Sources: 1: Ministry of Agriculture Rwanda; 2: TWF Chairman's review 2015 ; 3: C.Foster et al., *Connectivity and the tea sector in Rwanda* (2014)

Overview of SDM Services and Revenue Flow



SDM Objectives

OUTCOMES PER STAKEHOLDER

		Farmer	Tea Factories	TWF & Gatsby
CORE OBJECTIVES	1 Improve farmer livelihoods by stimulating financially viable and sustainable tea factories	<ul style="list-style-type: none"> Higher returns on farm investments Improved livelihood More opportunities for employment 	<ul style="list-style-type: none"> Higher returns on factory investments 	<ul style="list-style-type: none"> Attainable break-even point Improved professionalization of Rwandan tea market
SECONDARY OBJECTIVES	2 Increase tea production, yield and quality	<ul style="list-style-type: none"> Improved farm returns Additional opportunities for farm investment 	<ul style="list-style-type: none"> Higher volume of high quality product for export 	<ul style="list-style-type: none"> Improved return on investment
	3 Enlarge local capacity for farm and factory management	<ul style="list-style-type: none"> Increased empowerment through skills improvement More opportunities for employment 	<ul style="list-style-type: none"> More professionally operated factories 	<ul style="list-style-type: none"> Greater security of investment
	4 Attract and secure international buyers with quality products	<ul style="list-style-type: none"> Higher margins on tea Improved security of sales 	<ul style="list-style-type: none"> Improved security in direct buyer relationship 	<ul style="list-style-type: none"> Greater security of investment

Overview of services



Training

- Facilitators have been trained to establish Farmer Field Schools.
- In FFS, for one year, every two weeks farmers are trained in GAP, business management and harvesting techniques.



Capacity building

- Locals are trained at management level to take over factory control from expatriates (Rwandanization). Trainings consist of internships, exchanges and a scholarship programme.
- Factory staff are trained, with a special focus on technical staff & machinery operators.



Extension service

- Pluckers are specifically trained in harvesting techniques.
- Along with agronomists, pluckers are trained in mechanical and shear harvesting.
- Additional services are provided to the pluckers such as food, PPE and sisal bags.



Input provision

- Fertilizers are bought upfront by the factories from agrochemical companies.
- Sales and distribution of fertilizers to farmers is arranged by the factories. No profit is made in the process.



Sources: Project and annual reports Wood Foundation

Overview of services



Nurseries

- Tea plant nurseries are present at both factories, providing high quality seedlings to farmers.
- Plants are available free of cost but with the agreement that farmers invest in land preparation & maintenance.



Corporate governance training

- Farmer leaders, cooperative representatives and factory management are trained, geared towards promoting increased competitiveness, productivity and transparency among stakeholders.



