

SDM: Barry Callebaut

Case owner: Barry Callebaut

Location: **Cote d'Ivoire**

Commodity: **Cocoa**

Services:



Coaching



Crop protection



Pruning



Fertilizer



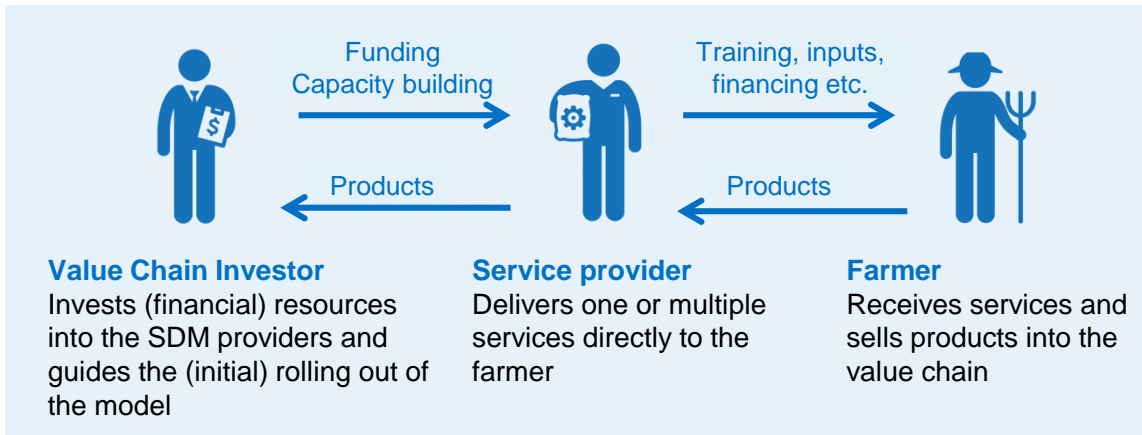
Finance



Introducing Service Delivery Models

Service Delivery Models (SDMs) are supply chain structures which provide services such as training, access to inputs and information to farmers required to increase their performance and sustainability.

SDMs aim to achieve or further either economic, social or environmental sustainability in a supply chain.



Focus of this study

- 1 **Map variety of SDMs** by different companies in different sectors and geographies on their objectives, structure and organization, types of services, delivery approach etc.
- 2 **Aggregate data** from the individual case studies collected into the database
- 3 **Analyze the economic sustainability** of the SDMs at the level of the farmer, service provider and VCI
- 4 **Extract lessons learned** on key success factors, risks, scalability, cost-effectiveness etc.

Purpose of the study and benefits to supply chain



- Design more cost-effective SDMs, through better insights into what works in which cases



- Gain insights into how to design and implement more cost-effective SDMs



- More efficient services delivery and impact generation (better livelihoods, higher productivity, etc.)
- More transparency on whom to work with



- Benefit from strategic learning trajectory within and across sectors, based on a unifying methodology
- Opportunity to join learning platform

The Barry Callebaut's SDM objectives and structure



Barry Callebaut has two main channels to source cocoa from farmers:

1. Through Biopartenaire it sources from unorganized farmers
2. Through cooperatives it sources from organized farmers

Objective of Barry Callebaut's SDM in Cote d'Ivoire:

- To build communities of professional, bankable farmers with better livelihoods and a close relationship with BC for selling their cocoa

General SDM information:

