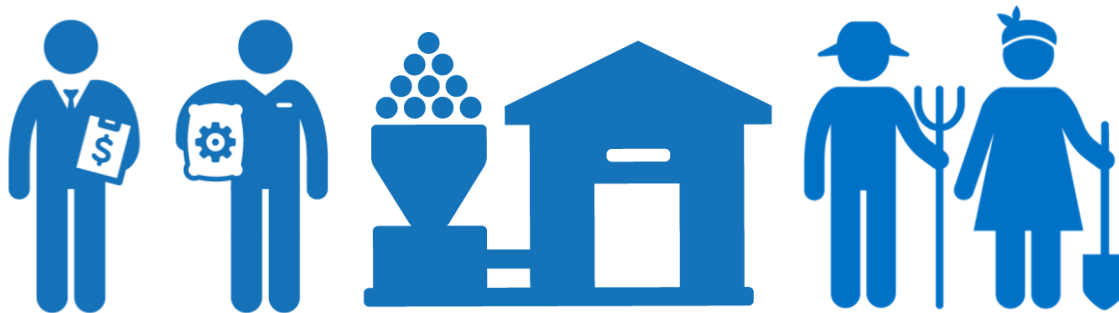


SDM: Case Report Gourmet Gardens

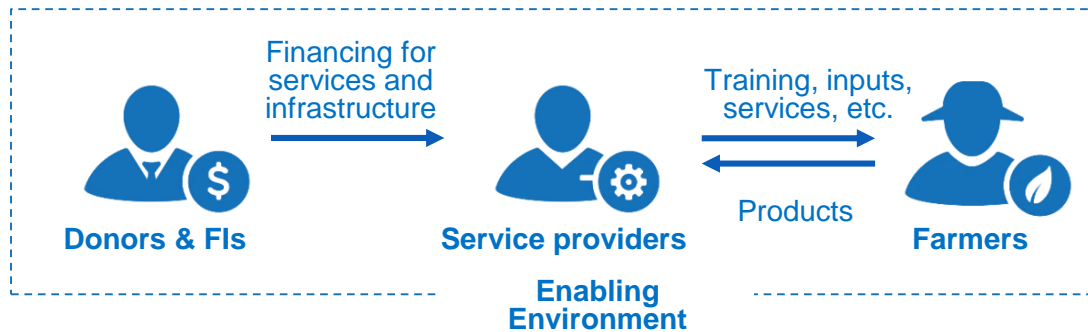
Service Delivery Model assessment: short version
May 2019

Location: Uganda
Commodity: Cocoa and vanilla
Services: Training & capacity building, monitoring & certification and planting materials



What are SDMs and why are we interested in analyzing them?

Service Delivery Models (SDMs) are supply chain structures, which provide services such as training, access to inputs and finance to farmers, to improve their performance, and ultimately their profitability and livelihoods.



By analyzing SDMs, we aim to support **efficient, cost-effective and economically sustainable SDMs at scale** through:

Key drivers for success of SDMs benchmarking



Innovation opportunities to support



Cross-sector learning, learning community



Convening at sector and national level



Analyzing SDMs brings a range of benefits



Farmers and farmer organizations

- **Better services** improve productivity, product quality, quality of life and social and environmental outcomes
- **Better outcomes:** improved productivity, income and resilience



SDM operator

- **Understand** your model's business case
- Gain insights to **improve** service delivery
- Develop **cost-effective** SDMs based on insights
- Identify opportunities for **innovation** and **access to finance**
- **Learn** from other public and private SDM operators operating across sectors/geographies
- **Communicate** stories of impact and success at farmer level



Investors/FIs

- **Common language** to make better informed investment decisions
- Insights to achieve optimal **impact, efficiency and sustainability** with investments and partnerships in SDMs

The Gourmet Gardens SDM and objectives

General SDM information:

Location:	Uganda
Timing in analysis scope:	2019 - 2023
Scale (start of analysis):	2100 farmers
Scale (end of analysis):	3000 farmers
Funding:	IDH
SDM Archetype*:	Local/Regional



GOURMET GARDENS

Gourmet Gardens (GG) is a Ugandan-registered business with over 15 years experience producing and exporting organic and fair trade vanilla and cocoa. GG currently works with 350 local farmers and is looking to expand to 3,000 in the coming years. Products are exported to the EU, Japan and the US, with planned expansions to Australia and mainland Asia. Current production is 2-3 MT of cured vanilla per year and 200 MT of dry cocoa. Their products (cocoa and vanilla with planned expansions to macadamia, dried fruits and spices and aromatic plants) are all certified organic and Fairtrade, fetching premiums for their focus on quality and sustainability.