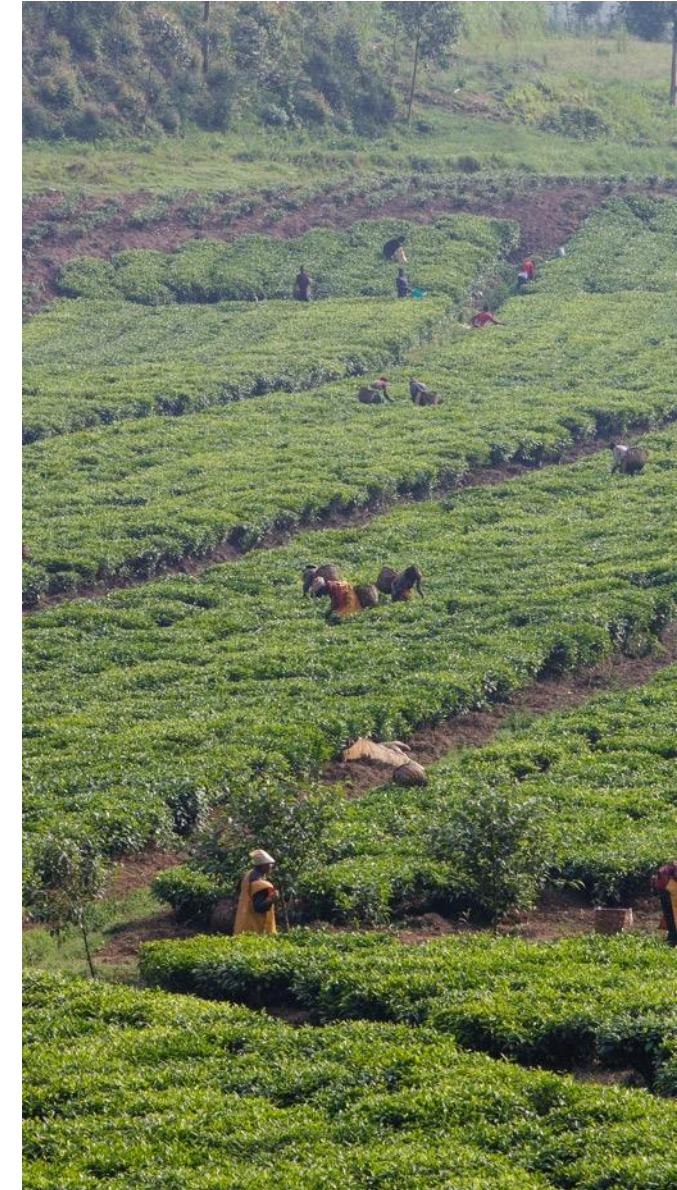
Transport services

- Logistics and facilities for the transportation of green leaf are provided by the factories.
- The costs for this service are recovered partially by the factories.