Location: Cote d'Ivoire

Start of the program: 2015-2021

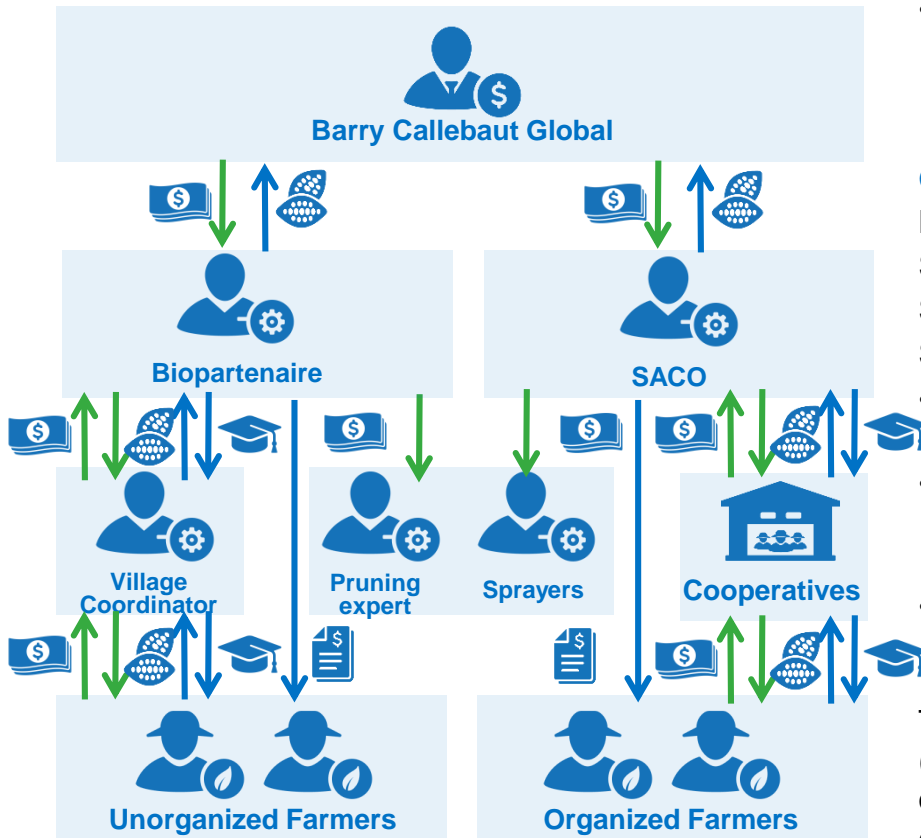
SDM operator: Biopartenaire

Services provided to farmers:

- Farmer **coaching**, which includes the development and implementation of a farm development (business) plan;
- Sale of a productivity package that includes training in **pruning**, provision of **crop protection** inputs, and **fertilizer** for a select group of professional, credit-worthy farmers;
- A **credit** to purchase the productivity package, with a cash collateral and re-payment through cocoa sales to Barry Callebaut.









The model relies on the will and ability of farmers to buy inputs (and pay back the loan), through cocoa sales to Biopartenaire or BC through the cooperatives. Pre-selection of the more equipped farmers is the key to selecting suitable farmers.

SDM Barry Callebaut



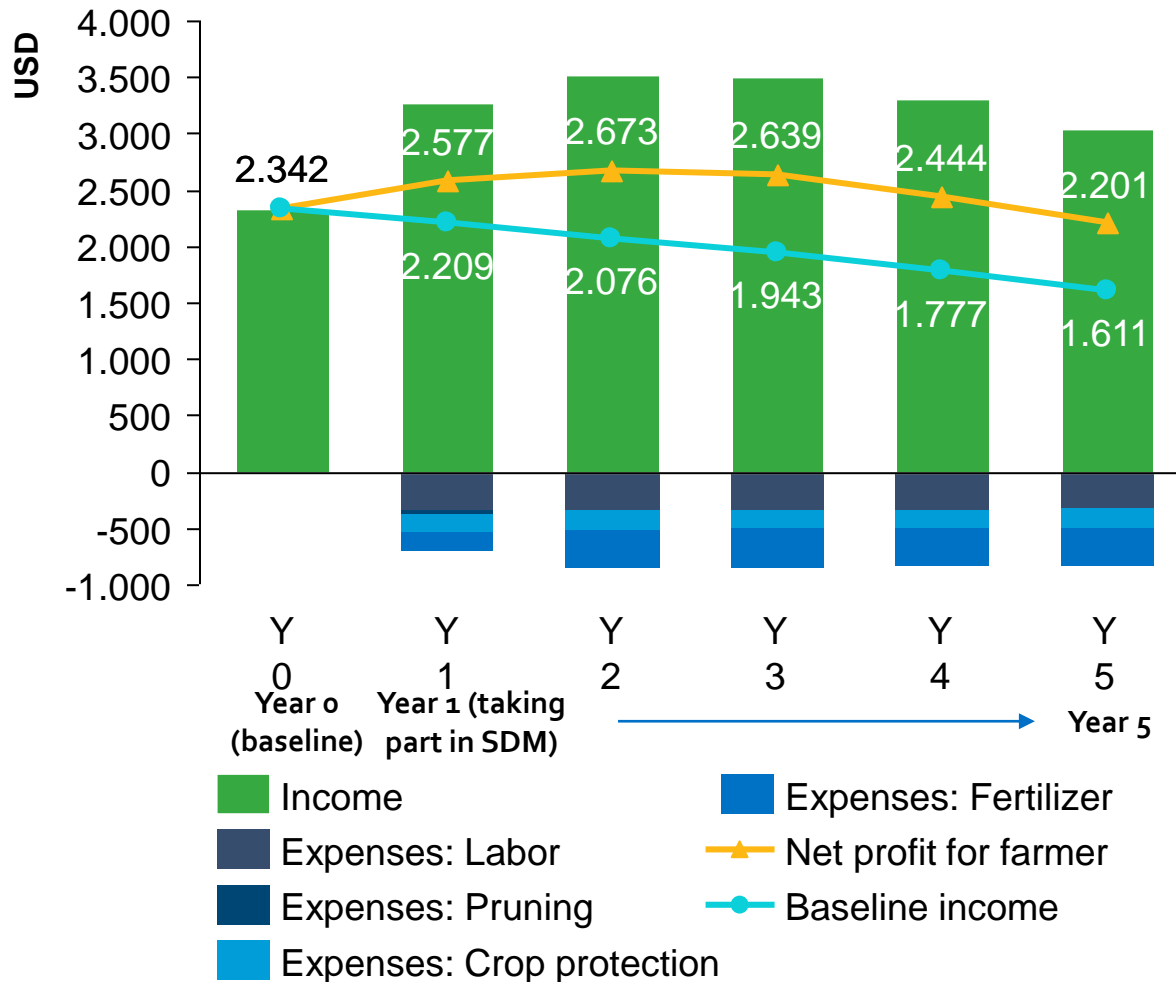
Legend ← Flow of goods and services → Cash flow