SDM objectives:

- 1 Increase cocoa and vanilla yields and quality.
- 2 Farm sustainably with diversification and organic production.
- 3 Create a trustworthy value chain.

SDM rationale:



Improve yield and quality



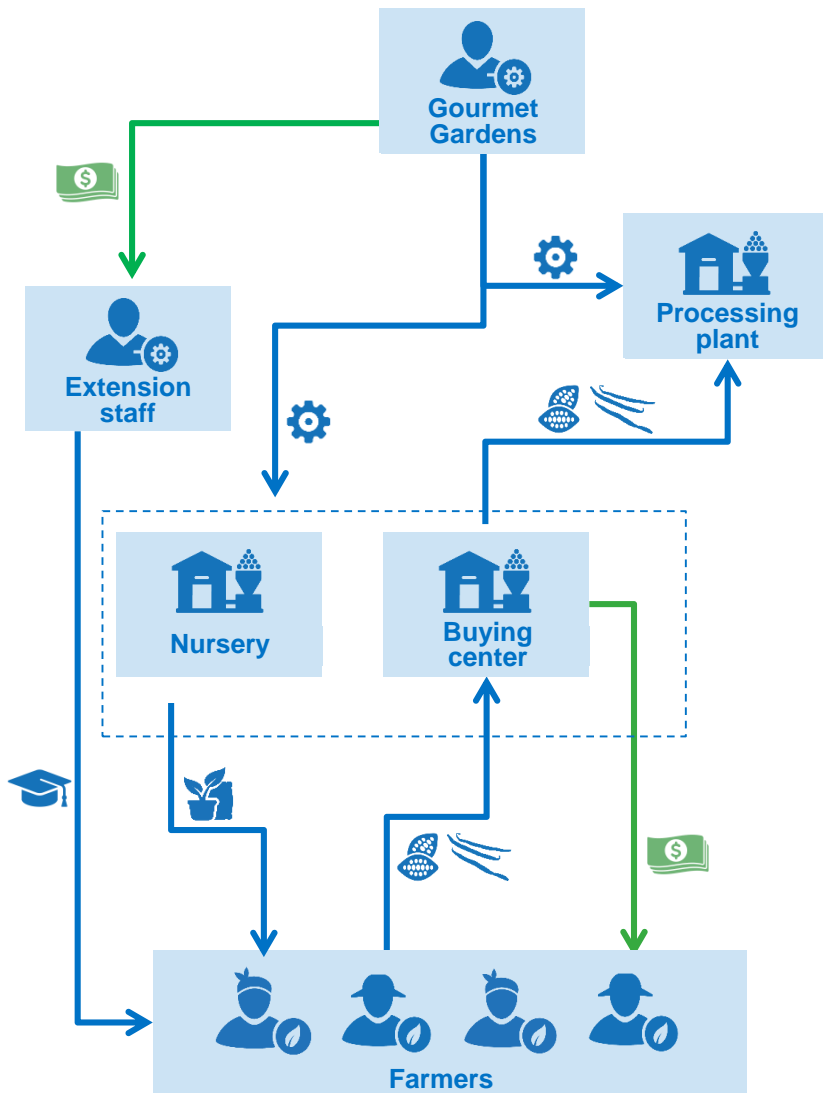
Organic and certified production



Strengthen farmer livelihood

* For more info on SDM archetypes, see the [IDH Smallholder Engagement Report](#)

SDM and structure and enabling environment



Legend → Flow of goods and services → Cash flow

- Farmers sell produce directly to Gourmet Gardens' buying centers which then transport vanilla and cocoa to a centralized Gourmet Gardens processing plant.

Enabling environment

Farmers are impacted by several factors within their enabling environment. Most important are:

1. Inputs & financing

Majority of farmers do not have the financial means to invest in high quality inputs or other services e.g. security. GG is looking into different ways to provide financing to farmers.

2. Pricing & competitiveness

High (but volatile) market prices for vanilla create risk of theft. GG is looking into ways to support farmers in theft reduction.

3. Social context

Finding work can be challenging for women, especially those with children below school age. GG is providing a kindergarten on site at the plantation; GG employs a majority of women at the plantation.