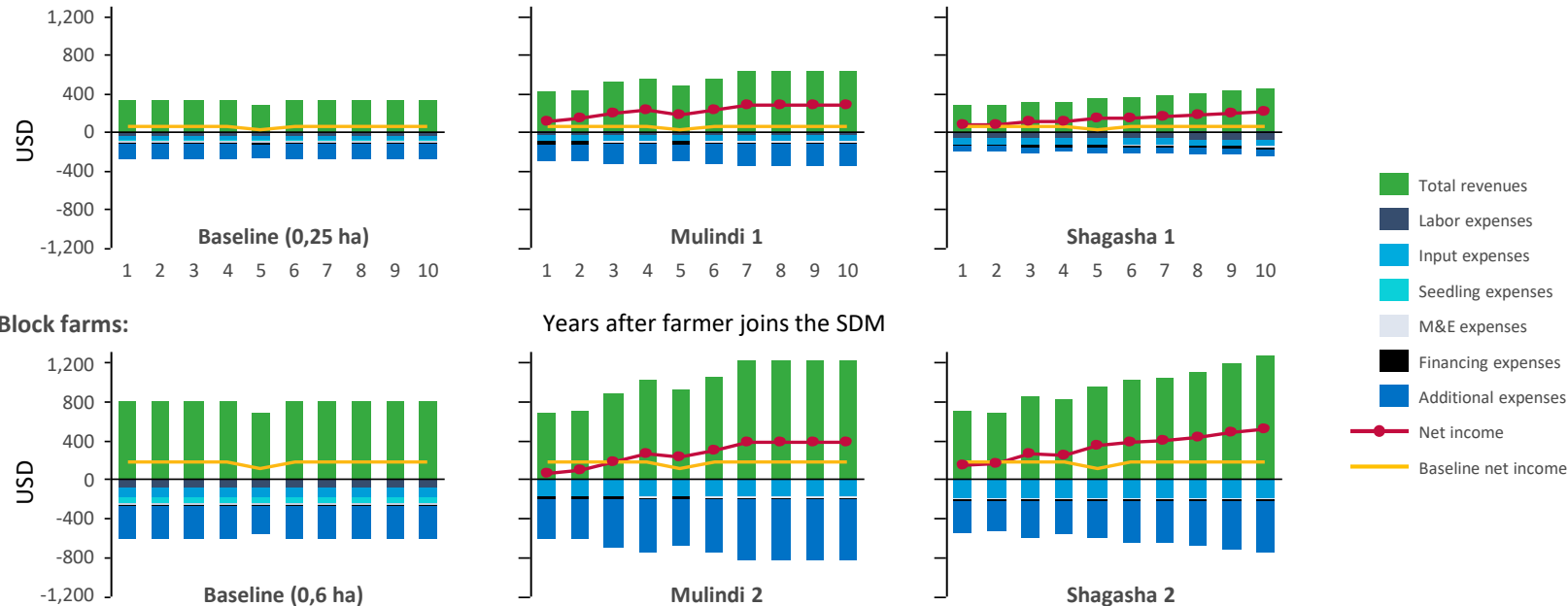
Access to finance

- Payments to farmers for harvest have been automated in order to improve efficiencies and reduce delays.
- All farmers have been provided with mobile phones on which they receive notifications when they can collect their payment.



The SDM's economic sustainability at farmer level

Smallholder-led farms:



“The 2 dairy cows I bought with my tea proceeds produces 15 liters of milk every day giving me additional income and my household. My “little” tea farms (...) has enabled me to build a house. Now, I am able to pay Health insurances easily for my family. I am equipped with skills through training in FFS and corporate governance.”

Bihoyiki Anastase

(COOPTHE)

Economic sustainability at farm level

In general, all SDM farmers have increased their net income compared to the baseline. In year 1, factories have introduced an automated weighing process that resulted in an efficiency increase of 7% in GL supply at the factory. Moreover, SDM farmers get provided free seedlings (for replanting and infilling) which results in more bushes per ha and an increase in kgs green leaf per bush (~60% increase). The smallholder lead coops (av. 0,25 ha) have lower coop costs as they rely on less services. However the yield increase is lower compared to block farm coops (av. 0,6 ha) where more services are provided. Economies and of scale and professionalization positively effect yield/ha. The dip in production in year 5 at Mulindi was caused by drought.

Main cost drivers

Coop fees: Additional expenses are mainly comprised of coop fees. Depending on the coop model, higher fees are paid in return for labour. The farmers pay higher fees for more services.

Inputs: Farmers in the SDM apply 50% more fertilizers than baseline farmers resulting in higher production.