Types of services delivered within the SDM

	Value Chain Investors & Service Provider	Other
		 
 Coaching	<ul style="list-style-type: none"> Trains the Village Coordinators (VC) and producteur relais (PR) to become farmer coaches Monitors their performance 	<ul style="list-style-type: none"> VC/PR interact with farmer to develop and implement “farm development plan” including a savings plan Monitors progress against the plan and oversees input applications
 Crop Protection	<ul style="list-style-type: none"> Buys inputs from company and distributes them to farmers Operates assessment system to designate which farmers are eligible for purchasing which inputs 	<ul style="list-style-type: none"> Crop protection company sells the inputs to BC and Biopartenaire for onward distribution
 Fertilizer		<ul style="list-style-type: none"> Fertilizer company sells the inputs to BC and Biopartenaire for onward distribution
 Pruning		
 Finance	<ul style="list-style-type: none"> Collects cocoa and then transfers part of farmer cocoa revenue to pay back loan (and optionally a part onto savings account) Selects farmer eligible for loan agreement, based on farm assessment and collateral 	<ul style="list-style-type: none"> VC/PR Facilitate credit repayment MFI provides a saving account to store the farmer savings for next year

The SDM's economic sustainability at farmer level

Individual farmer with PP (3 ha cocoa farm)



Economic sustainability at farm level

- The positive impact of fertilizer dips quickly as productivity of the aging tree declines.
- Cocoa farms in IC suffer from aging tree stock. The intervention with a productivity package is overshadowed by the yield decrease that comes from declining tree productivity.
- There is a relative improvement in yields and income compared to having no intervention.

Main revenue drivers

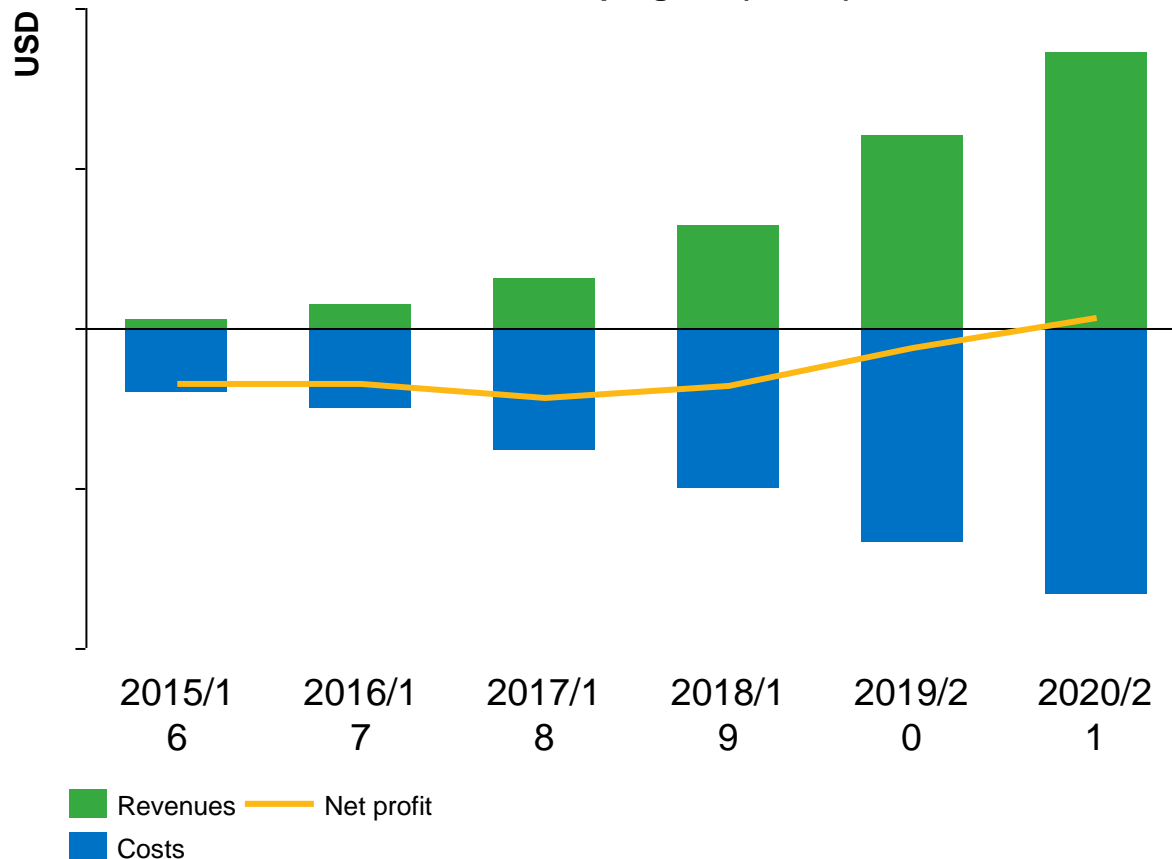
- Fertilizer does lead to additional productivity, and over \$400 additional revenue in year 3.