Services delivered and farmer segmentation



Training & capacity building

- GG provides farmers with training on a wide variety of subjects, including compost preparation, organic pesticides, fungicides and fertilizer, financial management and traceability
- Extension staff provides both individual and group training
- Demeter certified farmers receive more specialized training
- GG is exploring options for alternative training delivery methods to be provided on their plantation



Monitoring & certification

- GG supports farmers to become certified. Certification labels are:
 - Organic (EU, USDA, JAS)
 - Fair for Life
 - Demeter
 - Fairtrade
- Extension workers heavily monitor and collect data from farmers in the SDM. Besides compliance of certification, data is gathered on agronomy, social and community status and economic status



Planting materials

- A central nursery is operated by GG to provide farmers with high quality planting materials of cocoa and shade trees
- Mainly Eastern farmers are stimulated to plant cocoa and shade trees such as banana. Seedlings for these trees can be purchased at the nursery
- Occasionally, seedlings are gifted to farmers to reward them for adoption of recommended practices or high loyalty



Digital payment & loans

- GG is exploring options to use digital transactions to farmers to limit cash-related risks and provide secure and fast payments
- Additionally, GG is looking for ways to support farmers in reaching access to finance, e.g. by maintaining financial records of farmers



Theft prevention services

- GG is exploring options to support farmers in securing their farms against vanilla theft, which is a major struggle of SDM farmers
- Such services could include the provision or facilitation of hedge planting materials, armed guards or dogs, or alarm systems.

Farmers are segmented in this SDM:

Organic West

Farmers in the West already produce vanilla and cocoa.

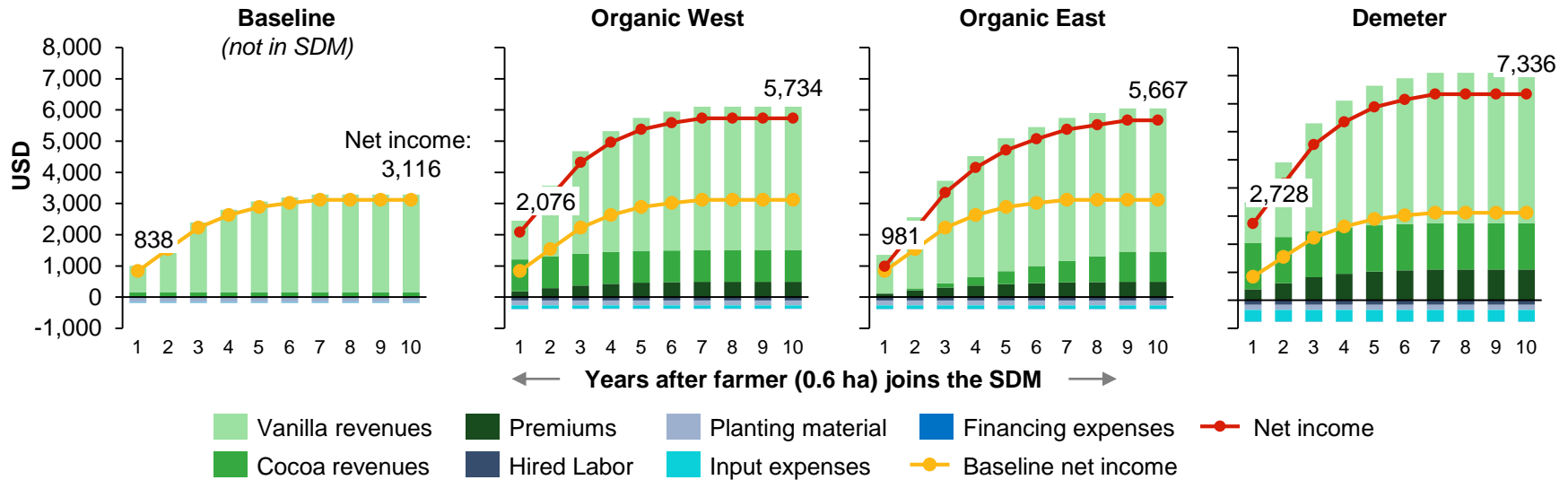
Organic East

Farmers in the East produce vanilla and are starting to produce cocoa.

Demeter West

Some well-performing farmers in the West have obtained the Demeter certification label. These farmers have higher yields, larger farms and obtain a higher certification premium.