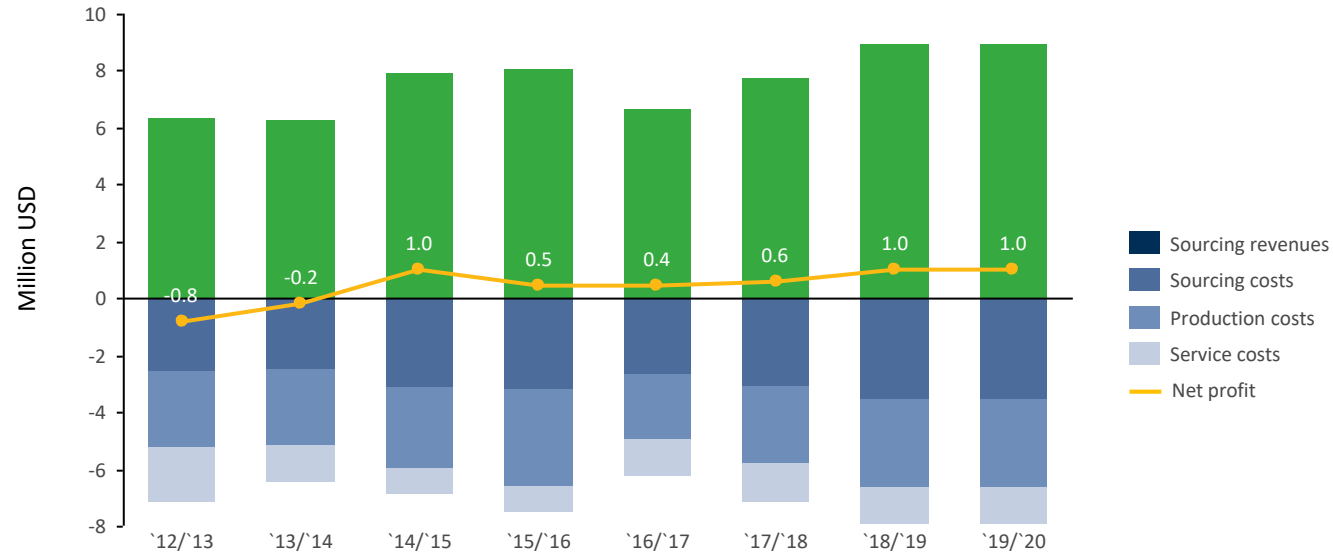
Main revenue drivers

Production: The majority of additional revenues is due to increased yield (incl. the efficiency gain through automated weighing).

Bonus: Based on the profitability of the factory a bonus gets paid to the SDM farmer; on average farmers receive \$0,02 / kg.

The SDM's economic sustainability at factory

Zooming in on Mulindi Factory



Main revenue drivers

Revenues are entirely consistent of tea sales. As the amount of tea processed in the factory increases, both sourcing and production costs increase as well, but by a more or less a fixed ratio. This means that higher sourcing volumes translate into higher profits.

Margins earned from tea sales are higher when sold directly to buyers than via auctions. The intention is thus to shift to a higher percentage of direct sales in the future.

Main cost drivers

Besides sourcing and production costs, there are the SDM costs related to services provided to farmers. In the initial years of this analysis, these costs were mainly provided by co-investors (TWFA & Gatsby) and IDH, thus carrying the factory losses. In the final years of this analysis, service costs are provided more by the factory itself. The results show an independent profitable factory providing services to its farmers.

Economic sustainability of Mulindi factory

Since the goal of this SDM is to make the tea factories into commercially profitable enterprises, it is important to analyze their performance including the SDM costs. The analysis shows Mulindi to be a stable and profitable factory, once all services to farmers are set up and in place. In 16/17 and 17/18 farmer bonuses and dividend were paid, as well as repayments of shareholder loan.



“Bonus and GL payments have removed me from 1st category of poverty to 3rd category and I am now considered “rich”. I have managed to improve my 2rooms house into a big house comfortable for family and I am not ashamed anymore to invite friends to pay us visits.”

Kajeje Protegene

(COOPTHE)

Innovation in the Wood Foundation SDM

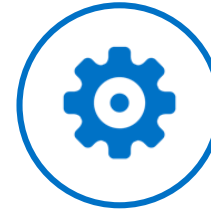


Type of innovation

Access to finance and mobile payments

Description

The partnership between TWFA and AFR was formed in 2016 to automate payments and digitize receipts to farmers for harvest. It has enabled farmers to access finance with reduced delays between harvest and payment; previously, farmers would receive payments for harvest in 10-20 days, but now receive payment for harvest within 2 days. In addition to providing a financial track record for farmers that can enable them to more readily access loans from formal financial institutions, farmers can realize productivity gains for the time otherwise spent traveling to a payment point. Further innovation is envisioned by Tigo through an e-wallet to enable e.g. payment of electricity, money transfers.



Automated weighing / operational efficiency

When TWFA took over the factories in 2012 it automated how harvests are weighed and farmers are paid for their harvests. Previously, payments for harvest per kilogram were reduced by 10% as an estimate for the change in weight due to moisture in the leaves. By automating the weighing process, TWFA now only reduces payments by 3% to account for these factors. This automatically provides farmers with a 7% increase in profitability of harvest, and has created a sense of transparency and trust between farmer and TWFA.