Main cost drivers

- The added costs of \$282 per year for the fertilizer are a significant investment for the farmer at roughly 10% of his profit.

The SDM's economic sustainability at service operator level

Costs and income for Barry Callebaut in the SDM program (\$ USD)



Economic sustainability at value chain investor level

- Barry Callebaut's aim in the SDM is to gradually make the model self-sustaining and therefore cost-neutral.
- For the foreseeable future, however, the model is expected to continue to have a cost for Barry Callebaut.

Main revenue drivers

- The key factor in making the model break even is the revenue that is obtained from taking a margin on the Productivity Package.
- The exit strategy of outsourcing lending to the financial sector upon confirmation of farmer creditworthiness seems viable.
- Cocoa sourcing is a key factor that is not taken into account for current P&L numbers.

Main cost drivers

- Overhead, particularly training costs to create capacity, are a significant cost factor.
- Amortization costs are dominating the cost segment as the model scales up.

Conclusions and lessons learned

Key drivers of success



- An expected virtuous cycle lies behind the BC-SDM. The right farmers apply the right amount of fertilizer and get an increase in return on their farm, while they are introduced to the banking system. Farmers that are not yet ready for fertilizer only use crop protection. Noticable yield improvement is key for engagement.
- This cycle depends on selecting the right farmers to take the next step throughout the implementation of the model.
- Finally the farmers should be willing to sell their cocoa to BC. If he sells it elsewhere this complicates the repayment of the loan.

Key risks



- The most obvious risk is the lack of replanting in the model at a rate that goes beyond maintenance. This may be difficult to remedy as replanting in Côte d'Ivoire faces several logistical and regulatory constraints.
- Lack of impact of the fertilizer may also be a significant risk. Everything stands or falls with selecting the right farmers, that are able to get the maximum fertilizer “bang” for their “buck”.
- Farmers not paying back their loans, finally, is a big risk factor.

Key factors in replication of the model



- BC has introduced a highly innovative and bold approach in delivering inputs to selected farmers on credit.
- The way they select farmers, through an assessment methodology that is both controlled by BC as well as complemented by the in-the-field knowledge of farmer coaches is replicable.
- The model may in fact be easier to replicate in other countries, where it is possible to combine it with a significant replanting effort or where farmer-based organisations are lacking.

Impact on objectives



Improved farm yield



Increased farmer income

- Based on this case study and related modeling exercise it was found that farmer income does increase as measured against the baseline.
- For the model to lead to a long term viable income level for the farmer a significant rejuvenation effort would need to be included.



Sustainable input provision

- BC has developed a highly innovative approach to farmer input distribution that seems promising.
- By selecting farmers and coaching them towards effective input distribution it could solve a key bottleneck in making farmers more productive and profitable.



Iris van der Velden

Manager Innovation Finance

+31 (0)30 230 7854

vanderVelden@idhsustainabletrade.com



Joost Gorter

Sr. Consultant

+31 (0)30 234 8218

joost.gorter@newforesight.com