Overall SDM impact: Farmer P&L



Economic sustainability at farm level

Baseline farmers who focus on vanilla and grow little cocoa, presently earn 800 USD annually. In year 1, vanilla vines are still young and largely unproductive, as vines become more productive over the next years, net income rises but stabilizes around 3,100 USD.

Organic SDM farmers in West Uganda earn much more than baseline farmers, mainly due to their increased production of cocoa, and the higher price they receive for their vanilla from GG. Revenues increase over the years due to the further maturation of vanilla vines.

Demeter certified farmers in general have a greater number of cocoa trees planted, have higher yields due to better farming practices and receive a greater premium for their certified vanilla. Revenue for Demeter farmers is therefore greater than for other farmer groups.

Organic SDM farmers in East Uganda start with an income close to the baseline level, since they have little cocoa planted. As they start to intercrop with cocoa and their vanilla vines mature, their income comes on par with Western organic farmers over the next 10 years.

Main revenue drivers

- **Vanilla:** Vanilla makes up the largest part of the farmer's revenue, which continues to increase over the next 7 years as the young vines become more productive.
- **Cocoa:** Cocoa makes up about 30% of total revenues for SDM farmers, boosting their incomes above baseline farmers who barely produce cocoa. Eastern SDM farmers are in the process of planting new cocoa trees.
- **Premiums:** SDM farmers, and especially Demeter farmers, receive significant premiums from GG for their produce.

Main cost drivers

- In general, farming costs for organic farmers are low because few inputs are needed. SDM farmers have slightly higher costs than baseline farmers, due to the hiring of laborers for vanilla flower pollination and purchasing organic inputs.
- There are still large opportunities for further farm investments, e.g. purchasing more fertilizer, mulching material, labor and theft prevention measures, but farmers are reluctant to invest due to low incomes (and therefore insufficient cashflow) and high risk of theft.

* Based on a combination of real data, assumptions and projections. Figures will be checked periodically against actual data

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Specific service impact: sensitivity analyses

Sensitivity of farmer income

The farmer's income is highly dependent on two uncertain variables: the volatile market price, and the amount of vanilla sold. Currently, prices are very high, but individual farmer production levels is low due to young vines and a high rate of vanilla theft.

Farmer theft and security costs

Reportedly, 70% of vanilla produce is stolen during the months in which the vanilla beans mature. Such theft can easily be reduced by several measures, such as planting a thorny Kyapo hedge around farms, or hiring armed guards for a large part of the year. These measures are financially beneficial for farmers. By themselves, farmers are unlikely to adopt these measures, due to low incomes and hesitancy to invest in their farms. Therefore, supporting farmers in theft prevention measures or access to finance can be very beneficial to GG.

Indicative vanilla world market price (USD/kg) ↓

Farm-gate price (USD/kg) ↓

SDM farmer annual net income from vanilla (USD) for varying vanilla prices and yields

Produce sold (kg), dependent on yields and theft

World Price (USD/kg)	Farm-gate Price (USD/kg)	10	20	40	80	150	250	350
1	1	-368	-358	-338	-298	-228	-128	-28
40	5	-328	-278	-178	22	372	872	1,372
60	10	-278	-178	22	422	1,122	2,122	3,122
80	20	-178	22	422	1,222	2,622	4,622	6,622
120	30	-78	222	822	2,022	4,122	7,122	10,122
200	40	22	422	1,222	2,822	5,622	9,622	13,622
300	50	122	622	1,622	3,622	7,122	12,122	17,122
450	60	222	822	2,022	4,422	8,622	14,622	20,622