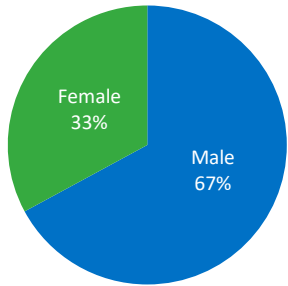
“I get paid easily because of Tigo cash and I am thankful to wood foundation. I am able, through tea income, to buy health insurance for all family members”

Uwineza Beatrice

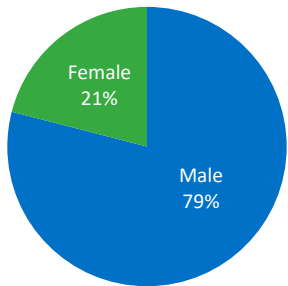
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Gender equality

SDM farmer/plucker distribution (2018)



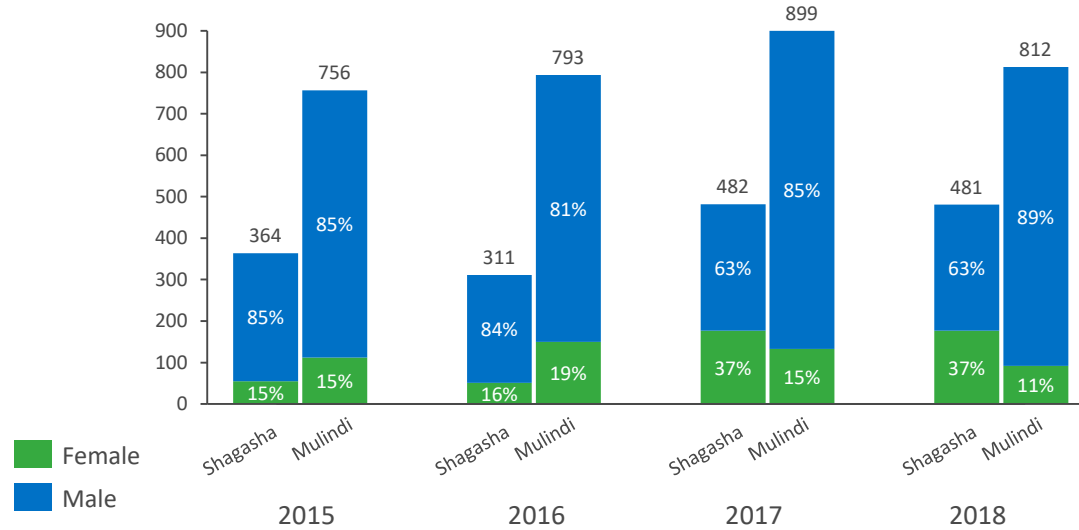
Factory staff distribution (2018)



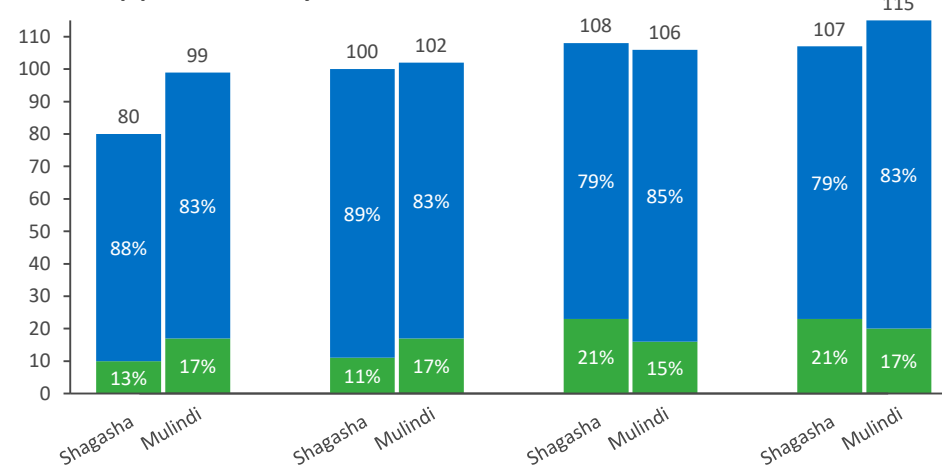
Compound annual growth rate of women in factory leadership positions:

- Mulindi: 5.6%
- Shagasha: 32%

General factory staff distribution



Leadership position factory distribution



Policies in place at factories:

- Disciplinary and grievance procedures
- Overall HR policy specifies:
 - Dealing with (sexual) harassment;
 - Maternity & paternity leave;
 - Handling of sexual harassment acts
 - Disciplinary action
 - Counselling support
 - Recruitment

Conclusions: key drivers for success and key risks



Key drivers of success

- Although in Rwanda farmers are zoned to a factory, Mulindi and Shagasha are nonetheless investing in their relationship with the farmers by **achieving real and direct results** to tea farmers' income and beyond. These results will positively influence farmer loyalty.
- The end goal of the project – handing over ownership to the smallholder farmers – ensured that the SDM is viewed through an economic lens resulting in a professional and **business focused model**. Incentives are in place to improve yield, financial performance and governance. Since '14/'15 a bonus per kg based on factory performance is distributed under farmers.
- Factories, with support of TWFA, take **ownership of capacity building** at factory level and within coops, implementing best practice across all. Moreover, factories facilitate and institutionalize services of the coops ensuring continuity, consistency, quality and professional organization.
- TWFA is **recognized and well connected** in Rwanda (e.g. Ministry of Agriculture, NAEB, AFR). There is clear external buy-in and support of the interventions, and in certain instances the desire to build on and scale the work of TWFA (i.e. mobile banking and the interaction between factories and coops).



Key risks

- **Changing climate** in Rwanda – unpredictable, heavy and concentrated rainfall – has proven to be one of the biggest risks for farmers and thus indirectly to the model. Landslides have caused loss in production (already 150 ha lost in 2018, out of a total of ~3000 ha).
- There is a **lack of crop diversification** at farm-level where there is a potential opportunity for extending service packages to other crops (e.g. to help farmers overcome shocks such as price volatility).
- Certain services are highly **dependent on external funding** (e.g. FFS, capacity building, input provision, nurseries) and could therefore be at risk of continuation in the long run.

“Money from tea has enabled me to build biogas in my home and pay school fees for my children. When I was paid a bonus I was able to plant 2 Ha of eucalyptus which will give me an income when I sell the trees at maturity.”

Mukagahutu Xaverine

(COOPTHE)

Lessons learned during the study exercise



Opportunities for improvement

- Certain services have clear impact on net income. Better understanding of the farmer needs and the value add of services, offer the opportunity to package and price services.
- The **FFS structure can be leveraged** for other services to farmers. This includes services beyond tea farming (e.g. diversification services, social services and insurance). Also, for graduate farmers of the FFS, refresher courses can be organized to increase impact and possibility loyalty.
- The direct relationship with the farmers and a high level of trust could be leveraged to influence farmers to move to farming that will **increase their resilience to the changing climate** (e.g. planting on slopes to avoid erosion).



Key factors in replication of the model

- Key factor in the replication of this model is **patient capital**. Long-term financial sustainability can be achieved, however, to ensure success and direct result initial investments are needed for factory improvements and vehicles.
- Based on **knowledge creation** and building on best practices (e.g. at factory-, service- and farm-level) TWFA transformed from a service delivery model to a knowledge partner for green field projects.
- Matchmaking of **partners for service delivery** (e.g. no-cost partnership around mobile banking) and making use of **existing infrastructure** (e.g. factories, contact points Tigo) make the model innovative and cost efficient.
- Strong **digital component** of certain service delivery components, enables scale.

“Our pluckers are motivated pluckers because of porridge issuance I used to cover long distant to get paid for tea earnings but introduction of mobile payment solution- tigo cash I no longer need to travel those distant. Through FFS I can confidently claim to have skills about agro-practices.”

Kajeje Protegene (COOPTHE)

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