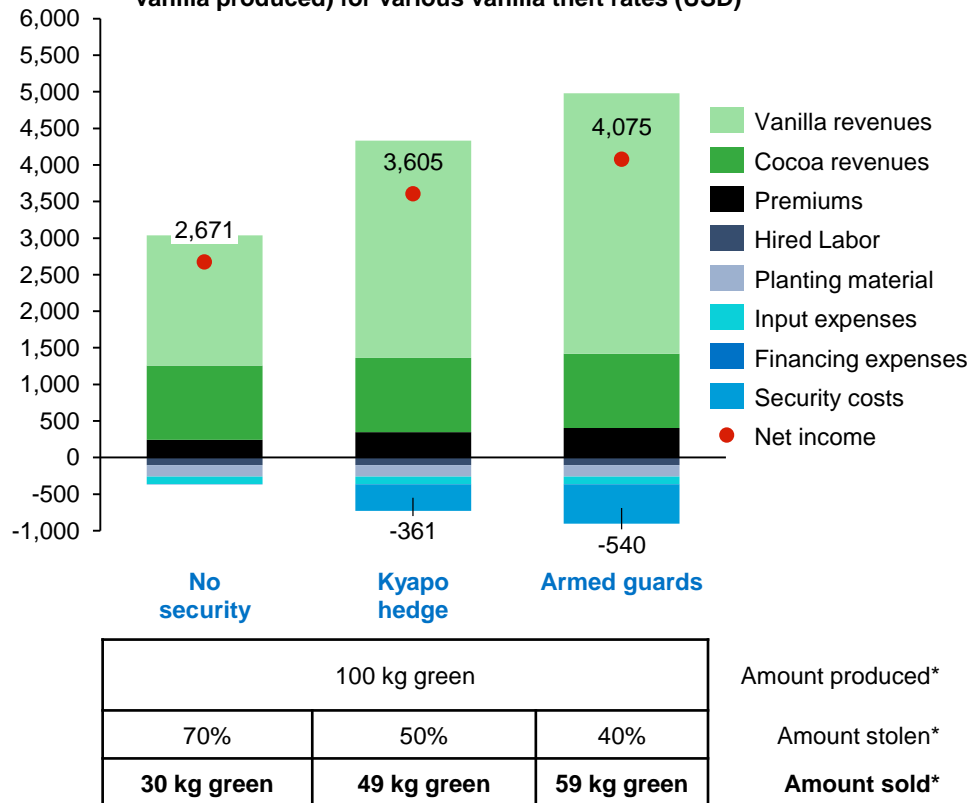
Current farmer
 Future* - High price, 70% stolen
 Future* - Expected price, 40% stolen
 Future* - Low price, 0% stolen

*Assumes an average organic SDM farmer by 2026 with a plot size of 0.6 ha.
 Sources: 1) Financial Times, 25 April 2017: Vanilla price reaches record high after Madagascar cyclone"

Several scenarios can be projected for the future:

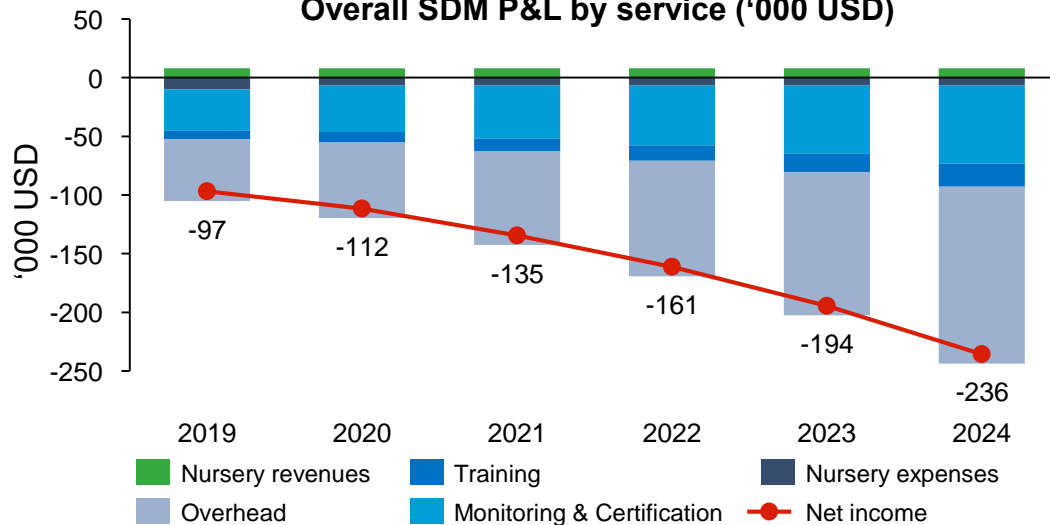
- **High market price:** If the price remains high, theft will also stay high, resulting in 4,400 USD annual net income from vanilla.
- **Medium market price:** In this most likely pricing scenario, prices and theft have decreased, leading to a net income of 4,100 USD
- **Low market price:** If farmers receive prices down to 1 USD/kg, the crop would be unprofitable and the risk of farmer dropout high.

Organic west farmer (0.6 ha) net income (at 100 kg vanilla produced) for various vanilla theft rates (USD)

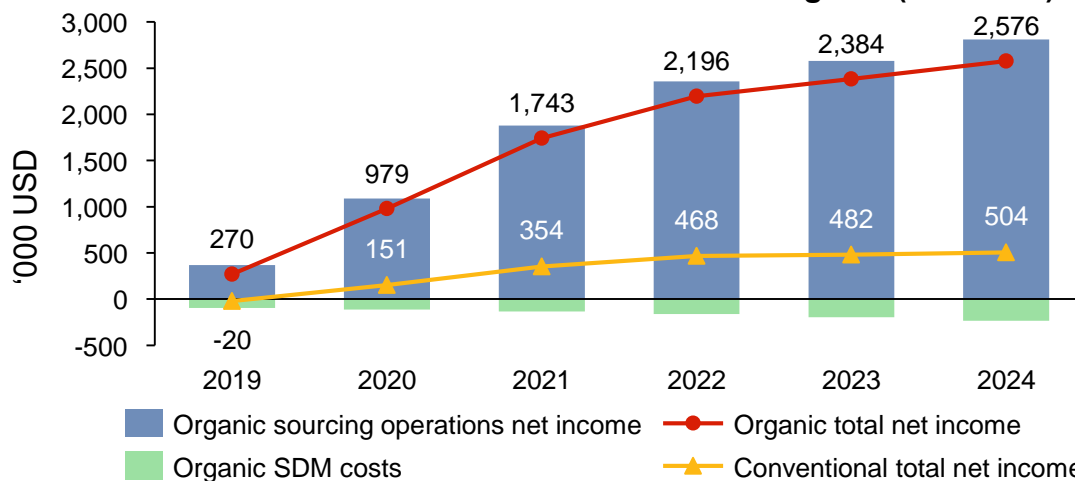


SDM P&L

Overall SDM P&L by service ('000 USD)



SDM P&L incl. additional revenues from organic ('000 USD)



Economic sustainability of the SDM

- The operation of this SDM comes with an annual cost of 100,000 USD, increasing over the next 6 years as the program is scaled up further
- The total profits from GG's organic sourcing model can be compared against the SDM costs. The SDM costs are only around 10% of revenues that result from it. Therefore, the SDM's costs can easily be recovered from these revenues, and the model is economically more profitable than a conventional setup in the first year already.

Cost drivers

- Most costs are related to overhead expenses, which include staff expenses, fixed costs and financing costs. Additionally, monitoring and certification is the most costly service provided to farmers, requiring a large number of field staff and high logistics costs.
- The amount of cocoa and vanilla sourced keeps increasing until 2024, and the SDM net costs per MT dry cocoa sourced steadily decreases over the years, indicating continuous increase of the SDM's efficiency.

Revenue drivers

- Sourcing organic compared to conventional vanilla leads to around three times higher trading margins for GG. Under the projected SDM scale-up and prices for organic vanilla over the next 5 years, this leads to benefits of USD 1.7 million annually by 2024 compared to a conventional sourcing model.
- Similarly, margins on cocoa are much higher for organic rather than conventional produce, resulting in an expected 600,000 USD of additional yearly revenues by 2024 compared to a conventional sourcing model.

SDM outcomes and main learning questions

These are not an official assessment of SDM success or failure by IDH or NewForesight, but an indication based only on the analysis done in this forward-looking study, and on assumptions provided by the case owner(s). Actual assessment of success of the SDM should be conducted during and after the SDM is conducted using measured results

SDM objectives	Projected outcomes
<p>1 Increase cocoa and vanilla yields and quality</p>	<ul style="list-style-type: none"> Farmer income will be raised through higher yields, while GAP will make farms more resilient and sustainable. GG will be able to raise its sourcing volumes as well as improve the sourcing efficiency.
<p>2 Farm sustainably with diversification and organic production</p>	<ul style="list-style-type: none"> GG will have more access to specialized markets and increase its revenue through certified products. Certification premiums will contribute to higher farmer incomes.
<p>3 Create a trustworthy value chain</p>	<ul style="list-style-type: none"> Farmer loyalty will increase and farmers themselves will enjoy a guaranteed offtake and price.

Learning question	SDM insights
<p>How can Gourmet Gardens run a successful model when vanilla prices drop?</p>	<ul style="list-style-type: none"> GG needs to maintain a strong and active presence in the region to retain loyalty. Loyalty and farm investments can further be stimulated by offering incentives such as quality premiums or bonuses when certain volumes are delivered. Even when market prices drop to historically low values, farm-gate prices need to be kept above 10 USD/kg cured. For lower prices, vanilla farming is not profitable for smallholders and there is a large risk of farmers switching to different crops.
<p>How does the SDM impact loyalty of farmers?</p>	<ul style="list-style-type: none"> With the buying centers and plantation that GG has set up, the company is becoming known as a reliable off-taker in the region. Furthermore, farmers in the SDM are reporting good experiences with GG compared to other traders in purchase practices and prices received. This growing presence is likely to keep increasing farmer loyalty. In addition, large increases in loyalty are expected if GG is able to provide or facilitate theft prevention or financial services
<p>What is the economic viability of working with different farmer profiles?</p>	<ul style="list-style-type: none"> Working with farmers in this SDM is already profitable for GG when low volumes are sourced: ~4 kg of cured vanilla and 60 kg of dry cocoa per farmer is sufficient to cover costs. Therefore, GG should focus on assessing an individual farmer's likelihood to deliver at least such volumes

Key insights



Key drivers of success

- GG is building a strong and trusted presence in the region, which leads to increased farmer loyalty and willingness to adopt.
- GG stimulates agroforestry and organic farming. This is a highly sustainable approach to farming with a range of benefits.
- GG uses a data-driven approach to continuously improve their operations.
- The SDM is focused on creating the right incentives to farmers to sustainably farm vanilla.
- GG's management has high content expertise on agriculture, markets and local settings.



Key factors in replication

- A plantation provides the SDM with a stable base of sourcing and infrastructure from which an outgrower model can gradually be set up and expanded.
- To set up and improve the outgrower model, GG's approach is to continually assess farmer's needs, gather performance data, and adjust service provision to meet those needs while remaining as cost-efficient as possible. This flexible, data-driven and problem-solving approach ensures that the SDM can operate in multiple regions under a variety of circumstances.



Key risks

- The largest risk of the SDM is the volatility of vanilla prices. With prices fluctuating extremely, GG needs to be prepared for several scenarios and able to adapt quickly. Each pricing scenario has its own risks:
- *High prices:*
 - Loyalty: Under current high prices, theft pressure is high and there is a large amount of competition in off-taking.
 - Adoption: Due to high theft pressure farmers are hesitant to invest in their farms.
- *Low prices:*
 - Logistics: If prices drop, margins will reduce and there will be less middlemen to aggregate vanilla.
 - Adoption: With vanilla becoming less profitable, farmers may become less willing to invest in their farm.



Opportunities for improvement

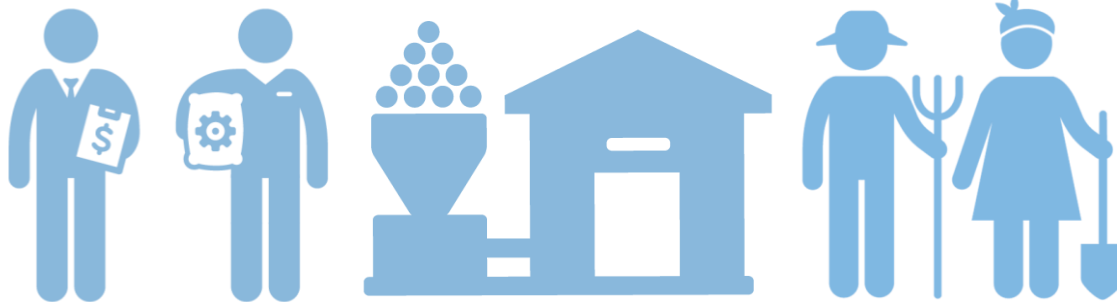
- With vanilla theft being the main issue for farmers in the region, GG has a lot to gain from supporting farmers to mitigate theft. Through increase of farmer loyalty many such services are financially beneficial to GG, even when they are (partially) subsidized to farmers.
- Due to low incomes, farmers in the SDM are in need of access to finance. Facilitating or providing this could spur more farm investments, including in purchasing sufficient quantities of fertilizer and theft prevention measures, leading to increased production, less theft, and thus higher volumes sourced.
- To assess the economic viability of including a farmer in the SDM, GG could evaluate farmer data to rank each farmer according to the produce they sell to GG.

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For more information and insights on SDM's, see the [IDH Smallholder Engagement Report](#)